1891-2.

NEW SOUTH WALES.

VOTES

AND

PROCEEDINGS

OF THE

LEGISLATIVE ASSEMBLY

DURING THE SESSION

OF

1891-2,

WITH THE VARIOUS DOCUMENTS CONNECTED THEREWITH.

IN EIGHT VOLUMES.

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1891.

NEW SOUTH WALES.

ELEVENTH ANNUAL REPORT

OF THE

DEPARTMENT OF LANDS,

BEING FOR THE YEAR

1890.

Printed in accordance with Resolutions of both Houses of Parliament.

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1891.

NEW SOUTH WALES.

DEPARTMENT OF LANDS.

(REPORT FOR 1890.)

Printed in accordance with Resolutions of both Houses of Parliament.

The Under Secretary for Lands to The Secretary for Lands.

Sir, Department of Lands, Sydney, 1st May, 1891.

I have the honor to submit, for your information, the Eleventh Annual Report of the Department, reviewing the business of the year 1890.

Introductory.

The year under consideration was, in many respects, an important one. It witnessed the passing into law of the Crown Rents Bill, and the Rabbit Bill, while the Crown Lands Act of 1889, which did not come into operation until the 1st December of that year, was found to have greatly stimulated the demand for land under the new or altered provisions of the law.

The Crown Rents Act was rendered necessary by the judgment of the Privy Council in the case of Alison *v.* Burns. That judgment went to show that the rents of pastoral and other leases could be fixed only by the Minister and the Land Board mutually concurring as to rate; and it necessarily followed that in all instances where the Minister had exercised his judgment independently of the Board (a right which successive Ministers, in common with the Supreme Court of the Colony, held they possessed) the legal determination of the rents was in abeyance.

The judgment of the Privy Council, therefore, created a situation of extreme difficulty, inasmuch as large sums of money had been paid into the Treasury, by way of rents, in response to claims by the Crown thus shown to have been premature. The text of the judgment was received after the Crown Lands Act of 1889 had become law, and on framing a measure to meet the exigency, advantage was taken of the existence of the Land Court which had been created by that Act.

The Crown Rents Act provided that any lessee, dissatisfied with his rent as fixed by the Minister, and differing from that appraised by the Land Board, might, by making application, secure a determination of his rent by the Land Court; while the fact of his not applying would operate as a validation of the rent already charged. This provision extended, not only to leases then current, but to those which had expired, or might expire, before the advantages of the new enactment could be secured.

The Rabbit Act was a recognition of the necessity for legislation to deal with a pest which could not adequately be dealt with under the existing law, the expenses attending the administration of which were enormous, while the benefits derivable from it were not in any proper degree proportionate. It is too early to speak of the probabilities in connection with this new measure; but both the Crown and its tenants are equally affected by it, and look forward to the result of its operation with considerable interest.

With regard to the Crown Lands Act of 1889 much might be written, but, as will be seen from the chapters following, a considerable amount of activity in land matters has taken place since its inception. The aim of this Act (which has,

perhaps as many of the essentials of a new as of an Amending Act) was to remove patent disadvantages under which purchasers and lessees were found to labour; to simplify and liberalise the then existing law; to create some new methods of disposing of Crown lands; to offer privileges which the Act of 1884 withheld; and to establish for the final determination of rents, values, and disputed questions such an independent Court of Appeal as would be acceptable to the public. Facts are not wanting to justify the statement that the objects of the Amending Act have been secured; and proof, that the law in its present amended shape offers substantial encouragement to those desirous of coming under it, is afforded by the numerous applications which have been tendered under its various provisions.

One important provision of the Act of 1889 was that by which pastoral, conditional, and homestead leaseholders and occupation licensees were allowed the option of remaining under the conditions as to rent laid down by the Act of 1884, or of demanding a fresh appraisement for each of the successive periods into which their term of lease might be divided. Another was that affording the holders of expiring pastoral leaseholds in the Eastern Division the privilege of continuing to hold their land at a new rent under preferential occupation license.

These provisions were, as will be seen elsewhere, taken advantage of in a number of cases, and this fact necessitated the appointment of qualified inspectors to visit the land and collect data from which the Local Boards might (with other evidence) make their appraisements. The work of inspection was well advanced at the close of 1890, and is now practically completed. In view of the importance of the interests involved, arrangements were made for the representation of the Crown before the Boards by officers, whose skill, experience, and familiarity with the resources of their respective districts, were calculated to be of great assistance to the Boards and of very considerable advantage to the public.

Mention may appropriately be made here of the publication, under the Minister's direction, of "The Handbook," which, while not pretending to the character of a legal text-book, was compiled with as much care as possible, with a view to enable persons interested to have at command such a summary of the Land Acts and Regulations as would assist them in understanding the law, or, at least, enable them to refer more readily and conveniently to such of its provisions as they might be particularly concerned in. Judging from the circulation of the pamphlet, the publication is one which the public will probably look to be repeated should any important change in the law take place.

Although the Newcastle Pasturage Reserve Act was passed in 1889, the numerous transactions under it were a special and important item of the business of the year 1890. As its title implies, the Act has a purely local application. It deals with a reserve near Newcastle which had been occupied by unauthorised persons for many years. The number of original occupants was gradually increased by fresh trespassers, and ultimately a township or village grew up. The question of disturbing these persons thus developed into a serious one, accentuated as it was by the fact that they had effected improvements, and had bought and sold their assumed interests in the locality.

The Act in question legalised, under certain restrictions, the occupation of the trespassers, and afforded them an opportunity of securing a legal title by the purchase, at an appraised price, of such allotments as might be measured, under an approved design, to embrace their improvements. It is sufficient to state here that the Act has worked successfully, and that the persons concerned have benefited, while the public interest generally has suffered no disadvantage.

The large increase of work which marked the year 1890, and which will be found more particularly referred to elsewhere, was such as to tax the resources of the Department, both at head quarters and in the country, to a greater extent than has occurred since 1885; but it is very satisfactory for me to state that, although it was necessary to temporarily strengthen some of the local staffs, such zealous exertions were made in the interests of the Department and the public, that no stagnation of business occurred. It is recognised, of course, that in doing this the officers merely fulfilled such expectations as had been formed of them; but I am unwilling to allow the occasion to pass without expressing my appreciation of their cheerful and unremitting efforts.

Reorganization.

In previous reports reference has been made to the investigation in progress as to the working of the local offices with a view to retrenchment, the assimilation of practice, and the prevention of undue delays in the transaction of business. The reorganization of these offices was completed during 1890, on lines similar to those adopted in relation to the Head Office, as affording the most equitable and efficient basis for reconstruction, and the salaries of the several officers were adjusted to correspond, as far as possible, with specific duties assigned to them.

The inquiry necessitated visits to all the Local Land Board and District Survey Offices in the Colony. Nor were inquiries confined to these offices, inasmuch as in the elucidation of matters which came under notice, it became necessary to take subsidiary journeys and obtain evidence and information from other sources. It will thus be seen that the investigation was necessarily of a somewhat protracted character, if only to admit of the course of procedure adopted at the different centres being carefully investigated, and subsequently reviewed and adjusted as a whole.

During the progress of the inquiry, matters of a varied and important character, not confined to questions of administration (but too numerous to be explained here), were referred to the Board, and no fewer than 169 reports and recommendations were furnished in connection therewith; and the Board's recommendations on these, as well as on those matters which constituted the main subjects of their investigation, were, with some modifications or exceptions to meet altered circumstances, approved and carried into effect.

The important matter of the reconstruction of the Country Staffs (which was submitted to the Minister by Mr. Freeman, the late Under Secretary) involved the removal of some officers from one district to another, with a view to their taking up duties for which they had been adjudged by the Board to be qualified, and this, happening shortly before the expiration of the pastoral leases in the Eastern Division of the Colony, occasioned some amount of inconvenience, which, however, was reduced to the lowest possible point that circumstances would permit.

In carrying out these changes the course adopted in the distribution of the country staffs under the system of decentralization introduced by the Act of 1884 was pursued, the removal expenses of officers being defrayed by the Department.

The fluctuating nature of the business in the Local Land Board and District Survey Offices precluded any large increase in the number of permanent officers, and consequently the transference of temporary officers to the permanent staff was limited to officers of special merit and long service.

A re-arrangement of the coastal Land Board Districts was found desirable, and accordingly a re-adjustment was effected which will result in a considerable saving in expenditure. The Metropolitan Board District, which comprised the Land Districts of Berrima, Campbelltown, Gosford, Kiama, Lithgow, Liverpool, Metropolitan, Milton, Moruya, Nowra, Parramatta, Penrith, Picton, Windsor, and Wollongong, was found to be irregular and straggling in form, its physical characteristics peculiarly varied, and many of its outlying portions inconveniently situated in relation to the metropolis. The boundaries of that Board District were accordingly reduced by the excision of the Land Districts of Berrima, Gosford, Lithgow, Moruya, and Nowra,—Berrima and Nowra being attached to the Goulburn, Gosford to the Maitland, Lithgow to the Orange, and Moruya to the Cooma Board Districts respectively. The Land District of Port Macquarie was at the same time transferred from the Board District of Maitland to that of Grafton, and the Land District of Braidwood from the Board District of Goulburn to that of Cooma.

The report of the Board appointed to inquire into the working of the Detail Survey and Trigonometrical Branches of the Department came forward for investigation during 1890, and their recommendations were, on all essential points, approved and carried into effect.

The Detail Survey now in progress will, it is expected, continue for about two years longer, although revisional surveys will be required from time to time in localities to which the sewerage system may be extended, or for the purpose of illustrating such alterations and additions as may follow the natural expansion of the city and suburbs.

The

The operations of the Trigonometrical Branch had been for several years past practically confined to observations for the determination of the latitude and longitude in various parts of the Colony, extending from the coast line to the western boundary. The chief object of this work was to afford the necessary data for the compilation of an accurate map of the Colony—a work which has been in progress for some years.

After careful consideration of the Board's report, it was, however, decided to limit these observations to specially selected stations, and, with strict regard to economy and practical requirements, to revive the Triangulation Survey of the Colony, in connection with which a very large expenditure had already been incurred in certain preliminary essentials, notably the determination of base-lines of mathematical exactitude, while the Department had acquired, at considerable cost, all the necessary scientific instruments and appliances for carrying on the survey.

The objects of this important work may be briefly referred to. They include the means of producing absolutely correct local maps; of affording an effective check on the accuracy of contiguous surveys; of determining permanent points of reference, which will hereafter be found invaluable in reproducing the original position of survey marks which have become obliterated; besides offering a means of solving a number of important scientific questions.

It may be mentioned that the complete proposals submitted by the Boards of Inquiry in connection with the reorganization of local offices, the Detail Survey and Trigonometrical Branches, and cognate matters, represented a reduction in expenditure of about £32,500, including the necessary provision for the revival and extension of the Triangulation Survey. This amount was, however, reduced by some modifications of proposed salaries, and by its having been determined, after much consideration, to maintain, for a time at least, the Tamworth local office, the abolition of which had been proposed by the Board.

The total saving of revenue reached the sum of £23,900, but it ought to be pointed out that this saving extended over a period of rather more than three years, as during that time effect had been given to numerous interim reports and recommendations submitted by the Board. For example, in October, 1888, the retirement of a number of officers was effected, which, with the arrangements previously made by the Board to fill vacancies occurring through death or other causes, represented, up to the date mentioned, a saving of £9,444 per annum.

The retirement of the officers whose services were no longer required was effected under conditions similar to those granted to officers dealt with in the reorganization of the Head Office. In the case of officers on the Permanent Staff, the retirement was effected under the provisions of the Civil Service Act, and in the case of those on the Temporary Staff a bonus, calculated upon the scale of two weeks' pay for each year of service, was paid. The total cost of the retirements was £4,316 7s. 11d.

The new avenues of work opened up by the Amending Act of 1889 rendered some radical changes in the Head Office of the Department a matter of actual necessity, and, in pursuance of this, an alteration was made in the administrative arrangements by grouping the business under two main divisions, and by making other changes which have proved successful in attaining expedition and security in the dispatch of business.

Provision has been made for the inspection of local offices by responsible officers; experience having shown that by this means reasonable uniformity of action may be maintained, and a check placed upon extravagance, irregularity, or delay in the transaction of business.

The Land Court.

The Land Court, which was constituted under the Crown Lands Act of 1889, held its first sitting at the Court-house, Darlinghurst, on the 3rd of March, 1890, when 57 cases, comprising appeals and references remaining undealt with from the Ministerial Appeal Court, were set down for hearing. In addition there were 22 cases which were referred back to the respective Local Land Boards for rehearing

or

or further consideration. Arrangements were subsequently made for the Court to hold sittings at the various circuit towns as the quantity of business and the convenience of the appellants and other interested parties demanded. Sittings were accordingly held at Albury and Bathurst, each once, at Dubbo three times, and Goulburn, Hay, Tamworth, and Wagga Wagga, each twice.

During the year 294 appeals and references were heard and disposed of or referred back to the Local Land Boards for further inquiry, of which 186 were heard in Sydney and 108 in the country. Cases to the number of 92 were also ordered back to the Boards for rehearing, revision, or further consideration.

Auction Sales.

The sales of town lands during the year under review do not compare favourably with those of the previous year, as out of 2,479 lots, with an area of 1,019 acres and 19 perches, submitted, only 891, containing 360 acres 3 roods 5¾ perches, were sold, realizing £15,234 13s., as against 3,014 lots, comprising 1,312 acres 2 roods 12½ perches offered in 1889, of which 1,539, including 670 acres 1 rood 31¾ perches, were alienated for £29,474 14s. The average price per acre secured, however, approximates very closely to that obtained in 1889. Details are set out in Schedule XXXV.

With respect to sales of suburban land, details are given in Schedule XXXVI. An area of 7,045 acres 3 roods 11 perches, in 1,335 lots, was submitted to public competition, but only 461 lots, comprising 2,161 acres 3 roods 27½ perches, were disposed of for £12,674 7s. 6d., or an average of £5 17s. 3d. an acre. The subjoined table exhibits a comparison between the sales in 1889 and 1890, from which it will be observed that the results secured in 1890 in connection with suburban land fell short of those in 1889, and that the average price was about 8 per cent. below that of the latter year.

An area of 66,160 acres 1 rood 29½ perches, in 686 lots, of country lands, was alienated during 1890 for £113,768 2s. 2d., an average of £1 14s. 5d. an acre. The transactions in this respect show a considerable advance on those of the previous year. (*Vide* Schedule XXXVII.)

The aggregate area, including town, suburban, and country lands offered at auction during the year, was 160,844 acres 1 rood 12¾ perches.

In town lands 1 rood 19 perches at Wagga Wagga realized £1,313 5s.; 17 acres 15 perches at Brewarrina brought £1,314 11s.; and 344 acres and 24½ perches of suburban land at Forbes were disposed of for £2,405 2s.

	Year.	No. of lots offered.	Area offered.	No. of lots sold.	Area sold.	Amount realized.	Average price per acre.
			a. r. p.		a. r. p.	£ s. d.	£ s. d.
Town	1889	3,014	1,312 2 12½	1,539	670 1 31¾	29,474 14 0	43 19 3
	1890	2,479	1,019 0 19	891	360 3 5¾	15,234 13 0	42 5 0
Suburban ...	1889	1,509	7,420 3 13½	767	3,488 3 16	22,080 2 0	6 6 6¾
	1890	1,335	7,045 3 11	461	2,161 3 27½	12,674 7 6	5 17 3
Country	1889	1,122	44,020 2 3¾	482	18,429 2 30	42,626 12 7	2 6 3
	1890	1,878	152,779 1 22¾	686	66,160 1 29½	113,768 2 2	1 14 5

During the year sixty-one purchasers failed to complete their transactions, and thus 346 acres 2 roods 32¼ perches, and deposit money to the extent of £2,010 10s. 7d., were forfeited. The sum of £33 11s. 9d., paid as guarantee deposits in connection with lands submitted to auction, was returned to the applicants who became the purchasers of such lands, and a refund of £687 2s. 4d., being money and deed-fees paid in excess, was made to the parties concerned. The right to improvements effected on land sold during the year not having (in view of special circumstances) been insisted on by the Crown, their value, amounting to £828 13s. 5d., was refunded, the amount having been first secured by addition to the upset price. (*See* Schedules XXXIX, XL.)

Conditional

Conditional Purchases.

It was anticipated that the unlocking of a very large area by the determination of the pastoral leases in the Eastern Division, an event which commenced in July, 1890, would greatly stimulate the demand for land under conditional purchase, more especially in view of the increased liberality of the provisions affecting this class of purchase introduced by the Crown Lands Act of 1889. This expectation was more than fully realised. In some districts certain areas had been temporarily reserved from sale with a view to subdivision preceding application, and a few in order that an adequate price might (by the proclamation of special areas) be secured for such as were undoubtedly of a higher value than the price fixed by the Act for ordinary lands. These arrangements to some extent no doubt constituted a slight check on the intentions of some persons; but, notwithstanding this, the influx of applications was very considerable, as will presently be shown.

The transactions of the year may not unreasonably be placed in comparison with those of 1885, when the Act of 1884 took effect; seeing that during both years lands were, by the expiring leaseholds in the one case, and the postponement of the operation of the Act in the other, rendered for a term unavailable for conditional purchase, and during this term a special demand for the land thus locked up was in process of development. The result of this comparison shows that during 1885 5,377 applications were received for 1,165,351 acres, and during 1890 8,526 applications for an area of 1,713,577 acres, the year which has just closed thus showing the higher figures. The following table contains the figures for each year since 1885, inclusive, and, in a convenient shape, admits of a more complete review :—

Year.	Section 26.			Section 42.			Section 47.			Special Areas.			Total.		
	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.
1885	2430	772,718 3 0	77,272 17 0	2639	344,053 3 20	34,405 10 4	302	47,806 3 0	9,251 1 0	6	742 0 0	140 8 0	5377	1,165,351 1 20	121,069 16 4
1886	2660	579,539 2 28	57,954 0 1	2987	330,279 3 2	33,028 0 4	355	43,686 2 37	8,850 5 0	78	9,690 2 0	2,121 17 6	6080	963,196 2 27	101,794 2 11
1887	2300	529,628 2 14	52,962 17 5	2185	231,912 2 5	23,191 5 3	186	20,073 3 12	4,014 16 0	98	11,389 1 0	2,501 12 3	4769	793,004 0 31	82,670 10 11
1888	2474	560,109 3 23	56,010 19 11	2334	247,639 0 16	24,763 18 4	283	26,139 0 22	5,227 17 0	273	31,311 0 17	7,155 9 0	5364	865,199 0 38	93,158 4 3
1889	2722	533,213 0 0	53,321 3 0	2684	283,215 0 20	28,320 15 3	271	26,660 3 0	5,532 3 0	528	60,070 2 29	12,680 5 0	6205	903,159 2 9	99,854 6 3
1890	3252	879,058 3 3	87,907 18 8	4064	600,839 2 16	60,119 2 2	230	23,163 1 33	5,635 10 6	980	205,515 1 28	40,316 1 4	8526	1,713,577 1 0	193,978 12 8

In the subjoined schedule the year 1890 is compared with the year immediately preceding, and from this it will be seen that a difference of 2,321 applications and an area of 810,417 acres lies to the credit of the year under review, while it will further be noticed that of the 8,526 applications which came to hand, 3,797 were for 1,004,421 acres under original conditional purchase, 4,477 for 678,763 acres under additional purchase, and 252 for 30,392 acres under non-residential conditions. Included in these are 980 applications for 205,515 acres within special areas.

Year	Section 26.			Section 42.			Section 47.			Total, Special Areas.			Grand Total.		
	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.
1889				Not within Special Areas.											
	2722	533,213 0 0	53,321 3 0	2684	283,215 0 20	28,320 15 3	271	26,660 3 0	5,532 3 0	..	.....	.....	6205	903,159 2 9	99,854 6 3
				Within Special Areas.											
	321	39,538 2 25	8,020 6 4	172	17,317 0 14	3,206 4 11	35	3,164 3 30	1,453 13 9	528	60,070 2 29	12,680 5 0			
1890				Not within Special Areas.											
	3252	879,058 3 3	87,907 18 8	4064	600,839 2 16	60,119 2 2	230	23,163 1 33	5,635 10 6				8526	1,713,577 1 0	193,978 12 8
				Within Special Areas.											
	545	125,362 2 14	24,778 18 2	413	77,923 3 14	14,717 6 8	22	2,229 0 0	819 16 6	980	205,515 1 28	40,316 1 4			

Schedule

Schedule VII contains particulars in connection with conditional purchases applied for during 1890.

Of the applications received during 1890, 1,699 were confirmed, comprising 381,010 acres 0 roods 13 perches, and 1,250 disallowed. Of those made previously to the 1st December, 1889, 2,179 were confirmed for an area of 210,589 acres 2 roods 21 perches, and 303 disallowed; while of those lodged during the period between the 1st December, 1889, and 1st January, 1890, 219 were confirmed for 40,578 acres 0 roods and 20 perches, and 124 disallowed, making an aggregate of 4,097 applications confirmed during the year for 632,177 acres 3 roods 14 perches, and 1,677 disallowed. (*Vide* Schedule VIII.)

At the close of 1890, 157,062 conditional purchases were in existence comprising an area of 20,404,540 acres 0 rood 30 perches. Included in these are applications made subsequently to the 1st December, 1889, on which action is proceeding, and some of which may be disallowed later on. These are included having regard to the fact, subsequently adverted to, that since the Act of 1889 a statutory right to the land follows as a consequence of any valid application, and the purchase thus practically commences from the date the application is lodged. (*Vide* Schedule XXIV.)

During 1890, 579 special areas were proclaimed, comprising 384,650 acres, averaging 665 acres to each special area. (*Vide* Schedule LXII.)

In connection with the general question of setting apart lands under special areas, upon which a good deal of comment has from time to time been made, it may be mentioned that during last year a return was prepared, a reference to which may not be without interest. (*Vide* Schedule CX.)

This return shows that of the whole quantity of land in Special Areas available for selection since the passing of the Crown Lands Act of 1884, the area selected throughout the whole of the Colony was 38¼ per cent., with an average value of a trifle over £2 per acre. In the Board District of Forbes the percentage of area selected to that available was highest with 87; Goulburn ranked next with 58¾; whilst Orange and Wagga Wagga followed closely with 54 each. In nine of the Land Districts the total area proclaimed had been selected; in two the percentage was between 90 and 99; in three, 80 to 89; in six, 70 to 79; in four, 60 to 69; in eight, 50 to 59; in thirteen, 30 to 49; and in fifteen Land Districts the percentage was from 15 to 29.

With the exception of Forbes, the remaining eight land districts in which the total area was selected, contained only a very small quantity of land open to special area, and the result, therefore, can, in those cases, be of no great weight. In the Forbes Land District the area available was over 6,300 acres, the whole of which was selected, a result which may be considered satisfactory.

In the four Land Districts of Wagga Wagga, Urana, Cootamundra, and Corowa, the areas available for special area, since the Crown Lands Act of 1884 was passed, up to the preparation of the Return were, in round numbers, 37,700, 29,500, 5,230, and 20,300 acres respectively, and the average areas selected up to that date were 49¾ per cent., 36⅓ per cent., 80½ per cent., and 83½ per cent. respectively. There is no reason to believe that the results have been less satisfactory since.

Omitting those Land Districts (eleven) in which no land in special areas had been selected, the Land Districts showing the least results are:—Armidale, 4 per cent.; Narrabri, 6 per cent.; Walgett, 8½ per cent.; Bourke, 9¾ per cent.; and Hay, 13 per cent. This is accounted for by the fact that prior to 1st December, 1889—the date the Crown Lands Act of 1889 took effect—the maximum area allowed in special areas was 160 acres—a quantity too small to induce selectors to take up the land in those districts.

Viewing the question of making these lands special areas, from a mere financial stand-point, the results of the information obtained show that the Public Treasury had benefited to an extent of £16,602 above the ordinary sum payable had the land been sold at £1 per acre; whilst the prospective increase to the revenue is £166,020, to which interest must be added.

In previous reports the difficulty of speedily placing applicants for conditional purchases in possession of the land applied for has been adverted to. This difficulty has been effectually removed by the Crown Lands Act of 1889 affording applicants

applicants the right of entering into immediate occupation without having to wait for the authority of the Land Boards, as was the case before the Crown Lands Act of 1884 received amendment.

During the year 689 cases were forwarded from the Head Office, to the Land Board Offices, 637 of which were for inquiry, and 52 for inspection of the land. The Chairmen of the Local Land Boards issued 7,181 cases to Inspectors of Conditional Purchases for inspection and report, and those officers supplied 6,452 reports relating to the manner in which the selectors concerned were fulfilling the conditions of their holdings. (*Vide* Schedules IX, X.)

Declarations to the number of 1,119, referring to the fulfilment of conditions imposed by law in respect to conditional purchases were received, and 3,342 certificates of conformity were issued in cases where it was found that the obligations had been carried out. (*Vide* Schedule XI.)

The failure to comply with the conditions of residence, fencing, &c., resulted in the forfeiture of 739 conditional purchases, containing an area of 109,472 acres and 31 perches during 1890; and, consequent on the non-payment of balance, interest, or instalment money, 52 conditional purchases, comprising 5,150 acres, were similarly dealt with. The forfeiture or lapsing of 14 conditional purchases, including an area of 1,501 acres 3 roods, was, however, reversed during the year. (*Vide* Schedules XIV, XV, XXIII.)

In the case of 18 conditional purchases, comprising an area of 2,055 acres and 4 perches, the provisions of the 138th section of the Crown Lands Act of 1884 were availed of to admit of their validation, and similar action under the powers conferred by Act 50 Vict., No. 21, was taken with respect to 16 mining conditional purchases, containing an area of 979 acres 3 roods. (*Vide* Schedules XXI, XXII.)

Schedule XII shows that 11,464 transfers were received during 1890, and that action on 9,439 was completed during that period. The transfers dealt with involved a no less number than 19,798 conditional purchases, and the revenue was benefited to the extent of £6,979 11s. by stamp duty paid thereon.

Voidance was declared in connection with 18 conditional purchases, containing 2,183½ acres, during 1890, and in the case of 3 conditional purchases, comprising 160 acres, voidance was reversed. An adjustment in area, by way of reduction or increase in acreage, was effected with respect to 266 conditional purchases during the year. (*Vide* Schedule XVIII.)

The several Local Land Boards sat for periods aggregating 1,323 days, and disposed of no fewer than 26,156 cases of all kinds during the year, the inquiry in respect to 1,757 having been adjourned. (*Vide* Schedule V.)

Conditional Leases.

The conditions which tended to increased alienation under conditional purchase necessarily had a corresponding influence on business under this head, inasmuch as the close association between conditional purchases and conditional leases naturally made the demand for one in some degree proportionate to the demand for the other. From the schedule below (in which a comparison is instituted since 1885, inclusive), it will be seen that 5,466 applications, representing an area of 3,056,774 acres 2 roods 26 perches, with deposits amounting to £25,489 7s. 2d., were received during 1890, as against 3,470 applications, for 1,569,949 acres 3 roods 30 perches, in 1889.

Year.	Number.	Area. a.	r.	p.	Deposits. £	s.	d.
1885	3,816	2,547,045	0	15*	21,225	7	6
1886	2,500	1,207,953	0	8	10,066	5	6
1887	2,228	1,242,380	0	0	10,353	3	4
1888	2,623	1,424,753	1	25	11,872	18	11
1889	3,470	1,569,949	3	30	13,082	18	4
1890	5,466	3,056,774	2	26	25,489	7	2

* This includes 1,994 applications; area, 1,198,617 acres 30 perches, made under the 54th clause of the Act of 1884.

Of the applications lodged during the year the Local Land Boards confirmed 664, for an area of 420,905 acres 1 rood 35 perches, and disallowed 847. Of the applications lodged prior to the 1st December, 1889, 1,364 were confirmed for

for 610,628 acres 2 roods, and 170 were disallowed, and of those received during the period between the 1st December, 1889, and the 1st January, 1890, 113 for 57,541 acres 3 roods 22 perches were confirmed and 52 disallowed. It will thus be seen that 2,141 applications, comprising 1,089,075 acres 3 roods 17 perches, were confirmed, and 1,069 disallowed during the year. One application under the provisions of the 52nd clause of the Crown Lands Act of 1884 was refused. (*Vide* Schedules XXVI and XXVII.)

In explanation of the large number of applications disallowed in 1890, it may be here stated that immediately after the leasehold areas in the Eastern Division became available many of the applications lodged were found to conflict, and upon being dealt with by the Land Boards all but the successful ones were disallowed.

During 1890, 3,476 conditional leases were gazetted, which, taken with the accumulated number gazetted under the 48th, 52nd, and 54th clauses of the Crown Lands Act of 1884, brought the number of leases arrived at this stage up to 13,230, with an area of 8,278,459 acres 1 rood 7 perches, and returning a rent of £100,112 13s. 7d. (*Vide* Schedules XXXII and XXXIII.)

In view of the fact that an immediate right to occupation from date of application is now conferred by the Act of 1889, it is necessary to add to these figures the number of applications made since that Act came into operation, which brings the area under conditional lease up to 9,903,949 acres 1 rood 14 perches, comprised in 15,891 conditional leases; some of these may, of course, be disallowed. Out of this large number only 927 leases were brought under the provisions of section 29 of the Crown Lands Act of 1889, and only 38 under the provisions of the Crown Rents Act, with a view to a re-appraisement of rent.

An area of 240,892 acres 3 roods, comprised in 470 conditional leases, and involving a rent of £2,792 2s. 3d., was gazetted as forfeited during the year, and the transfer of 1,291 conditional leases was also effected. (*Vide* Schedules XXVIII and XXIX.)

Improvement Purchases.

By virtue of occupation under the Mining Act, applications to the number of 1,220 were made during 1890 to purchase an area of 674 acres 2 roods 31 perches, on which the applicants had effected or acquired improvements. Of these, 217 were refused and 355 approved, 182 acres 1 rood 5¼ perches being disposed of at an appraised value of £9,908 17s. 6d. In addition to the foregoing, 343 applications, under the provisions of the 46th clause of the Crown Lands Act of 1884, lodged previously to the 1st January, 1890, were granted, representing an area of 173 acres 1 rood 4¾ perches, and purchase money to the amount of £8,873 10s. 7d. Added to these 43 outstanding applications, made under the 2nd clause of the Lands Acts Amendment Act of 1875, were approved of, with an area of 13,977 acres 3 roods, and at a price of £23,605 11s. 1d.

Schedules XLI, XLII, XLIII contain particulars with respect to these transactions, and show that a total of 741 portions, comprising an aggregate area of 14,333 acres 1 rood 10 perches, were alienated during 1890, at an appraised value of £42,387 19s. 2d.

Sales under the Newcastle Pasturage Reserve Act.

As already mentioned, the Department was for many years confronted with the continually-increasing difficulty of dealing with the large number of persons who had settled on the Pasturage Reserve near Newcastle, a difficulty successfully and equitably surmounted, with due regard both to the public and private interests involved, by the passing, on the 21st June, 1889, of the "Newcastle Pasturage Reserve Act, 53 Vic. No. 1," which provided for the immediate sale of parts of the land, and the control of the remainder of the reserve in the future.

Owing to the many interests involved, and their varied character, much time and care were devoted to investigating the claims tendered by the occupants to purchase portions on which they had effected improvements, and of which they had been in occupation for periods extending from six months to fifteen years; and when it is considered that in 1887 there were some 4,486 persons residing

on the reserve, without any authority for their occupation, it will be readily appreciated that the task of adjusting these claims in accordance with the Act was far removed from an easy one. It may be here mentioned that at first a disposition was manifested by some of those interested to oppose the Government appraisers' valuations; but this did not continue, and it is satisfactory to state that (with two or three exceptions) no departure was made from the estimate of the appraisers, who displayed considerable care and judgment in solving the somewhat difficult problem which the question of the value of the land represented. Schedule L shows that there were 1,169 applications tendered, and that during the year all, except fifteen, had been reported on by the Land Board, who occupied 41 days in dealing with the cases in open Court.

In 869 cases approval was given to purchase an area of 204 acres, representing £55,323, or over £271 per acre, but as this approval was notified only on the 30th December last, it is too early to say how many of these cases will be carried to completion by the parties concerned.

It may be remarked, in passing, that very shortly after the close of 1890 nearly the whole of the cases then outstanding were disposed of. Whilst, however, the claims of those who for years were trespassers on this valuable State property may be viewed as in a fair way to settlement, much remains to be done with other parts of the reserve, in the way of appropriations for public purposes and the disposal of the land by auction, &c., as legitimate demand arises.

Special Purchases.

Under the provisions of the 63rd, 64th, 66th, and 67th clauses of the Crown Lands Act of 1884, 182 applications were received during the year, of which 8 were for the rescission of water frontages, 41 for permission to reclaim land, 25 for the purchase of small areas unavailable for conditional purchase, and 108 for the purchase of unnecessary roads.

Inclusive of applications outstanding on the 31st December, 1889 (some of which were made under the provisions of the 69th clause of the Act mentioned), an area of 206 acres 3 roods 38½ perches was alienated under the Crown Lands Act of 1884 during the year. During the same period an area of 488 acres 2 roods 17½ perches was alienated in compliance with applications made under the Repealed Acts. Inclusive of penalties, the sum of £10,496 5s. 8d. was received as the result of these sales. The alienation of 3 acres 1 rood and 7½ perches in the County of Cumberland realised £5,017 12s. 9d. Schedules XLIV, XLV, XLVI contain the details with respect to this class of alienation.

Surrenders and Exchanges.

Seventy-eight applications to surrender land within resumed areas, in exchange for land within leasehold areas, were received, 21 of which were refused and 57 remained undisposed of on the 31st December, 1890. There were also 69 applications to surrender land within leasehold areas, in exchange for other land within leasehold areas, 21 of which were refused, leaving 48 outstanding at the close of the year. Thirty-four applications to surrender land, partly within leasehold and partly within resumed areas, in exchange for other land within leasehold areas, were received, 8 of which were refused; action on the remainder was incomplete at the end of the year. (See Schedules LXXVIII, LXXIX, LXXX.)

Volunteer Land Order Applications.

The transactions with respect to this class of alienation were an advance on those of the previous year, inasmuch as 51 applications, comprising 2,550 acres, were received for grants of land by virtue of certificates under the provisions of the Volunteer Regulation Act of 1867, of which 27, containing an area of 1,350 acres, were refused. During the year 17 applications, comprising 850 acres, were satisfied, 15 of which were outstanding on the 31st December, 1889, leaving 34 for an area of 1,700 acres undisposed of at the close of the year. Details are set forth in Schedules XLVII, XLVIII, XLIX.

Cost

Cost of Survey.

An important alteration, introduced by the Crown Lands Act of 1889, was that by which the Crown was relieved of at least a proportion of the cost incurred in the measurement of land applied for under conditional or improvement purchase, or conditional or special lease. The Act did not fix the amount of survey fee to be charged, but left it to be settled by regulation. Accordingly, when the Act came into operation, the matter received the most careful attention, and a sliding scale of fees was drawn up and approved. This scale, while recognising the fact that the actual cost of measurement, under equal conditions, is proportionately less per acre for a large than a small area, was based on the cost of survey, assuming that difficulties and corresponding expenses would not exist. As a matter of fact, however, the actual expense to the Crown varies considerably, and, in a large proportion of cases, is great; but the cost to the applicants is a constant quantity according to the area applied for, and they are thus relieved from the extra or special expenses which their applications occasion.

Surveys are conducted by two classes of surveyors, one paid by contract, the other by salary; the conditions of employment depending upon different sets of circumstances, which sometimes recommend one system and sometimes the other. Schedule CIX shows the work carried out under the respective systems, and the average cost per acre to the Crown, classified according to the several classes of purchases, leases, &c., in connection with which the surveys were conducted. The total average cost, although exhibited in the schedule, is of no statistical importance, inasmuch as it would fall or rise according as certain extensive and cheap surveys (such, for example, as those of homestead leases), did, or did not, accidentally enter into the calculation. The average cost under the respective headings is also liable to a somewhat similar fluctuation, as it would fall if the land were applied for in large blocks, while it would rise if the reverse were the case. It seems scarcely necessary to illustrate this matter further, but it will be understood, at a glance, that the cost of measuring one block of 2,560 acres must necessarily be cheaper than measuring the same area, say in eight separate blocks of 320 acres each. This serves to explain why the average cost of conditional lease surveys is lower than that of conditional purchases—the area of the lease being generally three times the area of the purchase itself. It may be added that any comparison between the ascertained cost of survey and the fees deposited with applications would be misleading, as a large proportion of the latter will be refunded, and, for the most part, they apply to surveys yet to be made, while the figures in the Schedule beforementioned refer to measurements already effected in connection with applications, a large proportion of which were received prior to 1890.

Annual Leases.

The area submitted for annual lease by auction during 1890, under the provisions of the 85th section of the Crown Lands Act of 1884, does not compare favorably with that of the previous year, only 65 lots, comprising an area of 40,625 acres 2 roods, having been submitted during the later as against 405 lots with 228,755 acres 1 rood in the earlier year. Of those submitted only 11 lots, containing 4,769 acres, and producing an annual rent of £48 18s. 9d., were sold. (*Vide* Schedule LII.)

The decrease thus exhibited is in some measure explained by the fact that the new method introduced by the Act of 1889, by means of which annual leases may be secured by application at an appraised rent, is in greater favour, and discourages the submission of lands to open competition. The number of such applications was 1,186, which, with 64 lodged in December, 1889, made 1,250 for consideration, representing an area of 1,063,635 acres 3 roods 27 perches. Of these 124 were disallowed, and 169, comprising an area of 135,672 acres 1 rood 12 perches, were granted, producing an annual rent of £789 5s. 5d., leaving 957 outstanding at the close of the year. Particulars are set forth in Schedule LVII.

An area of 591,918 acres, included in 1,068 lots, was submitted for tender under the provisions of the section before referred to, and resulted in the disposal of 446 lots, comprising 221,006 acres 2 roods, at an annual rent of £2,453 11s. 1d. (*Vide* Schedule LIII.)

The

The following table affords a comparison between the years 1889 and 1890 in connection with leases offered by auction or tender :—

Year.	No. of lots offered at auction.	Area.	No. sold.	Area.	Annual Rent.
		a. r. p.		a. r. p.	£ s. d.
1889	405	228,755 1 0	198	116,146 3 0	1,805 19 1
1890	65	40,625 2 0	11	4,769 0 0	48 18 9
	No. of lots offered to tender.				
1889	2,391	1,661,856 3 0	440	252,869 3 0	2,376 1 8
1890	1,068	591,918 0 0	443	221,006 2 0	2,453 11 1

The total number of annual leases current on the 31st December, 1890, was 5,348. These comprised an area of 3,575,975 acres 3 roods, producing an annual revenue of £23,875 7s. 1d. (*Vide* Schedule LIV.)

During the year an area of 349,798 acres, comprised in 552 annual leases, at a rent of £2,857 12s. 11d., was gazetted as forfeited, and 9 leases, containing 6,360 acres, were cancelled. (*Vide* Schedules LV, LVI.)

Artesian Well Leases.

To encourage the search for and conservation of water on lands in the Western Division, leases of lands surrounding artesian wells were provided for by the Crown Lands Act of 1889, to be issued to the holders of annual leases or occupation licenses who might be desirous of boring or searching for water. To preclude interference with bonâ fide efforts to discover water, provision was made for the temporary reservation of the land, such reservation not to exceed a specified area; while the discovery of water in sufficient quantity, &c., was to be followed by the granting of a lease.

During the year 39 applications, referring to an area of 789,600 acres, were received, of which 6 were withdrawn or refused, and an area of 313,940 acres was temporarily exempted from sale and lease for the protection of the applicants. No leases were issued during the year; the applications not having been finally dealt with. (*Vide* Schedule LXXXVIII.)

Homestead Leases.

Upon reference to the following Schedule it will be seen that since 1885 the demand for this class of lease has been increasing, that during 1890 being largely in excess of the four previous years. During 1890, 310 applications for an area of 2,620,959 acres, with deposits amounting to £10,920 13s. 3d., were received, as against 238 for 2,187,837 acres in 1889, the deposits being £9,113 19s. 9d. (See Schedule LXXXI.)

Year.	No. of Applications.	Area applied for.	Deposits.
		acres.	£ s. d.
1885	391	3,823,235	15,880 2 11
1886	121	1,141,963	4,758 3 7
1887	128	1,198,286	4,992 17 2
1888	141	1,332,691	5,511 15 7
1889	238	2,187,837	9,113 19 9
1890	310	2,620,959	10,920 13 3

Inclusive of applications outstanding on the 31st December, 1889, 208 were satisfied by the approval of leases, containing an area of 1,934,530 acres, and producing an annual rent of £11,393 5s. 9d., and 62 were refused or permitted to be withdrawn. Of the applications received during 1890, 71 were granted and 35 refused. At the close of the year 237 applications remained undisposed of. (See Schedules LXXXI, LXXXII, LXXXIII.)

From

From Schedule LXXXIV it will be seen that 842 homestead leases were current on the 31st December, 1890, comprising an area of 7,760,610 acres, and returning an annual revenue of £46,199 6s. 3d.

During the year 124 appplications were put forward for the refund of the value of improvements on land held under homestead lease, and taking into consideration outstanding applications on the 31st December, 1889, 122 were disposed of in 1890, leaving 38 outstanding at its close. (See Schedule LXXXV.)

The provisions of the 29th section of the Crown Lands Act of 1889 were taken advantage of in the case of 413 homestead leases (including 11 applications received in 1889), and thus a periodical appraisement of rent and a new term of twenty-one years secured, as in the case of pastoral leases in the Western Division. (See Schedule LXXXVI.)

Only 5 leases were brought under the provisions of the Crown Rents Act. Thirty-four leases were transferred during the year.

Inferior Lands Leases.

In consequence of their sterility, isolated position, or other disadvantages, it was found that certain lands in the several Divisions of the Colony could not, under the provisions of the Crown Lands Act of 1884, be suitably disposed of, the minimum rent prescribed by that Act being too high to induce occupation. Provision was, however, made in the Crown Lands Act of 1889 admitting of such lands being utilised and revenue obtained from them under leases of long tenure and liberal conditions.

Fourteen applications to have inferior lands submitted to lease by auction or tender were received, of which 4 were refused, after investigation by the Local Boards; the remainder being under consideration at the close of the year. (*Vide* Schedule XCIX.)

Pastoral Leases and Occupation Licenses.

The determination of 560 Pastoral Leases in the Eastern Division of the Colony during the year, representing an area of 8,618,727 acres, and an annual rental of £62,041 13s., necessarily affected the aggregate area held under pastoral lease. Some of these leases expired in July, 1890, and (with 11 exceptions, representing 240,187 acres, and a rental of £1,045 16s. 3d.), they all ceased to exist by the 31st of the following December. A proportion of the rental was thus paid for part of the year, but taking into account the whole of the leaseholds in the Colony at the close of the year, they stood as follows :—

1889.				1890.			
Division.	No.	Area.	Rent.	Division.	No.	Area.	Rent.
		acres.	£ s. d.			acres.	£ s. d.
Eastern	*570	8,619,793	61,749 18 11	Eastern	11	240,187	1,045 16 3
Central	*733	18,663,794	181,994 3 6	Central	736	18,854,452	185,288 11 0
Western	*316	39,649,034	167,282 3 0	Western	316	38,579,526	168,096 19 0
Total	1,622	66,932,621	411,026 5 5	Total	1,033	57,674,165	354,431 6 3

* These figures will be found to differ slightly from those in the Report for 1889.

With regard to Occupation Licenses, the year 1890 has to record an increase over 1889, as shown in the subjoined table. This is explained by the fact that lessees in the Eastern Division were by the Act of 1889 afforded the right (not provided by previous legislation) of holding, subject to preliminary application, their expired leaseholds under what is termed preferential occupation license, a right which was exercised in 420 cases, excluding 23 applications which were refused or permitted to be withdrawn.

1889.				On 31st December, 1890.				
Division.	No.	Area.	Rent.	Division.	No.	Area.	Rent.	Remarks.
		Acres.	£ s. d.			Acres.	£ s. d.	
Eastern.....	*518	6,951,261	33,688 12 11	Eastern	506	6,692,831	32,817 16 5	
Central	*715	14,844,213	85,662 0 4	„	420	6,791,326	21,222 18 0	Preferential Occupation Licenses.
Western	265	33,824,043	87,359 19 10	Central	712	13,907,987	79,834 19 1	
	1198	55,619,517	206,710 13 1	Western	265	32,909,510	83,732 10 2	
					1,903	60,301,654	217,608 3 8	

* These figures will be found to differ slightly from those in the Report for 1889.

The Crown Lands Act of 1889, and the Crown Rents Act of 1890, contained some important provisions in connection both with pastoral leases and occupation licenses. As mentioned in an earlier part of this Report, the necessity for the Crown Rents Act of 1890 arose from the judgment of the Privy Council in the case of Alison *versus* Burns. This Act offered all lessees and licensees (without reference to Divisions) the opportunity of having their rents (if fixed by the Minister above the rates recommended by the Board) determined by the Land Court.

The Crown Lands Act of 1889, among other things, offered pastoral lessees in the Western Division a new term of 21 years divided into 7-year periods—the rent for each period to be subject to separate appraisement. To lessees in the Central Division it offered an appraisement of rent for the residue of the then existing term in lieu of the statutory increase of rent of 25 per cent. on the rent already charged. To the holders of occupation licenses in the Central or Western Divisions it offered the right of re-appraisement of rent. So far, therefore, as the question of rent is concerned, the broad difference between the two Acts was that the Act of 1889 dealt with the rent to be paid in the future, while the Crown Rents Act of 1890 dealt with that charged in the past.

The subjoined schedule shows to what extent the advantages of the different Acts were availed of:—

Brought under the Crown Lands Act of 1889.			Brought under the Crown Rents Act of 1890.		
No. of Pastoral Leases.	No. of Occupation Licenses.	Division of Colony.	No. of Pastoral Leases.	No. of Occupation Licenses.	Division of Colony.
675	307	Central.	143	97	Eastern.
292	147	Western.	197	183	Central.
*17	*19	Central.	46	42	Western.
*18	*14	Western.	Total	708	

* Made during December, 1889.

Although in the preceding schedule the leases are distinguished from the licenses brought under the Crown Rents Act, it is proper to point out that 568 of the total 708 represented the leasehold and resumed areas of the same holding. Of the applications under that Act, twenty-nine referring to leases and an equal number referring to licenses were either withdrawn or found to be informal.

In view of the decision of the Supreme Court in the case of Edols *v.* Tearle, a large area comprised in forfeited conditional purchases and conditional and other leases, and situated within leasehold areas, was reserved from sale and lease pending legislation to determine how the land should be disposed of. The Crown Lands Act of 1889 provided for the disposal of these lands, and accordingly under the provisions of the 32nd clause of that Act the reservations were cancelled, and the land added to the leasehold areas within the ambit of which they were situated.

A total area of 83,508 acres was withdrawn during the year from 129 leasehold areas in the several Divisions of the Colony, involving refund of rent amounting to £2,570 9s., and during the same period 2,242,971 acres were withdrawn from occupation license within 619 resumed areas, resulting in a refund of £18,835 10s. 7d. The total area thus withdrawn was 2,326,479 acres, occasioning a refund of £21,405 19s. 7d. to the parties concerned. (See Schedule LXIV.)

Six applications were received for the subdivision of leasehold areas, 3 of which were completed, 1 was refused, and 2 were under consideration at the close of the year. (*Vide* Schedule LXX.)

The transfer of 192 pastoral leases and 180 occupation licenses was given effect to. (*Vide* Schedule LXXVII.)

Refund of rent, by way of compensation, consequent on withdrawals from pastoral lease under the Repealed Acts, was applied for and dealt with in 1 case. (See Schedule LXVIII.)

Residential Leases.

This is a tenure of a new character provided for by the Crown Lands Act of 1889, which admits of the holder of a miner's right or mineral license obtaining, within a gold or mineral field, a lease not exceeding 10 acres, subject to certain conditions as to residence, improvements, &c. During the year 141 applications were received for leases of this character, which, with 23 lodged in December, 1889, made 164, for an area of 1,505 acres 2 roods 30 perches requiring action. Of these 24 were disallowed or withdrawn, and 5, comprising 39 acres 0 roods 10 perches, at an annual rent of £9 10s. 4d. granted, leaving 135 outstanding at the close of the year. (*Vide* Schedule XCVII.)

Scrub Leases.

During the year 122 applications for scrub leases, comprising an area of 974,122 acres, were under consideration, 89 of which were outstanding on the 31st December, 1889. Eight leases, including an area of 71,357 acres, were granted, at an annual rent of £14 2s. 6d., and 67 applications were either disallowed or allowed to be withdrawn, leaving 47 outstanding at the close of the year. On the 31st December, 1890, 9 scrub leases were current, comprising 71,997 acres, with an annual rent of £14 11s. 7d. (See Schedules LXXXIX, XC, XCI.)

Snow Lands Leases.

No adequate means of dealing with the Snow Lands of the Colony (which from climatic conditions are available for profitable occupation during only a few months of the year) or of obtaining a revenue in any way commensurate with their value, was possible prior to the Crown Lands Act of 1889 passing into law. These facts led to a recognition of the necessity for legislation, providing for leases on a secure tenure, and for a definite term. During the limited portion of the year in which survey operations can be carried out in the more elevated parts of the Cooma and Wagga Wagga Land Board Districts, some of these lands were measured, under a cheap system, into suitable areas, and although no leases were actually sold during 1890, the necessary preliminary action had advanced so far that during that year a sale was advertised for the beginning of 1891. These leases were sold and realised satisfactory prices.

Seven applications to have snow lands submitted to auction were received, upon which action had not matured up to the close of the year. (*Vide* Schedule XCVIII.)

Special Leases.

Under the provisions of the 89th and 90th clauses of the Crown Lands Act of 1884 196 applications for Special Lease were lodged during the year, as against 220 in 1889. Inclusive of 85 outstanding on the 31stDecember, 1889, there were 281 applications under consideration, of which 68 were refused, withdrawn, or allowed to lapse, and 111 representing an area of 2,823 acres 2 roods 0½ perches were granted, at an annual rent of £2,324 10s., leaving 102 (for an area of 3,347 acres 2 roods 1½ perches) outstanding at the close of the year. (*Vide* Schedule XCVI.)

On

On the 31st December, 1890, 478 Special Leases were current, comprising an area of 9,303 acres 2 roods 31½ perches, and representing an annual rent of £10,560. The purposes for which the leases were granted are set forth in Schedule XCIV.

During the year 38 leases, containing 432 acres 1 rood 37¼ perches, and involving the payment of rent amounting to £539 5s., were declared forfeited, and 68 expired during the same period. (*Vide* Schedules XCII, XCIII.)

Rabbit Branch.

As explained in the report for 1889, in view of the suspension of the compulsory clauses of the Act, the discontinuance of the payment of subsidies, and the consequent abolition of the field-staff, no statement can be furnished as to the efforts made by owners of infested lands to destroy the pest.

The work devolving upon this branch gradually diminished until, upon the 31st July, 1890, the office staff was reduced to the Officer-in-charge and an assistant. At the commencement of the year, however, there were seven other officers attached to the branch, most of whom were engaged on work incidental to the destruction of rabbits, but as these various matters were brought to a conclusion the services of such of these officers as were not required were dispensed with, so that at the close of the year but one field officer remained, and his time was fully occupied in attending to the maintenance and repair of the rabbit-proof fence erected along the South Australian Border.

During the year the work of erecting a rabbit-proof fence along the entire western boundary of the Colony, a distance of 345½ miles, was completed. When it is considered that the scene of the operations is situated at distances so remote from settlement, and that the work in progress had to be conducted in country almost destitute of water, it must be regarded as a matter for congratulation that the undertaking, which it is apparent will be attended with good results, was brought to such a satisfactory conclusion. The fence was completed on the 15th August, 1890, and evidence is forthcoming that it is already being used as a base line from which other fences are being erected by private individuals with a view to still further limit the incursions of the pest. With the completion of this fence the number of miles of wire netting fencing erected at the cost of the Government is 632½, distributed as follows:—

Narromine to Bourke	...	203 miles.
Bourke to Barringun	...	84 ,,
South Australian boundary... ...	...	345½ ,,
		632½ miles.

The work of erecting and rendering the fence on the South Australian boundary rabbit-proof was divided into nine sections; the length and cost of each section is given in the subjoined table, which shows the total cost, exclusive of supervision, to have been £26,135 2s. 0¾d., or an average cost of £75 12s. 8¾d. per mile.

No. of Section.	Length of Section.	Cost of work at Schedule Rates.	Cost of extra work.	Cost of Material and charges thereon.	Total cost.
	m. c. l.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1	41 46 18	1,031 12 5¾	94 5 9	1,819 1 6½	2,944 19 9¼
2	24 28 0	890 8 3	7 0 0	1,022 7 2	1,919 15 5
3	21 72 0	582 5 8	15 11 0	891 8 3	1,489 4 11
4	43 0 78	1,136 16 8	181 10 0	1,729 8 10	3,047 15 6
5	48 62 0	843 10 9	132 0 0	1,941 10 2	2,917 0 11
6	3 20 0	180 17 6	6 10 0	132 1 11	319 9 5
7	75 31 70	2,496 8 11	27 6 0	3,160 12 5	5,684 7 4
8	31 48 30	1,557 13 2½	2 0 0	1,394 16 9	2,954 9 11½
9	55 53 60	2,374 15 3	71 0 0	2,412 3 7	4,857 18 10
	345 42 56	11,094 8 8¼	537 2 9	14,503 10 7½	26,135 2 0¾

The administration of the "Animals Infectious Diseases Act" also devolves upon this branch, and on the 31st December, 1890, there were but three licenses in force under the 6th section and four under section 7 of the Act.

Expenditure

Expenditure for the year 1890.

The votes for the expenses of the Department are as follows:—

Services.	Estimates-in-Chief.	Supplementary Estimates.	Total.
	£	£ s. d.	£ s. d.
Department of Lands	64,731	5,363 13 1	70,094 13 1
Rabbit Branch	9,530	.....	9,530 0 0
Minor Roads	1,600	.....	1,600 0 0
Land Agents, Appraisers, and others	78,080	394 0 0	78,474 0 0
Miscellaneous Services	22,158	1,013 18 3	23,171 18 3
	176,099	6,771 11 4	182,870 11 4
Survey of lands	219,037	4,185 0 0	223,222 0 0
*Triangulation and General Survey of the Colony	14,937	3,229 0 0	18,166 0 0
	233,974	7,414 0 0	241,388 0 0
Totals	410,073	14,185 11 4	.....
Grand total			424,258 11 4

* This includes an amount of £7,500 to form a charge against the Water and Sewerage Board under the Act 43 Vic. No. 32.

The expenditure during the year amounted to £411,624 12s. 2d., made up as follows, viz.:—For the services of 1888 and previous years, £1,324 4s. 1d.; for 1889, £28,905 3s. 11d.; and for 1890, £381,395 4s. 2d.

The amount of outstanding claims for the services of 1890 on the 31st December is estimated to be £46,267 15s. 10d., so that when all expenses have been discharged the expenditure will be approximately £427,663. Included in these figures is the sum of £12,189 8s. for postage and stamp duties, as well as £1,122 7s. 9d. for advertising accounts met from votes of the Treasury; also £633 0s. 11d. from Trust Fund under the 143rd clause of the Crown Lands Act of 1884, and from deposits lodged by various applicants. These items equal £13,944 16s. 8d., and it will therefore be seen that the expenditure out of the amount appropriated by Parliament for the service of the year will probably be £413,718 3s. 4d.

As before shown, the votes for the year amount to £424,258 11s. 4d., so that the estimated expenditure will total a sum of £10,540 8s. less than the amount voted. The excess of votes over expenditure occurs principally under the head of Land Agents, Appraisers, and others, and will ultimately, in terms of the Appropriation Act, be written off as a saving on votes.

As compared with the expenditure of 1889, which amounted to £399,496 14s. 2d., excluding refunds to pastoral lessees, it will be seen that the year 1890 shows an increase of £14,221 9s. 2d. This is, however, accounted for by provision having to be made to meet the expenses of inspection of Pastoral Holdings, for purposes of appraisement, and the expenses contingent on the establishment of the Land Court. The former involved an expenditure for fees and travelling expenses of £9,500, and the latter for salaries and other expenses of £5,698 7s. 4d., or, in all, £15,198 7s. 4d.

Reserves and Dedications.

During the year 1,856 reserves from sale, comprising 1,336,133 acres, were made. Of this area, however, 152,132 acres were reserved pending subdivision, to be subsequently rendered available for alienation. During the same period 3,440 reservations made at various periods were revoked, representing an area of 2,796,682 acres, much in excess of the area reserved during the year.

An area of 704,691 acres, comprised in 265 reserves, was excluded from lease during the year, and 1,676 reserves of this class, containing 697,428 acres, were revoked during the same period. In many cases the reservations from sale and lease referred to the same lands.

Particulars of reservations and revocations are shown in Schedules LVIII, LIX, LX, LXI.

An area of 1,565 acres 3 roods 20¼ perches was dedicated during the year for the purposes set forth in Schedule LXIII. *Deeds*

Deeds of Grant.

Schedule C sets forth in detail the number, area, and purpose for which these have been issued, on reference to which it will be observed that 4,930 deeds of grant were prepared during the year having reference to an area of 248,378 acres 1 rood 17¼ perches.

Applications for permission to Ringbark.

Permission to ringbark an area of 950,259½ acres, comprised in 163 applications, was applied for during 1890, and a sum of £1,271 paid as fees in connection therewith; of these 89 were complied with, containing 448,477 acres, and 21 were disallowed. Of those outstanding on the 31st December, 1889, 47 were granted, including 157,123¼ acres, and 2 were disallowed. It will thus be seen that during the year 136 applications were complied with, referring to an area of 605,600¼ acres. (*Vide* Schedule CII.)

Cases of Trespass on Crown Lands.

Particulars respecting trespasses on Crown Lands and the action taken are set out in Schedule CIII. The cases to be dealt with numbered 436, including 257 outstanding on the 31st December, 1889. Of these 290 were dealt with, leaving 146 undisposed of at the close of the year.

Correspondence.

On reference to Schedules CIV, and CV, it will be observed that 109,149 letters were received at the Head Office during the year, and 26,817 manuscript letters, 2,603 telegrams, 169 circulars, 91,889 printed letters, 1,063 schedules, and 13,386 parcels despatched therefrom. During the same period 127,137 letters and circulars were received in the several Local Land Board Offices, and 86,146 letters, parcels, &c., despatched. (*Vide* Schedule CVI.)

Appended hereto is the report of the Chief Surveyor.

WILLIAM HOUSTON,
Under Secretary.

SCHEDULES.

SCHEDULE I

SALARIES for the year 1890

	Permanent	Temporary	Permanent and Temporary	Total
	£ s d	£ s d	£ s d	£ s. d.
ADMINISTRATIVE BRANCH				
Head Office Staff	25,301 15 7	7,107 19 3	32,409 14 10	
Local Land Boards	18,446 12 1	4,268 8 9	22,715 0 10	
Land Agents and Assistants	12,565 15 0	74 17 3	12,640 12 3	
Inspectors of Conditional Purchases	5,527 18 4	1 720 7 7	7,248 5 11	
Messengers and others	1,740 9 1	195 8 5	1,935 17 6	
	63,582 10 1	13,367 1 3		76,949 11 4
SURVEY BRANCH.				
Head Office Staff	20,586 9 8	11,705 1 11	32,291 11 7	
District Survey Offices	27,655 16 0	16,577 9 11	44,233 5 11	
Salaried Surveyors	13,562 8 9	2,863 14 4	16,426 3 1	
Field Assistants		3,173 19 2	3,173 19 2	
Messengers and others	942 0 0	636 18 0	1,578 18 0	
	62,746 14 5	34,957 3 4		97,703 17 9
TRIANGULATION, &c BRANCH				
Field Staff	818 13 1	469 15 8	1,288 8 9	
Office Staff	543 6 8	85 0 7	628 7 3	
	1,361 19 9	554 16 3		1,916 16 0
GENERAL SURVEY BRANCH.				
Office Staff	2,081 13 4	353 0 9	2,434 14 1	2,434 14 1
DETAILED SURVEY OF THE CITY, &c.				
Field Staff	716 13 4	2,569 3 4	3,285 16 8	
Office Staff	491 13 4	865 9 5	1,357 2 9	
	1,208 6 8	3,434 12 9		4,642 19 5
RABBIT BRANCH				
Field and Office Staff	580 0 0	433 15 9	1,013 15 9	1,013 15 9
Totals £	131,561 4 3	53,100 10 1		184,661 14 4
The Land Court			4,802 6 7	4,802 6 7
GRAND TOTAL £				189,464 0 11

SCHEDULE II

RETURN showing number of Officers employed at the several Local Land Board Offices on the 31st December, 1890 calculated at annual rate of pay

Land Board District	No of Officers: Chairman and Clerical Staff	C P Inspectors	Messengers and Office cleaners	Total	Salaries	Land Board District	No of Officers: Chairman and Clerical Staff	C P Inspectors	Messengers and Office cleaners	Total	Salaries
					£ s d						£ s d.
Armidale	6	2	2	10	2,446 0 0	Maitland	6	4		10	2,825 0 0
Bourke	4	1	1	6	1,807 0 0	Moree	5	2	1	8	2,164 0 0
Cooma	6	3		9	2,090 0 0	Orange	7	3	1	11	3,052 0 0
Dubbo	5	2	1	8	2,325 0 0	Sydney	2	1		3	1,250 0 0
Forbes	6	1	1	8	1,825 0 0	Tamworth	6	2	1	9	2,325 0 0
Goulburn	7	3	2	12	3 095 0 0	Wagga Wagga	8	3	1	12	3,188 0 0
Grafton	6	2	1	9	2 534 10 0						
Hay	6	2	1	9	2,195 0 0	Totals	80	31	13	124	33,121 10 0

NOTE —The 31 C P Inspectors include 14 who were previously employed on fees, but who, under the recent reorganization have received salary

SCHEDULE III.

RETURN showing number of Officers employed in the District Survey Offices, and Aggregate Annual Amount of Salaries of each Staff, on the 31st December, 1890

District	No of Office Staff	Annual Amount	No of Field Staff	Annual Amount	Total
		£ s d		£ s d	£ s d.
Armidale	11	2,385 0 0	4	1,507 10 0	3,892 10 0
Bourke	7	1,475 0 0	4	1,375 0 0	2,850 0 0
Cooma	8	1,970 0 0	5	1,925 0 0	3,895 0 0
Dubbo	10	2,320 0 0	3	1,150 0 0	3,470 0 0
Forbes	9	2,020 0 0	3	1,207 10 0	3,227 10 0
Goulburn	10	2,420 0 0	3	1,375 0 0	3,795 0 0
Grafton	9	2,345 0 0	5	2,025 0 0	4,370 0 0
Hay	9	1,911 0 0	5	1,882 10 0	3,793 10 0
Maitland	13	2,930 0 0	7	2,194 0 0	5,124 0 0
Moree	6	1,595 0 0	4	1,484 10 0	3,079 10 0
Sydney	12	3,355 0 0	3	1,050 0 0	4,405 0 0
Orange	11	2,445 0 0	5	1,692 0 0	4,137 0 0
Tamworth	8	1,845 0 0	2	950 0 0	2,795 0 0
Wagga Wagga	14	3,123 0 0	5	1,907 10 0	5,030 10 0
Totals	137	32,139 0 0	58	21,725 10 0	53,864 10 0

Schedule IV.

Return showing the number of Inquiries in Open Court made by the Local Land Boards during 1890, regarding the fulfilment of Conditions relating to Conditional Purchases, Conditional Leases, Homestead Leases, and Miscellaneous Leases.

Land Board Districts.	Land Districts.	Conditional Purchases under Repealed Acts.			Conditional Purchases under Existing Acts.			Conditional Leases.			Homestead Leases.			Miscellaneous Leases.		
		On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.
Armidale	Armidale	23	2		65	17	3	13	12							
	Glen Innes	1			26	6		5	3							
	Inverell	6			15	7	2	3	2							
	Tenterfield	2			9	8		1	2							
	Walcha				9	6	2		3							
Bourke	Bourke	2	1								1					
	Brewarrina	2	1								15	1				
	Brewarrina East															
	Cobar															
	Cobar East															
	Wilcannia															
	Willyama															
Cooma	Bega				4	5			1							
	Bombala		1		6	4			4							
	Braidwood	8			8	11		1	1							
	Cooma	3	2	1	10	9	1	1	14							
	Eden		1		2	10		1								
	Milton					1		1								
	Moruya				27	1										
	Queanbeyan	1	1		18	12		1	7							
Dubbo	Coonamble				5	7										
	Dubbo		1		12	4		2	3							
Forbes	Condobolin				7	2										
	Forbes				12											
	Parkes				22	8		2								
	Grenfell	1			13	3										
Goulburn	Berrima	1			24	5										
	Burrowa	11			6	2										
	Goulburn	39	10		39	37		1	8							
	Gunning	12			21	1										
	Nowra				26	2										
	Yass	5	1		10	1										
	Young	9	1		22											
Grafton	Murwillumbah	2			6	15										
	Lismore	2		1	9	12			5							
	Casino	4	1	2	6	8		2	3							
	Grafton				38	20	1	1	3							
	Bellingen				9	7										
	Kempsey	3			7	2										
	Port Macquarie															
Hay	Balranald	9	1								21	3				
	Deniliquin			1	4	3										
	Hay	3			50	3	1	23	2		18	1				
	Hillston		1		1						22					
	Wentworth	1									4	1				

SCHEDULE IV—*continued.*

Land Board Districts	Land Districts	Conditional Purchases under Repealed Acts			Conditional Purchases under Existing Acts.			Conditional Leases.			Homestead Leases			Miscellaneous Leases.		
		On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled	Remitted for decision of Land Court	On which conditions were found to have been fulfilled	On which conditions were found not to have been fulfilled	Remitted for decision of Land Court	On which conditions were found to have been fulfilled	On which conditions were found not to have been fulfilled	Remitted for decision of Land Court	On which conditions were found to have been fulfilled	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court	On which conditions were found to have been fulfilled	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.
Maitland	Cassilis		2		8	12		1								
	Dungog				10	2										
	Gosford					3										
	Maitland					1										
	Muswellbrook		1		2	5										
	Newcastle															
	Paterson				4	2										
	Raymond Terrace				1	6										
	Scone		2		4	5										
	Singleton				9	3										
	Stroud				6	2										
	Taree	2			7	18		1								
	Wollombi															
Moree	Moree	11			27	3		5	1							
	Warialda	5			4	5										
	Walgett				1											
	Bingara		1		7			1								
Orange	Orange		1		5	4	1									
	Bathurst	1			9	8	1									
	Carcoar				7	2	1									
	Cowra	3			6	2	1									
	Lithgow		1		4	6										
	Molong	4			4	2										
	Mudgee				2	6										
	Rylstone				6	6										
	Wellington				3	7										
Sydney	Campbelltown				1	2										
	Kiama															
	Liverpool				1											
	Metropolitan	1	1		2											
	Parramatta		4		18	6										
	Penrith				21	2										
	Picton		1		26	15			2							
	Windsor				25	4										
	Wollongong	5														
Tamworth	Coonabarabran	6		2	8	7		2								
	Gunnedah	9			8	2		3								
	Murrurundi	4	1		2	2										
	Narrabri	1	1		9	6		2								
	Tamworth	22			59	15	1	19	5							
Wagga Wagga	Albury	1	2	1	8	1	1		1	1						
	Cootamundra				42	3		1								
	Corowa				4	3	1									
	Gundagai	2	1		3											
	Narrandera				39	5	1	1	1	3						
	Tumut	1	1		2	7	4									
	Urana				28		6		1	2						
	Wagga Wagga	2	2	3	136	11	1	1	2	3						
	Total	230	47	11	1,126	440	29	96	86	9	81	6			5	1

SCHEDULE V

RETURN of Meetings of Local Land Boards showing the number of Cases heard and adjourned.

Land Board District.	No of Days occupied	No of Cases dealt with	No of Cases adjourned	Land Board District	No of Days occupied	No of Cases dealt with	No of Cases adjourned
Armidale	126	1,479	338	Maitland	132	3 412	28
Bourke	164	1,591	292	Moree	86½	1,139	357
Cooma	83	2,306	36	Orange	122	3,550	81
Dubbo	98	1,336	286	Sydney	44½	1,067	15
Forbes				Tamworth	86	2,170	69
Goulburn	90½	2,988	180	Wagga Wagga	139	1,954	11
Grafton	57½	1,757	23				
Hay	94	1,407	41	Total	1,323	26,156	1,757

SCHEDULE VI.

STATEMENT of Travelling Expenses and Fees paid in connection with Local Land Board Meetings during the year, 1890

District	Particulars	Amount £ s d	Total £ s. d
Armidale	Chairman's and clerk's travelling expenses	429 11 8	
	Member's travelling expenses	27 0 0	
	Do fees	388 10 0	
	Fees and travelling expenses of surveyors, witnesses, and others	92 3 3	
			937 4 11
Bourke	Chairman's and clerk's travelling expenses	531 2 2	
	Members' travelling expenses	110 3 2	
	Do fees	396 18 0	
	Fees and travelling expenses of surveyors, witnesses, and others	33 4 0	
			1,071 7 4
Cooma	Chairman's and clerk's travelling expenses	455 11 8	
	Members' travelling expenses	160 6 3	
	Do fees	233 12 6	
	Fees and travelling expenses of surveyors, witnesses, and others	47 0 9	
			896 11 2
Dubbo	Chairman's and clerk's travelling expenses	422 12 6	
	Members' travelling expenses	101 8 0	
	Do fees	261 9 0	
	Fees and travelling expenses of surveyors, witnesses, and others	20 3 3	
			805 12 9
Forbes	Chairman's and clerk's travelling expenses	224 16 10	
	Members' travelling expenses	30 5 3	
	Do fees	222 1 6	
	Fees and travelling expenses of surveyors, witnesses, and others	Nil	
			477 3 7
Goulburn	Chairman's and clerk's travelling expenses	428 2 1	
	Members' travelling expenses	78 6 9	
	Do fees	193 14 6	
	Fees and travelling expenses of surveyors, witnesses, and others	1 12 2	
			701 15 6
Grafton	Chairman's and clerk's travelling expenses	365 8 3	
	Members' travelling expenses	132 0 0	
	Do fees	265 13 0	
	Fees and travelling expenses of surveyors, witnesses, and others	35 19 0	
			799 3
Hay...	Chairman's and clerk's travelling expenses	521 1 2	
	Members' travelling expenses	4 19 0	
	Do fees	56 14 0	
	Fees and travelling expenses of surveyors, witnesses, and others	89 16 0	
			672 10 2
Maitland	Chairman's and clerk's travelling expenses	548 13 4	
	Member's travelling expenses	193 16 2	
	Do fees	375 7 6	
	Fees and travelling expenses of surveyors, witnesses, and others	68 19 3	
			1,186 16 3
Moree	Chairman's and clerk's travelling expenses	193 15 2	
	Members travelling expenses	122 8 0	
	Do fees	329 3 6	
	Fees and travelling expenses of surveyors, witnesses, and others	63 6 6	
			708 13 2
Orange	Chairman's and clerk's travelling expenses	362 4 0	
	Members' travelling expenses	146 1 4	
	Do fees	298 14 6	
	Fees and travelling expenses of surveyors, witnesses, and others	46 12 6	
			853 12 4
Sydney	Chairman's and clerk's travelling expenses	195 0 4	
	Members travelling expenses	99 5 4	
	Do fees	262 10 0	
	Fees and travelling expenses of surveyors, witnesses, and others	34 10 8	
			591 6 4
Tamworth	Chairman's and clerk's travelling expenses	308 15 1	
	Members' travelling expenses	177 19 6	
	Do fees	385 17 6	
	Fees and travelling expenses of surveyors, witnesses and others	76 19 3	
			949 11 4
Wagga Wagga	Chairman's and clerk's travelling expenses	337 13 10	
	Members' travelling expenses	156 10 6	
	Do fees	320 15 6	
	Fees and travelling expenses of surveyors, witnesses, and others	10 17 6	
			825 17 4
	Total		11,477 2 5

Schedule VII.

Return showing the Number and Area of Conditional Purchases applied for during 1890, with the amount of Deposits and Survey Fees received.

Local Land Board District.	Land District	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each Class.			
			No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
				a. r. p.	£ s. d.	£ s. d.		a. r p	£ s. d.	£ s. d.		a r. p	£ s. d.	£ s. d.		a. r p	£ s. d	£ s. d.
Armidale	Armidale	Ordinary lands	175	36,333 0 0	3,633 6 0	1,141 16 0	278	38,406 1 16	3,849 12 9	1,565 12 6	2	377 0 0	75 8 0	12 15 0	455	75,206 1 16	7,558 6 9	2,720 3 6
		Special areas	3	411 0 0	66 13 0	17 0 0									3	411 0 0	66 13 0	17 0 0
	Glen Innes ..	Ordinary lands	40	9,108 0 20	910 16 6	267 0 0	69	14,337 1 30	1,433 15 0	433 2 6					109	23,445 2 10	2,344 11 6	700 2 6
		Special areas	2	640 0 0	96 0 0	16 0 0	1	311 0 0	31 2 0	8 0 0					3	951 0 0	127 2 0	24 0 0
	Inverell	Ordinary lands	79	16,413 3 0	1,641 7 6	516 12 6	123	15,461 0 37	1,546 2 6	670 14 6					202	31,874 3 37	3,187 10 0	1,187 7 0
		Special areas					2	202 1 0	40 9 0	10 5 0					2	202 1 0	40 9 0	10 5 0
	Tenterfield	Ordinary lands	55	9,497 0 0	949 14 0	331 2 6	37	4,464 0 0	446 8 0	198 7 6	4	686 2 0	137 0 6	24 12 6	96	14,647 2 0	1,533 2 6	554 2 6
		Special areas	2	140 0 0	21 0 0	9 10 0									2	140 0 0	21 0 0	9 10 0
	Walcha	Ordinary lands	151	32,348 3 31	3,234 18 0	991 15 0	172	22,472 0 0	2,247 5 6	932 5 0	11	1,271 1 0	254 7 0	59 0 0	334	56,092 0 31	5,736 10 6	1,983 0 0
		Special areas					1	171 3 0	51 10 6	6 5 0	1	320 0 0	128 0 0	8 0 0	2	491 3 0	179 10 6	14 5 0
Bourke	Bourke	Ordinary lands																
		Special areas																
	Brewarrina ...	Ordinary lands																
		Special areas																
	,, East .	Ordinary lands	10	6,120 0 0	612 0 0	98 5 0	1	560 0 0	56 0 0	9 10 0					11	6,680 0 0	668 0 0	107 15 0
		Special areas																
	Cobar, ...	Ordinary lands																
		Special areas																
	,, East .	Ordinary lands	7	3,940 0 0	394 0 0	65 5 0									7	3,940 0 0	394 0 0	65 5 0
		Special areas																
	Wilcannia . .	Ordinary lands																
		Special areas																
	Willyama ...	Ordinary lands																
		Special areas .																
Cooma	Bega	Ordinary lands	20	3,817 0 0	381 14 0	123 15 0	10	529 0 0	52 18 0	43 0 0	1	60 0 0	12 0 0	4 10 0	31	4,406 0 0	446 12 0	171 5 0
		Special areas	1	40 0 0	27 0 0	4 0 0									1	40 0 0	27 0 0	4 0 0
	Bombala	Ordinary lands	42	6,264 3 0	626 9 6	240 0 0	60	6,382 3 0	638 5 6	308 12 6	2	82 0 0	16 8 0	8 2 6	104	12,729 2 0	1,281 3 0	556 15 0
		Special areas	2	101 3 0	15 5 3	8 12 6	2	312 0 0	54 16 0	12 0 0					4	413 3 0	70 1 3	20 12 6
	Braidwood .	Ordinary lands	14	1,871 0 0	187 2 0	76 17 6	27	1,996 0 0	199 12 0	126 5 0	3	242 0 0	48 8 0	14 5 0	44	4,109 0 0	435 2 0	217 7 6
		Special areas																
	Cooma . . .	Ordinary lands	115	16,287 2 22	1,628 15 6	646 2 6	329	35,530 1 6	3,553 0 9	1,710 15 0	7	793 3 33	158 16 0	37 17 6	451	52,611 3 21	5,340 12 3	2,394 15 0
		Special areas	10	1,690 0 0	275 8 9	60 15 0	17	1,582 2 0	261 5 9	85 17 6					27	3,281 2 0	536 14 6	146 12 6
	Eden . .	Ordinary lands	22	3,050 0 0	305 0 0	122 12 6	24	2,007 3 0	200 15 6	116 12 6	5	310 0 0	56 0 0	22 12 6	51	5,367 3 0	561 15 6	261 17 6
		Special areas																
	Milton	Ordinary lands	7	410 0 0	41 0 0	31 0 0	4	275 0 0	27 10 0	18 10 0					11	685 0 0	68 10 0	49 10 0
		Special areas	3	395 0 0	59 5 0	16 12 6	1	60 0 0	9 0 0	4 10 0					4	455 0 0	68 5 0	21 2 6
	Moruya	Ordinary lands	27	3,440 0 0	344 0 0	148 15 0	35	2,954 2 0	295 9 0	167 12 6					62	6,394 2 0	639 9 0	316 7 6
		Special areas																
	Queanbeyan	Ordinary lands	61	11,556 1 0	1,155 0 0	382 0 0	100	13,652 1 0	1,365 4 6	552 12 6	4	979 3 0	195 19 0	28 5 0	165	26,188 1 0	2,716 3 6	962 17 6
		Special areas	2	352 0 0	52 16 0	12 10 0	1	160 0 0	24 0 0	6 0 0	2	80 1 0	24 1 6	8 2 6	5	592 1 0	100 17 6	26 12 6
Dubbo	Coonamble	Ordinary lands	110	48,036 0 0	4,803 12 0	1,003 10 0	39	7,263 1 0	726 6 6	245 17 6	1	121 3 0	24 7 0	5 12 6	150	55,421 0 0	5,554 5 6	1,255 0 0
		Special areas .	1	296 0 0	44 8 0	7 15 0									1	296 0 0	44 8 0	7 15 0
	Dubbo	Ordinary lands	144	62,949 3 0	6,294 19 6	1,212 17 6	62	22,819 1 0	2,281 18 6	440 18 0	5	1,150 0 0	230 0 0	34 0 0	211	86 919 0 0	8,806 18 0	1,687 15 6
		Special areas	2	1,265 1 0	205 15 9	20 0 0	3	655 0 0	108 13 0	19 12 6					5	1,920 1 0	314 8 9	39 12 6
Forbes	Condobolin .. .	Ordinary lands ..	120	67,046 0 0	6,704 12 0	1,131 5 0	33	6,610 0 0	661 0 0	210 0 0					153	73,656 0 0	7,365 12 0	1,341 5 0
		Special areas	10	4,988 1 0	842 6 3	88 12 6	8	2,931 1 0	439 13 3	65 7 6					18	7,919 2 0	1,281 19 6	154 0 0
	Forbes .. .	Ordinary lands	6	1,968 0 0	196 16 0	44 15 0	13	2,200 3 0	220 1 6	75 2 6					19	4,168 3 0	416 17 6	119 17 6
		Special areas .	20	2,086 2 25	309 3 5	70 5 8	7	957 2 14	150 12 10	35 2 6					27	3,044 0 39	549 16 3	105 8 2
	Parkes	Ordinary lands .	90	42,233 0 9	4,223 6 0	778 12 6	31	5,929 2 0	592 19 0	180 17 0					121	48,162 2 0	4,816 5 0	959 9 6
		Special areas	1	417 2 0	62 12 6	8 12 6	2	423 0 0	67 15 0	13 5 0					3	840 2 0	130 7 6	21 17 6
	Grenfell . ..	Ordinary lands .	33	12,046 0 0	1,204 12 0	261 2 6	64	20,035 1 0	2,003 10 6	447 5 6	1	300 0 0	60 0 0	7 15 0	98	32,381 1 0	3,268 2 6	716 3 0
		Special areas	27	5,507 0 0	973 1 0	170 15 0	19	2,581 0 0	443 3 0	107 5 0					46	8,088 0 0	1,416 4 0	278 0 0
Goulburn	Berrima	Ordinary lands	20	2,510 2 0	251 1 0	106 7 6	18	2,005 0 0	200 10 0	93 5 0	6	240 0 0	48 0 0	24 0 0	44	4,755 2 0	499 11 0	223 12 6
		Special areas																
	Burrowa	Ordinary lands	92	16,816 0 0	1,684 12 0	564 17 6	205	21,314 1 7	2,131 9 0	1,051 10 0	5	918 0 0	183 12 0	31 2 6	302	39,078 1 7	3,999 13 0	1,647 10 0
		Special areas	5	1,148 3 0	184 13 2	34 12 6	12	2,406 2 0	378 6 9	74 2 6					17	3,555 1 0	562 19 11	108 15 0
	Goulburn . .	Ordinary lands	47	4,533 3 0	453 7 6	231 0 0	108	8,308 3 0	830 17 6	507 7 6	2	140 0 0	28 0 0	9 10 0	157	12,982 2 0	1,312 5 0	747 17 6
		Special areas																
	Gunning	Ordinary lands .	25	2,819 2 0	281 19 0	128 5 0	67	6,341 0 0	634 2 0	336 10 0	1	40 0 0	8 0 0	4 0 0	93	9,200 2 0	924 1 0	468 15 0
		Special areas	3	960 0 0	144 0 0	24 0 0	1	320 0 0	48 0 0	8 0 0					4	1,280 0 0	192 0 0	32 0 0
	Nowra ..	Ordinary lands	9	628 0 0	62 16 0	41 15 0	11	782 1 0	78 4 6	50 17 6	2	130 0 0	26 0 0	9 5 0	22	1,540 1 0	167 0 6	101 17 6
		Special areas	1	40 0 0	8 0 0	4 0 0									1	40 0 0	8 0 0	4 0 0
	Yass .	Ordinary lands	48	10,075 3 0	1,007 11 6	301 7 6	83	7,101 2 0	710 3 0	398 0 0	2	120 0 0	24 0 0	9 0 0	133	17,297 1 0	1,741 14 6	708 7 6
		Special areas .	8	1,637 3 20	280 4 6	52 15 0	3	263 1 0	43 14 9	13 5 6	4	250 3 0	86 12 6	18 10 0	15	2,151 3 20	410 11 9	84 10 6
	Young .	Ordinary lands	96	25,464 1 0	2,546 8 6	686 5 0	73	15,091 2 0	1,509 3 0	455 15 0	6	1,412 1 0	282 9 0	41 15 0	175	41,968 0 0	4,338 0 6	1,183 15 0
		Special areas	12	2,871 3 0	626 3 0	84 2 6	18	3,156 2 0	695 4 9	111 0 0					30	6,028 1 0	1,321 7 9	195 6

SCHEDULE VII—*continued.*

Local Land Board District.	Land District.	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each class.			
			No.	Area.	Deposit.	Survey Fee.	No	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
				a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.
Grafton	Murwillumbah	Ordinary lands	13	1,860 0 0	186 0 0	75 7 6	20	2,917 3 0	291 15 6	109 15 0	2	192 2 0	38 10 0	10 0 0	35	4,970 1 0	516 5 6	195 2 6
		Special areas	7	679 3 0	113 1 0	36 5 0	3	185 0 0	37 0 0	13 10 0					10	864 3 0	150 1 0	49 15 0
	Lismore	Ordinary lands	11	1,745 0 0	174 10 0	63 2 6	25	3,022 3 0	302 5 6	134 15 0	1	40 2 0	8 2 0	4 2 6	37	4,808 1 0	484 17 6	202 0 0
		Special areas	15	1,511 1 0	391 4 6	77 5 0	8	565 1 0	124 0 0	37 15 0	1	40 0 0	16 0 0	4 0 0	24	2,119 2 0	531 4 6	119 0 0
	Casino	Ordinary lands	131	46,356 0 0	4,635 12 0	838 16 0	67	12,099 0 0	1,209 18 0	309 17 6	10	1,362 1 0	272 9 0	55 13 0	208	59,817 1 0	6,117 19 0	1,204 6 6
		Special areas	8	802 3 0	160 15 0	41 5 0	3	476 2 0	106 4 0	18 0 0					11	1,279 1 0	266 19 0	59 5 0
	Grafton	Ordinary lands	44	8,189 0 0	818 18 0	164 5 0	52	7,459 1 0	745 18 6	181 15 0	3	201 0 0	40 4 0	13 15 0	99	15,849 1 0	1,605 0 6	359 15 0
		Special areas	5	514 0 0	87 0 0	26 2 6	3	181 0 0	27 3 0	13 12 6					8	695 0 0	114 3 0	39 15 0
	Bellinger	Ordinary lands	23	4,407 0 0	440 14 0	137 17 6	22	3,756 0 0	375 12 0	124 5 0	4	410 0 0	82 0 0	20 12 6	49	8,573 0 0	898 6 0	282 15 0
		Special areas	20	2,030 3 0	304 13 0	110 0 0	4	384 0 0	57 12 0	20 7 6	2	113 0 0	33 18 0	9 0 0	26	2,527 3 0	396 3 0	139 7 6
	Kempsey	Ordinary lands	78	11,810 0 0	1,181 0 0	448 5 0	63	6,804 2 0	680 9 0	327 7 0	9	890 0 0	178 0 0	46 5 0	150	19,504 2 0	2,039 9 0	821 17 0
		Special areas	13	1,660 0 0	249 0 0	73 5 0	4	329 0 0	49 7 0	20 0 0					17	1,989 0 0	298 7 0	93 5 0
	Port Macquarie	Ordinary lands	29	2,721 0 0	272 2 0	144 15 0	8	411 0 0	41 2 0	34 5 0					37	3,132 0 0	313 4 0	179 0 0
		Special areas																
Hay	Balranald	Ordinary lands																
		Special areas																
	Balranald South	Ordinary lands	3	1,920 0 0	192 0 0	30 0 0									3	1,920 0 0	192 0 0	30 0 0
		Special areas																
	Deniliquin	Ordinary lands	8	2,953 0 0	295 6 0	63 7 6	18	6,354 1 0	635 8 6	141 0 0	1	320 0 0	64 0 0	8 0 0	27	9,627 1 0	994 14 6	212 7 6
		Special areas	24	12,695 1 0	2,375 2 5	221 14 6	34	12,091 0 0	2,074 0 10	265 5 6	1	265 0 0	92 15 0	7 7 6	59	25,051 1 0	4,541 18 3	494 7 6
	Hay	Ordinary lands	55	31,132 3 0	3,113 5 6	509 2 6	22	7,893 2 0	789 7 0	64 17 0	5	1,011 2 0	202 6 0	32 17 6	82	40,037 3 0	4,104 18 6	606 17 0
		Special areas	15	8,266 2 0	1,371 2 0	140 10 0	7	3,949 0 0	592 5 9	56 7 6	1	301 2 0	90 3 0	7 17 6	23	12,517 0 0	2,053 10 9	204 15 0
	Hay North	Ordinary lands																
		Special areas																
	Hillston	Ordinary lands	19	10,222 2 0	1,022 5 0	179 5 0	2	320 0 0	32 0 0	12 0 0					21	10,542 2 0	1,054 5 0	191 5 0
		Special areas					4	945 3 0	174 13 3	28 0 0					4	945 3 0	174 13 3	28 0 0
	Hillston North	Ordinary lands																
		Special areas																
	Wentworth	Ordinary lands					1	1,920 0 0	92 0 0	16 0 0						1,920 0 0	192 0	16 0 0
		Special areas																
Maitland	Cassilis	Ordinary lands	25	5,506 2 0	550 13 0	160 2 6	52	8,826 2 0	882 13 0	305 7 0	2	500 0 0	100 0 0	14 5 0	79	14,833 0 0	1,533 6 0	479 14 6
		Special areas					2	572 1 0	85 16 9	15 5 0					2	572 1 0	85 16 9	15 5 0
	Dungog	Ordinary lands	3	282 1 0	28 4 6	14 15 0	7	702 1 0	70 4 6	35 7 6					10	984 2 0	98 9 0	50 2 6
		Special areas	3	174 2 0	26 3 6	13 12 6	2	150 0 0	22 10 0	9 12 6					5	324 2 0	48 13 6	23 5 0
	Gosford	Ordinary lands	19	1,109 3 0	110 19 6	83 7 6	7	345 1 0	34 10 6	29 7 6	2	80 0 0	16 0 0	8 0 0	28	1,535 0 0	161 10 0	120 15 0
		Special areas	2	190 0 0	38 0 0	10 0 0									2	190 0 0	38 0 0	10 0 0
	Maitland	Ordinary lands	2	420 0 0	42 0 0	13 5 0	1	40 0 0	40 0 0	4 0 0	2	210 0 0	42 0 0	10 12 6	5	670 0 0	124 0 0	27 17 6
		Special areas	1	137 0 0	20 11 0	5 15 0	2	145 2 0	21 16 6	9 12 6					3	282 2 0	42 7 6	15 7 6
	Muswellbrook	Ordinary lands	2	80 0 0	8 0 0	8 0 0	16	1,216 3 30	121 13 11	73 15 0	1	40 0 0	8 0 0	4 0 0	19	1,336 3 30	137 13 11	85 15 0
		Special areas																
	Newcastle	Ordinary lands									1	320 0 0	64 0 0	8 0 0	1	320 0 0	64 0 0	8 0 0
		Special areas																
	Paterson	Ordinary lands	8	950 0 0	95 0 0	42 5 0	11	1,181 3 0	118 3 6	54 12 6					19	2,131 3 0	213 3 6	96 17 6
		Special areas																
	Raymond Terrace	Ordinary lands	8	860 0 0	86 0 0	41 2 6	3	370 0 0	37 0 0	16 12 6	4	340 0 0	68 0 0	19 10 0	15	1,570 0 0	191 0 0	77 5 0
		Special areas																
	Scone	Ordinary lands	27	4,658 0 0	465 16 0	163 0 0	44	5,716 0 0	571 12 0	240 5 0	4	719 2 0	143 18 0	25 0 0	75	11,093 2 0	1,181 6 0	428 5 0
		Special areas																
	Singleton	Ordinary lands	15	2,007 0 0	200 14 0	82 12 6	28	3,008 3 0	300 17 6	146 17 6					43	5,015 3 0	501 11 6	229 10 0
		Special areas	1	75 3 0	15 3 0	5 0 0	1	152 0 0	38 0 0	6 0 0					2	227 3 0	53 3 0	11 0 0
	Stroud	Ordinary lands	7	1,540 0 0	38 12 6		10	2,135 2 0	213 11 0	57 5 0					17	3,675 2 0	363 11 0	95 17 6
		Special areas																
	Taree	Ordinary lands	53	4,386 1 0	438 15 0	248 12 6	57	4,907 2 0	490 17 0	276 2 0	1	40 2 0	8 2 0	4 2 6	111	9,334 1 0	937 14 0	528 17 0
		Special areas																
	Wollombi	Ordinary lands	1	40 0 0	4 0 0	4 0 0	3	140 0 0	14 0 0	12 12 6	1	60 0 0	12 0 0	4 12 6	5	240 0 0	30 0 0	21 5 0
		Special areas																
Moree	Bingara	Ordinary lands	7	1,730 0 0	173 0 0	45 10 0	19	3,662 0 0	366 1 0	115 7 6					26	5,392 0 0	539 1 0	160 17 6
		Special areas																
	Moree	Ordinary lands	52	23,436 2 0	2,343 14 6	440 7 6	31	15,929 0 0	1,592 18 0	250 15 0					83	39,365 2 0	3,936 12 6	691 2 6
		Special areas	8	2,961 3 0	444 5 3	65 2 6	8	1,716 1 0	267 10 9	51 7 6					16	4,678 0 0	711 16 0	116 10 0
	Walgett	Ordinary lands	61	37,655 0 0	3,765 10 0	601 15 6	3	806 0 0	80 12 0	21 12 6	5	930 0 0	199 0 0	31 15 0	69	39,391 0 0	4,045 2 0	655 3 0
		Special areas	1	130 0 0	19 10 0	5 12 6									1	130 0 0	19 10 0	5 12 6
	Warialda	Ordinary lands	19	7,678 3 0	767 17 6	151 17 6	33	6,450 3 0	645 1 6	209 7 6	1	162 0 0	32 8 0	6 2 6	53	14,291 2 0	1,445 7 0	367 7 6
		Special areas	1	640 0 0	96 0 0	10 0 0	3	549 2 13	109 18 4	18 15 0					4	1,189 2 13	205 18 4	28 15 0

SCHEDULE VII—*continued.*

Local Land Board District.	Land District.	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each lass.			
			No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
				a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.
Orange ...	Bathurst .	Ordinary lands	29	4,210 3 10	421 1 8	163 15 0	81	10,631 1 0	1,063 2 6	424 4 0	6	447 3 0	89 11 0	28 2 6	116	15,289 3 10	1,573 15 2	616 1 6
		Special areas	6	1,215 0 0	182 5 0	39 12 6	2	131 0 0	19 13 0	9 7 6	.	. . .	. . .	.....	8	1,346 0 0	201 18 0	49 0 0
	Carcoar ..	Ordinary lands .	38	5,570 0 0	557 0 0	214 12 6	57	5,089 2 0	508 19 0	279 17 6	1	200 0 0	40 0 0	6 10 0	96	10,859 2 0	1,105 19 0	501 0 0
		Special areas ..	.	.....	.....	.....	..	. . .	. . .	. .	..	. . .	.....	.....	..	.....	.....	.....
	Cowra	Ordinary lands .	36	5,859 2 0	585 19 0	209 17 6	40	6,094 1 0	609 8 6	225 15 0	3	401 2 0	80 6 0	17 15 0	79	12,355 1 0	1,275 13 6	453 7 6
		Special areas	18	2,725 0 30	542 7 0	101 12 6	4	478 2 0	81 11 6	19 6 4	..	. . .	.....	.....	22	3,203 2 30	623 18 6	120 18 10
	Lithgow	Ordinary lands	22	2,131 0 0	213 2 0	106 17 6	28	2,838 0 20	283 16 3	142 7 6	2	370 0 0	74 0 0	12 15 0	52	5,339 0 20	570 18 3	262 0 0
		Special areas	.	. . . .	. . . .	. . .	.	. . . .	. . . .	. . .	..	. . . .	. . . .	. . . .	..	. . . .	. . . .	. . . .
	Molong	Ordinary lands	103	21,677 2 0	2,167 15 0	738 5 6	174	24,339 0 35	2,433 18 6	968 7 0	2	420 0 0	84 0 0	13 5 0	279	46,436 2 35	4,685 13 6	1,719 17 6
		Special areas	5	1,001 3 0	242 10 6	32 12 6	8	1,225 0 0	255 0 3	46 12 6	.	. . . .	. . . .	. . . .	13	2,226 3 0	497 10 9	79 5 0
	Mudgee	Ordinary lands	31	6,084 0 0	608 8 0	191 7 6	42	4,179 0 0	417 18 0	210 2 6	4	750 0 0	150 0 0	24 15 0	77	11,013 0 0	1,176 6 0	426 5 0
		Special areas .	1	160 0 0	24 0 0	5 5 0	..	.. . .	.....	.....	..	.....	. .....	.. . .	1	160 0 0	24 0 0	5 5 0
	Orange .. .	Ordinary lands	1	160 0 0	16 0 0	6 0 0	12	2,433 0 0	243 6 0	77 2 6	.	....	.....	.. ..	13	2,593 0 0	259 6 0	83 2 6
		Special areas .	.	.....	. . . .	. . . .	.	. . . .	. . . .	. . . .	.	.....	. . . .	. . . .	.	. . . .	. . . .	. . . .
	Rylstone	Ordinary lands	16	1,230 0 0	123 0 0	74 12 6	25	2,301 0 0	230 2 0	123 5 0	3	384 0 0	76 16 0	16 7 6	44	3,915 0 0	429 18 0	214 5 0
		Special areas	.	.....	. . . .	. . . .	..	. . . .	. . . .	. . . .	.	.....	.....	.....	.	. . . .	. . . .	. . . .
	Welington .	Ordinary lands	28	5,030 0 0	503 0 0	170 10 0	48	4,514 3 0	451 9 6	240 15 0	.	.....	.....	.....	76	9,544 3 0	954 9 6	411 5 0
		Special areas ..	4	759 2 0	113 18 6	25 0 0	.	.. .	. .....	.. .	..	. . .	.....	... . ..	4	759 2 0	113 18 6	25 0 0
Sydney	Campbelltown ..	Ordinary lands	4	679 3 0	67 19 6	24 10 0	1	46 0 0	4 12 0	1 5 0	1	40 0 0	8 0 0	4 0 0	6	765 3 0	80 11 6	32 15 0
		Special areas .	1	160 0 0	24 0 0	6 0 0	.	. .	. . .	... . .	.	.....	. .....	.. ..	1	160 0 0	24 0 0	6 0 0
	Kiama	Ordinary lands	..	.. ..	.. . .	. . .	.	. . ..	.. . ..	. .....	.	.....	. ... .	.. ... .	..	....	. ... .	. ... .
		Special areas	..	. . . .	. . .	....	.	.. ..	.....	. . . .	.	..... .	. . .	....	..	.....	. . . ..	... .
	Liverpool	Ordinary lands	..	. .. . .	... . .	. . .	..	.. ...	. .. .	. .. .	.	.....	. .....	. .....	..	.....	. . .	. ...
		Special areas .	..	....	. .	.. .. .	.	.. ....	. ....	.. ..	...	.....	.....	.....	..	.....	. .....	. .. . .
	Metropolitan . .	Ordinary lands ..	..	....	. ...	. . .	..	. . . .	.. ..	. .. ..	10	1,540 0 0	308 0 0	56 15 0	10	1,540 0 0	308 0 0	56 15 0
		Special areas .	..	. . . ..	. . .	. . 17 6	..	. ....	. ...	. .	1	40 0 0	32 0 0	4 0 0	1	40 0 0	32 0 0	4 0 0
	Parramatta.. ..	Ordinary lands	4	190 0 0	19 0 0	16 17 6	..	.	. .	. .	12	772 0 0	154 8 0	53 17 6	16	962 (0	173 8 0	70 15 0
		Special areas ..	1	42 0 0	8 8 0	4 2 6	.	. . .	.	. .	1	80 0 0	32 0 0	5 0 0	2	122 0	40 8 0	9 2 6
	Penrith	Ordinary lands .	2	220 0 0	22 0 0	10 15 0	.	.. ..	.... .	.. .	3	10 0 0	82 0 0	16 5 0	5	630 0 0	104 0 0	27 0 0
		Special areas ...	1	53 1 0	10 13 0	4 7 6	..	.. ....	. .	. .	1	46 2 0	37 4 0	4 5 0	2	99 3 0	47 17 0	8 12 6
	Picton	Ordinary lands .	20	3,110 0 0	311 0 0	115 10 0	7	467 0 0	46 14 0	31 17 6	2	80 0 0	16 0 0	8 0 0	29	3,657 0 0	373 14 0	155 7 6
		Special areas .	.	. . . .	. . . .	. . .	1	80 0 0	12 0 0	5 0 0	4	330 0 0	110 16 0	19 5 0	5	410 0 0	122 16 0	24 5 0
	Windsor	Ordinary lands	17	1,437 0 0	143 14 0	81 15 0	18	1,060 0 0	106 0 0	78 15 0	26	1,440 0 0	284 0 0	113 15 0	61	3,937 0 0	533 14 0	274 5 0
		Special areas	..	....	..... .	....	..	....	. .....	.. ..	..	... .	..... .	....	..	.. . ..	. ..	. ...
	Wollongong	Ordinary lands	.	.....	....	.. ...	..	. . .	. . .	. .. ..	.	... .	. ... ..	.....	..	.. ..	. ..	.... .
		Special areas .	..	..... .	.....	. . .	..	. ..	. . ..	.. . ..	..	....	....	. .. ...	..	.. . .	.. ..	. ... .
Tamworth .	Coonabarabran ..	Ordinary lands ..	10	3,206 0 0	320 12 0	76 2 6	17	3,007 0 0	300 14 0	101 12 6	3	545 0 0	109 0 0	18 17 6	30	6,758 0 0	730 6 0	196 12 6
		Special areas ..	..	.. . .	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Gunnedah	Ordinary lands .	18	6,619 3 0	661 19 6	139 12 6	31	6,193 0 16	619 7 0	194 11 6	1	84 0 0	16 16 0	5 2 6	50	12,896 3 16	1,298 2 6	339 6 6
		Special areas ..	2	226 3 0	34 0 3	10 12 6	1	207 1 0	41 9 0	6 12 6	..	. . . .	.....	.....	3	434 0 0	75 9 3	17 5 0
	Murrurundi	Ordinary lands .	13	3,640 0 0	364 0 0	96 2 6	47	7,705 2 0	770 11 0	277 0 0	3	460 0 0	92 0 0	17 10 0	63	11,805 2 0	1,226 11 0	390 12 6
		Special areas .	6	928 0 0	139 4 0	34 17 6	10	1,207 1 10	280 15 2	54 0 0	..	....	.....	.. ..	16	2,135 1 10	419 19 2	88 17 6
	Narrabri	Ordinary lands .	41	15,744 2 0	1,574 9 0	323 7 6	40	8,827 3 0	882 15 6	297 9 6	..	..... .	..... .	..... .	81	24,572 1 0	2,457 4 6	580 17 0
		Special areas .	3	1,920 0 0	288 0 0	30 0 0	10	2,940 3 0	478 17 0	70 12 6	.	..... .	..... .	....	13	4,860 3 0	766 17 0	100 12 6
	Tamworth	Ordinary lands .	124	25,285 2 0	2,528 11 0	804 17 6	206	27,615 3 0	2,761 11 6	1,144 12 6	6	657 0 0	131 8 0	31 0 0	336	53,558 1 0	5,421 10 6	1,980 10 0
		Special areas ...	8	1,182 2 0	278 15 0	46 15 0	10	1,488 1 0	297 3 0	58 12 6	.	. ...	.....	....	18	2,670 3 0	575 18 0	105 7 6
Wagga Wagga	Albury.....	Ordinary lands .	90	23,923 0 0	2,392 6 0	650 12 6	157	22,852 2 0	2,285 5 3	903 12 6	1	80 0 0	16 0 0	5 0 0	248	46,855 2 0	4,693 11 3	1,559 5 0
		Special areas .	29	5,104 2 19	1,342 19 3	182 12 6	36	5,267 2 0	1,219 3 0	208 2 6	1	160 0 0	64 0 0	6 0 0	66	10,732 0 19	2,626 2 3	396 15 0
	Cootamundra ...	Ordinary lands.	82	26,548 0 0	2,654 16 0	627 7 6	69	17,497 0 0	1,749 14 0	464 10 0	1	320 0 0	64 0 0	8 0 0	152	44,365 0 0	4,468 10 0	1,099 17 6
		Special areas ...	66	16,715 0 0	3,259 17 1	471 12 6	48	7,084 1 0	1,295 10 11	278 0 0	2	202 0 0	72 6 6	10 12 6	116	24,001 1 0	4,627 14 6	760 5 0
	Corowa..	Ordinary lands	4	1,000 0 0	100 0 0	28 7 6	29	7,859 3 20	785 1 0	199 2 6	.	.....	. .....	. ....	33	8,859 3 20	885 1 0	227 10 0
		Special areas	17	3,787 0 0	1,232 11 6	115 12 6	7	550 0 25	241 13 3	33 15 0	.	....	.. .. .	.. ..	24	4,337 0 25	1,474 4 9	149 7 6
	Gundagai.....	Ordinary lands .	31	9,124 3 0	912 9 6	221 12 6	67	7,540 0 19	754 0 6	341 5 0	4	437 2 0	87 10 0	21 7 6	102	17,102 1 19	1,754 0 0	584 5 0
		Special areas .	29	6,100 3 0	1,210 13 9	192 0 0	22	4,528 0 0	923 10 6	144 10 0	..	.....	.....	....	51	10,628 3 0	2,134 4 3	336 10 0
	Narrandera.....	Ordinary lands ..	38	17,491 0 0	1,749 2 0	329 2 6	12	6,122 3 0	612 5 6	102 7 6	3	221 2 0	44 6 0	14 7 6	53	23,835 1 0	2,405 13 6	445 17 6
		Special areas .	13	3,503 0 0	878 6 6	93 5 0	10	3,210 0 0	724 14 5	75 2 6	..	.. . . .	.....	.. ....	23	6,713 0 0	1,603 0 11	168 7 6
	Tumut.....	Ordinary lands ..	32	6,747 0 0	674 14 0	210 2 6	60	7,482 0 0	748 4 0	331 18 6	.	. . . .	.....	. ...	92	14,229 0 0	1,422 18 0	542 1 0
		Special lands ..	5	1,103 3 0	165 11 3	34 0 0	5	536 1 0	80 8 9	25 15 0	.	. . . .	.....	.....	10	1,640 0 0	246 0 0	59 15 0
	Urana	Ordinary lands ..	5	1,825 0 0	182 10 0	39 7 6	16	2,073 0 0	207 5 0	84 2 6	3	739 0 0	147 16 0	21 5 0	24	4,637 0 0	537 11 0	144 15 0
		Special areas .	32	8,883 1 0	1,897 9 3	234 5 0	20	4,516 0 0	898 3 6	129 17 6	.	.....	.....	.....	52	13,399 1 0	2,795 12 9	364 2 6
	Wagga Wagga.....	Ordinary lands .	24	6,914 2 0	691 9 0	170 10 0	79	18,753 0 20	1,875 6 3	510 0 0	1	160 0 0	32 0 0	6 0 0	104	25,827 2 20	2,598 15 3	686 10 0
		Special areas	60	12,254 1 0	2,827 12 1	383 0 0	33	5,584 3 32	1,232 8 8	201 7 6	..	....	.....	.....	93	17,839 0 32	4,060 0 9	584 7 6
		Total	3,797	1,004,421 1 17	112,686 16 10	25,910 3 2	4,477	678,763 1 30	74,836 8 10	24,901 0 10	252	30,392 1 33	6,455 7 0	1,347 18 0	8,526	1,713,577 1 0	193,978 12 8	52,159 2

Schedule VIII.

Return showing the Number of Conditional Purchase Applications Confirmed or Disallowed during 1890.

Local Land Board District.	Land District.	Class of Application.	Applications made during 1890.				Applications made between 1st December, 1889, and 1st January, 1890.				Applications made prior to 1st December, 1889.				Total.			
			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed		Disallowed.		Confirmed.		Disallowed.	
			No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Armidale	Armidale	Original	5	1,104 2 0	14	2,462 3 0	...	...	...	...	24	3,111 1 0	2	444 0 0	29	4,215 3 0	16	2,906 3 0
		Additional	27	3,950 2 0	40	6,174 0 0	1	120 0 0	1	320 0 0	23	2,180 1 0	...	...	51	6,250 3 0	41	6,494 0 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Glen Innes	Original	...	...	2	640 0 0	...	...	...	...	11	1,729 3 0	1	140 0 0	11	1,729 3 0	3	780 0 0
		Additional	7	2,217 3 0	12	1,341 0 0	4	1,549 0 0	...	...	6	340 0 0	2	390 0 0	17	4,106 3 0	14	1,731 0 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	..	..	..	..
	Inverell	Original	5	1,132 3 0	10	1,736 0 0	1	60 0 0	...	...	7	868 3 0	3	440 0 0	13	2,061 2 0	13	2,176 0 0
		Additional	9	1,162 2 37	10	1,831 3 0	1	320 0 0	...	...	8	830 0 0	...	...	18	2,312 2 37	10	1,831 3 0
		Non-residential	...	...	...	...	...	...	..	...	...	...	2	163 0 0	.	...	2	163 0 0
	Tenterfield	Original	2	156 0 0	4	500 0 0	..	...	...	...	16	1,022 3 0	2	380 0 0	18	1,178 3 0	6	880 0 0
		Additional	9	952 2 0	3	268 3 0	..	...	...	...	17	1,907 1 0	...	...	26	2,859 3 0	3	268 3 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	1	160 0 0	...	...	1	160 0 0
	Walcha	Original	7	1,769 0 0	11	2,362 2 0	1	100 0 0	.	...	7	1,010 0 0	3	580 0 0	15	2,879 0 0	14	2,942 2 0
		Additional	13	2,543 3 0	35	4,466 0 20	...	...	...	...	6	515 0 0	2	347 0 0	19	3,058 3 0	37	4,813 0 20
		Non-residential	1	119 1 0	2	159 0 0	...	...	...	...	...	...	...	...	1	119 1 0	2	159 0 0
Bourke	Bourke	Original	..	...	...	...	..	...	...	...	...	...	...	...	...	...	..	...
		Additional	...	...	...	...	2	1,471 3 0	...	...	...	...	...	...	2	1,471 3 0	..	...
		Non-residential	...	...	..	...	..	...	...	...	.	...	...	...	...	...	.	...
	Brewarrina	Original	...	...	.	...	...	...	...	...	...	...	...	...	...	...	..	...
		Additional	..	...	.	...	...	...	...	...	.	...	..	..	...	...	...	...
		Non-residential	...	...	...	...	..	...	...	...	..	...	...	...	...	..	...	...
	Brewarrina East	Original	...	...	..	...	...	...	...	...	1	640 0 0	...	...	1	640 0 0	...	...
		Additional	..	...	..	...	..	...	...	...	.	...	...	...	...	...	...	...
		Non-residential	..	...	...	...	...	...	...	...	...	...	..	...	..	...	.	...
	Cobar	Original	...	...	.	...	.	...	...	...	...	...	...	...	...	...	.	...
		Additional	...	...	...	...	...	...	..	...	...	...	...	...	...	...	.	...
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	..	..	..	..
	Cobar East	Original	..	...	1	100 0 0	...	...	...	...	2	940 0 0	...	...	2	940 0 0	1	100 0 0
		Additional	...	...	...	...	..	...	...	...	..	...	...	...	...	...	...	...
		Non-residential	...	...	...	...	...	...	..	...	..	...	...	...	...	...	.	...
	Wilcannia	Original	...	...	.	...	...	...	...	...	.	...	...	...	...	...	...	...
		Additional	...	...	.	...	..	...	...	...	...	...	...	...	...	...	..	...
		Non-residential	...	...	...	...	...	...	...	...	..	...	..	...	...	...	..	...
	Willyama	Original	...	...	...	...	.	...	.	...	...	...	...	...	.	...	...	...
		Additional	...	...	...	...	..	...	...	...	...	...	...	...	.	...	..	...
		Non-residential	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Cooma	Bega	Original	9	1,170 0 0	2	640 0 0	...	...	...	...	...	...	2	290 0 0	9	1,170 0 0	4	930 0 0
		Additional	.	...	2	89 0 0	...	...	...	...	3	130 0 0	2	80 0 0	3	130 0 0	4	169 0 0
		Non-residential	...	...	..	...	...	...	...	...	1	40 0 0	.	...	1	40 0 0	.	...
	Bombala	Original	13	2,157 2 0	3	402 0 0	...	...	1	300 0 0	6	950 0 0	2	230 0 0	19	3,107 2 0	6	932 0 0
		Additional	13	1,284 2 0	10	1,580 0 0	...	...	3	320 0 0	1	202 3 0	2	180 0 0	14	1,487 1 0	15	2,080 0 0
		Non-residential	1	42 0 0	...	...	...	...	...	...	...	...	...	...	1	42 0 0	...	...
	Braidwood	Original	1	60 0 0	2	129 0 0	1	80 0 0	.	...	12	1,021 2 0	...	...	14	1,161 2 0	2	129 0 0
		Additional	1	80 0 0	1	40 0 0	2	233 0 0	...	...	32	2,385 2 0	3	274 0 0	35	2,698 2 0	4	314 0 0
		Non-residential	...	...	1	42 0 0	...	...	...	...	...	...	...	...	...	...	1	42 0 0

Schedule VIII—*continued.*

Local Land Board District.	Land District.	Class of Application.	Applications made during 1890.								Applications made between 1st December, 1889, and 1st January, 1890.								Applications made prior to 1st December, 1889.								Total.							
			Confirmed.				Disallowed.				Confirmed.				Disallowed.				Confirmed.				Disallowed.				Confirmed.				Disallowed			
			No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.
Cooma—*contd.*	Cooma ...	Original	29	4,369	3	15	17	2,223	1	29	1	40	0	0	...	...	...	...	17	1,905	0	0	...	...	...	...	47	6,314	3	15	17	2,223	1	29
		Additional ...	75	6,808	2	9	54	5,492	3	0	4	418	0	0	2	168	2	0	13	1,101	3	0	...	...	...	...	92	8,328	1	9	56	5,661	1	0
		Non-residential	3	298	1	0	1	176	0	0	..	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	3	298	1	0	1	176	0	0
	Eden	Original	7	592	0	0	1	300	0	0	...	...	...	...	.	...	...	...	8	1,124	2	0	1	40	0	0	15	1,716	2	0	2	340	0	0
		Additional	6	361	0	0	4	272	3	0	..	...	...	...	.	...	...	...	7	516	2	0	4	372	0	0	13	877	2	0	8	644	3	0
		Non-residential	1	50	0	0	1	60	0	0	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	50	0	0	1	60	0	0
	Milton	Original ..	2	225	0	0	...	...	...	...	1	40	0	0	.	...	...	...	2	240	0	0	2	200	0	0	5	505	0	0	2	200	0	0
		Additional .	3	155	0	0	..	...	...	.	2	140	0	0	...	...	...	...	6	308	3	0	1	70	0	0	11	603	3	0	1	70	0	0
		Non-residential	...	...	...	...	...	...	...	...	..	...	...	.	.	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Moruya . ..	Original	2	313	3	0	2	310	0	0	...	...	...	.	...	...	...	...	12	1,480	0	0	4	800	0	0	14	1,793	3	0	6	1,110	0	0
		Additional ...	4	189	0	0	4	602	0	0	.	...	...	.	...	...	...	.	6	738	0	0	5	360	0	0	10	927	0	0	9	962	0	0
		Non-residential	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1	40	0	0	.	...	...	..	1	40	0	0
	Queanbeyan	Original	14	2,312	3	0	11	2,156	0	0		...	...	.	1	50	0	0	32	2,871	2	0	2	250	0	0	46	5,184	1	0	14	2,456	0	0
		Additional	25	3,577	0	0	16	2,626	0	0	1	71	3	0	1	70	0	0	31	3,006	1	0	3	190	0	0	57	6,655	0	0	20	2,886	0	0
		Non-residential	2	279	3	0	1	320	0	0	...	...	...	..	...	...	...	...	..	...	...	.	. .	...	...	...	2	279	3	0	1	320	0	0
Dubbo	Coonamble...	Original	13	7,243	0	0	15	6,750	0	0	6	3,138	0	0	1	640	0	0	43	20248	0	0	4	1,325	0	0	62	30629	0	0	20	8,715	0	0
		Additional .	4	1,008	1	0	5	1,155	0	0	2	390	0	0	...	...	...	.	4	1,060	0	0	. .	...	. .		10	2,458	1	0	5	1,155	0	0
		Non-residential	1	121	3	0	...	...	...	...	...	...	...	.	...	...	...	.	1	320	0	0	...	...	...	..	2	441	3	0	. .	...	...	...
	Dubbo	Original	59	27273	1	0	9	3,545	0	0	7	3,825	0	0	. .	...	.	..	33	11200	2	0	3	1,580	0	0	99	42298	3	0	12	5,125	0	0
		Additional.....	21	5,428	1	0	5	2,222	2	0	3	735	0	0	1	500	0	0	16	1,683	3	0	. .	...	...		40	7,847	0	0	6	2,722	2	0
		Non-residential	3	511	2	0	...	...	...		1	320	0	0	. .	...	...	...	3	300	0	0	...	...	...	...	7	1,131	2	0		...	...	...
Forbes	C ondobolin..	Original	22	10774	2	0	1	640	0	0	.	...	...	...	. .	...	...	.	18	8,812	2	0	2	1,200	0	0	40	19587	0	0	3	1,840	0	0
		Additional ...	10	1,457	1	0	8	2,071	2	0	2	514	3	0	1	150	0	0	9	1,255	1	0	...	...	...		21	3,227	2	0	9	2,221	2	0
		Non-residential	...	...	...	...	...	...	...	..	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Forbes	Original.....	13	1 208	3	5	...	...	...	..	. .	...	...	...	.	...	...	..	4	620	0	0	...	...	...		17	1,828	3	5	.	...	...	...
		Additional... ..	17	2,908	2	14	1	49	3	0	5	1,082	3	0	...	...	...	...	1	40	0	0	.	...	...	...	23	4,031	1	14	1	49	3	0
		Non-residential	.	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	.	.	.	...	...	...	..	..	.	...	...
	Parkes	Original	27	12925	1	0	12	6,100	1	0	3	1,108	0	0	1	80	0	0	25	11586	0	0	5	2,155	0	0	55	25619	1	0	18	8,335	1	0
		Additional	15	2,227	2	0	5	343	0	0	4	733	1	0	3	566	0	0	5	821	0	0	2	350	0	0	24	3,781	3	0	10	1,259	0	0
		Non-residential	...	...	...	..	...	...	...	....	...	...	...	...	...	...	...	...	...	238	2	0	. .	...	...		2	238	2	0	...	...	...	...
	Grenfell ...	Original	32	9,471	3	0	8	2,089	0	0	2	685	0	0	. .	...	...	...	13	4,678	3	0	1	60	0	0	47	14835	2	0	9	2,149	0	0
		Additional ...	42	11638	3	0	14	3,598	0	0	5	2,173	0	0	7	942	1	0	10	1,802	2	0	...	...	...		57	15614	1	0	21	4,540	1	0
		Non-residential	...	...	...	.	.	...	...	...	..	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Goulburn	Berrima ...	Original .	6	597	1	0	1	200	0	0	...	...	...		.	...	...	...	13	780	0	0	2	140	0	0	19	1,377	1	0	3	340	0	0
		Additional ...	4	260	0	0	5	570	0	0	..	...	...	.	.	...	...	.	10	583	1	0	...	...	...		14	843	1	0	5	570	0	0
		Non-residential		...	...	.	...	...	...	..	.	...	...	...	..	...	...	.	1	100	0	0	..	...	...	.	1	100	0	0	. .	...	...	...
	Burrowa ..	Original	18	2,300	0	0	25	6,636	3	0	2	100	0	0	2	520	0	0	26	2,682	0	0	3	947	0	0	46	5,082	0	0	30	8,103	3	0
		Additional ...	32	3,405	0	0	48	4,605	3	0	7	658	0	0	1	50	0	0	45	4,089	1	0	12	941	0	0	84	8,152	1	0	61	5,596	3	0
		Non-residential	...	...	...	...	2	496	0	0	...	...	...	...	...	...	...	...	1	120	0	0	...	...	...		1	120	0	0	2	496	0	0
	Goulburn	Original	7	1,079	3	0	1	100	0	0	2	518	3	0	4	643	0	0	76	4,991	1	0	4	220	0	0	85	6,589	3	0	9	963	0	0
		Additional.....	25	1,894	0	0	13	1,248	0	0	5	220	0	0	1	80	0	0	121	7,997	1	0	8	533	3	0	151	10111	1	0	22	1,861	3	0
		Non-residential	1	60	0	0	...	...	...	...	..	...	...	..	...	...	...	...	2	80	0	0	2	95	0	0	3	140	0	0	2	95	0	0
	Gunning ...	Original...	3	340	0	0	3	400	0	0	2	255	0	0	..	...	...	...	16	1,368	0	0	...	...	...		21	1,963	0	0	3	400	0	0
		Additional ...	9	1,524	1	0	9	615	0	0	3	209	0	0	1	40	0	0	54	3,600	0	0	2	100	0	0	66	5,333	1	0	12	755	0	0
		Non-residential	...	...	...	...	...	...	...	.	. .	...	...	...	...	.	...	...	1	50	0	0	...	.	.	....	1	50	0	0	...	...	...	...
	Nowra	Original..... ...	2	140	0	0	...	...	...	...	1	40	0	0	..	...	...	...	9	780	2	0	1	80	0	0	12	960	2	0	1	80	0	0
		Additional... ..	3	207	1	0	1	120	0	0	...	.	...		...	. .	...	.	5	542	1	0	2	80	0	0	8	749	2	0	3	200	0	0
		Non-residential	...	...	...	...	2	130	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	130	0	0

SCHEDULE VIII—*continued.*

Local Land Board District.	Land District	Class of Application.	Applications made during 1890.								Applications made between 1st December, 1889, and 1st January, 1890.								Applications made prior to 1st December, 1889.								Total							
			Confirmed.				Disallowed				Confirmed				Disallowed.				Confirmed.				Disallowed.				Confirmed.				Disallowed.			
			No	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.
Goulburn—*contd*	Yass	Original	13	1,859	2	20	11	3,430	0	0	1	100	0	0					5	609	2	0					19	2,569	0	20	11	3,430	0	0
		Additional	11	975	3	0	17	1,479	0	0	1	50	0	0	3	180	0	0	9	831	2	0	1	40	0	0	21	1,857	1	0	21	1,699	0	0
		Non-residential					3	195	0	0													1	60	0	0					4	255	0	0
	Young	Original	17	5,453	3	0	36	9,258	0	0	1	40	0	0					1	40	0	0					19	5,533	3	0	36	9,258	0	0
		Additional	24	3,431	0	0	21	5,092	1	0	1	148	3	0					3	448	1	0	2	344	3	0	28	4,028	0	0	23	5,437	0	0
		Non-residential	1	248	1	0	1	229	2	0																	1	248	1	0	1	229	2	0
Grafton	Murwillumbah.	Original	5	394	0	0	2	145	0	0	5	491	0	0					25	4,826	0	0					35	5,711	0	0	2	145	0	0
		Additional	9	1,449	3	0	1	40	0	0					1	200	0	0	29	3,381	0	0	4	450	0	0	38	4,830	3	0	6	690	0	0
		Non-residential									1	42	0	0													1	42	0	0				
	Lismore	Original	13	1,109	1	0	4	492	0	0	2	160	0	0					21	1,819	2	0					36	3,088	3	0	4	492	0	0
		Additional	12	999	2	0	6	780	0	0	2	380	0	0	2	256	0	0	9	1,194	0	0	2	130	0	0	23	2,573	2	0	10	1,166	0	0
		Non residential	1	40	0	0					1	40	0	0									1	40	2	0	2	80	0	0	1	40	2	0
	Casino	Original	32	9,043	3	0	4	1,503	3	0									15	4,017	2	0	1	190	0	0	47	13061	1	0	5	1,693	3	0
		Additional	14	2,828	0	0	13	1,974	3	0					1	48	2	0	8	776	0	0	3	229	0	0	22	3,604	0	0	17	2,252	1	0
		Non-residential	1	67	1	0	2	272	0	0																	1	67	1	0	2	272	0	0
	Grafton	Original	26	4,590	0	0	9	2,253	0	0	1	40	0	0					21	3,136	2	0	4	780	0	0	48	7,766	2	0	13	3,033	0	0
		Additional	20	3,401	2	0	13	1,125	0	0	3	265	1	0	1	250	0	0	20	2,205	3	0	3	350	0	0	43	5,872	2	0	17	1,725	0	0
		Non-residential	1	41	0	0	1	96	1	0									2	226	2	0	1	77	0	0	3	267	2	0	2	173	1	0
	Bellingen	Original	15	1,345	0	0	7	1,095	1	0	1	40	0	0					13	1,129	0	0	4	940	0	0	29	2,514	0	0	11	2,035	1	0
		Additional	6	526	0	0	5	718	0	0									11	670	3	0	1	40	0	0	17	1,196	3	0	6	758	0	0
		Non-residential	1	60	0	0	1	46	0	0																	1	60	0	0	1	46	0	0
	Kempsey	Original	13	1,535	0	0	6	1,100	0	0	2	440	0	0	1	285	0	0	7	1,579	1	0	1	100	0	0	22	3,554	1	0	8	1,485	0	0
		Additional	6	570	0	0	6	767	0	0									4	290	0	0	1	110	0	0	10	860	0	0	7	877	0	0
		Non-residential					2	250	0	0									1	66	0	0	1	80	0	0	1	66	0	0	3	330	0	0
	Port Macquarie.	Original	4	665	0	0	1	45	0	0									23	1,740	0	0	4	300	0	0	27	2,405	0	0	5	345	0	0
		Additional									1	42	0	0					9	730	0	0	1	40	0	0	10	772	0	0	1	40	0	0
		Non-residential																	1	40	0	0	1	54	0	0	1	40	0	0	1	54	0	0
Hay	Balranald	Original																														
		Additional																														
		Non-residential																														
	Balranald South.	Original	2	1,280	0	0																					2	1,280	0	0				
		Additional																														
		Non-residential																														
	Denliquin	Original	16	6,666	3	0	3	1,591	0	0									3	1,788	0	0	3	1,364	3	0	19	8,454	3	0	6	2,955	3	0
		Additional	28	10364	2	0	4	1,225	0	0	1	162	1	0	1	260	2	0	3	638	0	0	1	239	1	0	32	11164	3	0	6	1,724	3	0
		Non-residential	1	265	0	0													1	305	0	0					2	570	0	0				
	Hay	Original	40	22990	2	0	9	5,325	1	0	5	2,860	0	0	2	1,158	2	0	15	7,414	3	0	3	1,410	0	0	60	33265	1	0	14	7,893	3	0
		Additional	20	8,503	0	0	2	828	1	0	2	370	0	0					1	250	0	0					23	9,123	0	0	2	828	1	0
		Non-residential	4	1,114	0	0	1	85	2	0	1	663	0	0	3	370	2	0	2	200	0	0	1	80	0	0	7	1,977	0	0	5	536	0	0
	Hay North	Original																														
		Additional																														
		Non residential																														
	Hillston	Original	5	1,650	2	0	3	1,780	0	0									1	100	0	0					6	1,750	2	0	3	1,780	0	0
		Additional					1	328	0	0									1	100	0	0					1	100	0	0	1	328	0	0
		Non-residential																														
	Hillston North.	Original																														
		Additional																														
		Non-residential																														
	Wentworth	Original																														
		Additional																														
		Non-residential																														

SCHEDULE VIII—*continued.*

Local Land Board District.	Land District.	Class of Application.	Application made during 1890.								Application made between 1st December, 1889, and 1st January, 1890.								Applications made prior to 1st December, 1889.								Total.							
			Confirmed.				Disallowed.				Confirmed.				Disallowed.				Confirmed.				Disallowed.				Confirmed.				Disallowed.			
			No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.
Maitland	Cassillis	Original	11	1,587	0	0	4	561	0	0									37	6,936	2	0	8	1,649	0	0	48	8,523	2	0	12	2,210	0	0
		Additional	25	5,987	3	0	8	840	0	0	8	992	1	0	3	840	0	0	32	4,725	1	0	1	40	0	0	65	11705	1	0	12	1,720	0	0
		Non-residential																														
	Dungog	Original	2	119	1	0	1	192	1	0									1	40	0	0	1	110	0	0	3	159	1	0	2	302	1	0
		Additional	3	161	1	0	1	40	0	0									6	417	2	0					9	578	3	0	1	40	0	0
		Non-residential													1	147	3	0	1	147	3	0					1	147	3	0	1	147	3	0
	Gosford	Original					2	225	0	0	1	390	0	0					4	170	0	0	1	320	0	0	5	560	0	0	3	545	0	0
		Additional					2	80	0	0									3	123	2	0	1	40	0	0	3	123	2	0	3	120	0	0
		Non-residential																	10	903	1	0	3	381	2	0	10	903	1	0	3	381	2	0
	Maitland	Original	1	137	0	0													1	40	0	0					2	177	0	0				
		Additional	2	145	2	0													2	90	0	0					4	235	2	0				
		Non-residential					1	100	0	0													1	88	2	0					2	188	2	0
	Muswellbrook	Original					1	40	0	0									11	1,014	0	0	1	100	0	0	11	1,014	0	0	2	140	0	0
		Additional	5	253	3	30	4	160	0	0	2	390	0	0	1	40	0	0	18	1,023	3	0	2	80	0	0	25	1,667	2	30	7	280	0	0
		Non-residential					1	40	0	0									1	40	0	0					1	40	0	0	1	40	0	0
	Newcastle	Original																														
		Additional																	1	44	2	0					1	44	2	0				
		Non-residential					1	320	0	0																					1	320	0	0
	Paterson	Original	3	497	1	0	1	75	0	0									6	373	1	0	1	139	3	0	9	870	2	0	2	214	3	0
		Additional	4	597	2	0													8	645	0	0	1	210	0	0	12	1,242	2	0	1	210	0	0
		Non-residential																	3	696	1	0					3	696	1	0				
	Raymond Terrace	Original	2	420	0	0	2	100	0	0					1	560	0	0	2	320	0	0	2	480	0	0	4	740	0	0	5	1,140	0	0
		Additional	2	250	0	0	1	120	0	0									4	706	1	0					6	956	1	0	1	120	0	0
		Non-residential	1	138	3	0																					1	138	3	0				
	Scone	Original	11	1,837	3	0	3	489	2	0									26	6,318	0	0	1	60	1	0	37	8,155	3	0	4	549	3	0
		Additional	17	2,242	0	0	12	728	1	0	4	360	0	0					46	5,074	1	0	3	267	0	0	67	7,676	1	0	15	995	1	0
		Non-residential	2	500	0	0	1	139	2	0																	2	500	0	0	1	139	2	0
	Singleton	Original	6	621	3	0	5	950	0	0	1	50	0	0					12	1,983	2	20	2	160	0	0	19	2,655	1	20	7	1,110	0	0
		Additional	6	657	0	0	16	1,529	3	0	1	40	0	0					22	2,158	0	0	1	40	0	0	29	2,855	0	0	17	1,569	3	0
		Non-residential																	2	132	0	0	1	40	0	0	2	132	0	0	1	40	0	0
	Stroud	Original					4	760	0	0									5	983	0	0					5	983	0	0	4	760	0	0
		Additional	3	795	2	0	2	560	0	0									3	471	3	0	1	100	0	0	6	1,267	1	0	3	660	0	0
		Non-residential																														
	Taree	Original	13	791	3	0	2	320	0	0	2	167	2	0					28	2,400	0	0					43	3,359	1	0	2	320	0	0
		Additional	16	1,131	1	0	5	306	0	0	3	250	0	0	1	100	0	0	33	3,014	0	0	1	100	0	0	52	4,395	1	0	7	506	0	0
		Non-residential	1	40	2	0									1	40	0	0	2	167	2	0					3	208	0	0	1	40	0	0
	Wollombi	Original																	4	340	0	0	1	80	0	0	4	340	0	0	1	80	0	0
		Additional									2	263	1	0					5	400	0	0					7	663	1	0				
		Non-residential																	2	90	0	0					2	90	0	0				
Moree	Bingara	Original	1	100	0	0													5	810	0	0					6	910	0	0				
		Additional	3	334	2	0	5	604	1	0	1	67	0	0					6	400	3	0	5	605	2	0	10	802	1	0	10	1,209	3	0
		Non-residential																														
	Moree	Original	17	6,965	3	0	7	2,656	0	0					1	160	0	0	1	640	0	0					18	7,605	3	0	8	2,816	0	0
		Additional	8	5,014	0	0	6	2,913	1	0	1	46	0	0	2	420	0	0	1	280	0	0					10	5,340	0	0	8	3,333	1	0
		Non-residential																														
	Warialda	Original	4	1,485	0	0	3	706	0	0									15	1,463	0	0	2	470	0	0	19	2,948	0	0	5	1,176	0	0
		Additional	4	290	0	0	4	1,220	0	0					1	40	0	0	9	2,111	0	0	3	825	0	0	13	2,401	0	0	8	2,085	0	0
		Non-residential																														
	Walgett	Original	10	5,684	0	0	10	5,890	0	0					1	640	0	0	2	1,280	0	0	1	640	0	0	12	6,964	0	0	12	7,170	0	0
		Additional					1	190	0	0																					1	190	0	0
		Non-residential	1	100	0	0	1	320	0	0									1	320	0	0					2	420	0	0	1	320	0	0

Schedule VIII—*continued.*

Local Land Board District	Land District	Class of Application.	Applications made during 1890.						Applications made between 1st December, 1889, and 1st January, 1890.				Applications made prior to 1st December, 1889				Total.			
			Confirmed.			Disallowed.			Confirmed.		Disallowed.		Confirmed.		Disallowed		Confirmed.		Disallowed.	
			No.	a. r. p.		No.	a. r. p.		No.	a. r. p.	No.	a. r. p.	No.	a. r. p	No.	a. r. p.	No.	a. r. p	No.	a r. p.
Orange	Bathurst	Original	6	787 3 0		3	489 0 0		1	55 0 0			21	1 870 3 0			28	2,713 2 0	3	489 0 0
		Additional	11	845 3 0		17	2,947 3 0		3	282 2 0	1	300 0 0	22	1,858 3 0	1	50 0 0	36	2,987 0 0	19	3,297 3 0
		Non residential	1	67 3 0		3	230 0 0								1	100 0 0	1	67 3 0	4	330 0 0
	Cowra	Original	10	976 3 0		13	2,685 0 0						12	2,046 2 0			22	3,023 1 0	13	2,685 0 0
		Additional	13	2,320 0 0		13	1,784 2 0		2	684 0 0	4	1,374 1 0	13	1,259 3 0			28	4,263 3 0	17	3,158 3 0
		Non-residential	1	101 0 0		1	180 2 0		1	210 0 0					1	174 3 0	2	311 0 0	2	355 1 0
	Carcoar	Original	6	570 0 0		4	560 0 0		3	240 0 0	7	1,390 0 0	40	5,478 2 0	3	340 0 0	49	6,288 2 0	14	2,290 0 0
		Additional	19	1,826 2 0		9	735 1 0		3	200 0 0	3	160 0 0	30	2,355 0 0			52	4,381 2 0	12	895 1 0
		Non-residential							1	100 0 0	1	100 0 0					1	100 0 0	1	100 0 0
	Lithgow	Original	5	830 0 0		4	341 0 0		1	141 0 0			15	1,125 0 0	4	249 3 0	21	2,096 0 0	8	590 3 0
		Additional	5	654 2 0		11	1,149 0 0		1	56 0 0	2	80 0 0	41	2,874 2 0	11	615 0 0	47	3,585 0 0	24	1,844 0 0
		Non-residential	1	185 0 0									3	370 0 0			4	555 0 0		
	Mudgee	Original	9	2,123 3 0		7	1,300 0 0						7	1,012 3 0	1	40 0 0	16	3,136 2 0	8	1,340 0 0
		Additional	2	240 0 0		16	1,096 1 0		1	103 0 0			13	897 0 0	3	156 3 0	16	1,240 0 0	19	1,253 0 0
		Non-residential				2	360 0 0		1	80 0 0							1	80 0 0	2	360 0 0
	Molong	Original	17	2,423 2 0		34	7,699 3 0		1	100 0 0			12	2,218 3 0	2	180 0 0	30	4,742 1 0	34	7,879 3 0
		Additional	28	2,884 0 35		45	5,603 2 0		4	394 0 0			16	2,585 0 0			48	5,863 0 35	45	5,603 2 0
		Non-residential				1	100 0 0						1	80 0 0			1	80 0 0	1	100 0 0
	Orange	Original	1	160 0 0									9	654 1 0			10	814 1 0	1	40 0 0
		Additional	7	1,393 0 0		1	310 0 0				1	49 0 0	11	2,020 0 0			18	3,413 0 0	1	310 0 0
		Non-residential											1	40 0 0			1	40 0 0		
	Rylstone	Original	5	210 0 0		1	110 0 0						15	1,300 0 0	2	140 0 0	20	1,510 0 0	3	250 0 0
		Additional	4	187 1 0		8	712 0 0		1	40 0 0	1	120 0 0	17	1,690 0 0			22	1,917 1 0	9	832 0 0
		Non-residential																		
	Wellington	Original	6	880 0 0		7	659 3 0						26	3,469 2 0	1	50 0 0	32	4,349 2 0	8	709 3 0
		Additional	6	716 3 0		10	791 0 0						21	2,051 0 0			27	2,767 3 0	10	791 0 0
		Non-residential																		
Sydney	Campbell-town.	Original	3	360 0 0					1	130 0 0			11	1,428 1 0	2	160 0 0	15	1,918 1 0	2	160 0 0
		Additional	1	46 0 0					1	180 0 0							2	226 0 0		
		Non-residential																		
	Kiama	Original											1	150 0 0			1	150 0 0		
		Additional																		
		Non-residential																		
	Liverpool	Original																		
		Additional																		
		Non-residential																		
	Metropolitan	Original																		
		Additional																		
		Non-residential	5	604 0 0		6	820 0 0				1	120 0 0			1	120 0 0	5	604 0 0	8	1,060 0 0
	Parramatta	Original	1	40 0 0		2	80 0 0		1	47 0 0			8	606 0 0	2	133 0 0	10	693 0 0	4	213 0 0
		Additional													1	62 0 0			1	62 0 0
		Non-residential	2	180 0 0		4	220 0 0		1	40 0 0	1	47 0 0	4	251 2 0	4	191 0 0	7	471 2 0	9	458 0 0
	Penrith	Original	1	53 1 0		1	120 0 0						1	500 0 0	1	50 0 0	2	553 1 0	2	170 0 0
		Additional																		
		Non-residential	2	366 2 0		2	90 0 0		1	40 0 0					2	150 0 0	3	406 2 0	4	240 0 0
	Picton	Original	3	230 0 0		1	40 0 0		1	40 0 0			12	1,793 0 0	11	3,160 0 0	16	2,063 0 0	12	3,200 0 0
		Additional				4	327 0 0		1	40 0 0			2	149 3 0			3	189 3 0	4	327 0 0
		Non-residential	4	255 2 0									2	165 1 0			6	420 3 0		

SCHEDULE VIII—*continued.*

Local Land Board District.	Land District.	Class of Application.	Applications made during 1890.				Applications made between 1st December, 1889, and 1st January, 1890.				Applications made prior to 1st December, 1889.				Total.			
			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.	
			No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Sydney—*contd.*	Windsor ...	Original	2	125 0 0	3	230 0 0	...	....	...	.....	35	2,420 3 0	6	520 0 0	37	2,545 3 0	9	750 0 0
		Additional . .	1	95 0 0	4	170 0 0	3	134 0 0	.	.....	6	265 2 0	1	40 0 0	10	494 2 0	5	210 0 0
		Non-residential	4	244 0 0	5	290 0 0	2	120 0 0	1	40 0 0	14	695 3 0	4	260 0 0	20	1,059 3 0	10	590 0 0
	Wollongong	Original . ..	...	.....	...	... .	...	.....	...	.. ..	.	.....	.	..... .	...	....	...	. .....
		Additional	...	... .	...	.....	...	....	...	... .	. .	... ..	.	....	...	... .	..	....
		Non-residential	. .	... .	..	....	...	....	...	. . .. ..	...	....	...	... .	...	.....	...	....
Tamworth	Coonabarabran.	Original ...	3	1,126 0 0	...	... .	...	.....	...	.. ..	9	1,483 0 0	2	100 0 0	12	2,609 0 0	2	100 0 0
		Additional ..	5	1,651 2 0	...	... .	2	129 0 0	1	60 0 0	10	597 0 0	1	223 3 0	17	2,377 2 0	2	283 3 0
		Non-residential	. .	....	..	. ...	1	100 0 0	...	.....	. .	... ..	...	... .	1	100 0 0	...	... ..
	Gunnedah	Original	7	2,912 3 0	2	240 0 0	1	120 0 0	...	.....	3	1,600 0 0	..	. .....	11	4,632 3 0	2	240 0 0
		Additional	8	915 1 8	5	1,400 0 0	...	. ...	1	160 0 0	8	1,623 1 0		....	16	2,538 2 8	6	1,560 0 0
		Non-residential	. .	....	...	... ...	...	... ...	..	..... .	.	... .	...	... .	...	.....	...	.....
	Murrurundi	Original . .	2	370 0 0	3	774 0 0	2	479 2 0	...	.....	5	860 0 0	...	..... .	9	1,709 2 0	3	774 0 0
		Additional .	19	2,316 0 30	2	260 0 0	4	538 1 20	.	....	4	797 2 0	.	....	27	3,652 0 10	2	260 0 0
		Non-residential	2	140 0 0	...	.....	...	.....	...	... .		... .	1	40 0 0	2	140 0 0	1	40 0 0
	Narrabri ...	Original...	15	5,473 0 0	5	1,880 0 0	2	473 0 0	...	..... .	33	10165 3 0	...	....	50	16111 3 0	5	1,880 0 0
		Additional ...	20	3,773 0 0	9	2,765 0 0	3	570 0 0	1	200 0 0	11	2,766 1 0	. .	... .	34	7,109 1 0	10	2,965 0 0
		Non-residential	...	....	...	.... ..	...	. ...	...	.... .	...	.....	2	200 0 0	...	. ...	2	200 0 0
	Tamworth..	Original	20	3,722 2 0	9	1,524 0 0	...	... .	.	. ....	7	892 2 0	1	200 0 0	27	4,615 0 0	10	1,724 0 0
		Additional ..	37	4,728 2 15	24	2,773 1 0	3	244 3 0	..	.. ..	22	3,291 3 0	3	320 0 0	62	8,265 0 15	27	3,093 1 0
		Non-residential	1	50 0 0	...	... .	...	... .	.	....	...	. ....	...	... .	1	50 0 0	. .	... ..
Wagga Wagga..	Albury	Original ...	12	2,277 1 33	5	1,080 3 26	. .	... .		.. . ..	17	4,147 2 0	5	1,253 1 0	29	6,424 3 33	10	2,334 0 26
		Additional	21	3,209 2 0	20	3,007 1 0	1	70 2 0	3	486 2 0	13	1,675 2 0	1	226 2 0	35	4,955 2 0	24	3,720 1 0
		Non-residential	...	... .		.....	.	. ....	.	. . ..	...	... .	3	360 0 0	...	. ...	3	360 0 0
	Cootamundra.	Original ...	12	2,239 3 0	26	9,099 0 0	...	... .	1	300 0 0	7	1,610 0 0	1	80 0 0	19	3,879 3 0	28	9,479 0 0
		Additional .	31	5,776 0 12	28	5,074 0 0	2	87 3 0	13	3,233 2 0	7	787 0 0	3	178 0 0	40	6,650 3 12	44	8,485 2 0
		Non-residential	...	.....	3	522 0 0	...	... .	...	.....	. .	. . ...	. .	. . . .	...	.....	3	522 0 0
	Corowa ...	Original	3	175 2 0	4	1,269 2 0	...	... .	1	430 0 0	4	438 0 0	1	40 0 0	7	613 2 0	6	1,739 2 0
		Additional .	8	2,647 0 0	6	653 1 20	3	701 2 0	...	. .....	1	53 1 0	1	48 0 0	12	3,401 3 0	7	701 1 20
		Non-residential	...	....		....	...	.....	..	... . .	...	. ...	...	.....	...	....	...	... ...
	Gundagai ..	Original	11	2,366 3 0	4	1,070 0 0	.	. ...		... . .	1	119 2 0	1	330 0 0	12	2,486 1 0	5	1,400 0 0
		Additional ..	7	1,241 1 0	13	2,509 3 0	...	.....	3	565 0 0	2	187 0 0	...	... .	9	1,428 1 0	16	3,074 3 0
		Non-residential	...	... .	...	.....	...	....	. .	.....	...	. .....	1	40 0 0	...	. . ..	1	40 0 0
	Narrandera..	Original ..	13	3,743 2 0	13	5,630 0 0	...	... .	...	.....	4	1,587 1 0	3	1,600 0 0	17	5,330 3 0	16	7,230 0 0
		Additional ..	11	6,186 1 0	5	1,198 0 0	2	996 0 0	1	200 0 0	...	... .	1	367 1 0	13	7,182 1 0	7	1,765 1 0
		Non-residential	1	85 2 0	1	40 0 0	...	... ...	...	... ...	...	.....	1	320 0 0	1	85 2 0	2	360 0 0
	Tumut	Original	1	150 3 0	3	185 2 0	1	112 2 0	1	152 1 0	3	404 2 0	1	250 0 0	5	667 3 0	5	587 3 0
		Additional ...	5	540 2 0	3	250 0 0	...	.... .	...	....	3	281 1 1	.	..... .	8	821 3 1	3	250 0 0
		Non-residential	. .	.....	...	.....	...	... .	...	... .	...	.....	...	. .... .	...	....	...	.....
	Urana	Original	12	3,170 1 30	6	1,926 0 0	...	....	2	683 0 0	2	279 2 0	1	119 0 0	14	3,449 3 30	9	2,728 0 0
		Additional ...	12	1,654 3 0	8	1,070 1 0	1	84 0 0	4	429 2 0	3	535 0 0	...	..... .	16	2,273 3 0	12	1,499 3 0
		Non-residential	2	640 0 0	...	.....	...	... ...	1	320 0 0	1	160 0 0	...	.....	3	800 0 0	1	320 0 0
	Wagga Wagga	Original ...	28	7,165 1 0	8	1,289 2 0	1	162 1 0	...	. .....	18	3,039 0 0	6	1,148 0 0	47	10366 2 0	14	2,437 2 0
		Additional ..	48	9,784 0 0	13	3,342 2 0	12	1,653 1 0	8	906 3 0	8	1,101 3 0	3	584 0 0	68	12539 0 0	24	4,833 1 0
		Non-residential	...	....	...	.....	...	. ...	...	.....	...	... .	..	....	...	..... .	...	..... .
Total		....	1,699	381,010 0 13	1,250	232,978 3 15	219	40,578 0 20	124	23,334 1 10	2,179	210,589 2 21	303	45,682 2 0	4,097	632,177 3 14	1,677	301,995 2 2

SCHEDULE IX.

RETURN showing the number of Instructions issued to, and Reports received from, Inspectors regarding Conditional Purchases, Conditional Leases, Homestead Leases, or Miscellaneous Leases during the year 1890.

Land Board District	Land District.	No. of Instructions issued to Inspectors to report on C Ps, C Ls, H Ls, or Misc Ls					No of C Ps, C Ls, H Ls, or Misc Ls visited and reported on by Inspector.				
		Under Repealed Acts C Ps	Under Existing Acts.				Under Repealed Acts. C Ps.	Under Existing Acts.			
			C Ps	C Ls	H Ls	Misc Ls		C Ps.	C Ls.	H Ls.	Misc Ls.
Armidale	Armidale	3	208	81		1		224	98		1
	Glen Innes		113	37				106	41		
	Inverell	1	68	20				62	25		
	Tenterfield	1	61	18				56	20		
	Walcha	1	113	57				139	66		
Bourke	Bourke	9			104		8			85	
	Brewarrina	2			34		1				
	,, East										
	Cobar	3					1			11	
	,, East	1	15	4			1	15	4		
	Wilcannia				12					12	
	Willyama	4					3				
Cooma	Bega	7	64	4		2	9	61	4		
	Bombala	2	53	20			14	38	15		
	Braidwood	21	172	45			24	149	45		
	Eden		88	14			6	82	14		
	Milton		32	8							
	Moruya		50	5				14	2		
	Queanbeyan	22	124	29			25	122	28		
Dubbo	Coonamble	1	152	58				118	45		
	Dubbo	4	283	86				295	107		
Forbes	Condobolin										
	Forbes										
	Grenfell										
	Parkes										
Goulburn	Berrima		44	2				1			
	Braidwood	17	57	1			8	28	5		
	Burrowa	31	173	36			40	152	49		
	Goulburn	31	261	12			48	256	35		
	Gunning	25	148	30			32	119	24		
	Yass	6	64	7			6	25	8		
	Young	16	40	7			42	84	25		
Grafton	Bellingen		144	27				63	4		
	Casino	8	84	30			10	112	29		
	Grafton		222	33			2	225	66		
	Kempsey		87	37				76	12		
	Lismore	2	131	7			2	120	6		
	Murwillumbah	3	93	7			3	87	10		
	Port Macquarie	9	110	5			11	71	2		
Hay	Balranald	2			15		10			62	
	,, South		3	1							
	Deniliquin	5	96	43			6	33	10		
	Hay	3	231	160			2	166	93	6	
	,, North				19					13	
	Hillston	1	36	17			2	14	6		
	,, North				124					54	
	Wentworth	1		1	15		6		1	15	
Maitland	Cassilis	1	111	9			5	60	10		
	Dungog		27	1			5	45	5		
	Gosford	3	21				3	17			
	Maitland		6	1				2	1		
	Muswellbrook		28	1				32			
	Newcastle	1					1	2			
	Paterson		28	5				37	7		
	Port Macquarie	9	43	1			11	39	1		
	Raymond Terrace		45	2				44	2		
	Scone	4	39	4			2	35	8		
	Singleton	2	108	13			2	78	10		
	Stroud	2	57	6			1	42	5		
	Taree	20	157	6			21	141	5		
	Wollombi	13	45	1			5	27			

SCHEDULE IX —*continued.*

Land Board District.	Land District	No of Instructions issued to Inspectors to report on C Ps , C Ls , H Ls , or Misc Ls.					No. of C Ps , C. Ls , H Ls , or Misc Ls visited and reported on by Inspector.				
		Under Repealed Acts. C Ps.	Under Existing Acts.				Under Repealed Acts C.Ps.	Under Existing Acts.			
			C Ps.	C Ls.	H.Ls.	Misc Ls		C Ps.	C Ls	H Ls.	Misc. Ls.
Moree	Bingara		35	16			3	27	20		
	Moree	9	190	164			10	153	140		
	Walgett	1	22	7			2	26	25		
	Warialda	6	76	34			14	71	47		
	Walgett North				1					10	
Orange	Bathurst	3	129	28			1	106	14		
	Carcoar	1	148	18			2	61	4		
	Cowra	2	91	13			3	60	16		
	Lithgow		35	4				23	1		
	Molong	6	134	31			5	72	13		
	Mudgee		84	14			1	57			
	Orange		37	6				34	1		
	Rylstone		46	1				38			
	Wellington	1	106	4				90	1		
Sydney	Campbelltown		18	3				12	2		
	Kiama		9					9			
	Liverpool										
	Metropolitan		2								
	Parramatta	1	31					10			
	Penrith		13	3				10	2		
	Picton		38	7				22	2		
	Windsor		41	1				25			
	Wollongong	6					6				
Tamworth	Coonabarrabran	8	62	15			8	52	12		
	Gunnedah	3	54	42			4	56	28		
	Murrurundi	4	59	10			19	56	3		
	Narrabri	1	114	38			2	100	24		
	Tamworth	9	140	56		4	16	117	38		
Wagga Wagga	Albury	2	109	24			4	137	20		1
	Cootamundra		87	17			1	85	17		1
	Corowa	2	112	7			2	122	9		
	Gundagai	3	49	6			20	45	6		
	Narrandera		103	34				101	39		
	Tumut	7	48	12			30	68	19		2
	Urana		40	8				52	14		
	Wagga Wagga	4	208	33			7	303	76		
	Totals	376	6,805	1,655	324	7	538	5,914	1,636	268	5

SCHEDULE X.

RETURN showing the number of Cases referred to the Local Land Boards from 1st January to 31st December, 1890.

Land Districts.	Cases for Inspection	Cases for Inquiry	Total.	Land Districts	Cases for Inspection.	Cases for Inquiry	Total.
Armidale	4	30	34	Maitland	1	77	78
Bourke	3	6	9	Moree	11	39	50
Cooma	6	87	93	Orange	5	30	35
Dubbo	1	11	12	Sydney	3	24	27
Forbes	1	21	22	Tamworth	3	34	37
Goulburn	4	44	48	Wagga Wagga	4	64	68
Grafton	3	144	147				
Hay	3	26	29	Total	52	637	689

Schedule XI.

Return showing number of Certificates of Conformity issued to Conditional Purchasers during the year 1890, with the number of Amended Certificates issued on account of alterations in area, and the number of Declarations received as to residence and improvements.

No of Certificates issued	3,237
„ Amended Certificates issued ...	105
Total	3,342
No. of Declarations received ...	1,119

Schedule XII.

Return showing the number of Transfers of Conditional Purchases received from 1st January to 31st December, 1890, and the number dealt with, inclusive of those on hand, during that period.

No of Transfers received ...	11,464
„ „ intimated to Treasury	9,439
„ Conditional Purchases thereby transferred ...	19,798
„ „ „ actually transferred	13,392
„ Transfers upon which Stamp duty was paid	3,562
Amount of Stamp duty paid thereon ...	£6,979 11s
No of Transfers registered in the Registrar General's Office	9,147
„ „ in Registrar General's Office awaiting registration ...	322
„ Crown Solicitor's Certificates received	465
„ Notices despatched informing parties, Crown Lands Agents, and Chairmen of Local Land Boards of Registration	15,668

Schedule XIII.

Return showing the number of Transfers intimated to the Treasury, the number of C.P's included therein, and the actual number of C.P.'s and area thereof transferred during the year ending the 31st December, 1890.

	No of transfers	No of C P s	Area actually transferred	No of C P s actually transferred		No of transfers	No of C P s	Area actually transferred	No of C P s actually transferred
			a r p					a r p	
Albury	481	976	89 825 2 23	651	Metropolitan				
Armidale	284	601	56,417 1 6	428	Milton	23	37	1,368 0 3	27
Balranald	11	11	3,071 0 0	7	Moama				
Bathurst	108	259	14,725 1 27	196	Molong	251	533	38,021 2 28	330
Bega	140	391	16,653 1 39	260	Moree	148	218	57,300 0 0	156
Bellingen	73	105	5,648 3 1	89	Moruya	63	135	7,392 1 10	109
Berrima	68	128	6,208 2 0	92	Mudgee	130	323	14,796 3 12	211
Bingera	58	93	8,045 0 11	50	Murrurundi	226	517	37,815 3 33	353
Bombala	160	362	31 826 3 0	236	Murwillumbah	68	130	10,290 1 0	94
Bourke	23	34	8,454 2 0	29	Muswellbrook	42	81	3,664 0 0	59
Braidwood	47	118	5,249 3 29	101	Narrabri	129	201	31,279 3 0	121
Brewarrina	10	12	6,392 0 0	12	Narrandera	160	208	49,885 2 29	147
Burrowa	77	189	10,727 2 16	117	Newcastle	11	13	2,507 2 20	8
Campbelltown	3	3	960 0 0	3	Nowra	42	75	4,465 1 25	58
Carcoar	81	216	14,539 2 5	154	Orange	37	79	6,002 3 0	72
Casino	89	199	18,991 3 0	139	Parkes	36	72	10 682 1 0	59
Cassilis	118	242	32,706 3 0	227	Parramatta	3	3	397 0 0	3
Cobar	17	19	5,100 2 0	18	Paterson	9	19	1,518 3 0	18
Condobolin	83	154	28,312 0 39	85	Penrith	2	2	120 0 0	2
Cooma	291	723	50,667 0 35	485	Picton	14	30	2,023 1 34	30
Coonabarabran	46	72	9,947 0 10	68	Port Macquarie	34	61	3,031 0 12	52
Coonamble	108	213	35,345 2 0	143	Queanbeyan	141	388	27,954 2 27	330
Cootamundra	391	1,097	63,002 0 34	543	Raymond Terrace	5	11	929 2 0	11
Corowa	104	149	26,347 2 3	94	Rylstone	35	84	4,961 3 0	79
Cowra	113	319	29,234 2 0	243	Scone	88	270	16,918 0 0	203
Denihquin .	302	423	79,277 3 10	244	Singleton	57	141	7,705 3 28	120
Dubbo	134	256	31,210 1 0	165	Stroud	45	101	6,684 0 13	88
Dungog	11	35	2 237 0 11	31	Tamworth	333	792	71,374 1 36	579
Eden	43	120	6,820 1 0	83	Taree	120	257	11,498 2 20	198
Forbes	168	352	43 063 1 0	221	Tenterfield	42	124	9,452 3 32	98
Glen Innes	56	104	9,979 0 0	92	Tumut	215	540	34 187 3 0	328
Gosford	28	35	1,820 0 0	24	Urana	220	278	54,987 0 13	160
Goulburn	202	504	27,156 3 1	409	Wagga Wagga	419	804	125,592 1 8	565
Grafton	161	368	18,027 1 21	220	Walcha	90	214	26,599 2 20	178
Grenfell .	256	528	47,059 2 27	272	Walgett	12	16	2,950 0 0	11
Gundagai	159	483	22,571 0 37	266	Wanalda	132	253	47,657 0 35	207
Gunnedah	147	260	39,075 1 19	183	Wellington	57	115	8,114 2 37	88
Gunning	45	147	7,144 1 33	103	Wentworth	10	11	4,777 0 0	10
Hay	108	131	31,554 3 0	69	Wilcannia	14	16	2,337 0 0	16
Hillston	50	64	21,188 3 0	58	Willyama				
Inverell	215	412	37 617 0 0	279	Windsor	3	3	180 0 0	3
Kempsey	105	211	13,520 0 4	157	Wollombi	11	17	720 0 0	17
Kiama	13	18	694 2 0	14	Wollongong	1	1	40 0 0	1
Lismore	333	597	30,414 0 32	351	Yass	96	224	13,168 1 26	165
Lithgow	62	109	6 054 2 33	92	Young	257	524	41,783 2 5	298
Liverpool	3	3	791 0 0	3					
Maitland	23	32	4,692 0 15	24	Total	9,439	19,798	1,863,507 2 27	13,392

Schedule XIV.

Return showing Number and Area of Conditional Purchases declared forfeited during the year 1890 for non-fulfilment of the required conditions.

District.	Crown Lands Act of 1861.												Crown Lands Act of 1884.															
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26.		Section 42.		Section 47.		Sections 26, 24.		Sections 42, 24		Sections 47, 24.		Total.			
	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area.		
		a. r.		a. r.		a. r.		a. r.		a. r.		a. r. p.		a. r. p.		a. r.		a. r.		a. r.		a.		a.		a. r. p.		
Albury	1	60 0	...		...		...		...		1	60 0 0	7	944 3 0	...		...		.		.		.		7	944 3 0		
Armidale	3	240 0	...		...		1	40 0	1	115 0	5	395 0 0	13	1,950 0 0	2	150 0	...		.		..		..		15	2,100 0 0		
Balranald	1	364 2	..				...		...		1	364 2 0	..		...		...		..		.		..		..			
Bathurst	..		1	40 0	.		...		..		1	40 0 0	12	861 2 0	...		.		.		...		...		12	861 2 0		
Bega	..		...		.		...		.		..		3	120 0 0	2	80 0	1	40 0	.		.		...		6	240 0 0		
Bellingen	...		..		..				.		...		13	1,186 0 0					1	67 0					14	1,253 0 0		
Berrima	.		..				..		..		..		1	104 0 0	2	80 0	5	320 0			.		..		8	504 0 0		
Bingera	1	40 0	...				.		.		1	40 0 0	2	80 0 0	...		...		.		.		.		2	80 0 0		
Bombala	2	183 0	.		..		1	80 0	..		3	263 0 0	2	230 0 0	..						.				2	230 0 0		
Bourke	2	390 1	.		.		..		..		2	390 1 0																
Braidwood			.		..		..		..		..		4	412 0 0	6	322 0	2	90 0					..		12	824 0 0		
Brewarrina	2	520 0	..		.		.		.		2	520 0 0	...		..		.		.		.		.					
Burrowa	1	40 0	..		..		2	80 0	..		3	120 0 0			1	67 2	1	76 3	.		..		...		2	144 1 0		
Campbelltown			.		.		...		...		..		2	400 0 0	...		1	319 3					..		3	719 3 0		
Carcoar	.		..		.		..		..		...		5	345 0 0	..		.		..		..				5	345 0 0		
Casino	1	200 0	1	120 0	.		..		...		2	320 0 0	7	1,999 3 0	...		1	109 0	.		...		..		8	2,108 3 0		
Cassilis	2	720 0	1	40 0	.		.		...		3	760 0 0	11	2,465 1 0	...		...		.		...		...		11	2,465 1 0		
Cobar			..		..		..		..		..		.		..		..		.		.		...		..			
Condobolin			.		.		.		.		.		3	1,920 0 0	..		..		..		.		.		3	1,920 0 0		
Cooma	4	582 0	..				8	529 1	...		12	1,111 1 0	5	409 2 0	2	80 0	...		..						7	482 2 0		
Coonabarabran	2	177 0	..						..		2	177 0 0	2	120 0 0	..		...				...		.		2	120 0 0		
Coonamble	1	320 0	..		2	80 0	2	480 0	...		5	880 0 0	7	1,845 0 0	1	40 0	...								8	1,885 0 0		
Cootamundra	.		.				..		.		...		3	267 3 0	...		..		.		.		...		3	267 3 0		
Corowa					.				.		..		2	1,035 2 0	1	142 3	...		3	480 0					6	1,658 1 0		
Cowra	..		.		..		..		.		..		1	50 0 0	..		...		1	67 3			..		2	117 3 0		
Denihquin	1	443 0			.		1	208 0	..		2	651 0 0			1	239 1	.				..		..		1	239 1 0		
Dubbo	3	1,320 0	.		..		3	560 0	..		6	1,880 0 0	23	10,322 3 0	1	247 2	4	1,236 0			.		...		28	11,806 1 0		
Dungog	.		..		..		...		.		...		3	280 0 0	1	90 0					.		..		4	370 0 0		
Eden	1	80 0			..		..		.		1	80 0 0	10	500 0 0	3	160 0	..		.		..		...		13	660 0 0		
Forbes	1	320 0	.						..		1	320 0 0	1	80 0 0	...		..				.		.		1	80 0 0		
Glen Innes	2	150 0	.		.		1	100 0	.		3	250 0 0	6	1,592 3 0	.		..				.		..		6	1,592 3 0		
Gosford			.		.		..		.		..		4	447 0 0	2	240 0	4	277 0			.		.		10	964 0 0		
Goulburn	3	120 0	2	160 0			..		.		5	280 0 0	26	1,569 2 0	12	688 0	2	80 0	.		.		.		40	2,337 2 0		
Grafton	1	40 0	1	100 0	.		..				2	140 0 0	10	812 1 0	.		2	113 0			.		.		12	925 1 0		
Grenfell			.						1	600 0	1	600 0 0	4	782 1 0	.		..		1	80 0	..		.		5	862 1 0		
Gundagai	5	1,286 2	.		.		3	330 0	2	166 3	10	1,783 1 0	2	680 0 0	.		..						..		2	680 0 0		
Gunnedah	1	121 2									1	121 2 0	1	95 0 0	1	320 0	.		.		..		..		2	415 0 0		
Gunning			.		.		..		2	140 0	2	140 0 0	1	40 1 0	5	220 0	1	148 1	.		.		.		7	408 2 0		
Hay	1	532 2			..		..		..		1	532 2 0	12	4,374 3 0	...		2	320 0	.		.		..		14	4,694 3 0		
Hillston	4	1,320 0	1	168 0	.		2	155 2	.		7	1,643 2 0	1	40 0 0	..		..		.		.		.		1	40 0 0		
Inverell	2	140 0	.		2	122 1	2	140 0	..		6	402 1 0	10	1,285 1 37	2	80 0	.		.		.		..		12	1,365 1 37		
Kempsey			1	100 0	..		...		...		1	100 0 0	9	860 2 0	...		1	54 0			..		..		10	914 2 0		
Kiama			.		.		...		..		..				...						.		.					
Lismore	1	105 1	...		.		...		..		1	105 1 0	7	828 0 0	..		.		4	250 2	.		.		11	1,078 2 0		
Lithgow	.		..		2	139 2	...		..		2	139 2 0	6	279 1 0	2	80 0	1	190 0	.		.		.		9	549 1 0		
Liverpool			.		...		...		...		...		...		...		...		...		..		..		...			

Schedule XIV—*continued.*

District.	Crown Lands Act of 1861.												Crown Lands Act of 1884.																	
	Section 13.		Section 14		Section 19.		Section 21.		Section 22.		Total.		Section 26.		Section 42		Section 47.		Sections 26, 24.		Sections 42, 24.		Sections 47, 24		Total.						
	No	Area.	No.	Area.	No	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area.	No	Area.	No	Area.	No.	Area	No	Area	No.	Area.					
		a. r. p.		a. r.		a. r.		a. r.		a. r.		a. r. p.		a. r. p		a. r.		a. r.		a. r.		a.		a.		a. r. p.					
Maitland													3	140 0 0											3	140 0 0					
Milton													4	290 0 0	1	70 0									5	360 0 0					
Moama																															
Molong	1	40 0 0									1	40 0 0	5	222 0 0											5	222 0 0					
Moree	11	4,959 3 0			1	60 0	6	1,389 1	1	305 0	19	6,714 0 0	13	3,518 2 0	1	156 2									14	3,675 0 0					
Moruya													4	170 0 0	2	80 0									6	250 0 0					
Mudgee													7	609 3 0	1	40 0									8	649 3 0					
Murrurundi	2	359 1 0									2	359 1 0	2	541 0 0	2	380 0									4	921 0 0					
Murwillumbah													15	1,367 2 0			1	40 0							16	1,407 2 0					
Muswellbrook	1	80 0 0					1	40 0			2	120 0 0	5	300 0 0											5	300 0 0					
Narrabri	3	1,920 0 0									3	1,920 0 0	1	400 0 0											1	400 0 0					
Narrandera	1	320 0 0	1	640 0			1	320 0			3	1,280 0 0	6	1,853 1 23	2	120 0	2	494 2	1	55 1					11	2,523 0 23					
Newcastle													2	114 0 0											2	114 0 0					
Nowra													4	212 3 0	1	40 0	2	147 0							7	399 3 0					
Orange													6	270 0 0											6	270 0 0					
Parkes													6	1,260 0 0											6	1,260 0 0					
Parramatta					4	600 0					4	600 0 0	2	120 0 0			7	530 0							9	650 0 0					
Paterson													3	130 0 0											3	130 0 0					
Penrith	1	42 0 0									1	42 0 0	1	40 3 0											1	40 3 0					
Picton									1	40 0	1	40 0 0	7	400 1 0	1	120 0	2	80 0							10	600 1 0					
Port Macquarie			3	130 0			1	40 0			4	170 0 0	14	837 0 0											14	837 0 0					
Queanbeyan	4	300 0 0					1	40 0			5	340 0 0	6	545 0 0	5	350 0									11	895 0 0					
Raymond Terrace													10	700 0 0	1	47 0									11	747 0 0					
Rylstone					2	640 0					2	640 0 0	7	580 0 0	2	90 0									9	670 0 0					
Scone													3	238 3 0											3	238 3 0					
Singleton													3	531 1 0											3	531 1 0					
Stroud			2	80 0							2	80 0 0	3	180 0 0											3	180 0 0					
Sydney					3	433 2					3	433 2 0																			
Tamworth	2	720 0 0									2	720 0 0	7	1,012 3 0	1	40 0									8	1,052 3 0					
Taree													8	360 0 0	2	123 2									10	483 2 0					
Tenterfield													1	100 0 0											1	100 0 0					
Tumut	1	640 0 0									1	640 0 0	2	115 0 0	2	80 0									4	195 0 0					
Urana			1	43 0							1	43 0 0	1	71 0 30											1	71 0 30					
Wagga Wagga	2	1,184 2 0	2	720 1					1	97 2	5	2,002 1 0	6	2,188 0 0	2	329 2	1	320 0							9	2,837 2 0					
Walcha	1	100 0 0									1	100 0 0	9	1,312 2 0	1	51 3									10	1,364 1 0					
Walgett	3	1,072 0 0					1	368 0			4	1,440 0 0																			
Wanaalda	3	1,481 1 13									3	1,481 1 13	1	50 0 0											1	50 0 0					
Wellington													3	410 0 0	1	40 0									4	450 0 0					
Wentworth																															
Wilcannia			3	120 0							3	120 0 0																			
Willyama																															
Windsor													6	240 0 0			3	170 0							9	410 0 0					
Wollombi	1	46 3 8									1	46 3 8	2	80 0 0											2	80 0 0					
Wollongong																															
Yass							1	80 0			1	80 0 0	2	89 1 0	1	200 0	1	40 0							4	329 1 0					
Young	1	40 0 0					3	120 0			4	160 0 0	1	153 0 0											1	153 0 0					
Total	87	23,121 0 21	16	2,298 1	20	2,238 1	41	5,100 0	9	1,464 1	173	34,221 3 21	432	63,369 1 10	76	5,685 1	47	5,195 1	11	1,000 2					566	75,250 1 10					

Grand Total, 739 conditional purchases, 109,472a. 0r. 31p.

SCHEDULE XV.

RETURN showing Number and Area of Conditional Purchases declared Forfeited during the Year 1890, for non-payment of balance, interest, or instalment of purchase money.

District.	Crown Lands Act of 1861.												Crown Lands Act of 1884.													
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26.		Section 42.		Section 47.		Sections 26, 24.		Sections 42, 24.		Sections 47, 24.		Total.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a.		a.		a. r. p.
Albury	1	40 0 0									1	40 0 0														
Armidale	2	200 3 0			1	40 0 0	2	359 0 0			5	599 3 0														
Balranald																										
Bathurst					1	160 0 0					1	160 0 0														
Bega																										
Bellingen	2	740 0 0					1	120 0 0			3	860 0 0														
Berrima	1	40 0 0									1	40 0 0														
Bingera																										
Bombala																										
Bourke																										
Braidwood																										
Brewarrina																										
Burrowa																										
Campbelltown																										
Carcoar																										
Casino																										
Cassilis	1	40 0 0	1	40 0 0			1	40 0 0			3	120 0 0														
Cobar	1	100 0 0									1	100 0 0														
Condobolin																										
Cooma																										
Coonabarabran																										
Coonamble																										
Cootamundra																										
Corowa																										
Cowra																										
Deniliquin																										
Dubbo																										
Dungog																										
Eden																										
Forbes																										
Glen Innes																										
Gosford					1	140 0 0					1	140 0 0														
Goulburn																										
Grafton																										
Grenfell																										
Gundagai																										
Gunnedah																										
Gunning																										
Hay																										
Hillston																										
Inverell	1	40 0 0									1	40 0 0														
Kempsey	1	40 0 0									1	40 0 0														
Kiama																										
Lismore																										
Lithgow							1	40 0 0			1	40 0 0														
Liverpool																										

Schedule XV—*continued.*

District	Crown Lands Act of 1861.												Crown Lands Act of 1884.															
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22		Total.		Section 26.		Section 42.		Section 47.		Sections 26, 24		Sections 42, 24		Sections 47, 24		Total.			
	No.	Area.	No.	Area.	No	Area.	No.	Area.	No	Area.	No.	Area.	No.	Area	No	Area.	No	Area.	No	Area	No.	Area	No	Area	No	Area.		
		a. r. p		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a.		a.		a. r. p.		
Maitland	.		..		...		...		.		..		.		..		.					.		.	.			
Milton	..				.		..		..				.		.							..			.			
Moama			.		..																							
Molong	7	1,500 0 0			...		8	720 0 0	..		15	2,220 0 0	.															
Moree	..				..		...		.		.		...		.		.				.							
Moruya	.		.		...		.		.		.		..		.													
Mudgee	2	90 0 0			...		3	120 0 0	.		5	210 0 0	.						..									
Murrurundi	..		.		...		...		...		.		..		.		.				.		.		...			
Murwillumbah	..				..		...		..		..		.															
Muswellbrook	..				..		..		.		..																	
Narrabri					...		.		.		...		..		.				..				.		..			
Nairandera	..		.		...		.				...		..		.		..		..						...			
Newcastle			.				..		..		...		.		.		.				.		..					
Nowra	1	47 1 0	.								1	47 1 0	...		..													
Orange	.		.		3	120 0 0	.		..		3	120 0 0	..															
Parkes			..				.		..				.		..													
Parramatta	1	40 0 0			..		..		..		1	40 0 0	..						..									
Paterson	...		.		..		..		..		...		...		..		.		..		..				..			
Penrith	..		.		..		..		...		...		.		..		..		..		.		...		...			
Picton	.		.		1	40 0 0	..		..		1	40 0 0	..															
Port Macquarie	.		..		.		.		.		.		..		.		.		..		..		.		..			
Queanbevan	..				.		...		.		..		..		.		.											
Raymond Terrace			..		.				.		.		.		..						.		..		...			
Rylstone	1	40 0 0			.		.		.		1	40 0 0	...		..		.				.							
Scone					.						...		.															
Singleton	1	40 0 0					.		.		1	40 0 0	.		..		.		..		..							
Stroud	.		.		..		..		..		.		.		..		..		...		.		.		..			
Sydney	.		.		...				..		..		.				.		.		.		..		..			
Tamworth			.		.		..		.		..		..				.				.		..		...			
Taree	..		.		..		...		.		..		..		.				...				.		.			
Tenterfield	..		.		..		..		.		...		.								.		.		..			
Tumut					.		..		..		.		...		...		.		.		..		..		.			
Urana	..		.		1	40 0 0	..		..		1	40 0 0	...		..		.		...		.		.		...			
Wagga Wagga	2	84 3 0			..		.		.		2	84 3 0	..		..		...		..		..		.		...			
Walcha	..		.		..		..		.		..		..		..		..		..				.		..			
Walgett	...		..		..		...		..		..		...		..		..		...		.		..		...			
Warialda	.		.		..		...		..		..		..		.		..		.		...		..		.			
Wellington	1	40 0 0	..		..		1	48 1 0	..		2	88 1 0	...		.		.		..		..		..		.			
Wentworth	..		.		...				.		.		.		..		.		..		...		...		.			
Wilcannia	..		..		..		...		...		..		...		...		.		..		.		...		.			
Willyama			..		..		...		...		..		...		...		.		..		..		...		.			
Windsor	.		.		..		...		...		...		..		...		...		..		.		..		..			
Wollombi			.		..		...		...		...		...		...		.		..		...		...		.			
Wollongong	...		.		...		..		..		..		..		..		..		..		.		..		..			
Yass	..		...		..		..		.		..		..		...		..		...		...		..		..			
Young	..		..		..		...		..		..		..		..		..		.		...		..		..			
Total	26	3,122 3 0	1	40 0 0	8	540 0 0	17	1,447 1 0	...		52	5,150 0 0	...		...		...		..				...		...			

Grand Total, 52 conditional purchases, 5,150a.

Schedule XVI.

Return showing the Number and Area of Conditional Purchases forfeited each year to 31st December, 1890.

Year.	Number.	Area.	Year.	Number.	Area.
		a. r. p.			a. r. p.
1864	26	1,666 1 0	1879	141	15,510 0 0
1865	24	1,490 0 0	1880	492	66,658 0 0
1866	29	1,658 2 0	1881	557	71,924 3 3
1867	366	23,750 0 0	1882	523	78,551 2 5
1868	357	20,253 0 0	1883	822	104,534 2 17
1869	631	45,654 3 0	1884	1,163	190,936 2 0
1870	180	11,546 0 0	1885	1,227	225,610 2 31
1871	335	18,602 0 10	1886	385	48,556 0 20
1872	139	9,304 3 0	1887	702	138,479 0 21
1873	288	39,778 1 16	1888	2,022	288,399 3 31
1874	234	42,003 2 29	1889	796	96,925 3 5
1875	1,166	126,342 2 35	1890	791	114,622 0 31
1876	724	89,915 1 0			
1877	802	107,536 3 5	Total	15,998	2,116,519 1 19
1878	1,075	136,308 0 0			

Schedule XVII.

Return showing the number and total Area of Conditional Purchases lapsed (under the Repealed Acts) in each year up to 31st December, 1890.

Year.	Number.	Area.	Year.	Number.	Area.
		a. r. p.			a. r. p.
1865	415	32,748 3 6	1880	1,308	185,255 0 31
1866	556	38,821 3 2	1881	990	119,880 2 34
1867	392	28,394 1 24	1882	451	43,830 2 10
1868	178	11,045 2 24	1883	341	35,568 1 6
1869	372	30,009 3 34	1884	958	125,274 2 0
1870	366	26,259 0 1	1885	998	124,827 2 10
1871	136	9,630 0 0	1886	753	126,283 0 39
1872	213	13,085 3 0	1887	.....	.....
1873	663	48,330 0 28	1888	.....	.....
1874	143	10,375 3 0	1889	.....	.....
1875	503	33,043 0 10	1890	52	5,150 0 0
1876	966	78,841 1 37			
1877	2,422	236,364 2 21	Total	16,228	1,708,559 2 8
1878	1,811	210,014 3 18			
1879	1,241	135,524 0 33			

Schedule XVIII.

Return showing number of Conditional Purchases increased or reduced in area, or declared void, with general reasons for such voidance, and a synopsis of the areas and sums called for and refunded in connection therewith.

District.	Increased.		Reduced.		Void.	
	No.	Area.	No.	Area.	No.	Area.
		a. r. p.		a. r. p.		a. r. p.
Albury	.....	.....	2	13 2 0	.....	.....
Armidale	2	3 3 0	2	3 3 30	.....	.....
Balranald	.....	.....	.....	.....	.....	.....
Bathurst	1	3 0 0	1	0 1 0	2	256 0 0
Bega	2	6 2 14	4	5 3 24	.....	.....
Bellingen	2	5 2 4	3	1 3 26	.....	.....
Berrima	1	0 1 19	3	0 3 12	.....	.....
Bingera	1	4 1 0	7	8 3 39	.....	.....
Bombala	.....	.....	5	10 1 0	.....	.....
Bourke	.....	.....	1	3 3 0	.....	.....
Braidwood	2	5 0 0	.....	.....	.....	.....
Brewarrina	.....	.....	1	8 3 10	.....	.....
Burrowa	1	3 2 12	5	12 0 20	.....	.....
Campbelltown	.....	.....	.....	.....	.....	.....
Carcoar	.....	.....	4	13 1 20	2	80 0 0
Casino	2	1 3 0	3	6 1 5	.....	.....
Cassilis	1	10 0 0	2	8 1 0	.....	.....
Cobar	.....	.....	1	0 1 0	.....	.....
Condobolin	.....	.....	2	69 1 0	.....	.....
Cooma	2	9 0 20	26	35 1 19	1	40 0 0
Coonabarabran	.....	.....	.....	.....	1	40 0 0
Coonamble	1	78 0 0	.....	.....	.....	.....

SCHEDULE XVIII—*continued.*

District	ncreased.		Reduced		Void.	
	No.	Area.	No	Area.	No.	Area.
		a. r. p.		a. r. p.		a. r. p.
Cootamundra	1	43 2 0	6	60 0 9		
Corowa			2	3 2 0		
Cowra	1	0 3 0	5	29 2 20		
Deniliquin	3	50 2 38	2	7 0 10		
Dubbo						
Dungog	1	1 2 0	1	1 1 0		
Eden						
Forbes			2	6 1 32	1	298 0 0
Glen Innes	1	1 0 0	3	8 2 31		
Gosford	2	5 2 10	3	5 0 35		
Goulburn	1	2 0 0	2	4 0 0		
Grafton	1	4 2 31				
Grenfell	1	0 1 0				
Gundagai	1	4 0 0	6	25 0 16		
Gunnedah			1	27 2 11		
Gunning			5	7 3 0		
Hay						
Hillston			1	0 1 8		
Inverell			1	9 0 0		
Kempsey	3	10 2 9	3	4 3 30		
Kiama			1	1 0 31		
Lismore	2	4 0 0	21	41 3 4		
Lithgow						
Liverpool						
Maitland			1	0 1 30		
Milton			2	1 2 0		
Moama			2	12 3 35		
Molong	5	23 0 22	3	11 2 25		
Moree	1	1 0 0			1	305 0 0
Moruya			4	6 1 0		
Mudgee	1	0 3 0				
Murrurundi			12	20 2 24		
Murwillumbah			4	10 3 30		
Muswellbrook	1	2 2 0	2	7 3 0	4	160 0 0
Narrabri	1	3 0 0				
Narrandera						
Newcastle	1	0 0 36			1	320 0 0
Nowra						
Orange	2	17 3 0	2	11 2 21	2	120 0 0
Parkes						
Parramatta						
Paterson						
Penrith						
Picton	1	3 0 0	1	3 0 0		
Port Macquarie	2	11 3 0	1	2 1 35		
Queanbeyan	2	71 3 0	6	4 1 28		
Raymond Terrace						
Rylstone	1	0 2 0	2	4 2 10		
Scone	1	0 2 0	2	2 1 0		
Singleton	2	4 2 0	1	2 0 0		
Stroud						
Sydney						
Tamworth	1	0 3 14				
Taree	1	1 0 0				
Tenterfield			1	2 2 0		
Tumut	2	1 2 0	1	32 0 0	2	90 0 0
Urana	2	1 0 0	2	2 1 0		
Wagga Wagga	1	0 2 0	7	39 2 8	1	474 2 0
Walcha						
Walgett						
Warialda	1	0 0 10				
Wellington	1	3 0 0				
Wentworth			1	6 0 30		
Wilcannia						
Willyama						
Windsor						
Wollombi	1	0 3 0				
Wollongong						
Yass			4	4 0 21		
Young			1	7 0 0		
Total	67	403 1 39	199	642 2 19	18	2,183 2 0

Reasons of Voidance.

By approval of the Minister, selector having applied for the land under a misapprehension	3	Applied for contrary to the provisions of section 24 of Act 43 Vict., No. 29, applicant having previously made a conditional purchase under 13th section	1
Applicant not appearing to have been the holder of the freehold at date of selection	2	Selected under 19th section within a gold-field open to selection under 14th section only	2
By direction of the Minister for Lands	3	Reselection of a void conditional purchase, voidance of which was afterwards reversed	1
Having been made by applicants as executors	1		
Withdrawn for non-survey within twelve months	1	Total	18
Land applied for being within the boundaries of a prior grant	3		
Original Conditional Purchase declared void	1		

SYNOPSIS.

	No.	Area.	Amount authorised for refund.
		a. r. p.	£ s. d.
Conditional Purchases declared void	18	2,183 2 0	535 17 6
Conditional Purchases reduced in area	199	642 2 19	129 2 5
	217	2,826 0 19	664 19 11

	No.	Augmentation area.	Amount of deposit called for.
		a. r. p.	£ s. d.
Conditional Purchases increased in area	67	408 1 39	111 1 7
Conditional Purchases voidance revoked	3	160 0 0	40 0 0
	70	568 1 39	151 1 7

	No.	Area.	Deposits.
		a. r. p.	£ s. d.
Reversals of forfeiture—*Crown Lands Alienation Act of 1861	43	5,038 1 0	1,259 11 3
Reversals of forfeiture—Crown Lands Act of 1884	6	549 1 0	54 18 6
	*49	5,587 2 0	1,314 9 9

* See also Schedule xxiii. Reversals of Forfeiture, 14 C.P's., 1,501 acres 3 roods.

SCHEDULE XIX.

RETURN of Miscellaneous Amounts authorised for Refund during the year ending 31st December, 1890.

	£ s. d.
Balance of purchase money	304 8 3
Deed fees	2 0 0
Subdivision fee	4 10 0
Additional deposit lodged for conversion to a mineral conditional purchase	80 0 0
Complainant's fee	10 0 0
Excess stamp duty and fines lodged with transfers of conditional purchases since 18th August, 1890	0 16 0
Registration fees, stamp duty, and acknowledgment fees of disallowed transfers since 18th August, 1890	25 13 0
	£427 7 3

SCHEDULE XX.

SUMMARY of Number and Area of Conditional Purchases applied for from the year 1862 to 1890 inclusive.

Years.	Applied for.		Years.	Applied for.	
	No.	Area.		No.	Area.
		a. r. p.			a. r. p.
1868 to 1869	28,139	2,161,390 2 2	1881	14,220	2,329,202 0 15
1870	4,471	329,318 1 2	1882	14,606	2,392,217 2 35
1871	4,751	358,682 2 8	1883	10,674	1,617,712 0 7
1872	8,281	749,586 3 0	1884	10,657	1,453,937 0 33
1873	13,417	1,391,719 0 0	1885	5,377	1,165,351 1 20
1874	14,352	1,586,282 0 0	1886	6,080	963,196 2 27
1875	14,517	1,756,678 0 0	1887	4,769	793,004 0 31
1876	12,654	1,984,212 0 0	1888	5,364	865,199 0 38
1877	12,009	1,699,816 0 0	1889	6,205	903,159 2 9
1878	12,602	1,588,247 3 18	1890	8,526	1,713,577 1 0
1879	7,540	924,136 1 0			
1880	8,583	1,147,001 2 39	Total	227,794	29,873,628 1 4

SCHEDULE XXI.

RETURN for the year 1890, showing the Number and Area of Conditional Purchases validated under the 138th section, Crown Lands Act of 1884.

District.	No.	Area.	District.	No.	Area.
		a. r. p.			a. r. p.
Balranald	1	80 0 0	Taree	1	40 0 0
Deniliquin	1	320 0 0	Wagga Wagga	1	60 0 0
Bingera	10	1,038 1 36	Young	1	259 0 0
Glen Innes	2	132 2 8			
Wagga Wagga (now Narrandera)	1	125 0 0	Total	18	2,055 0

Schedule XXII.

Return for the year 1890, showing the number and area of Mineral Conditional Purchases validated under 50 Vic. No. 21.

District.	Mineral Conditional Purchases validated under section 3 on account of being within a gold-field.		District.	Mineral Conditional Purchases validated under section 3 on account of being within a gold-field.	
	No. of C. P's.	Area.		No. of C. P's.	Area.
		a. r. p.			a. r. p.
Bathurst	2	119 3 0	Wellington	5	240 0 0
Condobolin	1	40 0 0	Wilcannia	2	80 0 0
Forbes	1	40 0 0	Willyama (late Wilcannia)	1	40 0 0
Hillston	3	240 0 0			
Tenterfield	1	180 0 0	Total	16	979 3 0

Schedule XXIII.

Return for the year 1890, showing the number and area of Conditional Purchases, lapsing of which has been reversed.

District.	No.	Area.	District.	No.	Area.
		a. r. p.			a. r. p.
Brewarrina	1	480 0 0	Gundagai	2	160 2 0
Carcoar	1	50 0 0	Molong	7	620 0 0
Cooma	1	40 0 0			
Cootamundra	1	71 1 0	Total	14	1,501 3 0
Goulburn	1	80 0 0			

Schedule XXIV.

Summary of number and area of Conditional Purchases existing on the 31st December, 1890.

	No.	Area.	No.	Area.
		a. r. p.		a. r. p.
No. and area of conditional purchases selected up to 31st December, 1889, after deducting area cancelled, forfeited, lapsed, and disallowed	150,529	19,033,498 0 36		
	No.	Area.		
		a. r. p.		
No. and area of conditional purchases cancelled, forfeited, and lapsed during 1890	809	116,805 2 31		
Less reversals of forfeitures, lapsings, and voidances	66	7,249 1 0	743	109,556 1 31	149,786	18,923,941 3 5
No. and area of conditional purchases applied for during 1890			7,276	1,480,598 1 25
Less disallowances and withdrawals				
		Total	157,062	20,404,540 0 30

Schedule XXV.

Return showing the number and area of Conditional Leases applied for during 1890, with amount of Deposits and Survey Fees received.

Local Land Board District.	Land District.	No.	Area.	Deposit.	Survey Fee.
			a. r. p.	£ s. d.	£ s. d.
Armidale	Armidale	358	166,460 2 0	1,387 5 2	2,971 12 8
	Glen Innes	82	39,254 1 0	327 2 7	709 10 0
	Inverell	160	75,617 0 0	630 4 6	1,380 10 6
	Tenterfield	70	29,821 3 26	248 10 5	579 14 6
	Walcha	282	118,416 1 30	987 2 9	2,178 1 6
Bourke	Bourke				
	Brewarrina				
	Brewarrina East	11	19,080 0 0	159 0 0	166 5 0
	Cobar				
	Cobar East	6	11,520 0 0	96 0 0	96 0 0
	Wilcannia				
	Wilyama				

SCHEDULE XXV—*continued.*

Local Land Board District.	Land District.	No.	Area.	Deposit.	Survey Fee.
			a. r. p.	£ s. d.	£ s. d.
Cooma	Bega	16	6,847 0 0	57 1 2	125 10 0
	Bombala	73	21,476 0 0	178 19 5	532 12 6
	Braidwood	34	7,155 0 0	59 12 6	211 17 6
	Cooma	316	96,348 0 35	802 18 5	2,309 0 0
	Eden	18	5,023 3 0	41 17 6	128 2 6
	Milton	1	240 0 0	2 0 0	7 0 0
	Moruya	20	4,990 0 0	41 11 8	133 12 6
	Queanbeyan	135	56,250 3 0	468 15 2	1,108 2 6
Dubbo	Coonamble	159	167,441 0 0	1,395 6 10	1,869 12 6
	Dubbo	193	207,682 1 0	1,730 13 9	1,966 12 6
Forbes	Condobolin	151	216,378 3 0	1,803 3 2	2,073 2 0
	Forbes	14	7,075 1 0	58 19 4	121 2 6
	Parkes	111	127,040 3 0	1,058 13 7	1,461 10 4
	Grenfell	77	46,018 2 0	383 10 2	714 2 6
Goulburn	Berrima	16	4,332 2 0	36 2 0	110 2 6
	Burrowa	289	102,852 1 0	857 2 8	2,212 0 0
	Goulburn	97	24,256 3 0	202 2 10	654 17 6
	Gunning	58	14,521 2 0	121 0 3	404 12 6
	Nowra	6	785 0 0	6 10 10	33 17 6
	Yass	112	33,689 1 0	280 14 11	800 12 6
	Young	115	59,486 1 38	495 15 1	1,030 15 0
Grafton	Murwillumbah	15	3,485 0 0	29 0 10	97 10 0
	Lismore	10	2,120 0 0	17 13 4	62 17 6
	Casino	138	72,896 2 0	607 10 4	692 5 0
	Grafton	42	13,527 0 0	112 14 6	310 12 6
	Bellingen	27	10,704 0 0	87 4 0	210 15 0
	Kempsey	99	31,536 0 0	262 16 0	631 17 6
	Port Macquarie	14	2,990 0 0	24 18 4	89 12 6
Hay	Balranald				
	Balranald South	3	4,760 0 0	48 0 0	48 0 0
	Deniliquin	8	7,074 1 0	58 19 2	86 10 0
	Hay	79	104,104 3 20	867 10 10	1,028 8 0
	Hay North				
	Hillston	25	32,721 3 0	272 13 8	326 17 6
	Hillston North				
	Wentworth				
Maitland	Cassilis	56	18,575 0 0	161 7 5	425 12 6
	Dungog	7	1,227 0 0	10 4 6	41 10 0
	Gosford	4	755 0 0	6 5 10	24 12 6
	Maitland	2	1,040 0 0	8 13 4	17 0 0
	Muswellbrook	9	1,258 0 0	10 10 6	50 12 6
	Newcastle				
	Paterson	14	2,147 2 0	17 18 2	82 2 6
	Raymond Terrace	2	639 0 0	5 6 6	16 2 6
	Scone	60	25,559 1 [illegible]	213 0 0	493 5 0
	Singleton	38	11,984 0 0	99 19 11	280 2 6
	Stroud	6	2,540 0 0	21 3 4	49 5 0
	Taree	34	5,640 0 0	47 0 0	201 5 0
	Wollombi	3	540 0 0	4 10 0	17 17 6
Moree	Bingara	16	14,708 1 0	122 12 6	179 7 6
	Moree	65	76,124 1 0	634 7 5	815 17 6
	Warialda	51	30,092 3 13	250 16 6	468 0 0
	Walgett	68	118,583 2 0	988 4 4	1,032 5 0
Orange	Bathurst	75	23,727 3 0	197 14 8	555 7 0
	Cowra	41	13,628 3 0	113 11 6	302 17 6
	Carcoar	60	20,449 0 0	170 8 2	452 19 6
	Lithgow	32	7,126 0 0	59 7 8	206 17 6
	Mudgee	41	13,850 0 0	115 8 4	310 2 6
	Molong	184	87,661 3 0	730 10 2	1,581 2 6
	Orange	12	7,537 0 0	62 16 2	115 7 6
	Rylstone	30	7,971 2 0	66 8 6	203 15 0
	Wellington	69	25,218 0 0	210 3 0	519 12 0
Sydney	Campbelltown	2	600 0 0	5 0 0	14 10 0
	Kiama				
	Liverpool				
	Metropolitan				
	Parramatta				
	Penrith				
	Picton	18	8,682 1 0	72 7 1	151 10 0
	Windsor	7	1,125 0 0	9 7 6	36 0 0
	Wollongong				
Tamworth	Coonabarabran	29	21,093 0 0	175 15 6	288 5 0
	Gunnedah	54	36,367 0 24	303 1 3	516 0 0
	Murrurundi	54	27,015 2 0	225 2 8	474 17 6
	Narrabri	76	63,726 1 0	531 1 3	812 15 0
	Tamworth	306	145,673 0 0	1,213 19 2	2,643 0 0
Wagga Wagga	Albury	203	106,114 1 0	884 5 8	1,826 12 6
	Cootamundra	111	61,509 0 0	512 16 5	1,023 10 0
	Corowa				
	Gundagai	56	18,767 1 0	156 7 11	423 15 0
	Narrandera	41	48,877 0 0	407 6 2	512 17 6
	Tumut	43	17,346 0 0	144 11 1	353 10 0
	Urana	4	307 0 0	2 11 2	19 10 0
	Wagga Wagga	43	25,008 1 0	210 8 3	309 12 6
	Totals	5,466	3,056,774 2 26	25,489 7 2	47,615 0 6

Schedule XXVI.

Return showing the Number of Conditional Lease Applications Confirmed or Disallowed during 1890.

Local Land Board District.	Land District.	Applications made during 1890.						Applications made between 1st December, 1889, and 1st January, 1890.				Applications made prior to 1st December, 1889.				Total.			
		Confirmed.			Disallowed.			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.	
		No.	a. r. p.		No.	a. r. p.		No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Armidale	Armidale	14	4,942 3 0		41	17,528 1 0		...		...		41	12,561 0 0	2	1,085 0 0	55	17,503 3 0	43	18,613 1 0
	Glen Innes	1	640 0 0		12	4,373 0 0		...		...		15	2,818 3 0	3	1,210 0 0	16	3,458 3 0	15	5,583 0 0
	Inverell	8	3,057 3 0		16	7,681 2 0		...		..		13	2,822 1 0	2	1,100 0 0	21	5,880 0 0	18	8,781 2 0
	Tenterfield	1	65 0 0		3	1,402 0 0		1	230 0 0	...		23	3,802 1 0	2	1,135 0 0	25	4,097 1 0	5	2,537 0 0
	Walcha	8	2,732 1 0		44	16,746 1 0		2	400 0 0	...		16	5,182 0 0	4	1,747 0 0	26	8,314 1 0	48	18,493 1 0
Bourke	Bourke	...			...			...		...		...		...		...		..	
	Brewarrina	...			...			...		...		...		...		...		...	
	Brewarrina East.	...			...			...		...		1	1,920 0 0	...		1	1,920 0 0	...	
	Cobar	...			...			...		...		...		...		...		...	
	Cobar East	..			...			...		...		2	2,560 0 0	...		2	2,520 0 0	...	
	Wilcannia	..			...			...		...		...		...		...		...	
	Willyama	...			...			...		...		...		...		...		...	
Cooma	Bega	4	2,228 2 0		2	1,920 0 0		...		...		1	120 0 0	2	120 0 0	5	2,348 2 0	4	2,040 0 0
	Bombala	11	3,383 0 0		9	2,759 0 0		...		3	1,360 0 0	9	3,213 3 0	3	1,110 0 0	20	6,596 3 0	15	5,229 0 0
	Braidwood	2	458 0 0		4	350 0 0		...		...		25	3,794 3 0	...		27	4,252 3 0	4	350 0 0
	Cooma	29	6,551 2 35		42	11,441 2 0		...		...		22	5,865 2 0	1	60 0 0	51	12,417 0 35	43	11,501 2 0
	Eden	..			2	1,182 3 0		...		...		9	1,830 0 0	1	428 0 0	9	1,830 0 0	3	1,610 3 0
	Milton	...			...			...		...		...		...		...		...	
	Moruya	...			...			...		..		2	470 0 0	1	120 0 0	2	470 0 0	1	120 0 0
	Queanbeyan	19	7,937 1 0		30	13,356 0 0		1	82 2 0	1	70 0 0	57	14,505 3 0	4	1,335 0 0	77	22,525 2 0	35	14,761 0 0
Dubbo	Coonamble	15	23,863 2 0		18	21,450 0 0		8	8,782 3 0	1	1,920 0 0	48	66,150 1 0	4	1,395 0 0	71	98,796 2 0	23	24,765 0 0
	Dubbo	66	72,457 1 0		15	19,390 2 0		9	12,525 2 0	1	1,000 0 0	47	31,380 1 0	3	4,481 0 0	122	116,363 0 0	19	24,871 2 0
Forbes	Condoblin	29	34,273 0 0		15	18,995 0 0		2	1,163 2 0	3	1,660 0 0	24	28,205 2 0	3	4,335 0 0	55	63,642 0 0	21	24,990 0 0
	Forbes	6	2,038 1 0		1	45 0 0		1	900 0 0	...		4	1,500 0 0	...		11	4,438 0 0	1	45 0 0
	Parkes	34	38,193 2 0		15	13,372 0 0		4	4,052 2 0	2	1,680 0 0	31	39,858 1 0	7	7,515 0 0	69	82,104 1 0	24	22,567 0 0
	Grenfell	33	25,239 1 0		13	6,945 2 0		2	2,039 0 0	3	520 0 0	15	13,022 0 0	...		50	40,600 1 0	16	7,465 2 0
Goulburn	Berrima	...			1	50 0 0		...		...		3	654 1 0	...		3	654 1 0	1	50 0 0
	Burrowa	23	3,222 0 0		81	35,539 1 0		8	1,486 3 0	2	1,560 0 0	62	16,537 2 0	8	2,940 0 0	93	21,246 1 0	91	40,039 1 0
	Goulburn	15	2,400 1 0		6	1,414 0 0		5	730 0 0	3	608 0 0	37	22,760 2 0	5	640 0 0	57	25,890 3 0	14	2,662 0 0
	Gunning	5	1,380 2 0		8	1,590 0 0		5	953 2 0	...		41	8,371 0 0	5	1,190 0 0	51	10,705 0 0	13	2,780 0 0
	Nowra	2	400 0 0		...			...		...		1	100 0 0	...		3	500 0 0	...	
	Yass	3	725 2 0		27	8,860 0 0		2	833 2 0	2	390 0 0	13	4,109 3 0	2	420 0 0	18	5,668 3 0	31	9,670 0 0
	Young	6	2,556 0 0		52	29,525 2 0		...		...		...		...		6	2,556 0 0	52	29,525 2 0
Grafton	Murwillumbah	4	739 0 0		2	92 2 0		1	306 3 0	1	360 0 0	23	6,786 1 0	2	320 0 0	28	7,832 0 0	5	772 2 0
	Lismore	1	50 0 0		4	570 0 0		..		...		8	1,739 3 0	5	585 0 0	9	1,789 3 0	9	1,155 0 0
	Casino	8	3,816 1 0		11	3,728 1 0		...		..		15	6,169 1 0	1	100 0 0	23	9,985 2 0	12	3,828 1 0
	Grafton	17	4,407 1 0		9	3,180 0 0		2	609 0 0	...		25	5,432 0 0	2	1,500 0 0	44	10,448 1 0	11	4,680 0 0
	Bellingen	3	717 0 0		5	1,234 0 0		...		...		7	662 0 0	1	100 0 0	10	1,379 0 0	6	1,334 0 0
	Kempsey	3	440 0 0		8	3,318 0 0		1	250 0 0	1	880 0 0	8	2,089 3 0	1	100 0 0	12	2,779 3 0	10	4,298 0 0
	Port Macquarie.	...			3	360 0 0		...		2	300 0 0	13	2,475 3 0	1	80 0 0	13	2,475 3 0	6	740 0 0
Hay	Balranald	...			...			...		...		...		...		...		...	
	Balranald S'th	2	3,840 0 0		...			...		...		...		..		2	3,840 0 0	...	
	Deniliquin	4	4,053 0 0		2	2,079 3 0		1	240 0 0	...		3	2,862 0 0	2	3,350 0 0	8	7,155 0 0	4	5,429 3 0
	Hay	40	50,966 0 0		11	13,175 2 0		7	8,354 0 0	1	160 0 0	25	37,218 0 2	4	4,320 0 0	72	96,438 2 0	16	17,655 2 0
	Hay North	...			...			...		...		...		...		...		...	
	Hillston	3	3,593 1 0		4	4,445 0 0		1	502 3 0	...		3	1,102 3 0	...		7	5,198 3 0	4	4,445 0 0
	Hillston North	...			...			...		...		...		...		...		...	
	Wentworth	...			...			...		...		...		...		...		...	

SCHEDULE XXVI—*continued.*

Local Land Board District.	Land District.	Applications made during 1990.						Applications made between 1st December, 1890, and 1st January, 1890.				Applications made prior to 1st December, 1889.				Total.			
		Confirmed.			Disallowed.			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.	
		No.	a. r. p.		No.	a. r. p.		No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Maitland	Cassilis	21	6,288 0 0		9	2,939 0 0		3	706 1 0	3	990 0 0	55	22,175 2 0	7	3,368 1 0	79	29,169 3 0	19	7,297 1 0
	Dungog	...	.....		3	726 3 0		...	.....	...	.....	5	645 2 0	...	.....	5	645 2 0	3	726 3 0
	Gosford	...	.....		2	575 0 0		...	.....	...	.....	...	.....	...	.....	...	.....	2	575 0 0
	Maitland	...	.....		...	.....		...	.....	...	.....	1	120 0 0	...	.....	1	120 0 0	...	.....
	Muswellbrook	2	100 0 0		1	120 0 0		...	.....	1	40 0 0	12	1,472 0 0	...	.....	14	1,572 0 0	2	160 0 0
	Newcastle	...	.....		...	.....		...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
	Paterson	3	545 0 0		1	150 0 0		2	367 3 0	...	.....	18	2,858 0 0	2	660 2 0	23	3,770 3 0	3	810 2 0
	Raymond Terrace.	1	313 0 0		1	326 0 0		...	.....	...	.....	1	300 0 0	...	.....	2	613 0 0	1	326 0 0
	Scone	21	7,786 2 0		11	3,260 3 0		1	100 0 0	..	.....	51	27,289 3 0	5	642 2 0	73	35,176 1 0	16	3,903 1 0
	Singleton	12	2,530 3 0		10	3,355 1 0		2	200 2 0	1	150 0 0	10	2,549 0 0	2	675 0 0	24	5,280 1 0	13	4,180 1 0
	Stroud	...	.....		2	500 0 0		...	.....	...	.....	7	1,135 1 0	2	300 0 0	7	1,135 1 0	4	800 0 0
	Taree	8	1,214 1 0		2	160 0 0		2	397 3 0	...	.....	27	5,468 1 0	...	.....	37	7,080 1 0	2	160 0 0
	Wollombi	...	.....		...	.....		...	.....	...	.....	2	80 0 0	1	100 0 0	2	80 0 0	1	100 0 0
Moree	Bingera	...	.....		2	1,360 0 0		1	176 3 22	...	.....	8	3,865 0 0	2	710 0 0	9	4,041 3 22	4	2,070 0 0
	Moree	14	12,074 3 0		5	6,317 0 0		...	.....	1	960 0 0	1	1,920 0 0	1	960 0 0	15	13,994 3 0	7	8,237 0 0
	Warialda	6	2,432 0 0		15	8,156 3 13		1	234 0 0	...	.....	19	5,998 0 0	3	1,390 0 0	26	8,664 0 0	18	9,546 3 13
	Walgett	8	13,472 1 0		10	15,790 0 6		...	.....	1	1,920 0 0	2	2,889 0 0	2	2,040 0 0	10	16,361 0 0	13	19,750 0 0
Orange	Orange	6	4,027 0 0		1	930 0 0		...	.....	...	.....	17	6,772 3 0	...	.....	23	10,799 3 0	1	930 0 0
	Bathurst	9	1,768 0 0		12	3,593 0 0		3	631 0 0	1	220 0 0	38	7,810 3 0	2	200 0 0	50	10,209 3 0	15	4,013 0 0
	Mudgee	6	2,803 1 0		7	3,397 0 0		1	308 1 0	...	.....	15	4,775 0 0	3	297 0 0	22	7,886 2 0	10	3,694 0 0
	Rylstone	6	486 0 0		8	1,840 2 0		2	270 1 0	2	790 0 0	31	7,584 1 0	3	720 0 0	39	8,340 2 0	13	3,350 2 0
	Carcoar	7	2,016 0 0		10	2,960 0 0		5	1,200 0 0	6	2,658 0 0	56	18,929 1 0	2	900 0 0	68	22,145 1 0	18	6,518 0 0
	Cowra	7	1,203 2 0		8	3,096 2 0		1	56 3 0	...	.....	16	5,275 0 0	1	120 0 0	24	6,535 1 0	9	3,216 2 0
	Molong	8	2,370 1 0		51	21,163 0 0		6	1,417 2 0	...	.....	14	4,935 2 0	2	400 0 0	28	8,723 1 0	53	21,563 0 0
	Wellington	5	1,980 0 0		16	3,720 0 0		...	.....	...	.....	44	13,483 2 0	2	750 0 0	49	15,463 2 0	18	4,470 0 0
	Lithgow	3	880 0 0		11	1,710 0 0		...	.....	...	.....	62	11,153 0 0	12	1,813 0 0	65	12,033 1 0	23	3,523 0 0
	Campbelltown	1	480 0 0		...	.....		...	.....	...	.....	6	2,339 0 0	2	240 0 0	7	2,819 0 0	2	240 0 0
Sydney	Kiama	...	.....		...	.....		...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
	Liverpool	...	.....		...	.....		...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
	Metropolitan	...	.....		...	.....		...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
	Parramatta	...	.....		...	.....		...	.....	...	.....	1	110 0 0	...	.....	1	110 0 0	...	.....
	Penrith	...	.....		...	.....		...	.....	...	.....	1	490 0 0	...	.....	1	490 0 0	...	.....
	Picton	..	.....		4	1,543 0 0		1	100 0 0	1	100 0 0	10	4,260 0 0	12	9,760 0 0	11	4,360 0 0	17	11,403 0 0
	Windsor	1	85 0 0		3	220 0 0		...	.....	...	.....	4	420 0 0	1	60 0 0	5	505 0 0	4	280 0 0
	Wollongong	...	.....		...	.....		...	.....	...	.....	...	.....	...	.....	..	.....	...	.....
	Coonabar'bran	6	4,422 0 0		1	1,400 0 0		...	.....	1	150 0 0	14	3,929 1 0	1	180 0 0	20	8,371 1 0	3	1,730 0 0
Tamworth	Gunnedah	14	8,740 2 0		11	6,700 0 0		2	519 0 0	...	.....	8	8,109 3 0	...	.....	24	17,369 1 0	11	6,700 0 0
	Murrurundi	6	3,258 2 0		5	1,360 0 0		3	1,521 2 0	...	.....	6	1,754 0 0	...	.....	15	6,534 0 0	5	1,360 0 0
	Narrabri	18	10,489 3 0		12	13,127 1 0		4	2,636 0 0	..	.....	43	40,400 1 0	3	2,610 0 0	65	53,526 0 0	15	15,737 1 0
	Tamworth	23	9,758 1 0		41	16,670 0 0		2	345 0 0	...	.....	28	8,383 2 0	4	1,477 2 0	53	18,486 3 0	45	18,147 2 0
	Albury	4	1,381 2 0		10	5,430 0 0		...	.....	...	.....	18	9,695 3 0	3	1,910 0 0	22	11,077 1 0	13	7,340 0 0
Wagga Wagga	Cootamundra	4	856 3 0		29	15,306 1 0		...	.....	2	1,050 0 0	9	3,177 1 0	...	.....	13	4,034 0 0	31	16,356 1 0
	Corowa	...	.....		...	.....		...	.....	...	.....	...	.....	1	60 3 0	...	.....	1	60 3 0
	Gundagai	1	640 0 0		...	.....		...	.....	1	400 0 0	...	.....	...	.....	1	640 0 0	1	400 0 0
	Narrandera	6	3,616 2 0		7	8,704 2 0		1	455 0 0	...	.....	3	3,250 0 0	3	4,800 0 0	10	7,321 2 0	10	13,504 2 0
	Tumut	1	80 0 0		2	450 0 0		...	.....	...	.....	1	300 0 0	2	930 0 0	2	380 0 0	4	1,380 0 0
	Urana	2	184 0 0		2	123 0 0		...	.....	1	84 0 0	1	212 1 0	...	.....	3	396 1 0	3	207 0 0
	Wagga Wagga	5	955 1 0		6	3,397 1 0		7	1,456 2 0	4	707 0 0	7	3,700 2 0	3	2,462 2 0	19	6,112 1 0	13	6,566 3 0
	Total	664	420,905 1 35		847	428,677 3 13		113	57,541 3 22	52	22,687 0 0	1,364	610,628 2 0	170	83,358 0 0	2,141	1,089,075 3 17	1,069	534,722 3 13

Schedule XXVII.

Return showing action taken during the year 1890 on Applications made in 1885, under section 52 of the Crown Lands Act of 1884, for the conversion of Pre-emptive into Conditional Leases.

Land Boar District.	Land District.	No of Applications made in 1885, Gazetted in 1890.	Area Gazetted in 1890	Rent.	No of Applications made in 1885, refused in 1890
Hay	Hay				1

Schedule XXVIII.

Statement showing Total Number, Area, and Rent of Conditional Leases in each District notified forfeited during the year 1890.

District.	Total No of Leases.	Area.	Rent.	District.	Total No of Leases	Area.	Rent
		acres.	£ s. d.			acres.	£ s. d.
Albury	4	2,098	21 9 7	Kempsey	5	978	13 11 7
Armidale	18	7,943¾	105 11 2	Lismore	6	2,219¼	29 9 4
Balranald	1	640	5 6 8	Lithgow	4	606¼	8 16 7
Bathurst	7	1,923¾	32 9 9	Milton	2	99¾	1 6 7
Bega	4	810	7 17 6	Molong	2	270	3 0 0
Bellingen	1	60	0 12 6	Moree	17	18 540¾	247 11 4
Berrima	4	2,047	20 8 1	Moruya	2	470	7 1 8
Bingara	3	3,222	26 17 0	Mudgee	4	1 887¾	22 10 7
Bombala	13	5 801½	60 3 11	Murrurundi	3	2,096	17 9 4
Braidwood	6	1,136½	9 9 5	Murwillumbah	2	240	2 10 0
Brewarrina	1	331	2 15 2	Muswellbrook	4	386	3 14 4
Burrowa	2	404	3 10 8	Narandera	7	4,890	48 11 11
Campbelltown	2	1,200	14 0 0	Narrabri	5	6,747	81 11 11
Carcoar	8	1,858½	21 11 0	Orange	3	450	6 2 6
Casino	10	5,881½	97 3 2	Parkes	7	3,111	27 9 7
Cassilis	14	4,581¼	59 5 4	Paterson	2	161	2 0 3
Condobolin	4	6,000	55 0 0	Picton	4	430	5 13 0
Cooma	43	25,646½	249 4 10	Queanbeyan	12	3,584¼	31 15 5
Coonabarabran	5	2,762	27 3 0	Raymond Terrace	3	330	4 2 6
Coonamble	9	6,321	84 18 7	Rylstone	4	1,350	12 3 9
Cootamundra	4	1,894	21 1 11	Scone	3	644	10 2 4
Corowa	2	338½	5 4 6	Singleton	3	1,507	19 14 7
Cowra	2	190	3 3 9	Stroud	2	240	3 0 0
Dubbo	22	30 046¼	402 7 11	Tamworth	12	4 346½	41 13 5
Dungog	1	200	2 10 0	Taree	3	203	4 2 5
Eden	4	280½	5 0 2	Tenterfield	7	5,090¼	67 4 1
Forbes	3	900	8 10 0	Tumut	7	2,831½	27 18 10
Glen Innes	6	3,380	38 10 10	Urana	1	325¾	6 15 9
Goulburn	39	6,231¾	71 12 1	Wagga Wagga	15	7,610	77 16 0
Grafton	18	4,382¼	74 13 4	Walcha	5	1 881½	27 8 0
Grenfell	2	264	3 6 1	Wanalda	5	5,660	47 3 4
Gundagai	4	1,875½	17 14 5	Wellington	4	1,331¼	23 17 7
Gunnedah	1	306½	3 15 0	Wentworth	5	6 712	56 3 8
Gunning	3	297¼	3 7 9	Yass	4	1,697¾	19 6 4
Hay	10	11,05[illegible]	122 [illegible] 7				
Hillston	2	1,540	13 5 0	Totals	470	240,892¾	2,792 2 3
Inverell	14	8,054¼	81 18 1				

Schedule XXIX.

Return showing the Number of Conditional Lease Transfers passed in each Land District during the year 1890.

District.	No.	District.	No.	District.	No.	District.	No
Albury	31	Cootamundra	33	Maitland	0	Rylstone	3
Armidale	61	Corowa	8	Milton	0	Scone	11
Balranald	1	Cowra	4	Molong	26	Singleton	3
Bathurst	26	Denihquin	7	Moree	76	Stroud	3
Bega	4	Dubbo	67	Moruya	2	Tamworth	54
Bellingen	0	Dungog	1	Mudgee	6	Taree	5
Berrima	4	Eden	2	Murwillumbah	1	Tenterfield	5
Bingera	0	Forbes	22	Murrurundi	4	Tumut	41
Bombala	24	Glen Innes	7	Muswellbrook	1	Urana	18
Bourke	7	Gosford	0	Narrabri	39	Wagga Wagga	55
Braidwood	2	Goulburn	8	Narrandera	29	Walcha	11
Brewarrina	11	Grafton	11	Newcastle	0	Walgett	8
Burrowa	40	Grenfell	64	Nowra	0	Wanalda	9
Campbelltown	3	Gundagai	27	Orange	2	Wellington	14
Carcoar	3	Gunnedah	28	Parkes	16	Wentworth	2
Cassilis	13	Gunning	11	Parramatta	0	Wilcannia	1
Casino	18	Hay	31	Paterson	1	Wollombi	0
Cobar	6	Hillston	11	Penrith	0	Wollongong	0
Condobolin	7	Inverell	30	Picton	1	Yass	11
Cooma	78	Kempsey	13	Port Macquarie	2	Young	19
Coonabarabran	6	Lismore	4	Queanbeyan	20		
Coonamble	55	Lithgow	3	Raymond Terrace	0	Total	1,291

Schedule XXX.

Number of Refund Vouchers issued by the Lease Branch during the year 1890 12

Schedule XXXI.

Statement showing total No. of Conditional Leases submitted to the Minister for determination of rent during the year 1890, 3,530.

Schedule XXXII.

Statement showing the total number of Conditional Leases gazetted during the year 1890.
Total No., 3,476.

Schedule XXXIII.

Statement showing total number, area, and rent of gazetted Conditional Leases (all clauses) in existence on the 31st December, 1890.

Total number of Leases	Total Area	Total Rent.
	a. r. p.	£ s. d.
13,230	8,278,459 1 7	100,112 13 7

Schedule XXXIV.

Return showing Number and Area of Conditional Leases applied for during the years 1885, 1886, 1887, 1888, 1889, and 1890.

Year.	Number.	Area.
		a. r. p.
1885	3,816	2,547,045 0 15*
1886	2,500	1,207,953 0 8
1887	2,228	1,242,380 0 0
1888	2,623	1,424,753 1 25
1889	3,470	1,569,949 3 30
1890	5,466	3,056,774 2 26
	20,103	11,048,856 0 24

* This includes 1,994 applications, area 1,198,617a 0r 30p, made under section 54 of the Act of 1884

Schedule No. XXXV.

Return of Auction Sales of Town Lands under the 61st section of the Crown Lands Act of 1884.

Land District	County.	No. of Lots	Area offered	No. of Lots	Area sold.	No of Lots	Area not bid for	Amount realized	Average price per acre	Deed Fees No
			a. r p.		a. r. p.		a r p.	£ s d	£ s. d.	
Albury	Goulburn	57	17 3 29½	35	10 0 10¾	22	7 3 18¾	275 9 0	27 7 3	33
,,	Selwyn	2	0 2 0	2	0 2 0	...	.....	11 7 6	22 15 0	2
Armidale	Sandon	6	2 0 38¼	6	2 0 38¼	...	.....	115 10 0	51 11 8	6
Bathurst	Roxburgh	16	6 0 5¼	2	0 1 31½	14	5 2 13¾	7 10 0	16 15 7	2
Bourke	Canbelego	13	6 2 0	3	1 2 0	10	5 0 0	47 10 0	31 13 4	3
,,	Cowper	18	4 2 13½	7	2 0 0	11	2 2 13½	876 0 0	438 0 0	5
,,	Irrara	6	3 0 0	3	1 2 0	3	1 2 0	26 0 0	17 6 8	3
,,	Ularara	21	5 1 0	21	5 1 0	...	.....	409 6 0	77 19 3	21
Bellingen	Raleigh	68	21 1 9¾	30	10 2 17	38	10 2 32¾	784 2 0	73 18 7	28
Braidwood	St. Vincent	18	3 3 22½		..	18	3 3 22½	...	.	
Brewarrina	Clyde	37	17 0 15	37	17 0 15	...	....	1,314 11 0	76 18 0	37
Carcoar	Georgiana	7	1 3 0	7	1 3 0	...	.....	22 0 0	12 11 5	6
Cobar	Robinson	1	0 2 0	1	0 2 0		. .. ..	32 0 0	64 0 0	1
Cond bolin	Cunningham	2	0 3 32½	1	0 1 37½	1	0 1 35	31 0 0	64 0 0	1
Coomn	Beresford	124	56 1 5¼	12	3 1 37½	112	52 3 7¾	397 15 0	114 3 0	12
Coonabarabran	Napier	87	32 0 28	.	. .	87	32 0 28	. ...	. .	
Cootamundra	Bland	2	0 2 0	2	0 2 0		.	24 0 0	48 0 0	2
Corowa	Denison	105	51 0 23	64	31 1 37¼	41	19 2 25¾	535 0 0	16 19 9	61
Cowra	Bathurst	45	16 3 37	45	16 3 37	.	... ..	1,202 9 0	70 16 3	40
Deniliquin	Cadell	13	6 2 0	4	2 0 0	9	4 2 0	106 6 0	53 3 0	4
,,	Townsend	27	12 2 36	2	0 2 28	25	12 0 8	7 10 0	11 2 3	2
Dubbo	Lincoln	138	69 0 0	31	15 2 0	107	53 2 0	150 10 0	9 14 3	29
,,	Narromine	47	23 2 0	42	21 0 0	5	2 2 0	295 12 0	14 1 6	40
,,	Oxley	4	2 0 0	4	2 0 0	.	... .	184 0 0	92 0 0	4
Dungog	Durham	14	6 2 25	14	6 2 25	.	...	150 13 0	22 12 8	14
Eden	Auckland	56	26 1 22	25	11 1 8	31	15 0 14	315 6 6	27 18 1	21
Forbes	Ashburnham	35	9 0 39	33	8 2 25¼	2	0 2 13¾	329 0 0	38 0 0	25
Glen Innes	Gresham	2	0 1 33	2	0 1 33		...	32 0 0	70 3 0	2
Gosford	Northumberland	285	89 3 22	16	5 0 11	269	84 3 11	200 10 0	39 11 1	12
Goulburn	Argyle	49	19 0 0	1	0 2 0	48	18 2 0	5 0 0	10 0 0	1
Grafton	Clarence	94	43 1 0	20	8 1 39	74	34 3 1	268 14 0	33 19 10	17
,,	Fitzroy	93	38 1 8½	22	7 3 14½	71	30 1 34	229 10 0	29 5 5	18
Grenfell	Bland	3	0 2 34	3	0 2 34		.. ..	33 0 0	46 6 4	3
,,	Monteagle	11	4 2 15	9	3 3 3	2	0 3 12	120 5 0	31 18 2	9
Gundagai	Wynyard	15	7 0 30	...	. ...	15	7 0 30	... ...	. ... .	...
Gunnedah	Buckland	5	2 2 0	5	2 2 0	.	....	40 11 0	16 4 5	5
,,	Pottinger	18	9 0 0	3	1 2 0	15	7 2 0	30 6 0	20 4 0	3
Hay	Sturt	33	16 2 0		.....	33	16 2 0	.. . ...	... .	...
,,	Waradgery	18	9 0 0	11	5 2 0	7	3 2 0	247 5 0	44 19 1	11
Inverell	Arrawatta	18	7 3 37	1	0 1 16	17	7 2 21	3 10 0	10 0 0	1
Lismore	Rous	68	31 1 16	9	3 3 21½	59	27 1 34½	285 0 0	73 7 5	7
Lithgow	Cook	242	116 3 18½	93	45 1 32¼	149	71 1 26¼	1,676 0 0	36 17 5	81
Molong	Arrawatta	25	9 3 0	11	4 0 34	14	5 2 6	109 0 0	25 17 5	11
Mudgee	Phillip	28	10 2 3½	25	9 2 39½	3	0 3 4	234 7 0	24 0 10	25
Murrurundi	Buckland	6	1 3 20	5	1 1 37½	1	0 1 22½	342 0 0	230 8 0	5
Muswellbrook	Durham	14	6 2 2	14	6 2 2	...		254 0 0	39 0 0	12
Murwillumbah	Rous	11	2 3 0	11	2 3 0	...	..... .	330 10 0	120 3 8	11
Narrabri	White	20	6 1 5	8	3 1 5	12	3 0 0	71 13 0	21 16 8	7
Parkes	Ashburnham	2	0 1 38	2	0 1 38	...	.. .. ..	70 0 0	143 11 9	2
Parramatta	Cumberland	17	6 0 25	17	6 0 25	.	.. . .	89 0 0	12 19 10	17
Port Macquarie	Macquarie	61	28 3 17½	14	6 1 36½	47	22 1 21	204 5 0	31 11 5	14
Scone	Brisbane	17	8 1 13	15	7 1 16	2	0 3 37	82 3 0	11 3 6	10
Singleton	Northumberland	26	12 0 29½	...	... .	26	12 0 29½	...	. .....	...
Tamworth	Buckland	8	4 0 0	5	2 2 0	3	1 2 0	30 13 0	12 5 2	5

SCHEDULE XXXV—*continued.*

Land District	County	No of Lots	Area offered	No of Lots	Area sold	No of Lots	Area not bid for	Amount realised	Average price per acre	Deed Fees No
			a r p		a r p		a r p	£ s d	£ s. d.	
Taree	Gloucester	32	14 0 2	2	0 3 24	30	13 0 18	7 10 0	8 6 8	2
"	Macquarie	8	3 1 22	8	3 1 22			152 0 0	44 17 5	8
Tenterfield	Clive	70	30 2 4	19	7 1 19	51	23 0 25	83 0 0	11 5 2	17
"	Gough	28	13 2 18½	21	10 2 0	7	3 0 18½	321 10 0	30 12 5	18
Tumut	Wynyard	14	2 3 30	10	2 1 10	4	0 2 20	52 4 6	22 11 7	7
Urana	Urana	45	12 2 0	41	11 2 0	4	1 0 0	300 2 6	26 1 11	37
Wagga Wagga	Mitchell	5	2 2 0	5	2 2 0		...	24 14 0	9 17 7	4
"	Wynyard	6	0 2 20¼	4	0 1 19	2	0 1 1¼	1,313 5 0	3,561 7 1	4
Wellington	Wellington	24	7 0 23	4	0 3 14	20	6 1 9	17 10 0	20 18 2	4
Young	Harden	18	8 3 32	16	7 3 32	2	1 0 0	142 10 0	18 0 9	16
"	Monteagle	71	23 3 38¼	6	2 0 0	65	21 3 38¼	189 18 0	94 19 0	6
	Total	2,479	1,019 0 19	891	360 3 5¾	1,588	658 1 13¼	15,234 13 0	42 5 0	814

NOTE —Area sold equals 35 4 per cent of the area offered

SCHEDULE XXXVI.

RETURN of Auction Sales of Suburban Lands under the 61st section of the Crown Lands Act of 1884.

Land District	County.	No of Lots	Area offered	No of Lots	Area sold	No of Lots	Area not bid for	Amount realised	Average price per acre	Deed Fees No.
			a. r p		a r. p		a r. p	£ s d	£ s d	
Albury	Goulburn	12	3 2 38			12	3 2 38			
"	Selwyn	1	1 0 0	1	1 0 0			7 10 0	7 10 0	1
Balranald	Caira	1	2 2 0			1	2 2 0			...
Bathurst	Roxburgh	30	56 1 36¼	12	18 3 27¾	18	37 2 8½	91 10 0	4 14 2	7
Bellingen	Raleigh	34	145 3 18	7	15 2 26	27	130 0 32	76 3 0	4 17 3	7
Bega	Auckland	18	67 3 18	10	39 2 24	8	28 0 34	222 15 0	5 12 4	8
"	Dampier	1	1 0 0			1	1 0 0			
Berrima	Camden	11	117 3 0	3	30 2 14	8	87 0 26	77 0 0	2 10 4	3
Bourke	Gunderbooka	3	55 2 0	3	55 2 0			139 0 0	2 10 1	2
Braidwood	St Vincent	5	4 3 25	2	3 2 0½	3	1 1 24½	11 0 0	3 2 9	2
Carcoar	Georgiana	27	77 1 33	5	13 0 8½	22	64 1 24½	40 10 0	3 2 0	4
Condobolin	Cunningham	9	79 3 30	7	50 2 30	2	29 1 0	265 4 0	5 4 8	6
Cooma	Beresford	32	119 3 11½			32	119 3 11½			
Coonabarabran	Napier	11	17 1 38	1	1 1 2	10	16 0 36	4 0 0	3 3 4	1
Cowra	Bathurst	20	91 3 31	20	91 3 31			631 10 0	6 17 4	16
Deniliquin	Townsend	12	28 0 14	4	11 3 14	8	16 1 0	30 10 0	2 11 6	4
Dubbo	Gordon	8	135 1 10	3	40 0 20	5	95 0 30	160 10 0	4 0 0	3
"	Lincoln	31	263 2 8	15	148 0 39	16	115 1 9	560 0 0	3 15 6	13
"	Narromine	20	206 0 20	16	184 0 20	4	22 0 0	548 17 0	2 19 8	10
Eden	Auckland	43	366 3 19	8	46 0 1	35	320 3 18	199 0 0	4 6 6	6
Forbes	Ashburnham	143	521 1 31½	121	342 2 24½	22	178 3 7	2,384 18 0	6 19 2	110
"	Forbes	1	1 2 0	1	1 2 0			20 4 0	13 9 4	1
Gosford	Northumberland	145	567 3 21	21	83 3 15	124	484 0 6	671 0 0	8 0 1	17
Goulburn	Argyle	24	79 1 9			24	79 1 9			
Grenfell	Monteagle	26	87 2 27	9	24 1 26	17	63 1 1	117 0 0	4 15 11	6
Gundagai	Clarendon	61	86 2 34	6	5 3 8	55	80 3 26	100 10 0	17 6 6	5
"	Wynyard	3	10 2 37	2	8 2 37	1	2 0 0	83 10 0	9 11 3	2
Gunnedah	Buckland	11	17 0 0	11	17 0 0			139 4 0	8 3 9	10
"	Pottinger	11	180 0 0			11	180 0 0			
Gunning	King	18	257 1 8	4	41 1 17	14	215 3 31	168 0 0	3 5 5	4
Hay	Wahadgery	8	22 1 36	3	9 2 23	5	12 3 13	52 10 0	5 16 5	3
Inverell	Arrawatta	10	29 2 5	4	11 3 28	6	17 2 17	36 10 0	3 8 4	4
Lismore	Rous	76	98 3 30½	2	2 2 3½	74	96 1 27	25 10 0	10 2 2	2
Lithgow	Cook	205	1,911 3 15	37	279 1 24	168	1,632 1 31	2,648 10 0	9 9 7	35
Maitland	Northumberland	1	0 2 1	1	0 2 1	...		8 0 0	15 16 1	1
Molong	Ashburnham	12	50 0 32	5	14 1 38	7	35 2 34	86 10 0	5 19 5	5
Moruya	Dampier	17	180 1 34	3	23 0 0	14	157 1 34	58 0 0	2 10 5	1
Mudgee	Phillip	6	7 1 22½	2	3 0 0	4	4 1 22½	20 2 0	6 14 0	2
"	Wellington	25	269 2 28	20	254 0 11	5	15 2 17	659 12 0	2 10 11	18
Muswellbrook	Brisbane	2	3 1 18	2	3 1 18	...		28 0 0	8 6 6	2
"	Durham	12	27 0 18	12	27 0 18			485 0 0	17 17 9	11
Nowra	St Vincent	4	10 0 0	1	2 2 0	3	7 2 0	125 0 0	50 0 0	1
Parkes	Ashburnham	1	1 0 32	1	1 0 32			80 0 0	66 13 4	1
Port Macquarie	Macquarie	5	4 2 5½	5	4 2 5½	...		134 10 0	29 13 3	5
Singleton	Northumberland	8	40 0 16			8	40 0 16			
Tamworth	Inglis	2	16 2 33	2	16 2 33			237 2 0	17 3 8	2
Taree	Gloucester	27	134 3 33	3	16 2 24	24	118 1 9	42 10 0	2 11 1	2
Tenterfield	Gough	21	11 2 27½	5	3 2 27½	16	8 0 0	20 0 0	5 8 10	5
Tumut	Wynyard	6	12 1 23	3	4 2 3	3	7 3 20	46 12 6	10 6 4	3
Wagga Wagga	Bourke	17	114 1 22	2	9 1 19	15	105 0 3	45 10 0	4 17 1	2
"	Mitchell	15	176 2 35	7	67 1 25	8	109 1 10	215 13 0	3 3 11	7
Walcha	Vernon	6	13 0 21	6	13 0 21			57 0 0	4 6 10	6
Wellington	Wellington	31	110 3 17	5	24 3 0	26	86 0 17	79 10 0	3 4 3	4
Windsor	Hunter	2	7 3 17	2	7 3 17			20 0 0	2 10 11	2
Yass	Harden	11	74 3 7	4	21 3 26	7	52 3 21	79 10 0	2 12 7	4
Young	"	8	16 1 4	8	16 1 4	...		166 5 0	10 4 3	7
"	Monteagle	25	46 0 0¾	24	45 0 0¾	1	1 0 0	417 16 0	9 5 8	22
	Total	1,335	7,045 3 11	461	2,161 3 27½	874	4,883 3 23½	12,674 7 6	5 17 3	405

NOTE —The area sold equals 30 68 per cent. of the area offered.

SCHEDULE XXXVII.

RETURN of Auction Sales of Country Lands under the 61st Section of the Crown Lands Act of 1884

Land District	County	No of Lots	Area offered	No of Lots	Area sold	No of Lots	Area not bid for	Amount realised	Average price per acre	Deed fees No
			a r p		a r p		a r p	£ s d	£ s. d	
Albury	Goulburn	51	1,234 1 6	20	745 0 36	31	489 0 10	1,439 15 3	1 18 7	20
,,	Hume	2	82 2 0	2	82 2 0			185 19 6	2 5 0	2
,,	Selwyn	11	1 344 0 0	7	1,059 0 0	4	285 0 0	2,247 12 0	2 2 4	7
Armidale	Clarke	11	1,899 0 0	1	0 2 0	10	1,898 2 0	2 10 0	5 0 0	1
,,	Hardinge	6	294 0 0	1	39 3 0	5	254 1 0	121 4 9	3 1 0	1
,, ...	Inglis	18	3,010 1 0	10	2,330 1 0	8	680 0 0	3,265 1 3	1 8 0	10
,	Sandon	10	422 0 25	8	322 0 25	2	100 0 0	487 8 6	1 10 3	8
Bathurst	Bathurst	2	68 1 0			2	68 1 0			..
,,	Georgiana	2	142 0 0		...	2	142 0 0	...		
,,	Roxburgh ...	9	329 1 1½	4	7 0 1½	5	322 1 0	39 18 0	5 13 11	4
,,	Wellington ...	2	80 0 0	1	40 0 0	1	40 0 0	50 0 0	1 5 0	1
,	Westmoreland	15	995 1 0	6	451 0 0	9	544 1 0	679 10 0	1 10 1	6
Balmoral	Cairn ...	10	2,737 0 0	10	2,737 0 0			4,105 10 0	1 10 0	10
Bega	Auckland	75	3,441 1 4	11	399 3 27	64	3,041 1 17	2,097 19 0	5 4 7	11
, ...	Dampier	12	601 1 0	3	81 1 0	9	520 0 0	232 2 6	2 17 2	3
Bellinger	Raleigh	8	847 0 0			8	847 0 0			
Berrima	Camden ..	19	522 2 39	6	154 1 29	13	368 1 10	320 5 10	2 16 0	6
Bingara	Murchison	4	820 0 0	..		4	820 0 0		..	
Bombala	Wellesley	8	347 2 0	3	57 2 0	5	290 0 0	114 1 2	1 19 9	3
Braidwood ..	Dampier	1	40 0 0			1	40 0 0		..	
,	Murray	13	640 1 0	1	112 0 0	12	528 1 0	161 0 0	1 8 9	1
,	St Vincent	8	352 1 0	1	2 0 0	7	350 1 0	6 0 0	6 0 0	1
Brewarrina	Clyde	1	181 1 0	1	181 1 0			270 16 3	1 9 11	1
Burroma	King ...	10	792 1 0	1	40 0 0	9	752 1 0	50 0 0	1 5 0	1
,	Monteagle	1	41 1 0			1	44 1 0	..		
Calcoar	Bathurst	4	197 1 18	1	38 3 18	3	158 2 0	58 5 11	1 10 0	1
,,	Georgiana	31	1 988 0 0	5	375 2 0	26	1,612 2 0	563 5 0	1 10 0	5
Casino	Buller	1	150 0 0	1	150 0 0			375 0 0	2 10 0	1
,,	Richmond	1	105 0 0			1	105 0 0		..	
,	Rous	4	446 1 27	2	229 1 27	2	217 0 0	432 14 6	1 17 8	2
Cassilis	Bligh	15	2,708 3 0	7	624 0 0	8	2,084 3 0	900 18 6	1 11 9	7
,	Brisbane	10	493 1 0	1	40 0 0	9	453 1 0	60 0 0	1 10 0	1
Cobar	Canbelego	1	320 0 0			1	320 0 0			
Condobolin	Cunningham	13	613 1 0	2	398 0 0	11	215 1 0	522 15 0	1 6 3	2
,,	Gipps	2	924 1 0	2	924 1 0			1,155 6 3	1 5 0	2
Cooma	Beresford	2	90 0 0			2	90 0 0			
,,	Wallace	6	489 3 10	3	88 3 10	3	401 0 0	143 16 11	1 14 8	3
	Wellesley	1	91 0 30			1	91 0 30		. ...	
Coonabarabran	Baradine	2	90 0 0			2	190 0 0			
,,	Gower	2	77 3 0	1	37 3 0	1	40 0 0	56 12 6	1 10 0	1
,,	Napier	2	360 0 0			2	360 0 0			
Coonamble	Ewenmar	6	1 719 2 0	6	1 719 2 0			2,237 6 9	1 6 0	6
,,	Lichhardt	28	7,198 1 0	20	5,042 0 0	8	2,156 1 0	7,394 17 9	1 9 4	20
,	Gregory	1	73 0 0			1	73 0 0			
Cootamundra	Bland	6	551 3 30	5	491 3 30	1	60 0 0	1,330 15 3	2 14 1	5
,,	Clarendon	1	80 0 0	1	80 0 0			100 0 0	1 5 0	1
,,	Harden	3	164 0 0	2	124 0 0	1	40 0 0	310 0 0	2 10 0	2
Corowa	Denison	5	888 3 20	5	888 3 20			4,299 11 9	4 16 9	5
,,	Hume	1	18 0 0			1	18 0 0			
Cowra	Bathurst	2	25 0 30	2	25 0 30			77 16 3	3 1 6	2
,,	Forbes ..	1	87 1 0	1	87 1 0	...	..	130 17 6	1 10 0	1
Denilquin	Wakool	7	991 1 0	6	930 1 0	1	61 0 0	1,570 3 3	1 13 9	6
Dubbo	Fwenmar	1	640 0 0			1	640 0 0			
,,	Gordon	4	239 0 10			4	239 0 10			
,	Gregory	20	6,538 0 0	11	2,912 3 0	9	3,625 1 0	4,006 8 9	1 7 6	11
,	Lincoln	1	40 0 0			1	40 0 0		..	
,,	Narromire	6	999 3 0	1	400 0 0	5	599 3 0	600 0 0	1 10 0	1
,,	Oxley	7	1 348 1 0	7	1 348 1 0			1,773 12 5	1 5 11	7
Dungog	Durham	8	500 2 0	7	340 2 0	1	160 0 0	797 13 3	2 6 9	7
,	Gloucester	1	80 0 0			1	80 0 0			
Eden	Auckland	21	1,457 2 23	4	171 2 23	17	1,286 0 0	260 19 0	1 10 4	4
Forbes	Ashburnham	3	13 2 20	3	13 2 20			59 14 3	4 7 7	3
,	Forbes	5	1,117 2 0	4	977 0 0	1	140 2 0	1,293 8 0	1 6 5	4
	Gipps	5	944 3 0	2	339 1 0	3	605 2 0	424 1 3	1 5 0	2
Glen Innes	Clarke	1	40 0 0			1	40 0 0			
,,	Clive	1	40 0 0			1	40 0 0			
,,	Gough	5	329 3 0	3	129 3 0	2	200 0 0	182 2 6	1 8 1	3
...	Gresham	1	160 0 0	1	160 0 0			280 0 0	1 15 0	1
Goulburn	Argyle ..	31	1,498 3 21	7	176 3 21	24	1,322 0 0	433 5 6	2 8 11	7
,,	Georgiana	11	614 0 0	1	38 2 0	10	575 2 0	57 15 0	1 10 0	1
,	Westmoreland	2	100 0 0	2	100 0 0			125 0 0	1 5 0	2
Gosford	Northumberland	9	805 2 0			9	805 2 0			
Grafton ...	Clarence	45	2 616 1 0	12	521 1 30	33	2,094 3 10	1,054 13 2	2 0 5	12
,,	Drake	3	166 1 0	3	166 1 0			207 16 3	1 5 0	3
,,	Fitzroy ..	11	763 0 0	1	30 0 0	10	733 0 0	52 10 0	1 15 0	1
	Gresham	3	215 1 0			3	215 1 0			
Grenfell	Bland	17	4,033 0 0	10	2,386 2 0	7	1,646 2 0	3,921 10 0	1 12 10	10
,,	Forbes	6	779 2 19	4	476 1 19	2	303 1 0	874 11 1	1 16 8	4
,	Monteagle	7	185 0 39	6	170 2 7	1	14 2 32	442 4 7	2 11 10	6
Gunnedah	Buckland	3	533 1 0		...	3	533 1 0			
,,	Nandewar	20	2,786 3 10	6	1,576 2 0	14	1,210 1 10	2,150 5 0	1 7 3	6
,	Pottinger	12	1,125 3 0	1	66 1 0	11	1,059 2 0	99 7 6	1 10 0	1
Gundagai	Buccleuch ..	2	75 3 0	2	75 3 0			103 12 6	1 7 4	2
,,	Harden	1	40 0 0	1	40 0 0			50 0 0	1 5 0	1
,,	Wynyard	1	100 0 0	1	100 0 0		.	125 0 0	1 5 0	1

SCHEDULE XXXVII—*continued.*

Land District.	County.	No. of Lots.	Area offered. a. r. p.	No of Lots.	Area sold. a. r. p.	No. of Lots.	Area not bid for. a. r. p.	Amount realised. £ s. d.	Average price per acre. £ s. d.	Deed fees No.
Gunning	King	11	746 1 0	3	120 0 0	8	626 1 0	164 0 0	1 7 3	3
Hay	Caira	6	3,026 0 0	6	3,026 0 0	...		3,782 10 0	1 5 0	6
	Sturt	2	656 0 0	1	300 0 0	1	356 0 0	452 0 0	1 10 0	1
	Townsend	3	547 2 0	...		3	547 2 0			
	Waradgery	5	987 2 0	1	224 0 0	4	763 2 0	280 0 0	1 5 0	1
Inverell	Arrawatta	24	2,814 1 0	3	50 1 0	21	2,764 0 0	91 7 6	1 16 4	3
	Burnett	3	355 0 0	2	279 0 0	1	76 0 0	405 10 0	1 9 1	2
	Murchison	1	104 3 0	1	104 3 0	...		157 2 6	1 10 0	1
	Hardinge	6	310 0 0	1	100 0 0	5	210 0 0	125 0 0	1 5 0	1
Kempsey	Dudley	9	428 0 0	1	31 0 0	8	397 0 0	48 1 0	1 11 0	1
	Macquarie	5	427 1 0	5	427 1 0			534 1 3	1 5 0	5
	Raleigh	4	280 0 0	...		4	280 0 0			
Lismore	Richmond	2	62 0 0	...		2	62 0 0			
	Rous	11	281 1 36	2	44 1 36	9	237 0 0	107 10 0	2 8 4	2
Lithgow	Cook	14	667 1 30	4	315 0 0	10	352 1 30	795 7 6	2 10 6	4
	Roxburgh	2	2 0 0	...		2	2 0 0			
	Westmoreland	9	236 3 0	1	3 0 10	8	233 2 30	9 19 1	3 5 0	1
Maitland	Northumberland	15	1,196 2 0	15	1,196 2 0	...		1,803 5 0	1 10 0	15
Metropolitan	Cumberland	218	981 1 13	72	212 3 1	146	768 2 12	5,375 10 0	25 5 0	72
Milton	St. Vincent	15	1,115 0 0			15	1,115 0 0			
Molong	Ashburnham	6	215 3 0	2	40 3 0	4	175 0 0	64 2 6	1 12 0	2
Moree	Benarba	7	2,288 0 0	5	1,418 0 0	2	870 0 0	2,258 10 0	1 10 0	5
	Courallie	20	2,424 1 0	17	2,247 0 0	3	177 1 0	3,094 15 3	1 7 6	17
	Stapylton	14	2,961 2 0	13	2,909 0 0	1	52 2 0	3,636 5 0	1 5 0	13
Moruya	Dampier	9	381 0 2	1	1 0 2	8	380 0 0	3 0 0	2 19 3	1
	St. Vincent	19	1,527 1 27			19	1,527 1 27			
Mudgee	Phillip	21	1,421 2 0	4	60 0 0	17	1,361 2 0	97 2 0	1 12 4¾	4
	Wellington	7	365 2 30	4	95 2 30	3	300 0 0	127 4 0	1 6 9	4
Murwillumbah	Rous	7	350 0 0	1	50 0 0	6	300 0 0	75 0 0	1 10 0	1
Murrurundi	Brisbane	5	313 0 20	1	73 1 0	4	239 3 20	146 10 0	2 0 0	1
	Buckland	6	618 1 0	2	371 3 0	4	246 2 0	557 12 6	1 10 0	2
	Pottinger	1	172 1 0			1	172 1 0			
Musclebrook	Durham	7	380 1 0	5	290 2 0	2	89 3 0	363 2 6	1 5 0	5
	Hunter	2	80 0 0	1	40 0 0	1	40 0 0	60 0 0	1 10 0	1
Narrabri	Jamison	11	2,342 2 0	6	1,527 0 0	5	815 2 0	2,071 15 0	1 7 1	6
	Nandewar	2	120 0 0	...		2	120 0 0			
Narrandera	Cooper	4	1,597 0 0	3	957 0 0	1	640 0 0	1,861 15 0	1 19 1	3
Newcastle	Northumberland	48	460 2 9	36	121 0 23	12	339 1 26	2,100 10 0	17 7 2	36
Nowra	Camden	1	18 1 30	1	18 1 30	...		27 13 2	1 10 0	1
	St. Vincent	5	335 0 0	4	236 0 0	1	99 0 0	727 11 3	3 1 8	4
Orange	Bathurst	3	140 0 0			3	140 0 0			
	Wellington	18	145 1 9¾	...		18	145 1 9¾			
Parkes	Ashburnham	15	877 2 9	13	317 2 9	2	560 0 0	775 18 10	2 8 10	13
	Cunningham	4	619 1 0	3	126 0 0	1	523 1 0	164 5 0	1 6 1	3
	Kennedy	7	1,600 0 0	3	436 3 0	4	1,163 1 0	648 11 11	1 9 8	3
Paterson	Durham	3	188 1 0	2	138 1 0	1	50 0 0	172 16 3	1 5 0	2
Penrith	Cook	3	295 2 0	1	86 2 0	2	209 0 0	173 0 0	2 0 0	1
Picton	Camden	4	153 2 0			4	153 2 0			
	Cook	3	183 0 0			3	183 0 0			
	Westmoreland	1	40 0 0			1	40 0 0			
Port Macquarie	Macquarie	20	1,290 2 20	2	181 0 0	18	1,109 2 20	230 0 0	1 5 5	2
Queanbeyan	Cowley	4	435 0 0	1	155 0 0	3	280 0 0	193 15 0	1 5 0	1
	Murray	14	583 2 20	6	240 0 0	8	343 2 20	330 0 0	1 7 6	6
Raymond Terrace	Gloucester	8	700 1 0	2	270 1 0	6	430 0 0	411 12 0	1 10 5	2
Rylstone	Cook	1	40 0 0			1	40 0 0			
	Phillip	11	620 0 0	5	260 0 0	6	360 0 0	325 0 0	1 5 0	5
	Roxburgh	5	347 2 0	...		5	347 2 0			
Scone	Brisbane	5	541 2 0	2	340 3 0	3	200 3 0	521 10 0	1 10 7	2
	Durham	3	91 3 20	...		3	91 3 20			
Singleton	"	34	564 2 3	28	414 1 8	6	150 0 35	1,057 0 5	2 11 0	28
Stroud	Gloucester	10	578 0 0	3	118 0 0	7	460 0 0	157 0 0	1 6 7	3
Tamworth	Buckland	2	413 3 0	..	..	2	413 2 0			
	Darling	12	867 0 0	12	867 0 0			1,173 15 0	1 7 1	12
	Inglis	1	40 0 0			1	40 0 0			
	Parry	3	361 0 0	1	1 0 0	2	360 0 0	6 10 0	6 10 0	1
Taree	Gloucester	29	1,144 2 30	1	30 3 0	28	1,113 3 30	123 0 0	4 0 0	1
	Macquarie	42	2,327 2 30	13	479 2 30	29	1,848 0 0	795 12 3	1 13 2	13
Tenterfield	Buller	16	950 3 5			16	950 3 5			
	Clive	8	388 3 25	4	135 1 0	4	253 2 25	261 1 7	1 18 7	4
Tumut	Buccleuch	3	487 2 0			3	487 2 0			
	Wynyard	55	257 1 13	5	7 0 29	50	250 0 24	34 13 4	4 16 8	5
Urana	Hume	8	1,038 1 0	8	1,038 1 0	...		3,114 15 0	3 0 0	8
	Urana	2	214 2 0	1	156 0 0	1	58 2 0	235 10 0	1 10 2	1
Wagga Wagga	Bourke	1	85 1 0	...		1	85 1 0			
	Mitchell	3	317 2 0	3	317 2 0	...		838 7 3	2 12 10	3
	Wynyard	6	316 0 0	3	0 3 0	3	315 1 0	7 10 0	10 0 0	3
Walcha	Hawes	58	6,284 0 0	17	1,953 1 0	41	4,330 3 0	2,739 18 9	1 5 6	17
	Parry	1	200 0 0			1	200 0 0			
	Vernon	20	464 0 24	13	241 3 14	7	222 1 10	565 10 6	2 6 9	13
Walgett	Denham	10	4,532 0 0	3	1,615 1 0	7	2,916 3 0	2,427 9 5	1 10 1	3
	Leichhardt	27	7,175 0 0	12	3,471 2 0	15	3,703 2 0	4,599 9 0	1 6 6	12
Warialda	Burnett	17	3,677 1 0	5	1,048 2 0	12	2,628 3 0	1,573 18 6	1 10 0	5
	Stapylton	1	222 2 0			1	222 2 0			
Wellington	Bligh	3	260 0 0			3	260 0 0			
	Gordon	3	132 3 0	...		3	132 3 0			
	Lunco'n	1	50 0 0			1	50 0 0			
	Wellington	9	1,143 3 18½	2	90 0 0	7	1,053 3 18½	140 10 0	1 11 3	2
Windsor	Cumberland	5	251 0 0	3	161 0 0	2	90 0 0	218 11 0	1 10 10	3

SCHEDULE XXXVII—*continued.*

Land District.	County.	No. of Lots.	Area offered.	No. of Lots	Area sold.	No. of Lots.	Area not bid for.	Amount realised	Average price per acre	Deed fees No.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.	
Wollombi	Hunter	2	103 2 0			2	103 2 0			
	Northumberland	4	269 1 0	1	91 1 0	3	178 0 0	114 1 3	1 5 0	1
Yass	Buccleuch	1	40 0 0			1	40 0 0			
	Cowley	2	98 0 0			2	98 0 0			
	Harden	3	455 2 0			3	455 2 0			
	King	5	224 2 0			5	224 2 0			
	Murray	5	375 1 0	3	190 1 0	2	185 0 0	270 2 6	1 8 5	3
Young	Bland	5	389 2 0	4	339 2 0	1	50 0 0	558 12 6	1 12 11	4
	Harden	2	4 0 0			2	4 0 0			
	Monteagle	19	289 3 16	7	93 2 34	12	196 0 22	312 15 10	3 4 1	7
	Totals	1,878	152,779 1 22¾	686	66,160 1 29½	1,192	86,618 3 33¼	113,768 2 2	1 14 5	686

NOTE.—The area sold equals 43 30 per cent of that offered.

SCHEDULE XXXVIII.

RETURN showing the situation of, and amount realised for, Town and Suburban Lands sold at Auction during 1890.

Town or Village of	Town.			Suburban.		
	Lots.	Area.	Total amount realised.	Lots.	Area.	Total amount realised.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.
Adelong	10	2 1 10	52 4 6	4	5 2 3	52 12 6
Araluen West				2	3 2 0½	11 0 0
Armidale	4	1 2 6¾	77 10 0			
Arthur	7	1 3 0	22 0 0	5	13 0 8½	40 10 0
Ballina	3	1 1 18	209 0 0			
Bardmedman	3	0 2 34	33 0 0			
Berrigan	40	19 2 23¼	387 0 0			
Berrima				3	30 2 14	77 0 0
Bookham				2	8 2 20	26 0 0
Bowning				2	13 1 6	53 10 0
Bourke	7	2 0 0	876 0 0			
Bourke North				3	55 2 0	139 0 0
Blackheath	1	0 0 38½	18 10 0	14	115 2 37	1,048 10 0
Bowra	12	5 1 24	399 2 0			
Brassi	2	0 2 28	7 10 0	4	11 3 14	30 10 0
Brasfort	17	8 1 38¼	434 10 0	2	11 0 16	219 0 0
Bredbo	1	0 1 24½	10 0 0			
Brewarrina	37	17 0 15	1,314 11 0			
Cargo				1	1 0 0	5 0 0
Carroll	5	2 2 0	40 11 0	11	17 0 0	139 4 0
Coolah				1	1 1 2	4 0 0
Coolabah	3	1 2 0	47 10 0			
Condobolin	1	0 1 37½	31 0 0	7	50 2 30	265 4 0
Cooma	11	3 0 13	387 15 0			
Cooloon	11	2 3 0	330 10 0			
Copmanhurst	5	2 1 25	73 0 0			
Colombo				10	39 2 24	222 15 0
Curlewis	3	1 2 0	30 6 0			
Currabubula	5	2 2 0	30 13 0			
Cobar	1	2 0 0	32 0 0			
Currawong				7	15 1 4	154 0 0
Dalmorton	2	0 1 33	32 0 0			
Deepwater	21	10 2 0	321 10 0	4	1 3 18½	15 0 0
Dubbo				11	169 2 20	644 10 0
Dungog	14	6 2 25	150 13 0			
Eugoura	29	7 2 27¼	255 0 0			
Forbes	4	0 3 37¼	74 0 0	122	344 0 24½	2,405 2 0
Forster	2	0 3 24	7 10 0	3	16 2 24	42 10 0
Germanton	35	10 0 10¾	275 9 0			
Glenrouth	5	2 2 0	24 14 0	7	67 1 25	215 13 0
Gosford				13	14 3 16	197 0 0
Grenfell	9	3 3 3	120 5 0	9	24 1 26	117 0 0
Grabben Gullen				4	41 1 17	168 0 0
Gundagai North				6	5 3 8	100 10 0
,, South				1	7 2 37	77 10 0
Gulgong	25	9 2 39½	234 7 0	2	3 0 0	20 2 0
Gundurimba	6	2 2 3½	76 0 0			
Hay South	11	5 2 0	247 5 0			
Hillgrove	2	0 2 31½	38 0 0			
Jennings	19	7 1 19	83 0 0			
Katoomba	75	36 2 35½	1,223 0 0	21	152 2 11	1,381 0 0
Kenthurst	17	6 0 25	80 0 0			
Koorawatha	2	1 0 0	8 0 0	6	19 1 30	59 0 0
Kyuga				2	3 1 18	28 0 0
Lawrence	15	6 0 14	195 14 0			
Mathoura	4	2 0 0	106 6 0			
Maude				3	9 2 23	52 10 0
Mandamah				2	9 1 19	45 10 0
Morrisett	16	5 0 11	200 10 0	8	68 3 39	474 0 0
Molong West	11	4 0 34	109 0 0	4	13 1 38	81 10 0
Mulwarree	1	0 2 0	5 0 0			
Muswellbrook	14	6 2 2	254 0 0	12	27 0 18	485 0 0
Murrumboola				1	1 0 0	12 5 0

SCHEDULE XXXVIII—*continued.*

Town or Village of	Town. Lots.	Town. Area	Town. Total amount realised.	Suburban. Lots.	Suburban. Area.	Suburban. Total amount realised.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.
Murrumbidgerie	11	5 2 0	54 10 0	6	16 2 16	69 10 0
Mudgee				20	254 0 11	659 12 0
Narooma				3	23 0 0	58 0 0
Narramine	42	21 0 0	295 12 0	16	184 0 20	548 17 0
Narrabri West	8	3 1 5	71 13 0			
Nowra				1	2 2 0	125 0 0
Nyngan	4	2 0 0	184 0 0			
Overton	41	11 2 0	300 2 6			
Parkes	2	0 1 38	70 0 0	1	1 0 32	80 0 0
Pokolbin				1	0 2 1	8 0 0
Ponto	20	10 0 0	96 0 0	1	2 0 23	6 10 0
Port Macquarie	14	6 1 36½	204 5 0	5	4 2 5½	134 10 0
Quirindi	5	1 1 37½	342 0 0			
Repton	7	1 3 32	39 0 0			
Savanake	24	11 3 14	148 0 0			
St. Albans				2	7 3 17	20 0 0
Sturt	3	1 2 0	15 12 6	7	43 3 30	191 0 0
Stuart	4	0 3 14	17 10 0			
Tamworth				2	16 2 33	287 2 0
Temora	2	0 2 0	24 0 0			
Tent Hill				1	1 3 9	5 0 0
Tumbarumba	2	0 2 0	11 7 6	1	1 0 0	7 10 0
Wattle Flat	2	0 1 31½	7 10 0	12	18 3 27¾	91 10 0
Wanaaring	21	5 1 0	409 6 0			
Wandera	1	0 1 16	3 10 0	4	11 3 28	36 10 0
Wardell				2	2 2 3½	25 10 0
Wagga Wagga	4	0 1 19	1,313 5 0			
Walcha				6	13 0 21	57 0 0
Wallendbeen	16	7 3 32	142 10 0			
Weekes	11	3 1 1	346 0 0	7	15 2 26	76 3 0
Wellington				5	24 3 0	79 10 0
Wingen	15	7 1 16	82 3 0			
Wingham	8	3 1 22	152 0 0			
Woodstock	45	16 3 37	1,202 9 0	20	91 3 31	631 10 0
Woogoolga	22	7 3 14½	229 10 0			
Wyndham	22	9 3 8	299 14 0	1	2 0 11	8 0 0
Yantabulla	3	1 2 0	26 0 0			
Young	4	1 0 0	181 18 0	18	25 2 10¾	358 16 0
Totals	891	360 3 5¾	15,234 13 0	461	2,161 3 27½	12,674 7 6

SCHEDULE XXXIX.

RETURN of Deposits forfeited, during 1890, under the 62nd section of the Crown Lands Act of 1884, on account of non-payment of balance of purchase-money within the required time.

Description of Land.	Land District	County.	No. of Lot.	Area.	Amount of Deposit forfeited.
				a. r. p.	£ s. d.
Town	Boorowa	Harden	1	0 2 0	1 5 0
,,	Bega	Dampier	4	1 0 23	7 0 0
,,	Bathurst	Westmoreland	1	0 2 0	2 0 0
,,	Coonamble	Ewenmar	2	1 0 0	2 3 9
,,	Gundagai	Clarendon	2	0 2 2¾	1 5 0
,,	Gunnedah	Pottinger	4	2 0 0	8 3 9
,,	Hay	Sturt	1	0 2 0	6 5 0
,,	Parkes	Ashburnham	1	0 2 0	3 2 6
,,	Stroud	Gloucester	1	0 3 1½	3 11 0
,,	Wagga Wagga	Bourke	2	1 0 0	3 0 0
Suburban	Bega	Dampier	8	10 3 8	13 12 6
,,	Berrima	Camden	1	7 0 30	5 10 0
,,	Grenfell	Monteagle	2	4 0 0	4 0 0
,,	Lithgow	Cook	8	112 2 0	161 2 6
Country	Cowra	Bathurst	1	15 3 10	11 17 3
,,	Metropolitan	Cumberland	19	121 0 9	1,712 4 3
,,	Parramatta	Cumberland	1	4 1 38	40 0 0
,,	Tumut	Wynyard	1	0 2 30	1 5 0
,,	Yass	Harden	1	61 3 0	23 3 1
		Totals	61	346 2 32¼	2,010 10 7

SCHEDULE XL.

RETURN showing miscellaneous amounts authorised for refund in connection with Auction Sales, &c., during the year 1890.

Number of Refunds.	Nature of Refund.	Amount.
		£ s. d.
33	Value of improvements added to the upset price of land sold by auction in accordance with the provisions of the 61st section of the Crown Lands Act of 1884	828 13 5
23	Purchase Moneys and Deed Fees paid in excess in connection with Auction Sales	687 2 4
5	Guarantee Deposits paid under section No 30 of the Land Act Amendment Act of 1875	33 11 9
1	Subdivision Fees paid in connection with Volunteer Land Order Selections	10 0 0
62	£	1,559 7 6

SCHEDULE XLI.

RETURN of Applications to purchase in virtue of improvements under 2nd clause of the Lands Act Amendment Act of 1875 upon which purchase money was paid during the year 1890.

County.	Land District.	Total number of portions purchased in each county, area purchased, and amount paid, exclusive of penalties, during 1890			Class of Land.	Total number of portions, area, and amount paid, exclusive of penalties, for land contained within each Land District.			Penalties.	Total amount paid
		No.	a. r. p	£ s. d.		No	a. r p	£ s. d	£ s. d	£ s d
Bland	Cootamundra	.	.....	.. ..	Suburban	1	2 0 0	10 0 0	. . .	10 0 0
,, ...	Grenfell	..	....	.	Country .	3	980 0 0	1,228 13 6		1,228 13 6
,, ...	Young	5	1,082 0 0	1,376 3 6	,, . ..	1	100 0 0	137 10 0	13 17 0	151 7 0
Burnett ...	Warialda	2	200 0 0	300 0 0	,, ...	2	200 0 0	300 0 0		300 0 0
Cairn	Balranald	1	280 0 0	350 0 0	,, . ..	1	280 0 0	350 0 0	.	350 0 0
Clarendon . .	Gundagai	2	226 2 0	283 2 6	,, .. .	2	226 2 0	283 2 6		283 2 6
Cooper	Narrandera .	1	640 0 0	1,923 18 0	,, ...	1	640 0 0	1,923 18 0		1,923 18 0
Culgoa	Brewarrina	2	1.027 0 0	1,440 0 0	,, ..	2	1,027 0 0	1,440 0 0	50 5 0	1,490 5 0
Cunningham	Parkes .	2	960 0 0	1,200 0 0	,, .. .	2	960 0 0	1,200 0 0	.. ... .	1,200 0 0
Forbes	Cowra	2	865 0 0	1,337 5 0	,, .	2	865 0 0	1,337 5 0	.... .	1,337 5 0
Gipps	Condobolin	.	. .....	.. .. ..	,,	1	100 0 0	125 0 0	..	125 0 0
,, .	Grenfell . .	2	537 0 0	671 5 0	,, . ..	1	437 0 0	546 5 0	...	546 5 0
Hume .	Albury ...	2	189 0 0	527 4 0	,,	2	189 0 0	527 4 0	.. .	527 4 0
Manara	Balranald .. .	1	80 0 0	137 5 7	,, .	1	80 0 0	137 5 7	....	137 5 7
Mitchell .	Wagga Wagga..	1	120 3 0	241 10 0	,, ...	1	120 3 0	241 10 0	. ..	241 10 0
Narran . .	Brewarrina .	1	600 0 0	750 0 0	,, ...	1	600 0 0	750 0 0	. .	750 0 0
Narromine	Dubbo	1	60 0 0	75 0 0	,,	1	60 0 0	75 0 0	. ... .	75 0 0
Phillip	Mudgee	1	239 2 0	359 5 0	,, ...	1	239 2 0	359 5 0	. . . .	359 5 0
Rankin .	Bourke	1	40 0 0	50 0 0	,, .	1	40 0 0	50 0 0	. . .	50 0 0
Selwyn .	Albury .	1	640 0 0	960 0 0	,, ..	1	640 0 0	960 0 0	. .	960 0 0
Townsend	Deniliquin .	11	5,891 0 0	11,245 12 6	,, ...	11	5,891 0 0	11,245 12 6	. .	11,245 12 6
Werunda	Wilcannia	1	40 0 0	50 0 0	,,	1	40 0 0	50 0 0		50 0 0
Woore	,, ..	1	60 0 0	78 0 0	,, . ..	1	60 0 0	78 0 0	.	78 0 0
Yancowinna	,, .	2	200 0 0	250 0 0	,, ...	2	200 0 0	250 0 0	..	250 0 0
		43	13,977 3 0	23,605 11 1		43	13,977 3 0	23,605 11 1	64 2 0	23,669 13 1

SCHEDULE XLII.

RETURN showing the Number and Area of Improvement Purchases applied for during the year 1890, under the 46th section of the Crown Lands Act of 1884, and action taken thereon, to 31st December, 1890.

County.	Land District.	Number of applications and area applied for.			Total number of applications and area applied for in each county.			Number disallowed.	Number of applications approved, and area			Class of Land.	Amount realised.	Number of applications not finally dealt with on 31 Dec., 1890.	Land Board District.
		No.	a. r. p.			a. r. p.			No.	a. r. p.			£ s. d.	No.	
Ashburnham	Forbes	4	0 3 35		..	.....		1		... .. .		Town ...	.. ..	3	Forbes.
,,	,, ...	2	2 0 0		...	.. . ..		2	...	. ... ..		Suburban	.....	.....	,,
,,	Molong	1	1 0 0		...	.. . ..		1	...	. . ..		,, .	... .	... .	Orange.
,,	Parkes	30	7 1 0		.	.....		3	5	1 0 38		Town ..	195 0 0	22	Forbes.
,,	,, ...	43	43 3 31		80	55 0 26		10	...	.. ..		Suburban	.....	33	,,
Bathurst ...	Carcoar	2	0 1 22		..	.. ..		...	...	....		Town .. .	.....	2	Orange.
,, ...	Cowra .	1	0 1 0			.... .			..	.. ..		,, .	....	1	,,
,, ...	,, ...	2	3 0 0		5	3 2 22		1	..	.. ..		Suburban	. .. ...	1	,,
Bland	Cootamundra .	25	5 3 29		...	....		2	...	.....		Town . ..	..... .	23	Wagga Wagga
,, ...	,, ...	10	17 1 3		...	.		...	...	.....		Suburban	. . ..	10	,,
,, .	Grenfell	1	0 2 3½		.	..... .		...	...	.....		,, .	. . ....	1	Forbes.
,, . .	,, ...	6	1 1 34		42	25 0 29½		2	...	... .		Town ..	. ...	4	,,
Buller	Casino ...	1	1 0 0		1	1 0 0		.		.....		Suburban	.....	1	Grafton.
Clarke	Armidale ..	1	0 1 0		1	0 1 0			...	.....		Town ...	... . .	1	Armidale.
Clarendon ...	Wagga Wagga	1	1 0 0		1	1 0 0				..		Suburban	. . .	1	Wagga Wagga
Dowling	Hillston ...	5	1 1 0		5	1 1 0		1	...	... ..		Town	... .	4	Hay.
Gough . ..	Tenterfield ...	1	0 1 0		...	....		1		.. .. .		,, ...	....	. ..	Armidale.
,, . .	,, ...	1	1 0 0		2	1 1 0		1		... ..		Suburban	.....	.... .	,,
Gresham	Glen Innes . .	5	1 1 0		..	.		...	...	... .		Town ...	....	5	,,
,, ..	Grafton	1	1 0 0		6	2 1 0		1		..		Suburban	.....		Grafton.
Kennedy	Parkes .	5	1 0 34¾		5	1 0 34¾			2	0 1 34¾		Town .. .	18 0 0	3	Forbes.
Monteagle ..	Grenfell	5	5 0 0		...	....		2	...	...		Suburban	....	3	,,
,,	Young	3	0 2 15		.	.		1	..	..... .		Town	.. ..	2	Goulburn.
,,	,, ...	2	2 0 0		10	7 2 15			..	.. .. .		Suburban	... ...	2	,,
Murray	Queanbeyan ...	5	0 3 33		...	..		5	.	. .. .		Town .. .	... .	.....	Cooma.
,, ..	,, ...	3	3 0 0		8	3 3 33		..	...	.		Suburban	.	3	,,
Narromine	Dubbo	56	14 1 0		...	. ....		6	8	2 0 0		Town ...	172 0 0	42	Dubbo.
,, ..	,, ...	1	1 0 0		.	.....		1		....		Suburban	.....	.. ...	,,
,, .	Parkes	1	1 0 0		58	16 1 0		1	.	... ..		,,	... .	...	Forbes.
Phillip	Mudgee	2	2 0 0		2	2 0 0		.	..	. ..		,, ..	. . ...	2	Orange.
Raleigh	Bellingen ..	2	2 0 0		2	2 0 0		..	..	... . .		,, .	... .	2	Grafton.
Robinson	Cobar	1	1 0 0		1	1 0 0		1	...	... . .		,, ..	.....	. ....	Bourke.
Roxburgh ..	Bathurst ...	8	1 3 22			... ...		2	...	.....		Town	... .	6	Orange.
,, .	,, ...	2	2 0 0		10	3 3 22			...	. .. ...		Suburban	. ...	2	,,
Sandon ...	Armidale	7	7 0 0		...	... .				. .		,, ..	... .	7	Armidale.
,, ...	,, ...	30	7 1 11¼		37	14 1 11¼		5	6	1 2 0		Town .. .	122 0 0	19	,,
Selwyn	Albury	1	0 1 0		...	. ...			..	.. ..		,, ...	.....	1	Wagga Wagga
,, .	,, ...	1	1 0 0		2	1 1 0			..	... . .		Suburban	... .	1	,,
St. Vincent	Braidwood .	1	1 0 0		..	....		...	...	.....		,,	...	1	Cooma.
,, ...	Nowra	3	0 3 0		.	. ..		...		..... .		Town ..	.. ..	3	Goulburn.
,, ..	,, .	4	3 0 0		8	4 3 0			...	..... .		Suburban	. ...	4	,,
Wellington	Mudgee	1	1 0 0		.	....		.	.	... ..		,, .	. . ..	1	Orange.
,,	Wellington	1	2 0 0		2	3 0 0		..	...	.....		,,	.. ..	1	,,
Westmoreland	Lithgow ...	1	1 0 0		1	1 0 0		..	..	.....		,,	....	1	,,
Wynyard ...	Gundagai ..	2	1 1 18			...		1	...	..... .		,, ..	.. ..	1	Wagga Wagga
,,	Wagga Wagga	1	0 1 0		3	1 2 18		..		....		Town ...	. .	1	,,
Yancowinna	Wilcannia .	205	177 1 20½		..	....		58	118	102 2 20½		Suburban	2,073 5 0	29	Bourke.
,,	,, ...	196	46 . 0 18¼		...	. ..		60	101	14 0 37¼		Town ..	4,544 11 0	35	,,
,,	Willyama . .	243	55 2 13¾		...	. .. ..		26	62	14 0 32¼		,,	1,828 11 6	155	,,
,,	,, ...	284	240 3 6½		928	519 3 19½		22	53	46 0 2½		Suburban	955 10 0	209	,,
	Grand total. .	1220	674 2 31		1220	674 2 31		217	355	182 1 5¼			9,903 17 6	648	

Schedule XLIII.

Return showing Number of Improvement Purchase Applications applied for prior to 1890, under the 46th section of the Crown Lands Act of 1884, and for which the Purchase Money was paid during 1890.

County.	Land District.	Number of applications and area alienated.				Total number of applications and area alienated in each county.				Class of Land.	Amount realised		
		No.	a.	r.	p.	No.	a.	r.	p.		£	s.	d.
Ashburnham	Forbes	2	0	2	0					Town	64	0	0
„	Parkes	12	2	3	36					„	371	0	0
„	„	4	4	0	0	18	7	1	36	Suburban	43	0	0
Bathurst	Carcoar	2	0	2	0					Town	12	10	0
„	„	2	2	0	0	4	2	2	0	Suburban	14	7	8
Bland	Cootamundra	2	0	2	0					Town	61	10	11
„	Grenfell	2	0	2	0	4	1	0	0	„	17	0	0
Dampier	Bega	1	0	0	37					„	9	0	0
„	Moruya	1	1	0	0	2	1	0	37	Suburban	8	0	0
Dowling	Hillston	4	1	0	0	4	1	0	0	Town	79	15	0
Georgiana	Carcoar	2	0	2	0	2	0	2	0	„	16	2	9
Gloucester	Tarce	1	0	1	0	1	0	1	0	„	6	10	0
Harden	Burrowa	1	1	0	0					Suburban	22	0	0
„	Young	1	1	0	0	2	2	0	0	„	7	0	0
Hardinge	Inverell	1	1	0	0	1	1	0	0	„	14	2	0
Monteagle	Grenfell	2	2	0	0					„	19	12	0
„	„	3	0	2	19¼					Town	31	0	0
„	Young	3	0	3	0	8	3	1	19¼	„	80	16	5
Murray	Queanbeyan	1	0	1	34½	1	0	1	34½	Suburban	12	12	6
Phillip	Mudgee	1	0	1	0	1	0	1	0	Town	5	11	0
Roxburgh	Bathurst	2	0	1	32	2	0	1	32	„	86	16	0
Selwyn	Albury	1	0	1	0	1	0	1	0	„	6	7	0
Sandon	Armidale	26	5	2	14					„	1,026	0	0
„	„	6	1	1	21½	32	6	3	35½	Suburban	59	0	0
St. Vincent	Braidwood	3	3	0	0					„	14	10	0
„	Shoalhaven	2	1	0	0	5	4	0	0	„	15	15	4
Tongowoko	Wilcannia	1	0	1	0	1	0	1	0	Town	8	0	0
Westmoreland	Bathurst	1	0	0	25	1	0	0	25	„	4	0	0
Wellington	Mudgee	1	1	0	0	1	1	0	0	Suburban	8	0	0
Wynyard	Tumut	4	4	0	0	4	4	0	0	„	30	2	0
Yancowinna	Wilcannia	154	113	1	25½					„	3,836	10	0
„	„	94	21	3	0	248	135	0	25½	Town	2,883	0	0
	Totals	343	173	1	4¾	343	173	1	4¾		8,873	10	7

Schedule XLIV.

Return showing the number of Special Purchase Applications received within the various Land Districts during the year 1890.

Land Board and Land District.	Clause 63	Clause 64	Clause 66	Clause 67	Total.	Land Board and Land District	Clause 63	Clause 64	Clause 66	Clause 67	Total.
Armidale—						Maitland—					
Armidale	...		1	2	8	Cassilis	...	...	...	2	7
Glen Innes	.	...	.	1		Musclebrook	..	...	...	1	
Inverell			1	1		Singleton	...	...	1	1	
Tenterfield		...	...	2		Taree	...	...	...	1	
Cooma—						Wollombi	..	...	...	1	
Bombala		..	1	...	4	Metropolitan—					
Eden	...	.	...	1		Camden	.	...	.	2	58
Milton	...	.	...	1		Penrith	...	...	1	...	
Moruya	...	...	...	1		Picton			1	...	
Dubbo—						Sydney	8	41	1	3	
Coonamble	...	...		3	3	Windsor		...	..	1	
Forbes—						Moree—					
Forbes	...	..	.	3	8	Walgett	.	...	.	1	4
Grenfell	...	...	..	5		Warialda	...	...	3	...	
Goulburn—						Orange—					
Berrima	.	...	...	2	23	Bathurst	.	..	..	1	11
Burrowa	...	...	...	1		Carcoar	.	...	1	1	
Goulburn	..	...	...	2		Cowra	...	...	...	4	
Gunning	...	..	1	1		Lithgow	...	...	1	...	
Nowra	...	...	...	1		Molong	...	...	...	1	
Yass	...	...	1	4		Rylstone	..	...	1	...	
Young	.	...	4	6		Wellington	...	..	1	.	
Grafton—						Tamworth—					
Bellingen	...	...	1	...	12	Murrurundi	...	...	1	...	7
Casino	...	...	...	1		Narrabri		..	...	3	
Grafton	...	...	..	6		Tamworth	...	...	...	3	
Kempsey	...	...	.	1		Wagga Wagga—					
Murwillumbah	...	.	...	2		Albury	..	...	1	5	25
Port Macquarie	...	...	..	1		Cootamundra	..	...	...	1	
Hay—						Corowa	...	...	...	4	
Deniliquin	...	...	...	4	12	Gundagai		...	1	6	
Hay	...	.	...	8		Tumut	..	...	1	...	
						Urana	.	...	...	1	
						Wagga Wagga	...	...	...	5	
						Grand Total	8	41	25	108	182

Schedule XLV.

Return of Lands alienated during the year 1890 in satisfaction of Special Purchase Applications made under the Crown Lands Act of 1884.

County	Land alienated					Purchase money paid.	Penalties.	Land Board District.
	Clause 63	Clause 64	Clause 66	Clause 67.	Clause 69			
	a. r. p.	a. r. p	a. r. p	a. r p	a r. p.	£ s. d.	£ s. d.	
Argyle				9 1 0		27 0 0		Goulburn.
Auckland					8 0 18			Cooma.
"				7 2 22		49 12 11		"
Camden			0 0 7½			10 0 0		Goulburn.
"				1 0 3½		5 0 0		"
Clarence				2 1 24		3 0 0		Grafton.
"					0 1 38	4 0 0	0 8 0	"
Cumberland	1 1 17½					661 0 3		Sydney.
"		2 3 31¼				953 9 6	0 10 0	"
"			28 2 3			1,064 13 9		"
"				9 3 3¼		152 11 0		"
Gough					23 0 5			Armidale.
"				5 1 19		21 9 6		"
Gowen				13 3 10		45 4 9		Dubbo.
Inglis				5 1 13		13 6 3		Tamworth.
Macquarie				1 1 0		12 10 0		Grafton.
Mossgiel				4 0 0		6 0 0		Hay.
Northumberland	5 3 9¾					776 12 5		Maitland.
Raleigh				1 1 4		8 15 11		Grafton.
Ross				3 1 16		7 10 0		"
Sandon			0 0 17¼			12 0 0		Armidale.
"				5 1 38½		22 9 5	1 2 8	"
Selwyn			9 2 0			12 7 6		Wagga Wagga.
"				18 3 6		23 9 8	2 7 0	"
Urana					29 3 24	65 19 0		"
Wynyard				8 1 25		100 17 6		"
Totals	7 0 27¼	2 3 34¼	38 0 27¾	97 0 24¼	61 2 5	4,058 19 4	4 7 8	

Schedule XLVI.

Return of Lands alienated during the year 1890 in satisfaction of Special Purchase Applications made under the Crown Lands Alienation Act of 1861.

County.	Area alienated.				Purchase money paid	Penalties.	Land Board District.
	Clause 9.	Clause 10.	Clause 11	Clause 12			
	a. r. p.	a r. p.	a. r. p.	a. r p.	£ s. d.	£ s. d.	
Clarence		0 1 24			20 0 0		Grafton.
Cumberland	1 3 30				4,356 12 6		Sydney.
"			4 0 33		50 5 3		"
Gloucester				0 1 38	223 0 0		Maitland.
Goulburn		0 1 18			8 15 0		Goulburn.
Hume		462 1 14			1,283 15 11		Wagga Wagga.
Northumberland				18 3 20½	490 10 0		Maitland.
Total	1 3 30	463 0 16	4 0 33	19 1 18½	6,432 18 8		

Schedule XLVII.

Return showing the number of Volunteer Land Order Applications received during 1890, also the number refused during 1890.

Land District.	County.	Applications received.		Applications refused.	
		Number.	Area	Number.	Area
Albury	Hume	4	200 acres	2	100 acres.
"	Selwyn	2	100 "		
Casino	Drake	2	100 "		
"	Rous	1	50 "		
Coonamble	Leichhardt	1	50 "	6	300 acres.
Corowa	Denison	6	300 "		
Gundagai	Wynyard	2	100 "		
Hay	Waradgery	16	800 "	16	800 acres.
"	Sturt	3	150 "		
Kempsey	Dudley	5	250 "	2	100 acres.
Mudgee	Wellington	1	50 "		
Parkes	Kennedy	1	50 "		
Penrith	Cook	1	50 "		
Tamworth	Darling	3	150 "		
"	Buckland			1	50 acres.
Urana	Urana	1	50 acres		
Wagga Wagga	Wynyard	1	50 "		
Young	Monteagle	1	50 "		
	Total	51	2,550 acres.	27	1,350 acres.

Schedule XLVIII.

Return showing the number of applications in virtue of Volunteer Land Orders refused in 1890, the number satisfied in 1890, and the number remaining undisposed of or unsatisfied on 31st December, 1890.

Refused		Satisfied.		Unsatisfied or undisposed of.		Remarks.
Number.	Area.	Number.	Area.	Number.	Area	
27	1,350 acres	17	850 acres	34	1,700 acres ..	Two applications made during 1890 were satisfied during 1890.

Schedule XLIX.

Return showing the Reasons of Refusal of Volunteer Land Order Applications during 1890.

Number refused.	Reason of refusal.
3	For vagueness of description, and the applications not being signed by the applicants.
1	The land applied for being exempt from alienation under Volunteer Land Order application.
6	The applications not being signed by applicants.
4	The stamp duty on transfers of the certificates not having been paid.
5	The form of measurement applied for being objectionable.
8	The applications not being made in the names of the persons who were the holders of the same according to the recorded transfers.
27	Total number refused.

Schedule L.

Return for 1890—Newcastle Pasturage Reserve Act, 53 Vic. No. 1.

Number of applications tendered.	Number of applications reported on by the Local Land Board.	Number of applications in which sale has been gazetted.	Number of portions included in the gazettal	Area.	Amount of purchase money.	Number of cases undisposed of on 31st December, 1890.	Number of cases not dealt with by the Local Land Board on 31st December, 1890.
				a. r. p.	£ s. d.		
1,169	1,154	869	879	204 0 34¼	55,323 9 0	300	15

SCHEDULE LI.

Return of Lands resumed under the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, during 1890.

Originally reserved or dedicated for.	Place.	County.	Parish.	Portion.	Allotment.	Section.	Area.	Why resumed.
							a. r. p	
Dedicated for Public School ...	Rowan	Wynyard	Rowan ..	116	.. .	.	2 1 0	No longer required.
Dedicated for Public School site .	Bredbo	Beresford	Bransby	98	.	..	2 0 0	Portion 118 dedicated in lieu.
Dedicated Kiama & Shellharbour permanent common.	Kiama	Camden	Terragong .		.	..	795 0 0	Reserves 10,533 and 10,534 for temporary commons notified in lieu thereof
Dedication for show ground	Walgett	Baradine	Walgett	23		.	10 0 6	Portion 75 dedicated in lieu.
Dedicated for permanent common	Orange	Bathurst .	Orange .	58	...		87 0 0	Re dedicated for public reservoir.
Dedicated for Public School site	Wellingrove .	Gough	Wellingrove		1	18	3 2 0	Allotment 1 of section 15 dedicated in lieu
,, ,,	Iluka	Clarence	Nanegai	17	.. .	..	2 0 0	Portion 18 dedicated in lieu
Dedicated for general cemetery	Neville (Mount Macquarie).	Bathurst .	Neville .				4 0 23	Dedication in lieu thereof of 11 a. 1 r. 18 p.
Dedicated for recreation reserve..	Castle Hill . ..	Cumberland	Castle Hill	..	. .	..	38 2 15	Re-dedicated 35 a 2 r. 36 p for show ground.
,, ,, .	East Maitland	Northumberland .	Maitland	..	14	26	2 3 23	Re-dedicated as a site for Girls' High School.
Dedicated for market . ..	Mudgee	Wellington	Mudgee			68	3 3 38	Re-dedicated for public recreation.
Dedicated for public baths ..	Gosford . . .	Northumberland .	. .	..	..	..	0 3 8	Reserve 10,999 for public baths notified in lieu.
Dedicated for cricket ground .	Tamworth ..	Inglis	Tamworth .	.	.		5 2 16	Another site having been dedicated.
Dedicated for hospital site .	Warialda . .	Burnett ..	Warialda ..	..	5 and 6	54	0 2 34	,, ,,
Dedicated for public recreation	Glen Innes ...	Gough . . .	Stonehenge ..	118, 119	..		222 0 0	Dedicated for racecourse.
Dedicated for recreation .	Candelo .. .	Auckland .	Candelo		. .	31	2 1 39	Dedicated as site for Court-house.
Dedicated for public recreation...	Coonamble	Leichhardt .	Coonamble .	212	. .		225 0 0	Re dedicated for racecourse.
Dedicated for Town Hall site .	Wickham	Northumberland	Newcastle .	.	.	..	0 2 27	Land not having been used for the purpose for which it was dedicated.
Dedicated for Public School site	South Casino .	Richmond	East Casino	54	....	..	2 0 0	Dedication in lieu thereof of 2 acres and 36 perches.
Dedicated for Park (public recreation.)	Orange	Wellington	Orange	181	.. .	..	136 1 0	Dedication in lieu thereof 133½ acres.
Dedicated for cattle market site	Grafton	Clarence	Great Marlow..	.	....	..	5 3 28	Another site dedicated in lieu.
Reserved for gaol site . .	,, ...	,, ...	,, .	..	....	..	6 2 3	Another site having been reserved.
Dedicated for Mechanics Institute site	Warren	Oxley	Warren	..	1	11	0 2 0	Land not having been used for the purpose for which it was dedicated.
Dedicated for Public School site	Glen Morrison .	Vernon	Cobrabald	3A		.	2 0 0	Re-dedicated.
,, ,, .. .	Tamworth	.. ..	.. . . .	..	10 & 11	17	1 1 0	Dedicated as a site for Council Chambers.
Dedicated for a general cemetery	Wentworth . ..	Wentworth	Wentworth	..	. ..		10 2 13	Re-dedicated.
Dedicated for permanent common	Yass	King..... . .	Yass and Deringullen	..	...		680 0 0	Reserved for temporary common.
Dedicated for general cemetery ..	Warialda . .	Burnett	Warialda ..	..	. ..	..	7 2 0	11 acres dedicated in lieu thereof.
Dedicated for cattle sale yards	Bathurst	Bathurst	Bathurst	..	. ..	.	6 3 39	Reserved for water supply.
Dedicated for permanent common	Moree	Couralbe	Moree	..	.	..	606 0 30	Included in reserve for temporary common, 12,322
Dedicated for general cemetery...	Deepwater	Gough	Deepwater .. .	..	..	..	7 2 3	Dedication in lieu thereof 14 acres 1 rood 8 perches.
Dedicated for National School site.	Tabulam	Drake	Tabulam	.	1	22	2 0 0	Dedication in lieu thereof, portion 105 of 4 acres.
Dedicated for Market and cattle Sale-yards.	Armidale	Sandon	Armidale	..	5	2	3 3 20¾	Included in reserves 12,260 and 12,261 for market.
,, ,, ...	,, ...	,, ...	,, ...	..	8, 9, 10, 11	98	1 3 30	
Dedicated for cricket ground and public recreation.	Smithtown	Dudley	Cooroonbongatti	..	....	..	5 3 35	Reserves 12,368 and 12,369 and the Public School site include this land.
Dedicated for Church of England School site.	East Maitland....	Northumberland ..	Maitland	..	....	..	1 0 0	Re-dedicated.

SCHEDULE LI—*continued.*

Originally reserved or dedicated for.	Place	County.	Parish.	Portion.	Allotment.	Section.	Area.	Why resumed
							a r p	
Dedication for Public School site	Hall's Creek (Ukolan).	Darling	Fleming	67	..	.	2 0 0	Dedication of 2 acres in lieu thereof.
Reserved for the use of the Agricultural Society of New South Wales.	Parramatta	Cumberland	St. John	75		..	15 0 0	Reserved for show ground.
Dedicated for public road	White Bay (Balmain)	do	Petersham	.	...	.	0 0 46	With a view to alienation.
Dedicated for public recreation	North Willoughby	do	Willoughby		.		45 3 38	do do
Dedicated for Public School site	Bundarigo	Clarence	Lanitza	40	.		2 0 0	Dedication of portion 79 of 2 acres in lieu thereof as a site for Public School
Dedicated for public recreation	Bathurst	Bathurst	Bathurst			Part of 88	0 1 22	Re-dedicated
Reservation, Ham Common	Richmond and Windsor.	Cumberland	St Matthew and Ham Common.				6,006 0 0	Site for Agricultural College, extension of Town of Windsor, &c
Dedicated for public recreation	Grenfell	Monteagle	Brundah	886		.	260 1 0	Included in Reserve 12,695 for Racecourse
Dedicated for public recreation and water supply	Mudgee	Wellington	Mudgee				18 0 0	Re dedication of 2 roods and 8 perches for water supply, and the remainder, about 17½ acres, for public recreation.
Dedications for—								
Fire engine station	Goulburn	Argyle	Goulburn		..	..	0 0 3½	Dedication of allotments 11 and 17 of
Town Hall site	,,	,,	,,		14	2	0 1 0	section 2 for Town Hall site.
Reservation, Pitt Town Common	Windsor and Pitt Town	Cumberland	Pitt Town		.	.	8,875 0 0	Town extension, &c.
Reservation for Police purposes	Marulan	Argyle	Marulan	..	..		8 0 0	Included in reserve 13,174 for Police purposes.
Dedicated for public recreation	Dubbo	Lincoln	Dubbo	.	.	..	47 1 21	Included in reserve 13,175 for railway purposes.
Dedicated for School of Arts site.	Lawrence	Clarence	Lawrence	..		.	0 0 37	Dedication in lieu thereof of allotment 10 of section 3 in lieu thereof.
					Grand Total		18,177 0 36 76	

SCHEDULE LII.

RETURN showing Numbers and Area of Lots offered at Auction, and Number, Area, and Rental of Leases purchased at or selected after Auction, under Section 85 of the Crown Lands Act of 1884.

Land District.	No. of lots offered.	Area of lots offered.	No. of leases purchased at or selected after auction.	Area leased.	Rent.
		acres.		acres.	£ s. d.
Berrima	4	2,120	1	500	3 0 0
Corowa	1	360	1	360	18 0 0
Cootamundra	1	1,135			
Dubbo	2	2,700			
Goulburn			1	630	3 18 9
Grafton			2	1,060	4 0 0
Hay	3	2,109½			
Lithgow	6	3,620			
Milton	3	1,410	2	810	9 0 0
Moruya			1	640	2 0 0
Murrurundi	3	769	3	769	9 0 0
Narrabri	1	1,920			
Picton	20	10,900			
Penrith	6	3,380			
Taree	12	7,072			
Tumut	3	3,130			
Total	65	40,625½	11	4,769	48 18 9

SCHEDULE LIII.

RETURN showing Number and Area of Lots offered, and Number, Area, and Rental of Leases granted by Tender, Section 85, Act 1884.

Land District.	No of Lots offered	Area of Lots offered	No. of Leases granted.	Area of Leases granted.	Rent	Land District	No of Lots offered	Area of Lots offered.	No of Leases granted	Area of Leases granted.	Rent.
		acres.		acres.	£ s. d.			acres.		acres.	£ s. d.
Armidale	4	3,756	4	2,676	18 0 0	Milton	47	26,900	9	5,240	24 16 0
Bathurst	59	26,901	63	28,676	421 6 0	Molong	7	3,768	3	1,940	37 17 6
Bega	1	60	2	379	56 10 0	Mudgee	215	111,729	47	24,409	206 17 4
Bellingen	7	3,780				Muswellbrook			1	350	2 0 0
Braidwood	49	30,650	9	5,510	27 4 4	Orange	17	5,043½	19	9,915	69 12 0
Burrowa	15	7,575	14	7,385	35 5 4	Paterson	1	736	1	226	5 5 0
Carcoar	80	45,865	67	35,447	376 3 8	Penrith	75	43,178			
Casino			1	185	6 0 0	Queanbeyan	43	24,131	6	2,150	85 15 0
Cassilis	21	11,381¾	24	9,927	114 10 6	Rylstone	32	20,236	34	18,154	157 18 0
Cooma	3	1,490	2	1,280	9 0 0	Scone	1	640	1	640	3 5 0
Cowra	14	7,845	7	1,539	59 10 0	Stroud	14	8,548	2	1,045	10 17 0
Denihquin			1	258	20 0 0	Singleton			1	640	2 13 4
Dubbo	2	1,660	3	3,360	38 10 0	Taree	35	27,546	2	298	8 10 0
Eden	2	300	2	300	5 0 0	Tumut	1	230	1	230	2 0 0
Glen Innes	7	3,310	4	862½	37 0 0	Walgett	2	620	2	620	11 0 0
Goulburn	96	48,728	23	9,955	70 3 6	Wagga Wagga	2	24	1	12	3 1 0
Grafton	40	24,500	22	12,930	59 9 9	Wellington	52	32,469	39	21,124	358 4 9
Grenfell			4	838	18 10 0	Windsor	26	13,580	1	20	6 0 0
Gundagai	1	120	1	120	10 0 0	Wollombi	4	2,560	4	2,560	10 13 4
Gunning	6	1,852	7	3,100	27 13 9	Yass	1	146	1	146	10 19 0
Hay	3	2,109¾				Young	1	380	1	380	3 10 0
Inverell			2	1,280	4 0 0						
Lithgow	82	47,570	4	2,340	11 0 0						
Liverpool			4	2,560	8 0 0	Totals	1,068	591,918	446	221,006½	2,453 11 1

Schedule LIV.

Return showing Number, Area and Rental of Annual Leases current on 31st December, 1890.

District.	Number.	Area.	Rent. £	s.	d.
Eastern Division.		acres.			
Albury	22	14,085	157	0	0
Armidale	14	7,736	46	6	8
Bathurst	704	462,171½	3,073	0	6
Bega	3	417	16	0	0
Bellingen					
Berrima	38	30,099	137	11	3
Bombala	8	5,640	22	10	0
Braidwood	110	71,779	380	17	9
Burrowa	145	88,738½	671	19	9
Campbelltown					
Carcoar	548	369,963	2,191	8	8
Casino	12	6,863	229	8	8
Cassilis	397	243,070	1,289	17	4
Cooma	47	31,142¾	280	0	11
Cootamundra	6	2,397	22	8	4
Cowra	45	34,049¼	344	18	0
Dungog	3	2,240	12	10	0
Eden	2	300	5	0	0
Glen Innes	28	11,217	125	11	10
Gosford	2	1,920	7	10	0
Goulburn	233	145,622	901	1	4
Grafton	153	101,090	580	17	10
Gundagai	10	3,953	203	15	0
Gunning	145	87,411¼	527	16	0
Inverell	14	7,305	36	0	10
Kempsey	12	6,571½	45	2	0
Kiama					
Lismore					
Lithgow	228	154,506¾	760	15	9
Liverpool	4	2,560	8	0	0
Maitland	4	2,792	45	6	0
Metropolitan					
Milton	15	7,940	48	10	0
Molong	23	17,304	165	8	9
Moruya	17	8,020	50	17	6
Mudgee	426	270,191	1,614	6	0
Murrurundi	47	29,585	175	19	7
Murwillumbah					
Muswellbrook	8	5,170	26	7	6
Newcastle					
Nowra	48	28,496	190	18	9
Orange	134	86,962	515	9	3
Parramatta					
Paterson	25	15,153	88	9	11
Penrith	12	6,700	36	10	0
Picton	123	85,417	411	19	6
Port Macquarie	22	16 389	71	12	9
Queanbeyan	82	67,011a 3r 12p.	383	16	7
Raymond Terrace	1	132	3	0	0
Rylstone	229	152,751	883	11	0
Scone	309	261,484¾	1,453	19	5
Singleton	11	8,545	57	0	10
Stroud	112	88,030	481	17	5
Tamworth	6	3,177	27	11	8
Taree	36	20,817	172	0	0

District.	Number.	Area.	Rent £	s.	d.
Eastern Division—*contd.*		acres.			
Tenterfield					
Tumut	5	1,767	14	0	0
Walcha					
Wellington	428	310,721	1,894	17	7
Windsor	2	531	8	16	3
Wollombi	9	5,652	24	5	10
Wollongong					
Yass	56	37,190	229	12	9
Young	7	1,775	23	14	2
Totals	5,130	3,432,551	21,177	7	5
Central Division.					
Balranald, South					
Bingera					
Brewarrina, East					
Cobar, East					
Condobolin	8	4,828	106	11	0
Coonabarabran	12	8,923	66	11	0
Coonamble	4	1,580	20	1	8
Corowa	1	360	18	0	0
Deniliquin	42	22,750¼	999	12	7
Dubbo	39	34,091½	446	12	9
Forbes	8	4,211¾	39	10	0
Grenfell	20	12,785¾	109	16	8
Gunnedah	1	750	5	0	0
Hay	34	23,879	297	3	5
Hillston	17	5,329	143	10	0
Moree	5	4,334	94	0	0
Narrabri					
Narrandera					
Parkes	3	2,380	19	17	0
Urana	6	1 927½	113	15	11
Wagga Wagga	5	6,202	39	1	0
Walgett	5	2,255	55	0	0
Warialda					
Totals	210	136,586¼	2,574	3	0
Western Division.					
Balranald					
Bourke					
Brewarrina	4	3,590	46	7	6
Cobar					
Hillston, North	2	2,115	56	0	0
Walgett, North					
Wentworth					
Wilcannia	2	1,133	21	9	2
Totals	8	6,838	123	16	8
Eastern Division	5,130	3,432,551	21,177	7	5
Central „	210	136,586¾	2,574	3	0
Western „	8	6,838	123	16	8
Grand Totals	5,348	3,575,975¾	23,875	7	1

Schedule LV.

Return showing Number, Area, and Rental of Annual Leases notified forfeited during the year 1890.

Land District.	Number.	Area acres.	Rent £	s.	d.
Albury	21	14,840	119	1	0
Armidale	1	80	28	1	6
Bathurst	29	16,478	109	10	0
Berrima	12	6.730	37	4	0
Bega	1	319	49	0	0
Bellingen	3	1,920	6	15	0
Braidwood	5	2,100	15	10	0
Burrowa	50	31.941	178	2	3
Carcoar	28	18,098	150	4	2
Campbelltown	2	690	4	0	0
Cassilis	34	40,898¼	196	12	6
Cooma	23	16,270	271	3	3
Coonabarabran	1	212	2	10	0
Cowra	1	750	5	0	0
Deniliquin	3	1,900	148	15	0
Dubbo	1	1,280	4	0	0
Glen Innes	4	2,043	16	9	9
Goulburn	35	19,273	113	7	11
Grafton	5	2,906	14	2	9
Grenfell	1	500	56	10	0
Gunning	11	6,345	36	19	7
Hillston	6	1,662	154	10	0
Kempsey	3	1,920	6	0	0
Lithgow	26	16,003	90	7	6
Liverpool	4	2,052	40	0	0
Milton	4	3,150	15	13	0

Land District.	Number.	Area. acres.	Rent £	s.	d.
Molong	5	2,431	26	1	0
Moruya	1	620	3	10	0
Moree	1	180	13	0	0
Mudgee	17	8,799	55	3	0
Murrurundi	11	6,380	30	0	0
Murwillumbah	2	1,280	5	0	0
Muswellbrook	2	1,280	5	12	6
Nowra	2	1,600	13	2	6
Orange	7	2,753	65	11	0
Patterson	11	6,921	34	18	9
Parkes	4	2,950	25	5	0
Picton	16	12,740	55	0	0
Port Macquarie	3	1,770	7	10	0
Queanbeyan	47	19.222	177	9	3
Raymond Terrace	1	640	2	10	0
Rylstone	13	8,106	44	19	8
Scone	15	10,798	58	2	3
Singleton	17	10,823	76	2	5
Stroud	19	12,751	61	11	2
Taree	4	2,160	10	11	3
Tumut	1	600	40	0	0
Wellington	33	21,853	161	15	3
Wilcannia	2	351	5	2	6
Yass	4	2,430	10	6	3
Totals	552	349,798	2,857	12	11

SCHEDULE LVI.

RETURN showing number, area, and rent of Annual Leases cancelled during the year 1890.

District.	No.	Area.	Rent.
		acres.	£ s. d.
Forbes	1	1,270	4 0 0
Picton	4	3,290	17 10 0
Queanbeyan	2	810	25 0 0
Young	2	990	14 0 0
Totals	9	6,360	60 10 0

SCHEDULE LVII.

RETURN showing number and area of Annual Leases applied for under section 33 of Crown Lands Act of 1889, and how they have been disposed of for 1890.

Land District.	Number of Applications received during.		Total to be dealt with.	Area applied for.	No. of Applications disallowed and withdrawn during 1890.	No. of Applications Approved during 1890.	No. of Applications not finally dealt with on 31st December, 1890.	No. of leases granted under 33rd clause during the year.	Area of leases granted.	Rent.
	1889.	1890.		a. r. p.					a. r. p.	£ s. d.
Albury	...	7	7	1,850 0 0	.....	1	6	1	33 0 0	5 0 0
Armidale	1	13	14	12,859 0 0	2	.....	12	.....	.....	.....
Bathurst	2	49	51	29,608 3 0	5	4	42	4	2,690 0 0	22 14 0
Bombala	...	59	59	43,878 0 0	7	6	46	6	3,520 0 0	12 10 0
Bellingen	...	15	15	18,560 0 0	.....	.....	15	.....	.....	.....
Berrima	1	...	1	1,664 0 0	.....	1	.....	1	1,500 0 0	6 0 0
Braidwood	...	10	10	6,840 0 0	.....	1	9	1	640 0 0	3 6 8
Bourke	...	1	1	800 0 0	1	.....	.....	.....	.....	.....
Burrowa	...	31	31	15,133 0 0	2	.....	29	.....	.....	.....
Campbelltown	...	1	1	300 0 0	1	.....	.....	.....	.....	.....
Carcoar	2	54	56	44,921 0 0	7	.....	49	.....	.....	.....
Casino	3	44	47	41,826 0 0	6	.....	41	.....	.....	.....
Cassilis	...	15	15	8,995 0 0	1	.....	14	.....	.....	.....
Cobar	...	1	1	1,280 0 0	1	.....	.....	.....	.....	.....
Cooma	...	26	26	22,376 0 0	1	3	22	3	1,810 0 0	7 11 8
Cootamundra	...	21	21	15,349 2 1	3	2	16	2	625 0 0	10 8 4
Cowra	...	48	48	25,853 1 30	.....	.....	48	.....	.....	.....
Deniliquin	...	14	14	11,590 0 0	7	.....	7	.....	.....	.....
Dubbo	...	21	21	18,937 2 0	3	2	16	2	241 2 0	3 0 6
Dungog	...	1	1	370 0 0	.....	.....	1	.....	.....	.....
Eden	...	1	1	640 0 0	.....	.....	1	.....	.....	.....
Forbes	...	2	2	1,888 0 0	.....	.....	2	.....	.....	.....
Glen Innes	...	52	52	78,260 0 0	2	.....	50	.....	.....	.....
Goulburn	...	68	68	41,185 3 0	10	30	28	30	22,079 0 0	126 12 8
Grafton	9	136	145	136,144 2 30	9	21	115	21	19,431 0 0	122 15 4
Grenfell	...	21	21	15,575 0 0	11	6	4	6	5,421 0 0	24 15 0
Gundagai	...	8	8	5,336 0 0	.....	.....	8	.....	.....	.....
Gunnedah	...	4	4	7,600 0 0	.....	.....	4	.....	.....	.....
Gunning	1	73	74	44,443 2 0	11	43	20	43	28,244 2 0	172 15 3
Hay	...	1	1	260 0 0	.....	.....	1	.....	.....	.....
Hillston	...	1	1	150 0 0	.....	.....	1	.....	.....	.....
Inverell	2	12	14	38,930 0 0	2	.....	12	.....	.....	.....
Kempsey	...	1	1	57 1 0	.....	.....	1	.....	.....	.....
Lithgow	...	33	33	19,070 0 0	.....	.....	33	.....	.....	.....
Maitland	...	1	1	35 0 0	.....	.....	1	.....	.....	.....
Milton	...	1	1	480 0 0	.....	.....	1	.....	.....	.....
Molong	...	56	56	50,281 0 0	6	.....	50	.....	.....	.....
Moree	...	1	1	150 0 0	.....	.....	1	.....	.....	.....
Mudgee	...	27	27	15,395 2 0	1	.....	26	.....	.....	.....
Murrurundi	4	13	17	13,811 0 0	2	.....	15	.....	.....	.....
Muswellbrook	...	1	1	259 0 0	.....	.....	1	.....	.....	.....
Nowra	...	2	2	691 1 0	.....	.....	2	.....	.....	.....
Orange	...	17	17	4,829 0 11	1	1	15	1	38 0 0	2 0 0
Parkes	...	1	1	Not stated.	.....	.....	1	.....	.....	.....
Paterson	2	6	8	3,600 0 0	1	.....	7	.....	.....	.....
Penrith	...	3	3	740 0 0	.....	.....	3	.....	.....	.....
Port Macquarie	...	3	3	3,200 0 0	.....	.....	3	.....	.....	.....
Queanbeyan	...	5	5	2,717 0 0	.....	1	4	1	12 3 12	2 0 0
Raymond Terrace	...	2	2	320 0 0	.....	1	1	1	132 0 0	3 0 0
Rylstone	...	40	40	22,838 0 0	2	.....	38	.....	.....	.....
Scone	28	35	63	78,306 0 0	7	34	22	45	41,906 2 0	207 16 8
Singleton	...	3	3	714 3 0	.....	.....	3	.....	.....	.....
Stroud	8	4	12	7,005 0 0	.....	.....	12	.....	.....	.....
Tamworth	...	45	45	52,502 3 0	4	.....	41	.....	.....	.....
Taree	...	6	6	7,380 0 0	.....	.....	6	.....	.....	.....
Tenterfield	1	...	1	7,040 0 0	1	.....	.....	.....	.....	.....
Tumut	...	3	3	3,012 0 0	.....	.....	3	.....	.....	.....
Urana	...	2	2	635 0 0	.....	.....	2	.....	.....	.....
Wagga Wagga	...	2	2	20 0 35	.....	.....	2	.....	.....	.....
Walcha	...	1	1	6,400 0 0	.....	.....	1	.....	.....	.....
Walgett North	...	2	2	1,180 0 0	.....	.....	2	.....	.....	.....
Wellington	...	21	21	10,096 3 0	1	5	15	5	3,070 0 0	28 12 8
Wilcannia	...	2	2	1,200 0 0	.....	.....	2	.....	.....	.....
Wollombi	...	5	5	3,849 0 0	.....	.....	5	.....	.....	.....
Yass	...	14	14	9,283 0 0	1	5	8	5	3,248 0 0	21 7 6
Young	...	18	18	13,142 1 0	5	2	11	2	1,030 0 0	6 19 2
Totals	64	1,186	1,250	1,063,635 3 27	124	169	957	180	135,672 1 12	789 5 5

SCHEDULE

RETURN of Reserves from

Purpose :—	Aborigines		Access.		Camping		Cemetery.		Conditional Purchases on Goldfields.		Conditional Sale.		Construction of Canal.		Crossing.		Drainage.		Exchange of Land.		Military.		Mining.		Pending Subdivision or Survey.		Plantation.		Police.		Preservation and growth of Timber.		Public Buildings.		Public Pounds.	
Land Board and Land District.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area.	No.	Area.	No	Area.	No	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale—																																		
Armidale	..	..	1	258	2	245	2	3	2	31300	..	.		.	1	20		.	7	1765	..	.	.		37	59069	1	3		4	20315	2	6	2	3
Glen Innes	..	..	..	.	3	178		.	..	..	..			.	1	1		.	7	1646	..	1	1700		2	430	1	5	.	8	11220		.		..
Inverell	..	..	..	..	.	.		..								..				..		.	.		3	4418	1	1				1	12	.	.
Tenterfield	..	..	1	43	1	40	1	8	1	13000	.	.		..		..		.		..		.	2	2420	.			..	..	1	1700	.	.		.
Walcha	..	.	..	..	3	232	..	..	3	21738		.	.	..		..		..	22	8103	..	.	.		2	600		.	..		.		.		.
Bourke—																																		
Bourke	..	.	..	..	.	.		.		..	.	.		.	1	5	1	2	.	.	.	..			..	.						.	1	2
Brewarrina	..	.	..	..	..	.		.		..	.	..	..			..	..	..		.	..	.			2	3760			1	1		.	..		..
Cobar	..	.	..	..	..	.	1	1	..	.	.	..				..		.	..	.	..	.				.		..		.					.
Wilcannia	..	..	1	120		..	..	..		..	.	..				..		.		.		.				.		.	1	200		..	2	3	..	.
Willyama	..	..	.	.	.	..	..	..	..	.	.	..				..		.		.		..	.	..	..	..		.	1	34	1	275	.	.	1	2
Cooma—																																		
Bega	..	..	.	..	.	..		..	1	2000	.	.						..				.	1	1400	.	..		.	.	2	500	.	..		..
Bombala	..	..	..	..	.			..	..		.	.								.		.	.	..	..					..	.	.	..	..	..
Braidwood	..	..	..	.	.	..	1	22	..		.	..										.	.												
Cooma	..	..	..	..	6	1300		..	1	67668	.	..				..		.	2	581	.	.	.		5	5908	1	1		2	1430	..	.	3	10
Eden	..	..	1	1	5	923	.	..	1	6500	..	..				..		.	.	..	.	..	1	1320	.	.		.		.	.	3	13	.	.
Milton	..	..	.	..	..	..		..	..	..		..						..		..	..	..	1	1920				.		1	55000	.			.
Moruya	..	..	3	40	.	..		..	..	..		..				.		.		.	..	..		..	4	2683		.	.	1	50000	.			.
Queanbeyan	..	..	..	.	1	194	.	..		..		..				.		.		.	..	.		.		.		.			..	.	.		.
Dubbo—																																		
Coonamble	5	1514	..	..	1	640				..										.		..		.	..							.	..	..	
Dubbo	2	500	.	..	1	640	1	11	.			..				.		.		.				.	1	480	1	11	1	1			5	13	2	7
Forbes—																																		
Condobolin	.	.	..	.	..	.		..	1	2560	1	700								..															
Forbes	..	.	2	555	5	509	.	..		.	3	1225						.		.		.								2	2820				
Grenfell	..	.	1	1600	.											..		..		..		..					1	10		5	5900				..
Parkes	..	..	2	197	5	1619	1	27		.		.				.		.		.		.					1	4	.	1	2775				
Goulburn—																																		
Burrowa	.	..	5	51	1	250	1	2	.	.		..		..	.	.			1	160	..	.		..		..	..	.	1	26				..		
Berrima	1	370	.	..	1	460		..	..	..		.		..		..				.		..		..		.		.							
Goulburn	.	..	..	..	1	367		.	.	..	1	46000		.	..	..		..		.		..		..		.		.	1	10	1	1600		..		
Gunning	.	..	.	..	2	200		..		.		.		.		.	.					..		..		.		.				..	.	1	1	
Nowra	..	..	..	..	..	..		.	..	..		.		..	.	.				.		.		..		.		.		..						
Yass	1	3	..	..	3	580		..		..		..		..		.				.		..		..		.		.							
Young	..	..	3	1190	1	13		..		..		..		..		.			1	110	..	.		..	.	.		.			.	.			
Grafton—																																		
Bellingen		..	4	749	1	330	.	.	.	..		.		.		..						..			2	1600	.	.	.		..	5	38		..
Casino	.	..	1	70	1	200	.	..	.	..	..	..	.	..				.	21	13554	2	541	1	100	4	3400	.	..	.		1	16600	1	1	1	2
Grafton	..	..	3	54	3	860	..	..	.	..	1	2000	..	.		..		.		..		..		.	.	.	2	18	4	35	1	18560	2	4	1	2
Kempsey	1	147	1	62	1	150				..		.		.		.	1	157		.		..		..	3	1140		..	1	20	1	6500	7	14	1	1
Lismore	1	640	1	172	2	260	3	6		.		.		..			1	1	..		2	47	.	..	..		1	8	2	14	1	5900	1	1		..
Murwillumbah	..	..	4	1167	.	.		..				.			.		..	...	.			..		.	1	72		..			1	150	1	7	1	1
Port Macquarie	..	..	2	2	..	..		..		.		.					1	157		.	..	.		.	1	4800	2	2	2	2645			2	3	.	.
Hay—																																		
Balranald	..	..	..	..	.	..	.	..		..																								
Deniliquin	..		2	56	..	.		..	.	..		.	19	2848	3	108		.	..	.	.	..	..	..	3	1422	2	68	2	6	..	..	4	13	1	2
Hay	..	.	4	1322		..		.		.		..		.	4	77		.		.		.		.	1	612		.	..		8	4912	1	25	1	2
Hillston	..	..	1	18	.	..	.	..		.	.	.						.	.	..		.		..	1	1753	.			.	1	744	2	6		
Wentworth	..	..	.	..		..		.	..	.	..	.			..		.			.	..	.		.		.									..
Maitland—																																		
Cassilis	..	..		..		..	..	.												.			.	.		..		.							
Dungog	..	..	.	..	.	..														.				..	.	.	1	1			1	2			
Gosford					1	23	1	23				.								.															
Maitland	..	..		.		..	.	.								.	1	1		.		..					1	1	1	38			3	8		
Muswellbrook	..	..	1	11		.		..		.		..				.				.		..		..		.		.			..	.				
Newcastle	..	..	..	.		.		..		..		.		..		.		.		..		.	.	..		.				..	..	..				
Paterson	..	..	1	5	.	.		..	..	..	..	.				.		.		.	..	..		..		.		..			.	.				
Raymond Terrace	..	..	2	2	..	..	..	..	..	..	..	..		.		.		.	..	.		..		..		.					.	..	.	..	..	
Scone	..	..	..	..	.	..	.	..		.		..		..		.		..		.		..		.	2	630									
Stroud	2	4	6	219	.	.		..	.	.		.	.	.		.				.					1	10600			..		.		.		
Singleton	1	58	.	..	2	226		.		.		.	.	.		.	..	.		.	..							..	1	4	..					
Taree	1	6	5	63	1	21	.	..	..	..		.		.	.	.	1	50		..		..		.	3	32960	1	11		.	3	13200	1	1		.
Wollombi	..	..	..	..	1	320	..	.				.		.		.		.						.											
Moree—																																		
Bingara	.	..	.	..	.	..	.	..	..	..		..		.						..		.	.	.											
Moree	..	..	10	1630	7	2863		..		..		.	1	350		.				.		.		.	1	6600			1	3		..	2	2		
Walgett	..	..	.	.	9	4515	1	46	.	..	.	..		.		.		.	.	..	.	.		.	1	64260		.		..	.	.	2	27		
Warialda	..	..	2	62	7	1237	2	31	.	..	..	.	.	..		..		..	.	.	.	..		.	..		1	22	2	32		.	2	3	1	2
Orange—																																		
Bathurst	..	..	..	..	3	2	2	30	.	.	.	.	.	..	..	.	3	7	.	..		.	3	580	..	.	2	5	2	86	1	2260	4	18		.
Carcoar	..	..	4	7	.	..	..	..	..	..	2	10575		.		..		..		.		..		.		..	1	9	.	.	2	6010	2	2		
Cowra	1	30	.	..		..		..	.	.		..		.	..			..	3	1100		..	3	135	12	16194	..			..	1	16630	2	11	1	1
Molong				.	2	449		..						.					1	300					16	28793					1	460	1	3		
Mudgee					2	215									2	2							8	158	1	32	1	69					10	12		
Orange						.					1	120											5	240	1	680										
Rylstone	2	2																																		
Wellington			2	720	1	6																			1	6100							1	1		
Lithgow		.		.	3	347	1	1								.		..				..	1	46	.									1	1

LVIII.

Sale, notified 1890.

Public Recreation.		Public School Purposes.		Quarry.		Racecourse.		Railway.		Refuge in time of Flood.		Roadway.		Show Ground.		Special Lease.		Suburban Settlement.		Temporary Common.		Travelling Stock.		Trigonometrical Purposes.		Village Purposes.		Water Supply.		Sundries.			Total.	
No	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area.	No	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No	Area.	No.	Area.	Purpose.	No.	Area.	No.	Area. in acres.
1	2350				..			2	1610		..						.	3	1613	2	2246	6	2960			1	183	10	11200	. ...	.	..	86	135149
		2	6																	2	2500	5	5254			2	4150		.	.. ...		..	34	27090
1	100							1	1584													3	2225			1	1500	1	209	....		..	11	9949
				4	20		.	6	1796		.															..	.	4	1183	. . . .		..	18	20290
	.		..						.					..						1	261							.	. ... . .		.	35	30959
7	81	2	19									4	476	1	8					2	5600	15	35817					7	71680	. . . ...		..	37	113214
			.																		.	10	46165	.						.. . .		..	17	50402
		1	1		..			2	195940											1	40	8	14417							. . .		..	13	210399
1	10	1	5		.					..					.					1	12700	16	215879		..			1	10240	Rubbish	2	30	26	239187
																														Storage of explosives ..	1	10	8	
1	6				.				..		.			.	..		.		..		..	1	36		..	1	879		..	Rubbish	1	20	..	1262
		1	10												..						..				..		..	1	3	. .. .		..	6	3913
								6	4283				.								..	1	140		.		..	.	.	.....	.	..	7	4423
									.				..									1	240	2	21		..	.		. ...		..	4	283
8	178	1	17	1	40		.		.		.				.		.		.		.	1	400	.	..		..	9	1257	... ...	.	..	40	78790
	.		..						.		.				.		.		.		.		.		.		..		.. ..	.	..	11	8757
					..								..		.		..				.		.				.	2	33	.. . .	.	..	4	56953
1	1180																				.						.			....		..	9	53903
	.			1	42				..		..		.	1	6						..	12	2894	6	64		..	10	3543	....		..	31	6743
	.						.	1	40		.		.	1	20	..	.					2	870				..	3	660	.. ..		..	13	3744
2	26						..	1	11				.				.			2	4490	2	650			1	1800	13	6215	Auction sale only	1	190	37	15052
																												1	7	Powder	1	7	..	
																								1	100			1	619	. ....		.	4	3979
	.			1	111					1	49		.		.					3	6410	6	2533				..	1	43	Other than residential special mining lease.	1	19100	25	33355
1	4			2	50	2	433	4	23948													2	780					1	20	,, ,, .	1	25300	20	58045
								1	100							1	5			1	1287	5	13064		.			1	240	,, ,, .	1	22170	20	41488
1	4	1	8											1						1	1340	3	720	2	16		.	4	373	Auction sale only . ..	1	40	22	2990
															.							2	560					2	43	Post and Telegraph .	1	1	7	1434
	.	1	30			1	280	1	4											1	2000	1	50	2	7			1	5	... ..		..	11	50323
																						1	106					1	54	Roads	1	22	7	413
		1	8	2	340																	1	125	1	640			1	57	. . . ..		.	3	822
		2	21	1	11										..					1	542	4	1339					1	181	. . . .		.	13	2993
																						2	453	1	8	.		12	8959	. .		.	23	10765
	..				..										.						.							7	364	Traffic	1	6	20	3087
								6	2790	1	200		.							1	300	6	1843					9	2050	Roads . .	1	4	57	41655
5	203	3	11					2	25750	6	1430									1	300	7	2105					11	1282	Tram	2	1202	55	53825
																														Hospital . ..	1	9	..	
2	92	1	8					2	6	1	500	.				2	10		..							1	150	8	959	Wharf .	1	1	35	9917
5	379	1	2	1	3															1	87	1	140			1	770	5	236	Harbour	1	1	33	8131
1	112			3	89			4	810			1	2		..		..								.		1	360	Wharf . . .	2	4		2770
2	103			1	5																									Lighthouse	1	60	19	
																					.									....		..	13	7717
																						4	11549							. . ..		..	4	11549
2	14										.				.	1	10			2	6445	3	2220		..		.	2	361	Auction only	1	150	47	13723
2	140									2	910						.			1	640	6	2209					3	168	Wharf	2	8	71	16796
																														Canal	36	15771	.	
1	80							1	62720		..											19	32126		..		..			....		..	26	97447
													..							1	2400		.				..		. ... . .		.	1	2400
	..											6	1075															2	240	. . ..	.	..	8	11315
							.														.									. ...		..	2	3
1	1		.						.					1	10										..		..	1	80	. .....		..	5	137
3	7				.			2	4																					. ..		.	11	59
								1	80						.									1	46					Eradication of prickly pear.	1	200	4	337
		..																												Town Hall site	1	1	1	1
								1	950																.			1	57	. . . .		..	3	1012
	.															1	7			1	170				.					. . . . .	.	.	4	179
	.	1	2												.		.	..		1	320	2	462				..		.	Eradication of prickly pear	5	820	11	2234
	.							11	14488				..		.	.	.	..		.	..	.	..		..	.	..	2	8	Roads	1	6	23	25325
	.								.		..				.		.				..	1	62		..		..		..	Auction sale only	1	356	6	706
																														Reclamation	1	40		
																														Wharf	2	71		
2	47	1	8				.	3	3443		.	1	20	.	..		..		..	.	..	..	..		.	1	480	3	125	Municipal	1	67	27	50796
																														Lighthouse	1	120		
																														Pilot Station	2	63		
			.		.		..					.	.		.		..				..		..		..		..			.....		..	1	320
		1	8																											. .....		..	1	8
1	7	1	1					13	7453	4	7400		..						.	1	1230	2	300		..		.	2	648	.....	.	..	46	28487
2	281		..						..			..		1	20		.		.	1	1080	4	23940				..	3	11120	.. ..		..	24	105289
2	54								.		..								.			1	335	1	30		.	2	2767	. .....		..	23	4575
	.		.					2	28		.		..		..		.		..	3	1701		.		.		..	12	1890	Reservoir.....	1	8	38	6615
2	2		.		.		.	1	30	.	.		..		..		.		..	1	113	3	1460		..		..	6	2417	....		..	24	20628
3	23	3	22	.	.		..		..		.		.		.		.		.	1	1530	3	967		..		..	8	126	Auction sale only ...	1	360	36	37134
																														Trucking	1	5	.	
1	75		.				..	6	1415		.							1	100		.	3	1018		..	1	380	22	6939	.....	..	..	55	39932
3	11						.		.		.		.		..		..		.	1	180	.	.		..		..	7	140	. .. .		..	35	819
1	1	.	.		..				..		.		.		.		.				..		.		..	..	..		.	.....	..	..	8	1041
					..	..	.		..	.	..	..	..		..	1	7		.		..		.		..		.		.	.. .. ..			3	39
	.		.	1	20		.	2	5	..	..		..		..		.		..		..		..		..		..		.	Reservoir	1	23	9	6875
1	2		.		.		..	1	26		..		..		..		..		..		..		..		..		..	1	60	.....	..	..	9	463

SCHEDULE

Purpose :—	Aborigines.		Access.		Camping.		Cemetery.		Conditional Purchases on Gold-fields		Conditional Sale.		Construction of Canal		Crossing		Drainage		Exchange of Land.		Military		Mining.		Pending Subdivision or Survey.		Plantation.		Police.		Preservation and growth of Timber.		Public Buildings.		Public Pounds.	
Land Board and Land District.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area.	No	Area	No.	Area.	No	Area.	No	Area.	No	Area.	No.	Area.	No.	Area.	No	Area	No.	Area.	No.	Area.	No.	Area	No	Area.	No	Area.
Sydney—																																		
Campbelltown		.																														..		.
Kiama ..	..			.																..	.							.		.		.		.
Liverpool			1	1	.		1	2											.								1	1	.	.	1	2		..
Metropolitan .		.	1	1						.														2	393								1	1
Parramatta .			1	10					.						..																2	1		
Penrith . .																																		
Picton .. .			1	1			1	470																										
Windsor . .		..																									.	1	31		1	2		.
Tamworth—																																		
Coonabarabran .			5	830	1	368											1	2	1	122							1	14	1	52	1	6500	1	8		..
Gunnedah																																		
Murrurundi			1	5															1	3				4	2131									
Narrabri...		.	3	2670				..																1	920									
Tamworth		.	14	417	..						1	720			1	3			6	766				12	40680				8	630			2	3
Wagga Wagga—																																		
Cootamundra ..			10	791	2	156																		41	50738		..	1	1	2	622	1	1		
Gundagai ...			2	216															6	1126				3	722			2	25				..		..
Narrandera		.			3	704		..					4	2536										1	94					1	1080		..		..
Urana			2	316	2	167				.			6	2411								.							.			.		
Albury .			4	1435	6	1372							5	456	1	1			5	618			3	1474	17	6283	1	1	2	23	1	892	7	16	1	5
Corowa . . .			4	1040	2	727	1	14			4	145															2	3	3	63			3	14		
Tumut . .	1	3			1	107																		3	600									
Wagga Wagga			3	1388	1	129							2	800									1	640	4	607	2	3			1	1000				
Total	19	2677	128	19573	107	24144	21	697	10	144766	14	6145	37	9401	14	217	10	377	84	28 53	4	588	31	12133	198	152132	28	233	30	3420	652	258185	86	293	23	48

SCHEDULE

RETURN of Reserves from

Purposes .—	Aborigines.		Access		Camping		Cemetery		Conditional Sale within Gold field.		Eradication of Prickly Pear		Mining		Pending Subdivision.		Preservation and Growth of Timber.		Public Buildings.		Public Purposes		Public Recreation.		Public School Purposes	
Land Board and Land District.	No.	Area.	No	Area	No.	Area.	No	Area.	No.	Area.	No	Area	No	Area.	No	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area.	No	Area
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale—																										
Armidale	.	...	2	360	4	1037	1	12	1	7300	...	...	..	. .	1	5280	6	4984	..	...	5	911	.	...		...
Glen Innes.....	..	...	.	...	1	10	...	...		...	.	...	1	201600	3	1160	2	3200	1	1	2	322	..	...	...	...
Inverell		...	.		..	. .	..	...	1	420	.	...		...	1	3	..	...		. .		...	...	. .		...
Tenterfield	.	...			.		..	.	1	11000	...		1	201600	...	. .	1	7680		...	.	...		...	...	...
Walcha	.	...	1	469	2	426	.	...	..	...	.	. .		...	4	7683	2	3740		...	3	714		...	...	...
Bourke—																										
Bourke	.	...		...	1	300	.	...	..	. .		.			..	...	...	...	2	3	.	...	...	...	...	...
Brewarrina	..	. .	..	...	1	240	..	...	.	...		.	.	...		...	.	...	..	.	...	...	..	...	..	...
Cobar	...	...	..	...	1	640	.	.		.		.		...	.	..		...	..	.		...	1	1	..	...
Wilcannia	..		2	760	3	1630	.	...	..	.	..		...	...		..	..	.		. .	.	...	2	9	...	...
Willyama	...		1	54	..	...		.	..	...	...	.	..	...		.	...	.		...	1	1	2	8	...	...
Cooma—																										
Bega		.	.	..	2	43	..	...	1	15500		...	...	...	..	...	2	10500	..			...	..	...	1	10
Bombala			..	...	1	306	...	.		...	..	...		...		...	3	890	..	...	...	...	...	...		...
Braidwood	..	...	.	...	...	...		...	..	...		...		...		. .	...	.	..	...	...	...	..	...		...
Cooma		. .		...	2	500	.	.	..	...	..	.	...		1	1000	..	...	1	1	1	14	..	...	1	14
Eden	..	.	...	..	2	930	..	.	..	.	.	...			...	.	...	. .	1	1		...		...	..	...
Milton....	...	...	..	...	..	...		.		.	.	...		...	...	..	1	660	..	...	...	...	..	...	.	...
Moruya	..	. .	...			. .	..	...	.	...	...	.	...		..	..	4	104642	..	..	1	13		...	...	...
Queanbeyan		...		...	2	1100	.	...	...	...	...	...		...		..	2	645	...	.	.	.	1	195		...
Dubbo—																										
Coonamble		.	3	620	3	6030	..	...		...	.	. .		...		.	2	2480	..	.	.	...		...	..	...
Dubbo		...	...	.	7	3525	..	...	...	...	..			...	2	1480	...	.	1	3	2	4	..	...	..	...
Forbes—																										
Condobolin	..	...	2	1457	1	960	..	...				...	..	...			1	18	..	...		...	..	...	..	...
Forbes	...	.	6	3141				. .	3	49	..	..		...		...	...	...	..	...	4	194		...	.	...
Grenfell	..	...	7	5552	...	.	..	. .	3	1658	.	...	...	. .	..	...	3	291	...	. .	..	...	1	10	...	...
Parkes	..	...	3	1157	9	1170	.	...	3	646		...	...	...		...		...		...		...	.	. .	1	2

LVIII—*continued.*

Public Recreation.		Public School Purposes.		Quarry.		Racecourse		Railway.		Refuge in time of Flood.		Roadway.		Show Ground.		Special Lease.		Suburban Settlement.		Temporary Common.		Travelling Stock		Trigonometrical Purposes.		Village Purposes.		Water Supply.		Sundries.			Total.	
No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	Purpose.	No.	Area.	No.	Area in acres.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	20	.....	..	..	2	21
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Baths	1	1	1	1
1	10	..	..	..	..	..	..	1	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Municipal	1	12	8	37
																													Asylum	1	3		
..	..	..	..	..	..	..	..	1	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Convalescent Home....	1	20	6	435
1	142	..	..	..	..	..	..	2	8	..	..	..	..	1	23	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.....	..	..	2	39
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.....	..	..	5	151
..	..	1	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	124	.....	..	..	4	595
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	6	.....	..	..	4	51
5	42	..	..	..	..	..	..	..	..	2	160	1	1	..	..	..	..	..	..	..	..	1	430	..	..	..	..	1	860	.....	..	..	7	2058
..	..	..	..	..	..	..	..	3	1125	..	..	..	..	..	..	1	5	..	..	..	..	7	10490	..	..	..	..	3	363	Auction sale only	1	265	19	7959
1	8	1	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2845	..	..	..	..	4	2239	.....	..	..	9	4425
																												3	1789	.....	..	..	19	17002
..	..	..	..	1	20	..	..	5	11210	..	..	..	..	..	..	..	..	..	..	..	..	5	377	..	..	..	..	14	205470	Hospital site	1	1	65	251551
..	..	..	..	1	6	1	100	..	..	..	..	1	4	..	..	..	..	..	..	..	..	2	3205	..	..	..	..	6	2613	Rubbish	1	2	77	56531
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	..	3	3714	..	..	..	..	5	1445	Auction sale only	2	600	23	6843
																														.....	..	..	13	8131
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	145	..	..	3	2023	..	..	1	535	3	199	Auction sale only	1	58	19	5854
4	46	1	7	2	102	..	..	1	176	..	..	..	..	..	..	..	..	..	..	..	..	11	3850	..	..	..	..	11	2109	Sale-yards	1	5	89	18107
																														Auction sale	4	1233		
																														Botanic gardens	1	3		
6	56	3	9	..	..	..	..	..	..	..	..	1	261	..	..	..	..	..	..	..	..	1	262	1	2	..	..	2	58	Auction sale only	2	833	38	3512
																														Wharf	1	14		
																														Custom House site....	1	1		
																														Municipal	1	10		
..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1280	1	300	1	275	..	..	..	..	..	..	.....	..	..	9	2567
1	55	..	..	..	..	..	..	1	62800	..	..	..	..	1	12	..	..	1	160	..	..	9	1847	..	..	1	960	2	250	.....	..	..	30	70651
75	5932	32	225	22	859	4	813	97	424659	17	10649	13	1839	7	99	8	47	7	3298	36	56212	222	457731	19	935	12	11787	263	366809		95	87306	1856	1336133

LIX.

Sale revoked during 1890.

Quarry.		Race-course.		Railway.		Refuge in time of Flood.		Tem-porary Common.		To protect Crown Lands pending legislation.		Traffic.		Travelling Stock.		Village.		Water Supply.		Sundries.			Total.	
No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	Purpose.	No.	Area.	No.	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.			ac.		ac.
...	...	...	...	4	1325	...	...	1	10	47	4333	...	...	9	3970	2	740	40	23553	Driftway	1	630	124	54495
...	...	1	216	2	47	...	...	...	...	15	2805	...	...	8	3771	1	290	14	4912	.....	...	...	51	218334
...	...	...	...	...	...	...	...	...	...	27	3197	...	...	6	2233	...	...	9	5993	.....	...	...	44	11846
...	...	...	...	...	...	...	...	1	100	20	2382	...	...	1	897	...	...	2	540	.....	...	...	27	224199
...	...	...	...	...	...	...	...	...	...	14	3042	..	...	...	....	...	...	15	10197	.....	...	...	41	26271
...	...	...	...	...	...	...	...	1	18	40	15766	...	...	10	28096	1	2126	8	7690	Special Lease	1	5	64	54004
...	...	...	...	...	...	1	1120	...	...	41	18569	...	...	8	27820	...	...	15	19338	.....	...	...	66	67087
...	...	...	...	...	...	...	...	...	...	20	3207	...	...	5	8152	...	...	1	640	Tramway	2	155	31	13033
...	...	...	...	...	...	...	...	2	17	...	...	...	...	12	135778	1	4600	15	6491	Tank	1	238	...	
...	...	...	...	...	...	...	...	5	118	...	...	...	...	...	...	...	...	1	36	.....	...	...	37	149285
																				Storage and Explosives ...	1	10	11	227
...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	1	40	.....	...	...	7	26093
...	...	...	...	1	340	...	...	...	...	22	2139	...	...	...	...	1	1	3	282	.....	...	...	31	3958
...	...	...	...	1	240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	240
...	...	...	...	...	...	...	...	...	...	69	8654	...	...	3	11900	...	...	14	3962	.....	...	...	92	26045
...	...	...	...	1	62	...	...	1	170	1	40	...	...	...	...	5	15	3	1551	.....	...	...	14	2769
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	45	...	...	.....	...	...	2	705
...	...	...	...	...	...	...	...	...	...	1	160	...	...	...	...	...	...	...	...	.....	...	...	6	104815
3	383	...	...	...	...	...	...	...	...	18	2640	...	...	2	13000	1	640	9	3093	Police.....	1	80	39	21776
...	...	...	...	3	142	...	...	...	...	177	34299	...	...	8	7083	...	...	7	7430	.....	...	...	203	58084
...	...	...	...	1	40	1	680	1	240	80	19851	...	...	10	9590	1	1840	14	15615	.....	...	...	120	52868
...	...	...	...	...	...	...	...	...	...	17	7134	...	...	4	8982	...	...	9	4369	.....	...	...	34	22920
...	...	...	...	3	58	2	1806	1	3200	41	18067	...	...	11	2915	...	...	8	7862	Trigonometrical	2	81	81	37373
2	108	...	...	1	5500	...	...	3	100	16	5970	...	...	2	4374	...	...	14	5607	.....	...	...	52	29170
2	560	...	...	3	820	1	20	2	21	29	5980	...	...	15	14589	1	5	12	3490	.....	...	...	81	28460

SCHEDULE

Purposes:—	Aborigines.		Access.		Camping.		Cemetery		Conditional Sale within Goldfield.		Eradication of Prickly Pear.		Mining		Pending Subdivision		Preservation and Growth of Timber		Public Buildings		Public Purposes		Public Recreation.		Public School Purposes	
Land Board and Land District.	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.
Goulburn—		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Berrima	..	...		...		..		.	..		...	.	1	4	.	...	1	370	.	...		. .	1	260	.	...
Boorowa	.	...	1	12	3	135				...		..		...	..	...	..	.	..	.	.	...	.	. .	...	...
Goulburn		...		...	1	350		...	2	45700	..	...	...	...		...	2	1300		..		...	1	4	...	...
Gunning		..		...	1	105				...	.	. .	...	...		...		...		.					...	...
Nowra	.	.		. .		...	.	...	..	...	.	...	..	...	.	.	2	672	.	.	1	186	.			...
Yass	...	.	.	...	4	2050		...	..	...	.	...		...	...	...	.	. .	...	...	.	..	1	3	.	...
Young		...	2	790	1	476		.	1	1	.	...	.	. .		...		.	1	11	1	210	...		1	3
Grafton—																										
Bellingen	..	.		...	.	.			.	...		..	.	...	.	.	7	6620	.		.	...		...		...
Casino	.	.	.	..	1	280	.	...	.	...	.	...		. .		.	4	23430	1	1	15	4128	1	10		...
Grafton		.	1	5	3	502		. .	..	.	.	...	.	.			6	18750	...	...	.	...	1	1	2	13
Kempsey	1	300	.	.	1	107			.	.		...	.	...	.	.	3	4627	...	...	6	351		...		...
Lismore		...	1	92			.	...		...	.	...	.	...	10	11569	4	810	.	...	2	451	..	...	.	...
Murwillumbah		...	1	78	..	..	.	.		...		...	.	...	..	...	3	6780	..	...		...				...
Port Macquarie	1	30	...	...	1	4	.	...			.	...		.	1	25000	2	3060	1	3	.	...	2	11	..	.
Hay—																										
Balranald	...			...	..		.	..	.	...		..	..	.		...	..		..	.	.	...	...	...	.	...
Deniliquin		...	2	248	1	223	.	...		...		...	...	...	.	...	30	57627	.	.	.	.	...	...	.	
Hay	.	...	4	5731	1	345				.		.		.		.	3	2015		.	4	3876	.	. .	..	...
Hillston	.	.	1	37	1	159		.		.	.	...						...	..	. .		...	.	...	.	...
Wentworth	.	...						. .		.		.	.	.		. .		...	.	...	.	...				. .
Maitland—																										
Cassilis	.			.			...								...	. .	..	.		.	.	...		..		...
Dungog	.	...	.						...		..			. .			.	. .	...		..	. .	.	...	..	.
Gosford		. .	.		.			...		...	..		.	. .		..	.	...		.	.	...	.	.		..
Maitland		...		...			...								.	.			1	3		...	...		.	...
Muswellbrook		...			.		.		.	..	1	1225	1	125	.		.	...				...	.	...		...
Newcast'e			.			..	.		.	. .			1	2	..	..	.	..	1	2				...		. .
Paterson			.				.		.	...				.	.			..		.				...	.	...
Scone	.	..		...			.				1	1225			1	320			...		1	358		...	.	. .
Singleton										..		.	1	125								..	...			.
Stroud							..	.	4	843		.	..					..				..	.			...
Taree			2	26	1	1	1	24				. .		...	1	25000	2	4070	.					...	.	...
Moree—																										
Bingara			1	510					..	.		...			...	.		.	.			..		...		...
Moree			3	636					..	.		...			1	20900					2	26	2	90		...
Walgett			1	1215	1	2100		...		..	.	.	.	.	2	64260		.		.	1	363	.	.	.	...
Warialda			1	70	1	600			..		.		..	.						.	1	320	.	.	.	.
Orange—																										
Bathurst	.	...				..		.	6	2459	...	. .										.		...	.	...
Carcoar	...					. .	.	...	4	88		...					1	2940			2	41	...	...	1	1
Cowra	...	..	2	153	1	4		...	2	85			3	493	2	1006		...	.	...	1	8		...		...
Lithgow		...	...	...		.		.	..	.	.	...	.	...		...	.	..	1	1		..	1	17		.
Molong		...	1	190	1	323		.	...	. .		...	1	45	1	440	1	85	1	1	1	960	..	. .	.	. .
Mudgee	...	.	..	...	1	2	.	...	8	11302	...	. .		.	1	3	1	40			..	.	...	...	.	...
Orange		.		...		.	...	...	2	8		...	.	...		...	...	..			...	.		...	..	...
Rylstone	.		.	...				...				...		. .	.	...	...	.		...	1	1	.	. .		...
Wellington	...		1	240	.	.		...	.		.	.	..			.	..	...	..	..		.		. .	..	...
Sydney—																										
Campbelltown	.	.	.	...			..	...		...			..	...		...	...	...	.	...		.	.		...	...
Liverpool	..	...	.	...		...	..	.		...		...		...		.	...	.		...		...	.			.
Metropolitan				. .	...	...	..	...		..	...	. .		...	..	.	...	.	.	...		...	.		.	. .
Parramatta	.	.	.	...		..	.	...		. .		...	.	...		. .	.	...		.	1	1	...	...		...
Penrith	..	...	...	...	..	...	.	. .		...	.	. .		...		.	1	2400		.		...		...	...	...
Picton		...		...	1	1000	..	...	..	...				.		...	1	2400		. .		...		.		. .
Windsor		.	1	9		...	.	...		...	.	.		..		...	..	.	..	...	.	...	.	...	.	...
Wollongong	..	.	..	. .		. .	..	.		. .	...	..	..			...	..	...				...		. .	.	...
Tamworth—																										
Coonabarabran		...	.	...	.	.	.			. .	.	...		.		. .			.	...		. .	...	...	..	...
Gunnedah	..	...	2	180		...	1	44		...	.	. .	6	1555		...	1	6710	1	1	..	...	..	. .	...	...
Murrurundi	...	...	1	2	1	63		...	..	..	...	.	...	...	1	1286	..	...	.	.	2	145		...	...	...
Narrabri	...	. .	3	3120	2	580	.	. .	..	.		...	.	...	2	28360	..	...	.	...	3	744		...	...	...
Tamworth	...	...	5	261	4	572	...	. .	1	311		...	.	. .	1	11000	2	16700	..	...	2	185		...	1	8
Wagga Wagga—																										
Albury	..	...	2	1575	5	2130	1	9		. .		...	1	765	2	3958	3	9759	3	9	11	2198	2	69	...	...
Cootamundra	.		2	387	2	180	...	.	2	33	.	.	..	.	22	37250	2	2697	1	2	4	2225	.	...	...	...
Corowa	..	.	1	160	2	218	..			.		.	...	...		...		.	..	...	3	2753	...			...
Gundagai		. .	.				.	.	1	2		...	.	.	.	. .	1	660		..	...	.	1	20	.	.
Narrandera	.	...	3	2642	1	3	.	...		.		...		.	.	...	3	1173	...	.	3	1855	...	...	...	...
Tumut		...		. .	1	13		...		...		..		...	.	...	3	4376		...	..	...	..	...	.	..
Urana		.	.	..	1	503	.	.	1	2635		...		...	.			...	1	10	...	...		.	.	..
Wagga Wagga	...	...	4	2245	.	..	.	...	1	2		...	.		.	...	3	6002	.	...		.		..	1	16
	2	330	76	33584	87	31925	4	89	48	100047	2	2450	17	406314	60	246958	121	326403	19	53	87	23558	21	718	9	67

LIX—*continued.*

Quarry.		Race-course.		Railway.		Refuge in time of Flood.		Tempo-rary Common.		To protect Crown Lands pending Legislation.		Traffic.		Travelling Stock.		Village		Water Supply.		Sundries.			Total	
No.	Area.	No.	Area.	No.	Area	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	Purposes.	No	Area	No	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac		ac.		ac			ac.		ac.
..	...	...		..	...	.	...		...	..	. .	..	.	..		1	4000	2	85	.. . .			6	4719
...	...	..	...	..	...		...	.	...	21	3804	..	.	1	40	3	2440	13	6152	.. ..		...	42	12583
..	...	..	...	..	...	.	...	2	880	2	784	..	.	..	.		.	1	100	Census	1	296	12	49414
..	...	.	..	..	...	.	..	.	...	.		..	.	..	...	4	1025	1	100	Police	1	33	7	1263
..	...	..	...	...	...	.	...	...	.	...					...		. .	..	.	....	..	...	3	858
1	370	.	. .		.	.	...		...	7	1060	..	.	...	...	.	...	5	1883	... .	...	...	18	5366
..	...	..	...	..	...	..	...	17	1970	11	3240	...	...	3	1374	...	..	18	8952	....	.	...	56	17027
.	...	..	...	.	...	.	.			..	...	...	.		...	...	...	2	231	... .	...	.	9	6851
...	...	.	. .	8	2693	..	.	1	230	15	1331	...	...	3	232	2	660	21	4458	Military	1	405	..	42078
																				Exchange of Land	2	4215	78	
																				Wharf	1	1	...	
...	...	..	.	.	...	.		2	612		..	.	...	...	...	1	640	11	2777					23306
2	31	.	...					1	149	9	1197	.	. .	3	54	16	1190	8	1384	Cattle Market	1	5	29	
1	15	1	100	..	...	..	.	4	125	10	930	..	..	.		2	5	5	6 73	. . ..		.	50	9390
...	...	.	...	1	272		...		...	...	...	1	100	.	.	...	. .	1	360	Hospital	1	10	41	20230
1	4	..	..	..		..	...		.	...	...	..	...	...	. .	2	94	...	...	... .		.	7	7590
																				....	...		11	28206
..	...		.	...	.		..		..	17	8390		.	7	36930	. .		1	40	....	.	..	25	45360
..	...	...		.	.	.	...	2	4917	23	9909	...	...	5	1785	15	431	35	52683	Canal	1	150	114	127973
.	.	...	.		.		. .		..	52	27072		...	2	2920	14	350	54	71517	....			134	113226
1	195		...		..	..	...	1	260	30	20358			13	36829	3	1094	7	4581	Pound	1	45	58	63558
..	..				...			..		16	7112			2	25750	...		1	1000	.. ..		.	19	33862
..	..		..	1	2			1	110	2	858		..	1	310		...	.	...	. ...		.	5	1280
	.	..		.	...				..	...	.	.			..	..	..	..	.	... .	..	. .	1	10
.	..	.	...	.		.	...	.	.	..			...	.		..	...		...	....	.	. .		.....
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...	..	.	...	.		..	. .	.			...		..	1	500		...		.	Trigonometrical	1	60	4	1910
..	...		...	.	.	.	.		...	..	.				...	..		1	2	....	..	...	3	6
.	...	..	..	..	...		.			..		.	.	.	. .		...	2	195	... .		...	2	195
...	...	...	.	..	.	..		...			.	..	...	1	298	.	...	1	277	....		.	5	2478
...	...	.	...	..	. .		...	..	.	...	...	..	...	...	...	4	2030	1	60	Police	1	5	7	2220
..	...	..	. .	...	...	..	...	.	...	...	...	..	...	...	...	1	300	..	...	.....		...	5	1148
...	...	..	. .	..	...		...		...		. .		...	...	.	5	1958	3	191	Wharf	1	80	16	31050
..	...	...				..	...	..	...	18	3064		. .		...	1	2	2	130	....		...	22	3706
.	...	..	.	2	30	1	2560	3	3356	88	46039	3	35	7	5731	2	17	24	24250	. . . .	..	...	138	103670
...	...		...		.	..	...	.	.	16	9894	.	...	6	7369	1	1700	11	9195	Bridge	1	120	40	96216
...	...	...		..	...	..	.	3	1581	27	7502	...	...	5	527	8	49	30	15546	Pol ce	2	62	78	26257
...	.	..	...	...	. .		.	3	3137	..	. .	..	...	...	. .	3	1684	1	1280	....	...	...	13	8560
..	...	...	...	1	74	..			...	...	...	..	..	...	...	3	1410	2	94	....	..	...	14	4648
...	. .	..	...	..	...	..	..	.	..	7	1500	..	...	5	1558	1	189	5	5093	Market	1	1	30	10090
...	...		. .	...	...		...	...	.	...	...	..	...	. .	.	...	...	...	...	... .	..	...	2	18
...	. .	..	...	..	...		...	1	70	23	5918	.		2	517	...	.	24	10376	... .	..	...	57	18925
...	...		...	.	...		...	2	385	...	...	..	...	.	...	7	695	2	50	Police..... . .	1	20	23	12497
..	...	..	...	.	...	..		..		...	...	..		.	...	1	320	2	38	.....		...	5	366
..	...	..	.	1	3	...	...		...	.	...	..	...	...	.	.		...	...	Special Lease	1	5	3	9
..	...	...	...	1	20	..	...	1	178	...	...	..	...	.	...	8	915	1	2000	. .....			12	3353
...	...		..		.	.	...	.	...	...	.	.	. .	...	...	.	..	. .	. .	....	...	...	..	
..	..		...	..		.	..		...	..	...		.	.	...	1	12	.	...	....		..	1	12
	...	.	...		...	..	.	.	..		...	..			...	..	...			.. ..	.	...	...	...
.	...	..	..		.	..	...		.				.		...					. . . .	.		1	1
...	...	...	...	2	710	..	...	...		..	.	.	.	..	...		...		...	. . ... .	.	...	3	3110
..	...	...		..	...	.	.	.	. .	...	...	.	..		...	1	350		..	.. ..	.		3	3750
...	...	..	...	.		.	...	...	...	...	. .			.	.	...	...	..	.	....			1	9
..	.	.	.		...	..	..	..	...		...				...		...		...	Island	1	20	1	20
...	...	..	.	.	...		...	..		46	13979	.			...	...		7	4070	... .	...	.	53	18049
..		...	..		.	2	160	8	1555	56	17727	.	.	1	130	13	73	9	8378	.. ..	...	.	100	36515
..	. .		..	.	...	..		.	...	.	...	...	...	3	2007	...	. .	4	308	.. ..	..		12	3811
..	...		...	.	..	..	..	..		93	13145	.	...	15	18029		...	13	10377	. ...	.	. .	131	74355
.	...	.	..	.	...			2	1501	15	3437	...	...	4	1011	13	52	21	14639	....		...	71	49677
																				Pound	1	31		
4	705	.	...	1	176		...	5	27	12	1547		..	4	717	1	3	54	26811	Crossing	1	320	111	50811
																				Special Lease	1	2		
...	...	.		3	36		. .	3	111	16	8310	. .	..	2	34	...	...	27	37118	Special Lease	1	2	87	88385
...	...	.	.	..	...		...		...	12	2745	1	433	1	263	...	...	11	6010	... .		...	31	12582
..	...		...	..		.	...	2	4	30	9149	.	..	1	100	...	.	14	7607	Police	1	10	60	17552
...	...	..	...	11	83342		.	1	1830	26	7696	...	...	5	5503	...	..	10	9387	Beneficial Occupation of Crown Lands.	1	1600	64	115531
...	...	..			...	.	...	...	...	17	2207	.	...	.	...	...	.	6	2469	....	.	...	27	9065
.	..	..	...		.		.		.	25	5446		...	2	528	...	...	33	30783	....		...	68	39905
	...			7	38820		...	.	..	75	23585		..	6	6491	3	15	33	20351	Pasturage, Trav. Stock ...	1	180		
																				Canal...	1	70	136	98007
																				Trigonometrical	1	230		
17	2371	2	316	59	135257	8	6346	83	26982	1521	427220	5	568	225	440687	157	33110	762	542152	... ...	38	9177	3440	2796682

SCHEDULE

RESERVES from Lease

Land Board and Land District.	Aborigines.		Access.		Boring for Water.		Camping		Irrigation		Mining.		Population.		Public Purposes.		Public School.		Public Watering Places.		Roadway.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale—																						
Armidale	...	...	1	90	...	.....	...	...	...	...	...	...	...	...	2	1,280	...	...	...	...	...	...
Glen Innes	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	3	1,590	...	...	...	...	...	...
Inverell	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tenterfield	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Walcha	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bourke—																						
Bourke	...	...	...	...	14	106,480	1	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brewarrina	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cobar	...	...	...	...	...	.....	2	1,280	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Wilcannia	...	...	1	120	...	.....	...	...	...	...	1	12,700	...	...	...	...	...	...	...	...	...	...
Willyama	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cooma—																						
Bombala	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cooma	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eden	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moruya	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queanbeyan	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dubbo—																						
Coonamble	...	...	2	617	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dubbo	...	..	...	...	...	.....	2	1,265	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forbes—																						
Condobolin	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forbes	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grenfell	...	...	2	1,601	...	.....	...	...	...	...	...	...	...	...	...	...	...	..	...	...	1	7
Parkes	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1	640	...	...	...	...	...	...
Goulburn—																						
Boorowa	...	...	1	400	...	.....	1	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Goulburn	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gunning	...	...	...	...	...	.....	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Yass	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Young	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	2	1,070	...	...	...	...	...	...
Grafton—																						
Casino	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grafton	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...
Kempsey	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lismore	...	...	...	...	...	.....	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hay—																						
Balranald	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Deniliquin	...	...	1	48	...	.....	1	50	...	...	...	...	...	...	7	4,914	...	...	...	...	...	...
Hay	...	...	2	1,491	...	.....	...	...	...	...	...	...	...	...	5	8,515	...	...	...	...	...	...
Hillston	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	192
Wentworth	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maitland—																						
Cassillis	...	...	...	...	...	.....	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Musclebrook	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Singleton	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moree—																						
Bingara	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moree	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	3	3,480	...	...	...	...	...	...
Walgett	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1	320	...	...	...	...	...	...
Warialda	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	2	12,160	...	...	...	...	...	...
Orange—																						
Bathurst	...	...	...	...	...	.....	1	500	...	...	...	...	...	...	...	...	...	..	...	...	...	...
Cowra	...	...	...	...	...	.....	2	11	...	...	1	177	...	...	1	134	...	...	...	...	...	...
Molong	...	...	...	...	...	.....	...	...	...	...	1	45	...	...	4	3,136	...	...	...	...	...	...
Mudgee	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sydney—																						
Wollongong	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1	1,000	...	...	...	...	...	...
Tamworth—																						
Coonabarabran	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gunnedah	...	...	2	148	...	.....	1	537	...	...	...	...	1	2,560	1	5,760	...	...	...	...	...	...
Narrabri	...	...	1	640	...	.....	...	...	1	320	...	...	...	...	1	3,200	...	...	...	...	1	12
Tamworth	...	...	1	40	...	.....	...	...	...	...	...	...	...	...	7	7,892	1	8	...	...	...	...
Wagga Wagga—																						
Albury	...	...	2	1,375	...	.....	5	2,035	...	...	...	...	...	...	5	1,123	...	...	4	1,880	...	...
Cootamundra	...	...	1	1,160	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Corowa	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	5	1,109	...	...	1	160	...	...
Gundagai	...	...	...	...	...	.....	1	2	...	...	...	...	...	...	1	2	...	...	...	...	...	...
Narrandera	2	1,480	...	...	...	.....	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...
Tumut	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	1	300	...	...	...	...	...	...
Urana	...	...	2	1,419	...	.....	1	240	...	...	...	...	...	...	2	832	...	...	...	...	...	...
Wagga Wagga	...	...	2	145	...	.....	2	814	...	...	...	...	...	...	4	1,902	...	...	...	...	...	...
	2	1,480	21	9,294	14	106,480	21	6,954	1	320	3	14,922	1	2,560	60	60,362	2	10	5	2,040	3	211

Reserves from lease on account of population Census of 1881 at Murrumburrah, Forbes, Grenfell,

LX.

cancelled during 1890.

Sale.		Special Lease.		Suburban Settlement		Temporary Common.		To protect Crown Lands pending Legislation		Tramway.		Travelling Stock.		Village		Water Supply		Annual Lease.		Total.	
No.	Area	No.	Area	No.	Area.	No	Area	No.	Area	No	Area	No	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
...	...	...	...	...	..	..	...	47	4,333		.	.	...	...	...					50	5,703
...	...	..	.	.	...	...		14	2,495			..	..	..	.				. ...	17	4,085
...	...	..	...	.	.		...	27	3,197		...	.	..		...	2	1,212	..	.....	29	4,409
..	...	...	.	.	.	...	...	20	2,382		...	...			..			...	...	20	2,382
	...	...	...		...		...	14	3,042	...		...	...	.	...	1	640	.	...	15	3,682
...	...	...	. .	...	...	.	...	40	15,766	..	.	.		1	27					56	122,363
...	...	...	.	..	...	...	...	41	18,569		...	...	..	.	...	...	... ..	...	...	41	18,569
...	...	..	...	...	...	...	..	20	3,207	2	155		.	...	...	..	..	.	. .	24	4,642
...	..	..	...	1	63	.	.	6	660		...	4	1,732	...	...	..	...	.	. ....	13	15,275
...	...	..	..	2	73	..	. .	..	...	...	. .	...	...			..	..	...	.....	2	73
...	...	...	..	...	...		. .	22	2,139	...	...	. .	...	1	1,920	..	. .	.	. .	23	4,039
...	.	.	.	..	...	.	...	69	8,654	...	. .	. .	...	...	.	..		...	.	69	8,654
...	.	...	...	.	...	...	...	1	40	...	...	.	.	.	.	1	2		...	2	42
...	.	...	...	..		..	...	1	160		..	.	. .	.	...	.	.. .	.	.	1	160
...	.	...	...	..				18	2,640	..		...	.		...	...			.....	18	2,640
...	...	...	...	..	..	...	..	177	34,299	...	..	...	. .				. .		. . .	179	34,916
...	.	.	...	.	.		...	79	17,931	...	. .	...	..	.	...	1	1,560	.	...	82	20,756
. .	.	...	...	..	.		.	15	6,394	...	...		...		.	..			. ..	15	6,394
1	100	...	. .	.	...			26	9,179	...	...	..	. .	...	. .		... .	1	19,100	28	28,379
...	. .	...	...		...		...	16	5,966	...	...					1	520	1	25,300	21	33,394
...	.	..	...		...	.	...	29	5,980	...	...		.		...			1	22,170	31	28,790
...	...	...	. .		...	.		21	3,804			...			.		.	.		23	4,324
.		...	...	.	...	.		2	784		.					.	...	..	. ...	2	784
..		..	..													1	192	..	..	1	192
...		. .			.	.		11	3,240	.	...		.		...	2	393	..	..	9	1,453
. .	. .	..			.			15	1,331	...	.					..	. . ..	.	...	13	4 310
...	...	..	...			...		12	980					..	...			..		15	1,331
	...	...		.		...		9	1,197			.			. .	1	2	..	..	14	984
...	...	..	.		...	...	. .	10	980		. .	..	. .		...	...		.	.	9	1,197
																	...	...	. . ..	11	990
.	...	.	. .		..	..	...	17	8,390	. .							..		. . ..	17	8,390
...	.	..	. .		...	...	...	18	7,221	...	...		..	.	.				.	27	12,233
. .		.	...	.				51	26,147	...	..		.		...	.		. .	.....	58	36,153
...	.	...	...	.	...			30	20,358	.	...	1	640	1	1,117	2	640	.	.	35	22,947
..	.	...	...	..		...	.	16	7,112					. .	...	...	...		.....	16	7,112
.	...	...		...	.		..	2	858	...											
...	...	...	...	..	. .	...	.	..	. .	...	.	1	500	...	.	..	.....	...	.... .	2	858
...	...	...	..	.	...	...	...	...	.....	..	.	1	2,000	...	...	...		...	.....	1	500
																			.....	1	2,000
...	...	...				. .	. .	16	2,356	..											
...	...	.	...	..	...	...	...	85	44,599	.	..	.	...		...		.....	...	... .	16	2,356
...	...			...	...	...		16	9,894		..	3	...	1	2,100		..	..	.....	89	50,179
...	. .	.	. .	..		.	.	27	7,502	...	. .		1,535	...	...	1	5,000	...	. ..	21	16,749
													.	...	...	...	.	. .	... .	29	19,662
...	. .	...	.			1	436	.	..		...	..		.	.	..	... ..		. .	2	936
...	. .	...	...	.		.	.	7	1,500		.	.	..	..	...	.		.	.....	11	1,822
...	...	...	...	.		...	.	21	3,878	...	.	...	...	..	.	2	1,355	.	. ...	28	8,414
...	. .	.	. .	...		...			... .	.	.		...	...	...	1	10	..	.....	1	10
...	...	.			...	.			...	.	. .	.			...					1	1,000
...	.	...	...	..	...		...	36	7,854				.	...	.	1	170		...	37	8,024
...	...	..		.	...	...	.	52	16,811	.			.				.. .		. .	57	25,816
...	...	...		...	.	...	...	92	12,537	.	.	.	.	.	...	.	.....	...	...	96	16,709
...	.	. .	...	...	. .			15	3,437	...			.	.		2	916	..	..	26	12,293
...	...	1	2	...				11	1,392	...	. .		...		.	2	8		...	30	7,815
...	...	1	2	...	...	...		16	8,310		...	.		...		...	... .	...	...	18	9,472
...	...	...	...	...	. .		...	12	2,745		.	1	17			1	318		...	20	4,349
...	...	. .	..		. .		.	39	9,149		.	2	785		...		.	..	.....	43	9,938
...	...	...		. .	.	1	400	24	6,646								..	.	.....	28	8,529
...	...	...	.	..	.			17	2,207		.	...		.			... .		.. ..	18	2,507
...	...	...			...			25	5,446				.				.....	...	. ..	30	7,937
...	. .		...		. .		...	74	22,945	.		1	60	...	...	2	1,920		....	85	22,786
1	100	2	4	3	136	2	836	1,488	399,703	2	155	14	7,259	4	5,164	24	14,858	3	66,570	1,676	697,428

Hay, Hay South, Murrungo, Parkes Young, and 122 square miles a Adelong have also been revoked.

SCHEDULE

RETURN of Reserves from

Purpose:—	Aborigines.		Access.		Annual Lease.		Boring for Water.		Camping.		Cemetery.		Conditional Lease.		Crossing.		Artesian Lease.		Plantation.		Police.		Preservation and Growth of Timber.		Public Recreation	
Land Board and Land District.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale—		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale			1	287																						
Glen Innes											1	22			1	1										
Tenterfield			1	40																						
Walcha																										
Bourke—																										
Bourke							16	276480									1	10200								
Brewarrina							2	16980																		
Cobar																					1	200				
Wilcannia			2	5880			2	20480																		
Willyama																										
Cooma—																										
Cooma																										
Queanbeyan																									1	321
Dubbo—																										
Coonamble			2	617																						
Dubbo									1	640	1	11							1	11						
Forbes—																										
Condoublin													1	700												
Forbes					2	38200							6	20553												
Grenfell			1	1600	2	50600																				
Parkes					2	44340					2	34														
Goulburn—																										
Boorowa									1	22																
Goulburn									1	550																
Gunning																										
Nowra																										
Yass																										
Young			1	10240																						
Grafton—																										
Casino																										
Grafton			1	43							1	16														
Kempsey	1	146																							1	88
Lismore											4	24							1	8						
Port Macquarie																					1	45				
Hay—																										
Balranald			1	10240																						
Deniliquin			1	48					1	40					1	80										
Hay			2	1280																						
Hillston					1	5																				
Maitland—																										
Cassilis																										
Scone																										
Singleton			1	142																						
Taree																			1	11					2	47
Moree—																										
Bingara																										
Moree			5	1705																						
Walgett							3	30270																		
Orange—																										
Bathurst																										
Carcoar																										
Cowra			1	387																						
Molong			1	16																						
Mudgee																										
Tamworth—																										
Gunnedah																										
Narrabri			1	640																						
Tamworth			1	40																						
Wagga Wagga—																										
Albury			1	1255																						
Cootamundra																										
Corowa																										
Gundagai			1	57	2	845															1	5				
Narrandera																										
Tumut			7	1139																						
Urana			1	332																						
Wagga Wagga			1	40																						
	1	146	34	36028	9	133990	23	344210	4	1252	9	107	7	21253	2	81	1	10200	3	30	2	205	1	45	4	456

LXI.

Lease notified during 1890.

Public School Purposes.		Railway Purposes.		Refuge in time of Flood.		Residential Lease.		Roadway and Traffic.		Special Lease.		Suburban Settlement		Temporary Common.		Travelling Stock.		Village Purposes.		Water Supply.		Sundries.			Total.	
No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	Slaughter-yards.	No.	Area.	No.	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.			ac.		ac.
...	...	...	...	...	...	...	...	...	...	...	...	2	1434	2	2245	...	...	...	...	1	360	.....	1	10	7	4336
3	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	5	51
3	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	4	68
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	261	...	...	...	...	...	...	.....	...	...	1	261
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4000	8	3807	1	6700	1	640	.....	...	...	28	301827
...	...	1	100	...	...	...	...	...	...	...	...	1	4200	1	65200	2	1197	...	...	1	10240	.....	...	...	9	42750
...	...	...	...	...	...	...	...	2	5448	...	...	...	...	...	...	11	5318	...	...	2	1920	.....	...	...	5	70697
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	36	...	...	...	...	.....	...	...	20	39246
1	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1069	...	...	...	...	.....	...	...	1	10
...	...	...	...	...	...	...	...	2	190	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	6	1390
...	...	...	...	...	...	2	727	5	662	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	4	807
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	240	.....	...	...	11	2291
1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1412	...	...	...	...	.....	...	...	1	700
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	520	...	...	...	...	.....	...	...	10	60172
...	...	...	...	...	...	...	...	4	1161	2	15	...	...	...	...	...	...	...	...	1	240	.....	...	...	4	52720
1	3	...	...	...	...	...	...	...	...	...	...	...	...	1	1340	...	...	...	...	...	...	.....	...	...	11	45790
...	...	1	380	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	3	1365
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	550
1	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	640	...	...	...	...	.....	...	...	1	380
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	640
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	...	...	.....	...	...	1	8
...	...	...	...	1	200	...	...	...	...	...	...	...	...	1	300	...	...	...	...	...	...	.....	...	...	2	10244
6	24	...	...	4	900	...	...	...	...	...	...	...	...	1	300	...	...	...	...	...	...	.....	...	...	2	500
1	8	...	...	1	500	...	...	...	...	...	...	...	...	1	300	...	...	...	...	1	74	.....	...	...	14	1357
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	4	742
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	5	32
																									1	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1278	...	...	3	3840	.....	...	...	7	15358
...	...	...	...	...	...	...	...	...	...	1	10	...	...	...	...	1	640	...	...	...	...	.....	...	...	5	818
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1269	...	...	...	...	.....	...	...	5	2549
...	...	...	...	..	...	...	...	2	209	...	...	...	...	...	...	6	2942	...	...	...	...	.....	...	...	9	3156
1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	200	.....	...	...	1	200
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	2
1	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	142
																									4	66
2	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	2	18
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	5	1705
...	...	...	...	...	...	...	...	...	...	1	25	...	...	...	...	...	...	...	...	...	...	.....	...	...	4	30295
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	315	.....	...	...	2	315
3	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	40	.....	...	...	1	40
1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1288	.....	...	...	9	1701
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1250	.....	...	...	5	1268
																				1	60	.....	...	...	1	60
1	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	2	3
...	...	...	...	...	...	...	...	...	...	1	5	...	...	...	...	1	280	...	...	...	...	.....	...	...	3	925
1	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	2	48
1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	258	...	...	...	...	.....	...	...	4	1520
...	...	...	...	...	...	...	...	1	40	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	1	40
...	...	...	...	...	...	...	...	1	261	...	...	...	...	...	...	1	262	...	...	...	...	.....	...	...	2	523
...	...	...	...	...	...	...	...	1	4	...	...	...	...	...	...	...	...	...	...	2	138	.....	...	...	7	1049
...	...	...	...	...	...	...	...	1	554	1	3	...	...	...	...	...	...	...	...	...	...	.....	...	...	2	557
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	7	1139
2	4	...	...	...	...	...	...	1	150	...	...	...	...	...	...	1	493	...	...	...	...	.....	...	...	3	975
								1	128	...	...	...	...	...	...	2	800	...	...	1	232	.....	...	...	7	1204
30	193	2	480	7	15584	2	727	27	10354	6	58	3	5634	8	73646	51	22225	1	6700	27	21077	.....	1	10	265	704691

Schedule LXII.

Return of Special Areas proclaimed during 1890.

Land Board and Land District.	Number.	Area.
		acres.
Armidale—		
Armidale	2	378
Glen Innes	2	695
Inverell	1	208
Walcha	2	893
Bourke—		
Brewarrina	2	2,327
Cooma—		
Bega	1	40
Bombala	1	152
Cooma	31	5,519
Queanbeyan	2	536
Dubbo—		
Coonamble	4	5,410
Dubbo	8	5,960
Forbes—		
Condoublin	4	1,736
Forbes	18	2,951
Grenfell	10	4,211
Parkes	4	1,697
Goulburn—		
Berrima	1	100
Boorowa	5	3,179
Gunning	1	674
Yass	6	792
Young	6	6,160
Grafton—		
Bellingen	4	5,225
Casino	2	114
Grafton	5	2,072
Kempsey	4	2,118
Lismore	14	10,979
Murwillumbah	7	978
Hay—		
Deniliquin	41	85,577
Hay	24	25,575
Hulston	4	812
Maitland—		
Cassilis	1	217
Gosford	1	140
Singleton	1	388
Moree—		
Moree	4	2,690
Walgett	2	522
Warialda	3	1,322
Orange—		
Bathurst	1	1,453
Cowra	3	2,910
Molong	1	582
Wellington	1	380
Sydney—		
Metropolitan	1	40
Parramatta	1	42
Penrith	6	459
Picton	3	334
Tamworth—		
Coonabarabran	1	264
Gunnedah	7	2,544
Murrurundi	7	2,085
Narrabri	13	8,240
Tamworth	19	17,894
Wagga Wagga—		
Albury	62	15,815
Cootamundra	97	59,840
Corowa	17	7,778
Gundagai	15	5,441
Narrandera	22	13,028
Tumut	4	2,641
Urana	50	23,165
Wagga Wagga	40	37,368
Totals	579	384,650

Schedule LXIII.

Return of Dedications for Religious and Public Purposes during the year 1890.

Purposes of Dedications.	No. of Grants.	Area Granted
		a. r. p.
Racecourses	3	557 0 0
Public Recreation	13	355 3 7
General Cemeteries	25	265 2 17¼
Public School Sites	83	176 2 25
Public Reservoir	1	87 0 0
Show Grounds	6	81 2 6
Hospitals	3	22 1 24
Public Road	1	4 2 0
Prevention of Flood	1	3 1 5
Sites for School of Arts	7	2 2 22½
Court-house Site	1	2 1 39
Council Chambers	1	1 1 0
Public Baths	2	1 0 22
Water Supply	1	0 2 8
Town Hall	1	0 0 35½
	149	1,562 0 11¼

Religious Purposes.	No. of Grants.	Area Granted.
		a. r. p.
Sites for Wesleyan Church	2	2 0 0
Church of England School Site	1	1 0 0
Church of England Purposes	1	0 2 0
Site for Primitive Methodist Church	1	0 1 9
Total for Religious Purposes	5	3 3 9
Total for General Purposes	149	1,562 0 11¼
General Totals	154	1,565 3 20¼

Schedule LXIV.

Return showing the Number of Refunds granted during the year 1890 on account of land withdrawn from Pastoral Lease and Occupation License in the several Divisions of the Colony together with the area withdrawn and amount authorised to be refunded.

Pastoral Leases.				Occupation Licenses.			
Division.	Number of Pastoral Leases.	Area withdrawn.	Amount of refund granted.	Division.	Number of Occupation Licenses.	Area withdrawn.	Amount of refund granted
		acres.	£ s. d.			acres.	£ s. d.
Eastern	46	28,647	970 1 10	Eastern	173	129,052	1,454 8 7
Western	21	15,333	143 10 9	Western	80	1,096,245	7,157 18 6
Central	62	39,528	1,456 16 5	Central	366	1,017,674	10,223 3 6
Totals	129	83,508	2,570 9 0	Totals	619	2,242,971	18,835 10 7

Grand Totals.

Cases ..... 748.
Area withdrawn ..... 2,326,479 acres.
Amount refunded ..... £21,405 19s. 7d.

Schedule LXV.

Return showing Pastoral Leases current during 1890.

Number of Leases.	Division.	Area.	Annual Rent.
		acres.	£ s. d.
571	Eastern	8,858,914	63,087 9 3
736	Central	18,854,452	185,288 11 0
316	Western	38,579,526	168,096 19 0

Schedule LXVI.

Number of Pastoral Leases in Eastern Division existing on 1st January, 1891; area and rent represented.

Leases.	Area.	Rent.
11	240,187 acres.	£1,045 16s. 3d.

Schedule LXVII.

Number of Pastoral Leases in Eastern Division which expired during 1890, and area and rent represented by them.

Lease.	Area.	Rent.
560	8,618,727	£62,041 13 0

Schedule LXVIII.

Return showing an Applications for Refund of Rent, by way of compensation on account of lands withdrawn from Pastoral Leases current under the Repealed Acts, dealt with during the year 1890.

Old Pastoral District.	Number of Runs included in applications dealt with during 1890.	Area upon which refund was authorised.	Amount of refund authorised.	Rate per section.
		acres.	£ s. d.	£ s. d.
Lachlan	1	11,070	10 17 7	1 4 0½

Schedule LXIX.

Return showing the number of Applications to bring Pastoral Leases in the Central and Western Divisions under the Crown Lands Act of 1889 received during the year 1890.

Division.	
Central	675
Western	292
Total	967

Schedule LXX.

Return showing Applications for Sub-division of Pastoral Leases received during the year ending December, 1890.

No.	Name of Holding.	Division.	Action taken.
430	Groongal	Central	Completed.
505	Bogo Bogolong	do	do
602	Cooma	do	Under action.
628	Baan Baa South	do	do
324	Towal Creek	Eastern	Completed.
449	Buckenbah	do	Refused.

Schedule LXXI.

Return showing the number of applications tendered (during the year 1890) under section 33, and accepted, for Preferential Occupation License of the former Leasehold Areas in the Eastern Division, the area and amount represented.

No. of applications.	Area.	Estimated amount of annual rental
382	6,474,447	£20,232 13 0

Schedule LXXII.

Return showing the number of applications tendered (during the year 1890), under section 33, and refused and withdrawn, for Preferential Occupation Licenses of the Eastern Division, the area and amount represented.

Refused.			Withdrawn.		
No. of applications.	Area.	Estimated Annual Rent.	No. of applications.	Area.	Estimated Annual Rent.
	acres.	£ s. d.		acres.	£ s. d.
17	219,181	684 18 10	2	59,625	186 6 7

	No	Acres.	Rent.
Refused	17	219,181	£684 18 10
Withdrawn	2	59,625	186 6 7
Totals	19	278,806	£871 5 5

Schedule LXXIII.

Return showing the number of applications tendered under section 33, and accepted for Preferential Occupation Licenses of the former leasehold areas in the Eastern Division, area and amount represented (the latter subject to appraisement), the number of such applications refused and withdrawn.

	No.	Acres.	£	s.	d.
No. &c., of applications tendered during 1890 and accepted (See Schedule LXVIII)	382	6,474,447	20,232	13	0
,, ,, refused and withdrawn (See Schedule LXIX)	19	278,806	871	5	5
Applications tendered during 1889—accepted	38	316,879	990	5	0
,, ,, refused	3	5 241	16	7	7
Applications tendered during 1891—refused	1	7,260	22	13	9
Totals	*443	7,082,633	22,133	4	9

* This is the total number of applications tendered, irrespective of the year they were received in this Department.

Schedule LXXIV.

Return showing the Number of Applications for Re-Appraisements of Occupation Licenses in Central and Western Divisions, under the Crown Lands Act of 1889, received during the Year 1890.

Division.	Number of Applications
Central	307
Western	147
Total	454

Schedule LXXV.

Showing Occupation Licenses current during 1890.

Number of Licenses.	Division.	Area.	Amount of License
		Acres.	£ s. d.
506	Eastern	6,692,831	32,817 16 5
712	Central	13,907,987	79,834 19 1
265	Western	32,909,510	83,732 10 2

Schedule LXXVI.

Schedule showing the number of applications to come under the Crown Rents Act of 1890.

Division.	Applications made on both leasehold and resumed areas.	Application made on leasehold areas only.	Applications made on resumed areas only.
Eastern	89	54	8
Central	165	32	18
Western	30	16	12
Totals	284	102	38

Schedule LXXVII.

Return showing the Number of Transfers of Pastoral Leases and Occupation Licenses completed from the 1st January, 1890, to the 31st December, 1890, under the Crown Lands Acts of 1884 and 1889.

Division.	Leasehold Area.	Occupation License.
Eastern	45	56
Central	121	104
Western	26	20
	192	180

Schedule LXXVIII.

Return of Applications to surrender Land within a Leasehold Area, in exchange for other land within the Lease hold Area, for the year 1890—Section 46.

No. of Leasehold Area.	Division.	Land District.	Area proposed to be Surrendered.	Remarks.	No. of Leasehold Area.	Division.	Land District.	Area proposed to be Surrendered.	Remarks.
			acres.						
3	Eastern...	Albury	297	1 refused.	3	Eastern...	Tamworth	755	1 refused.
6	,, ...	Armidale	2,035	2 ,,	2	,, ...	Tamworth, Walcha	323	2 ,,
3	,, ...	Bombala	1,835		1	,, ...	Tenterfield	1,135	
2	,, ...	Boorowa	280	1 ,,	2	,, ...	Walcha	2,201	
2	,, ...	Boorowa, Cowra, Young	3,803	1 ,,	1	,, ...	Walcha, Armidale	140	
4	,, ...	Casino	602	3 ,,	3	,, ...	Young	2,502	1 ,,
1	,, ...	Casino, Grafton	1,235		1	Central...	Forbes	540	
3	,, ...	Cooma	1,180	1 ,,	4	,, ...	Hay	11,713	
3	,, ...	Cootamundra	2,102	1 ,,	1	,, ...	Hay, Balranald South	640	
2	,, ...	Cootamundra, Young	1,295	2 ,,	2	,, ...	Hillston	1,439	
1	,, ...	Corowa	1,099		1	,, ...	Parkes, Condoublin, Forbes..	21,684	
1	,, ...	Cowra	640		3	,, ...	Narrandera	13,103	
3	,, ...	Glen Innes	783	1 ,,	1	,, ...	Urana	317	
1	,, ...	Gundagai	721		1	Western..	Bourke	2,800	
1	,, ...	Inverell	300	1 ,,	2	,, ...	Brewarrina	2,416	
1	,, ...	Inverell, Glen Innes	923	1 ,,	1	,, ..	Balranald, Hay North	120	
2	,, ...	Molong	900	2 ,,	1	,, ...	Hillston, North	1,280	

Schedule LXXIX.

Return of Applications to Surrender Land situate within a Resumed Area, in exchange for other land within the Leasehold Area, for the year 1890—Section 46.

No. of Resumed Area.	Division.	Land District.	Area proposed to be Surrendered.	Remarks	No. of Resumed Area.	Division.	Land District.	Area proposed to be Sur. rendered.	Remarks
			Acres.					Acres.	
3	Eastern..	Albury	1,312	1 refused.	1	Eastern..	Yass	420	1 refused.
7	,, ...	Armidale	1,797	2 ,,	2	,, ...	Young	140	1 ,,
3	,, ...	Casino	7,263	2 ,,	1	Central...	Dubbo	180	
3	,, ...	Cooma	935		2	,, ...	Forbes	1,974	
1	,, ...	Cootamundry	320	1 ,,	3	,, ...	Hay	2,497	
1	,, ...	Cootamundry, Wagga Wagga	40		1	,, ...	Hay, Balranald	530	
1	,, ...	Gunnedah, Tamworth	5,265		1	,, ...	Narrabri	200	
1	,, ...	Gundagai	1,001	1 ,,	1	,, ...	Narrandera	8,753	
2	,, ...	Glen Innes	2,067		1	,, ...	Narrandera, Urana	593	
5	,, ...	Inverell	4,416	3 ,,	2	,, ...	Parkes	80	1 ,,
1	,, ...	Kempsey, Armidale	250		1	,, ...	Parkes, Condoublin	860	
1	,, ...	Kempsey	60		1	,, ...	Urana	6,283	
1	,, ...	Molong	1,287	1 ,,	1	,, ...	Wagga Wagga	360	
1	,, ...	Molong, Forbes	60		2	,, ...	Warialda	6,385	
1	,, ...	Murrurundi	250		2	Western	Balranald	5,700	
2	,, ...	Tamworth	1,191		7	,, ...	Bourke	9,976	2 ,,
8	,, ...	Walcha	12,237	4 ,,	2	,, ...	Brewarrina	1,086	
2	,, ...	Walcha, Armidale	857	1 ,,	2	,, ...	Hillston, North	3,032	
1	,, ...	Walcha, Tamworth	160						

Schedule LXXX.

Return of Applications to Surrender Land situate within Leasehold and Resumed Areas, in exchange for other land within the Leasehold, for the year 1890—Section 46.

No. of Leasehold and Resumed Areas.	Division.	Land District.	Area Proposed to be Surrendered.	Remarks.	No. of Leasehold and Resumed Areas.	Division.	Land District.	Area Proposed to be Surrendered.	Remarks.
			acres.					acres.	
2	Eastern...	Albury	2,607	1 refused.	1	Central...	Condoblin, Forbes	240	
1	,, ...	Armidale	1,056		1	,, ...	Coonamble	1,265	
3	,, ...	Casino	6,515	1 ,,	1	,, ...	Deniliquin, Hay	911	1 ,,
2	,, ...	Cooma	750	1 ,,	1	,, ...	Hay, Hillston	5,705	
1	,, ...	Glen Innes	45		2	,, ...	Narrandera	5,979	
1	,, ...	Gundagai	40	1 ,,	1	,, ...	Narrabri	1,763	
1	,, ...	Inverell	458		1	,, ...	Parkes, Dubbo, Cobar East.	3,714	
1	,, ...	Inverell, Glen Innes	779	1 ,,					
1	,, ...	Molong	290		1	,, ...	Wagga Wagga	7,965	
1	,, ...	Tamworth, Gunnedah	2,180		1	Western.:	Bourke	2,800	
1	,, ...	Tenterfield	717		1	,, ...	Cobar, Hillston North	1,380	
5	,, ...	Walcha	3,853	2 ,,	2	,, ...	Hillston North	29,814	
1	,, ...	Walcha, Armidale	96						

Schedule LXXXI.

Return showing the number and area embraced in Applications for Homestead Leases made in 1890, and the action thereon.

Land Board District.	Land District.	No. of Applications received and area embraced in such Applications.		Deposits lodged with Applications for Homestead Lease.	No. granted.	No. refused.	No. outstanding
		No.	Area.				
			Acres.	£ s. d.			
Bourke	Bourke	119	1,084,123	4,517 3 7	46	6	67
	Brewarrina	17	146,009	608 7 5	4	5	8
	Cobar	26	221,380	922 8 4	10	1	15
	Wilcannia	21	195,080	812 16 8	1	.....	20
	Willyama	12	78,191	325 15 11	.....	1	11
Hay	Balranald	26	240,064	1,000 5 4	1	5	20
	Hay North	9	72,316	301 6 4	3	2	4
	Hillston North	24	127,813	532 11 1	2	7	15
	Wentworth	15	108,703	452 18 7	1	2	12
Moree	Walgett North	41	347,280	1,447 0 0	3	6	32
		310	2,620,959	10,920 13 3	71	35	204

Schedule LXXXII.

Return showing the number and area of Applications for Homestead Leases granted during 1890, applied for during that and previous years.

Land Board District.	Land District.	No. of applications approved of and area embraced in such applications.		Annual Rent.
		No.	Acres.	£ s. d.
Bourke	Bourke	116	1,081,315	5,613 10 2
	Brewarrina	21	181,375	1,584 5 7
	Cobar	32	303,257	1,496 9 5
	Wilcannia	3	30,665	191 15 5
	Willyama	2	11,520	66 0 0
Hay	Balranald	4	40,640	228 10 8
	Hay North	3	26,049	228 12 11
	Hillston North	9	77,535	503 12 5
	Wentworth	5	49,358	298 1 7
Moree	Walgett North	13	132,316	1,182 7 7
		208	1,934,530	11,393 5 9

Schedule LXXXIII.

Return showing the number of Applications for Homestead Leases refused and permitted to be withdrawn during the year 1890, in the several Land Districts, with those outstanding at the close of 1890.

Land Board District.	Land District.	No. of Applications refused and permitted to be withdrawn.	No. of Applications outstanding at the end of 1889.
Bourke	Bourke	10	77
	Brewarrina	12	10
	Cobar	5	15
	Wilcannia	3	21
	Willyama	...	11
Hay	Balranald	6	22
	Hay North	4	4
	Hillston North	9	19
	Wentworth	4	16
Moree	Walgett North	9	42
		62	237

Schedule LXXXIV.

Return showing the Number, Area, and Rent determined of Homestead Leases in existence at the end of 1890 in the several Land Districts.

Land Board District.	Land District.	No. of Leases.	Area embraced in such Leases.	Rent determined.
				£ s. d.
Bourke	Bourke	287	2,725 565	14,361 15 3
	Brewarrina	136	1,261,409	9,251 1 2
	Cobar	53	464,033	2,072 3 11
	Wilcannia	33	298,991	1,451 13 4
	Willyama	26	214,415	975 6 2
Hay	Balranald	63	592,284	3,731 15 7
	Hay North	61	588,241	4,900 14 2
	Hillston North	73	607,877	3,830 4 3
	Wentworth	35	312,833	1,654 10 1
Moree	Walgett North	75	694,962	4,030 2 4
		842	7,760,610	46,199 6 3

Schedule LXXXV.

Return showing the Number of Applications received and dealt with during the year 1890 for Refund of Value of Improvements situated within Homestead Leases.

No. received in 1890 ....124. No. dealt with during 1890... ..122. No. outstanding at end of 1890 .....38.

Schedule LXXXVI.

Return showing the number of Applications received in 1890 from Homestead Lessees to bring their Leases under the provisions of the Crown Lands Act of 1889.

Land Board District.	Land District.	No of Applications received.
Bourke	Bourke	100
	Brewarrina	102
	Cobar	7
	Wilcannia	4
	Willyama	2
Hay	Balranald	39
	Hay North	53
	Hillston North	49
	Wentworth	17
Moree	Walgett North	29
		402

Schedule LXXXVII.

Return showing the number of applications made in 1890 to bring Homestead Leases under the provisions of the Crown Rents Act of 1890.

No. ..... 5.

Schedule LXXXVIII.

Return for 1890, Artesian Wells, section 45, Crown Lands Act of 1889.

No of applications tendered for permission to bore and search for water		Area	Land Board District.	Area temporarily exempted from sale or lease.		No and Name of Pastoral Holding.		Number of Leases issued.	No. Withdrawn or Refused.
No	Reserve			Area set apart.	Date of Gazette.				
		acres							
2	10,856 & 12,863	20,480	Bourke	10,240	4 Feb, 1890	3	Wel'moringle	Nil	Nil.
				10,240	14 Oct, ,,				
1	10,855	10,240	do	10,240	4 Feb, ,,	9	Buckanbee	,,	,,
1	11,713	10,240	do	10,240	14 Oct, ,,	22	Kallara	,,	,,
1	12,792	10,240	do	10,240	7 ,, ,,	32	Corella	,,	,,
1		10,240	do			38	Gurrera	,,	Refused.
2		20,480	do			46	Fort Bourke	,,	1 withdrawn.
1	11,475	10,240	do	10,240	29 April, 1890	53	Pirillie	,,	Nil.
2	12,126	20,480	do	10,240	1 July, ,,	55	Momba	,,	,,
2	11,174 & 11,183	20,480	do	20,480	18 Mar, ,,	80	Brindingabba	,,	,,
2	10,826	20,480	do	10,240	4 Feb, ,,	90	Lissington	,,	,,
1		10,240	Moree			110	Bangheet	,,	Refused
2		20,480	Bourke			122	Warraweena	,,	2 withdrawn.
1		10,000	do			125	Melroy	,,	Refused.
1	10,738	6 740	Brewarrina	6,740	22 Jan, 1890	137	Boorooma	,,	Nil.
2	10,881	20,480	Moree	10,240	11 Feb, ,,	152	Angledool	,,	,,
1	13,092	10,240	Bourke	10,240	18 Nov, ,,	160	Urisino	,,	,,
1	11,226	10,240	do	10,240	25 Mar, ,,	183	Wangamana	,,	,,
1	7,815	10,240	do	10,240	4 ,, ,,	185	Nocoleche	,,	,,
3	10,825, 11,182	30,720	do	20,480	4 Feb, ,, 18 Mar, ,,	206	Belalie	,,	,,
1	13,033	10 240	Walgett North	9,790	8 Nov, ,,	208	Gingie	,,	,,
1	11,633	10,240	Moree	10,240	18 Oct, ,,	216	Bundinbarrina	,,	,,
1	10,758, 11,229, 10,574, 13,091	404,220	Bourke	10,240 & 10,240 10,240	25 Jan, ,, 25 Mar, ,, 7 Jan, ,, 18 Nov, ,,	240	Dunlop	,,	
2	10,954 & 10,955	20,480	do	10,240 & 10 240	25 Feb, ,,	247	Lila Springs	,,	,,
1	10,827	10 240	do	10,240	4 ,, ,,	257	Toorale and Dunlop	,,	,,
2	11,227 & 11,228	20,480	do	10,240 & 10,240	25 ,, ,,	103	Marra	,,	,,
2	10,682 & 10,683	20,480	do	20,480	25 Jan, ,,	189	Kerribree	,,	,,
1	12,511	10,240	do	10,240	26 Aug, ,,	250	Wanaaring	,,	,,

Applications not refused are under reference to the Local Land Boards

Schedule LXXXIX.

Return of Applications for Scrub Leases under 87th section of the Crown Lands Act of 1884.

Land Board District.	Land District.	No. of Applications.		Total to be dealt with during 1890.	Area of those outstanding from 1889.	Area of those made during 1890.	Total Area.	Applications disallowed and withdrawn.		Total disallowed and withdrawn during the year.	No. of Leases granted during the year.	Num. not finally dealt with
		Outstanding from 1889.	Made during 1890.					Of those outstanding from 1889.	Of those made during 1890.			
					acres.	acres.	acres.					
Armidale	Armidale	1	.....	1	4,500	.....	4,500	.....	.....	.....	...	1
Bourke	Bourke	2	.....	2	16,000	.....	16,000	2	.....	2	...	.....
	Cobar	12	.....	12	122,660	.....	122,660	12	.....	12	...	.....
Dubbo	Coonamble	1	.....	1	3,200	.....	3,200	1	.....	1	...	.....
Forbes	Condobolin	22	.....	22	208,585	.....	208,585	21	.....	21	...	1
	Forbes	6	.....	6	42,141	.....	42,141	4	.....	4	...	2
	Parkes	2	1	3	20,240	3,520	23,760	2	1	3	...	.....
	Grenfell	.....	1	1	.....	1,600	1,600	.....	1	1	...	.....
Goulburn	Nowra	1	.....	1	2,520	.....	2,520	.....	.....	.....	...	1
	Young	1	.....	1	640	.....	640	1	.....	1	...	.....
Hay	Deniliquin	1	.....	1	10,240	.....	10,240	1	.....	1	...	.....
	Hay	4	.....	4	26,066	.....	26,066	1	.....	1	...	3
	Hillston	2	.....	2	20,000	.....	20,000	1	.....	1	...	1
	Do North.	1	25	26	10,240	245,360	255,600	.....	.....	.....	...	26
Moree	Bingera	1	.....	1	8,000	.....	8,000	1	.....	1	...	.....
	Moree	13	2	15	89,909	32,000	121,909	4	2	6	8	1
	Warialda	1	1	2	4,480	2,560	7,040	1	.....	1	...	1
Orange	Molong	1	.....	1	640	.....	640	1	.....	1	...	.....
Tamworth	Coonabarabran	2	.....	2	1,280	.....	1,280	1	.....	1	...	1
	Narrabri	1	.....	1	1,200	.....	1,200	1	.....	1	...	.....
Wagga Wagga	Corowa	1	1	2	1,122	700	1,822	1	1	2	...	.....
	Narrandera	13	.....	13	87,228	.....	87,228	6	.....	6	...	7
	Urana	.....	2	2	.....	7,491	7,491	.....	.....	.....	...	2
Totals		89	33	122	680,891	293,231	974,122	62	5	67	8	47

Schedule XC.

Return showing number, area, and rental of scrub leases granted during the year.

Land District.	No. granted.	Area.	Rent.
		acres.	£ s. d.
Moree	8	71,357	14 2 6

Schedule XCI.

Return showing number, area, and rental of scrub leases current on 31st December, 1890.

Land District.	No.	Area.	Rental.
		acres.	£ s. d.
Deniliquin	1	640	0 9 1
Moree	8	71,357	14 2 6
Totals	9	71,997	14 11 7

Schedule XCII.

Return showing number and area of Special Leases which expired on 31st December, 1890.

Land District.	No. of Leases.	Area.	Rent.	Land District.	No. of Leases.	Area.	Rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Albury	2	202 0 0	30 0 0	Moruya	2	179 2 0	20 0 0
Bourke	1	8 0 0	10 0 0	Murwillumbah	1	11 0 32	15 0 0
Brewarrina	1	0 1 4	10 0 0	Narrabri	2	340 0 0	26 0 0
Campbelltown	1	2 0 0	10 0 0	Narrandera	2	13 1 9	20 0 0
Cooma	1	10 0 0	1 0 0	Newcastle	2	0 0 22¾	6 0 0
Coonamble	1	2 0 0	5 0 0	Orange	1	1 0 0	10 0 0
Cootamundra	1	100 0 0	14 0 0	Port Macquarie	1	.....	10 0 0
Deniliquin	1	12 0 0	10 0 0	Stroud	2	1 0 0	11 0 0
Dubbo	2	5 2 0	20 0 0	Taree	1	2 0 0	5 0 0
Gosford	3	7 0 13	17 0 0	Walget North	1	8 0 0	10 0 0
Hay	1	5 0 0	10 0 0	Windsor	1	0 1 0	2 0 0
Kempsey	1	10 1 20	10 0 0	Wollongong	1	0 1 28	10 0 0
Lismore	2	5 1 25	20 0 0	Young	1	2 3 20	10 0 0
Lithgow	2	10 0 0	20 0 0				
Milton	3	8 0 9	30 0 0	Totals	68	948 3 16¾	702 0 0
Metropolitan	27	1 1 34	330 0 0				

Schedule XCIII.

Return showing number and area of Special Leases forfeited for non-payment of Rent during 1890.

Land District.	No. of Leases.	Area.	Rent.	Land District.	No. of Leases.	Area.	Rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Bourke	2	2 1 0	12 0 0	Moruya	3	0 0 16	45 0 0
Casino	1	1 2 27	5 0 0	Metropolitan	11	11 2 25¼	231 0 0
Condobolin	1	2 0 0	10 0 0	Narrabri	1	5 0 0	10 0 0
Cooma	1	2 0 0	10 0 0	Newcastle	2	2 0 11	39 10 0
Cowra	1	1 0 0	10 0 0	Taree	2	3 0 0	20 0 0
Deniliquin	1	0 2 0	0 10 0	Wagga Wagga	2	7 0 0	20 0 0
Gundagai	1	35 0 0	11 5 0	Wilcannia	1	20 0 0	10 0 0
Hay	2	322 0 0	25 0 0	Willyama (formerly part of Wilcannia)	1	8 0 6	15 0 0
Kempsey	2	6 1 32	20 0 0				
Lismore	2	0 1 0	20 0 0				
Lithgow	1	2 2 0	25 0 0	Totals	38	432 1 37¾	539 5 0

Schedule XCIV.

Summary of Special Leases current on 31st December, 1890.

Purposes of Leases.	No. of Leases.	Area.	Rent.	Purposes of Leases.	No. of Leases.	Area.	Rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Accommodation houses	9	468 0 0	124 0 0	Piles for docks	3	0 2 27	102 0 0
Approaches to bridges	1	2 0 0	5 0 0	Procuring gravel	2	28 1 0	15 0 0
Baths, landing-places, &c.	27	57 2 21¾	480 10 0	Quarrying	18	262 1 19	241 0 0
Brickmaking	26	170 3 18	306 0 0	Recreation	1	60 0 0	400 0 0
Business premises	13	69 1 4¾	157 0 0	Sawmills	36	1,624 0 20	506 15 0
Drainage	1	108 0 0	10 0 0	Slaughtering	13	1,490 0 0	183 10 0
Erection of machinery	3	210 0 0	47 15 0	Shipbuilding	6	17 2 6½	79 10 0
Factories	2	14 0 38	20 0 0	Smithies, smelting works, &c.	4	35 2 12	35 0 0
Ferries	8	16 1 39	90 0 0	Skin-drying	2	20 0 0	30 0 0
Fisheries	1	2 2 0	10 0 0	Tramways	9	436 0 0	165 10 0
Inns	35	1,081 2 4½	414 10 0	Vegetable gardens	14	55 1 24	176 0 0
Irrigation	3	115 0 0	35 0 0	Working mineral springs	2	45 0 0	45 0 0
Jetties and wharves	215	44 1 13	6,428 10 0	Wool-scouring	6	427 3 0	90 0 0
Limekilns	2	10 0 25	30 0 0	Railway stations	2	48 0 0	60 0 0
Mail-stations, stables, &c.	7	802 2 0	116 10 0				
Metal works	2	0 0 39	15 0 0	Totals	478	9,303 2 31½	10,560 0 0
Protection of water supply	5	1,580 1 0	141 0 0				

Schedule XCV.

Return of Special Leases current on 31st December, 1890.

Land Districts.	No. of Leases.	Area.	Rent.	Land Districts.	No. of Leases.	Area.	Rent.
		a. r. p	£ s. d.			a. r. p.	£ s. d.
Albury	1	0 3 0	10 0 0	Lismore	6	11 0 37	55 0 0
Armidale	2	15 0 0	20 0 0	Lithgow	14	263 0 37	221 0 0
Balranald	3	7 0 0	40 0 0	Liverpool	3	0 0 11	16 0 0
Bega	2	0 3 36	15 0 0	Maitland	1	8 0 0	15 0 0
Bingera	1	10 0 0	10 0 0	Metropolitan	169	92 2 29½	6,540 0 0
Bourke	26	3,074 2 36	486 0 0	Molong	3	146 2 21	34 15 0
Brewarrina	1	3 0 0	10 0 0	Milton	7	16 0 15½	82 0 0
Campbelltown	7	231 1 35	107 15 0	Moree	2	2 2 0	20 0 0
Carcoar	1	20 0 0	10 0 0	Moruya	9	8 1 8½	100 0 0
Casino	1	0 0 12½	10 0 0	Mudgee	1	77 3 0	21 0 0
Cobar	5	66¼ 0 0	72 10 0	Musclebrook	2	1 2 0	27 0 0
Cooma	3	55 0 0	46 0 0	Narrabri	6	383 0 0	66 0 0
Coonabarabran	2	100 0 0	24 0 0	Narrandera	5	23 1 9	50 0 0
Coonamble	1	10 0 0	10 0 0	Newcastle	11	8 0 18	149 10 0
Cootamundra	1	100 0 0	14 0 0	Nowra	2	14 0 6	20 0 0
Corowa	5	6 2 1	60 0 0	Orange	1	1 0 0	10 0 0
Cowra	3	10 0 0	30 0 0	Parkes	2	15 0 0	20 0 0
Deniliquin	19	1,154 3 0	284 10 0	Parramatta	18	32 1 20½	154 0 0
Dubbo	6	252 3 0	70 0 0	Port Macquarie	1	11 0 0	10 0 0
Dungog	1	0 0 14	10 0 0	Raymond Terrace	1	40 0 0	15 0 0
Eden	6	1 3 13¼	67 0 0	Rylstone	2	27 0 0	20 0 0
Forbes	3	336 0 0	50 0 0	Singleton	2	220 0 0	27 0 0
Gosford	9	8 2 29¾	112 0 0	Stroud	2	49 0 0	26 0 0
Goulburn	3	19 0 30	30 0 0	Tamworth	3	30 2 0	30 0 0
Grafton	10	15 3 25½	68 0 0	Taree	12	49 2 35	180 0 0
Grenfell	1	2 0 0	5 0 0	Tumut	2	2 3 38	10 0 0
Gundagai	1	5 0 0	10 0 0	Urana	5	16 0 12½	50 0 0
Gunnedah	3	52 2 12	38 0 0	Walgett, North	1	3 0 0	10 0 0
Hay	6	67 0 0	62 0 0	Walgett	2	27 0 0	20 0 0
Hay, North	1	5 0 0	10 0 0	Wilcannia	22	1,212 0 28	327 0 0
Hillston	3	12 0 16	45 0 0	Wollongong	4	1 2 14	195 0 0
Hillston, North	1	2 0 0	5 0 0	Willyama	1	10 0 0	10 0 0
Inverell	2	30 0 0	20 0 0	Young	2	158 3 0	23 0 0
Kempsey	9	66 1 3	102 0 0				
Kiama	5	0 1 27	42 0 0	Totals	478	9,303 2 31½	10,560 0 0

SCHEDULE XCVI.

RETURN of Applications for Special Leases under Crown Lands Act of 1884, and action taken thereon during the year 1890.

Land Board District.	Land District.	Number of Applications.			Applications granted.			Declined, withdrawn, and lapsed.		Pending.		Purposes for which such Leases were required.
		Outstanding in 1889.	Made during 1890.	Total.	Number.	Area.	Rent.	Number.	Area.	Number.	Area.	
						a. r. p.	£ s. d.		a. r. p.		a. r. p.	
Armidale	Armidale	...	3	3	...	.....	.....	2	42 0 0	1	1 1 0	Brick making, 1 declined; inn, 1 declined; vegetable garden, 1 pending.
	Glen Innes	1	1	2	...	.....	.....	...	.....	2	30 0 0	1 vegetable garden; 1 tramway.
Bourke	Bourke	2	9	11	5	966 1 0	138 0 0	3	470 0 0	3	960 0 0	Tanks, 1 granted, 1 declined; slaughtering, 1 granted, 1 pending; saw-mill, 1 granted; accommodation house, 1 granted, 1 declined; vegetable garden, 1 granted; wool-washing, 1 granted; store, 1 pending; mail station, 1 pending.
	Cobar	1	1	2	1	40 0 0	25 0 0	1	320 0 0	...	.....	Hotels, 1 granted, 1 declined.
	Wilcannia	7	14	21	6	823 3 10	96 10 0	8	2,212 0 0	7	1,488 0 7	Tanks, 1 granted, 3 pending; slaughtering, 3 granted, 1 pending; soap factory, 1 granted; wool-scouring, 1 granted; inn, 1 declined; tramways, 2 declined; hotel, 1 declined; irrigation, 1 declined; dairy, 1 declined; quarry, 1 declined; sheep-yard, 1 declined; water conservation, 1 pending; mail-station, 1 pending; brick-making, 1 pending.
	Wiliyama	...	6	6	1	10 0 0	10 0 0	4	907 0 0	1	5 1 25¾	Slaughtering, 1 granted, 1 declined; dam, 1 declined; water conservation, 1 declined; sewerage farm, 1 declined; quarry, 1 declined.
Cooma	Cooma	1	3	4	3	52 0 0	36 0 0	...	.....	1	2 0 0	Brick-making, 1 granted, 1 declined; store, 1 granted; mineral spring, 1 granted.
	Milton	...	2	2	2	12 0 0	15 0 0	...	.....	...	.....	Sawmill, 1; jetty, 1.
Dubbo	Dubbo	2	3	5	2	50 3 0	30 0 0	1	180 0 0	2	74 2 0	Vegetable gardens, 1 granted, 1 pending; dams, 1 declined, 1 pending; wool-scouring and saw-mill, 1 granted.
Forbes	Forbes	...	1	1	...	.....	.....	1	40 0 0	...	.....	Slaughtering.
	Parkes	1	3	4	...	.....	.....	1	1 0 0	3	30 0 0	Store, 1 declined; hotels, 2 pending; brick-making, 1 pending.
Goulburn	Young	...	1	1	...	.....	.....	1	160 0 0	...	.....	Dairy.
	Berrima	1	...	1	...	.....	.....	...	.....	1	68 0 0	Tramway.
	Nowra	...	1	1	...	.....	.....	1	2 0	...	.....	Butter factory.
Grafton	Casino	1	...	1	...	.....	.....	...	.....	1	.....	Wharf.
	Grafton	2	1	3	1	20	10 0 0	...	.....	2	2 0	Jetty, 1 granted; wharf, 1 pending; store, 1 pending.
	Kempsey	2	3	5	3	20 2 31	40 0 0	1	13	1	.....	Saw-mills, 2 granted; wharfs, 1 granted, 1 declined, 1 pending.
	Lismore	...	3	3	1	3 12¾	5 0 0	1	.....	1	1 13½	Wharfs, 1 granted, 1 declined; bath, 1 pending.
	Port Macquarie	...	1	1	1	11 0 0	10 0 0	...	.....	...	.....	Vegetable garden.
Hay	Deniliquin	4	3	7	2	188 0 0	25 0 0	2	38 0 0	3	266 1 30	Irrigation, 1 granted, 1 declined; drainage, 1 granted; inn, 1 declined; punt, 1 pending; mail-stations, 2 pending.
	Hay	2	3	5	2	14 0 0	22 0 0	1	2 2 0	2	10 0 0	Vegetable gardens, 2 granted; store, 1 declined; tramway, 1 pending; bridge, 1 pending.
	Hillston	2	2	4	3	12 0 16	45 0 0	...	.....	1	5 0 0	Hotels, 2 granted; brick-making, 1 granted; smelting works, 1 pending.
	Wentworth	2	...	2	...	.....	.....	1	.....	1	2 0 0	Tramway, 1 declined; ferry, 1 pending.

SCHEDULE XCVI—*continued.*

Land Board District.	Land District.	Number of Applications. Outstanding in 1889.	Made during 1890.	Total.	Applications granted. Number.	Area. a. r. p.	Rent. £ s. d.	Declined, withdrawn, and lapsed. Number.	Area. a. r. p.	Pending. Number.	Area. a. r. p.	Purposes for which such leases were required.
Maitland	Gosford	...	2	2	1	5 0 0	12 0 0	1	8 0 0	...	.....	Saw-mill, 1 granted; wharf, 1 declined.
	Maitland	...	1	1	1	8 0 0	15 0 0	...	.....	...	.....	Quarry.
	Newcastle	2	8	10	3	1 38¼	27 10 0	1	6 0 0	6	4 3 5	Ship-building, 1 granted; jetties, 2 granted, 1 pending; coal shoots, 1 declined; saw-mill, 1 pending; wharfs, 2 pending; boat-shed, 1 pending; boat-building, 1 pending.
	Raymond Terrace.	...	1	1	...	.....	.....	...	.....	1	1 18	Jetty.
	Singleton	1	...	1	1	20 0 0	12 0 0	...	.....	...	.....	Accommodation house.
	Taree	...	2	2	1	3 3 35	10 0 0	...	.....	1	2 0 0	Hotel, 1 granted; wharfage, 1 pending.
Moree	Walgett	1	2	3	1	25 0 0	10 0 0	...	.....	2	45 0 0	Irrigation, 1 granted; hotel, 1 pending; slaughtering, 1 pending.
Orange	Carcoar	...	3	3	...	.....	.....	1	20 0 0	2	20 0 37¾	Smelting works, 1 declined, 1 pending; brickmaking, 1 pending.
	Cowra	...	2	2	2	6 0 0	20 0 0	...	.....	...	.....	Limekilns, 1; brickmaking, 1.
	Lithgow	2	5	7	2	188 0 0	50 0 0	1	21 0 0	4	50 1 0	Procuring clay, 1 granted; tramway, 1 granted; stables and paddock, 1 declined; quarry, 3 pending; slaughtering, 1 pending.
	Mudgee	...	1	1	1	77 3 0	21 0 0	...	.....	...	.....	Quarry.
	Wellington	1	...	1	...	.....	.....	...	.....	1	5 0 0	Smelting works, 1 pending.
	Orange	...	1	1	1	1 0 0	10 0 0	...	.....	...	.....	Slaughtering.
Sydney	Campbelltown	2	6	8	3	4 0 36	40 0 0	2	31 0 0	3	153 0 0	Hotels, 2 granted; jetty, 1 granted; stores, 2 declined; tramway, 1 pending; vegetable garden, 1 pending; poultry farm, 1 pending.
	Liverpool	...	1	1	1	0 0 4	5 0 0	...	.....	...	.....	Jetty.
	Metropolitan	34	63	97	44	63 1 30¾	1,421 10 0	15	91 1 6¼	38	4 3 15	Wharfs, 12 granted, 4 declined, 9 pending; jetties, 24 granted, 7 declined, 24 pending; pile, 1 granted; patent slip, 1 granted; baths, 1 granted, 1 declined, 2 pending; boatsheds 3 granted, 1 declined, 1 pending; boatslip, 1 granted; stables, 1 decined; recreation, 1 granted, 1 declined; floating dock, 1 pending; landing place, 1 pending.
	Parramatta	1	13	14	6	1 1 1¾	37 0 0	3	10 0 29	5	0 2 9¾	Jetties, 3 granted, 1 declined, 4 pending; bathing places, 1 granted, 1 pending; wharfs, 1 granted, 1 declined; slaughtering, 1 declined.
	Wollongong	1	2	3	2	1 0 5	35 0 0	1	.....	...	.....	Jetties, 1 granted, 1 declined; coke factory, 1 granted.
Tamworth	Coonabarabran	...	2	2	1	50 0 0	12 0 0	...	.....	1	2 0 0	Accomodation house, 1 granted; hotel, 1 pending.
	Gunnedah	...	1	1	1	49 0 0	10 0 0	...	.....	...	.....	Tramway.
	Narrabri	...	3	3	...	.....	.....	3	500 0 0	...	.....	Store and hotel, 1; slaughtering, 1; dam, 1.
	Tamworth	...	1	1	...	.....	.....	1	30 0 0	...	.....	Mail station.
Wagga Wagga	Albury	1	3	4	2	4 0 0	20 0 0	2	202 0 0	...	.....	Store, 1 granted; sawmill, 1 granted; store, 1 declined; slaughtering, 1 declined.
	Cootamundra	1	1	2	1	100 0 0	14 0 0	...	.....	1	3 0 0	Slaughtering, 1 granted; factory, 1 pending.
	Corowa	5	3	8	1	1 0 0	10 0 0	4	251 1 10	3	13 0 0	Brickmaking, 1 granted, 1 declined; gravel 1 declined; approaches to bridge, 1 declined; irrigation, 1 declined; ferry, 3 pending.
	Gundagai	1	...	1	...	.....	.....	...	.....	1	100 0 0	Quarry.
	Narrandera	...	3	3	1	10 0 0	10 0 0	2	165 0 0	...	.....	Hotel, 1 granted; irrigation, 1 declined; sawmill, 1 declined.
	Urana	1	...	1	1	2 3 0	15 0 0	...	.....	...	.....	Store.
	Wagga Wagga	...	2	2	...	.....	.....	2	15 0 0	...	.....	Tobacco growing, 1; stables, 1.
Totals	.....	85	196	281	111	2,823 2 0½	2,324 10 0	68	1,723 3 18¼	102	3,347 2 1½	

Schedule XCVII.

Return showing Number and Area of Residential Leases applied for under section 48 of the Crown Lands Act of 1889, and action taken thereon.

Land District.	No. of Applications received during		Total to be dealt with.	Area applied for.	No. of Applications disallowed and withdrawn.	No. of Applications in course of action on 31st Dec., 1890.	No. of Leases granted.	Area of Leases granted.	Annual Rent.
	1889.	1890.		a. r. p.				a. r. p.	£ s. d.
Albury	.....	10	10	66 0 0	.....	10	.....	.....	.....
Armidale	.....	1	1	10 0 0	.....	1	.....	.....	.....
Bathurst	3	11	14	140 0 0	.....	14	.....	.....	.....
Bingera	.....	3	3	25 0 0	.....	3	.....	.....	.....
Braidwood	.....	5	5	45 0 0	2	3	.....	.....	.....
Carcoar	.....	8	8	80 0 0	.....	8	.....	.....	.....
Cobar	.....	2	2	20 0 0	2	.....	.....	.....	.....
Dubbo	.....	7	7	70 0 0	1	6	.....	.....	.....
Forbes	1	3	4	39 0 32	1	2	1	6 0 10	1 10 4
Glen Innes	.....	1	1	4 0 0	.....	1	.....	.....	.....
Grenfell	.....	9	9	73 0 0	2	7	.....	.....	.....
Gundagai	.....	6	6	60 0 0	.....	6	.....	.....	.....
Hillston	.....	1	1	5 3 3	.....	1	.....	.....	.....
Inverell	.....	1	1	10 0 0	.....	1	.....	.....	.....
Molong	.....	1	1	6 0 3	.....	1	.....	.....	.....
Mudgee	1	8	9	90 0 0	.....	9	.....	.....	.....
Parkes	9	27	36	345 2 32	12	24	.....	.....	.....
Scone	.....	1	1	10 0 0	.....	1	.....	.....	.....
Tamworth	.....	3	3	30 0 0	.....	3	.....	.....	.....
Tenterfield	.....	4	4	22 0 0	.....	4	.....	.....	.....
Wellington	1	.....	1	10 0 0	.....	1	.....	.....	.....
Wilcannia	2	3	5	43 0 0*	.....	1	4	33 0 0	8 0 0
Willyama	.....	9	9	79 0 0	.....	9	.....	.....	.....
Young	6	17	23	222 0 0	4	19	.....	.....	.....
Totals	23	141	164	1,505 2 30	24	135	5	39 0 10	9 10 4

* Now comprised in Willyama Land District.

Schedule XCVIII.

Return of Applications for Leases of Snow Lands under the Crown Lands Act of 1889, and action taken thereon during the year 1890.

No. of Applications received, 7. No. dealt with, 0. No. outstanding at the close of the year, 7.

Schedule XCIX.

Return of Applications for Leases of Inferior Lands under the Crown Lands Act of 1889, and action taken thereon during the year 1890.

No. of Applications received, 14. No. refused, 4. No. outstanding at the close of the year, 10.

Schedule C.

Return showing the number and classification of Deeds of Grant prepared during the year 1890.

No. of Deeds of Grant.	Area.	Classification.
	a. r. p.	
2	122 2 0	Sales by Auction, 23rd clause of Crown Lands Alienation Act of 1861.
72	192 2 5	Do Special, Field of Mars Resumption Act of 1874, 38 Vic. No. 3.
2,810	51,703 0 2½	Do 61st clause of Crown Lands Act of 1884.
1	71 3 0	After Auction Selections, 25th clause of Crown Lands Act Further Amendment Act of 1880.
49	11,928 1 12	Purchases in virtue of Improvements, 2nd and 31st clauses of Lands Act Amendment Act of 1875.
534	275 1 1½	Do do 46th clause of Crown Lands Act of 1884.
1,184	173,178 3 17	Conditional Purchases, 13th, 14th, 19th, 21st, and 22nd clauses of Crown Lands Alienation Act of 1861.
7	527 3 39	Do 42nd and 47th sections of Crown Lands Act of 1884.
40	378 0 19¾	Purchases under the 9th, 10th, 11th, and 12th clauses of Crown Lands Alienation Act of 1861.
130	1,204 1 14½	Do 63rd, 64th, 66th, 67th, and 69th clauses of Crown Lands Act of 1884.
18	882 0 0	Volunteer Land Order Grants.
12	23 2 19	Dedications under the 5th clause of the Crown Lands Alienation Act of 1861, the 32nd clause of the Crown Lands Act Amendment Act of 1875, and the 104th clause of the Crown Lands Act of 1884.
64	7,737 2 0	Grants by way of Exchange for Land surrendered under the 75th clause of the Crown Lands Act of 1884.
7	152 2 7	Miscellaneous.
4,930	248,378 1 17½	

Schedule CI.

Return showing number of Deeds issued each year since 1880, and number and area of Conditional Purchases embraced in such deeds.

Year.	No. of Deeds issued.	No. of C.Ps. embraced in those Deeds.	Area.
			a. r. p.
1880	774	775	73,306 1 39
1881	794	799	86,177 2 14
1882	1,098	1,103	140,425 3 17
1883	976	983	107,329 3 39
1884	1,090	1,105	125,231 3 24
1885	835	850	92,632 2 10
1886	1,121	1,147	118,842 0 33
1887	914	928	115,492 2 4
1888	1,016	1,033	152,347 2 22
1889	1,320	1,398	182,964 2 8
1890	1,191	1,200	173,706 3 16
Total	11,129	11,321	1,368,458 0 26

Schedule CII.

Return of Applications for permission to Ringbark for the year 1890.

Land Board District.	Land District.	Applications made during 1890.						Applications made prior to 1890.		
		No. received	Area applied for.	Fees lodged.	No. allowed.	Area allowed.	No. disallowed.	No. allowed.	Area allowed.	No. disallowed.
			acres.	£		acres.			acres.	
Armidale	Armidale	4	11,280	16	3	9,580	.....	3	4,254	...
	Glen Innes	...	.....	.....	...	.....	.....	.....	.....	...
	Inverell	2	11,420	14	2	11,420	.....	.....	.....	...
	Tenterfield	1	1,920	3	...	.....	.....	.....	.....	...
	Walcha	2	1,796	6	...	.....	1	3	8,240	...
Bourke	Bourke	3	4,813	9	2	3,000	1	.....	.....	...
	Brewarrina & Brewarrina East.	4	33,600	40	1	24,000	.....	.....	.....	...
	Cobar and Cobar East	12	331,073	366	3	37,820	8	.....	.....	1
	Wilcannia	...	.....	.....	...	.....	.....	.....	.....	...
	Willyama	...	.....	.....	...	.....	.....	.....	.....	...
Cooma	Bega Bombala Cooma Eden	...	.....	.....	...	.....	.....	No applications made prior to the year 1890, outstanding on 31st December, 1890.		
	Queanbeyan	1	1,205	3	Not yet dealt with.			.....	.....	...
	Braidwood Milton Moruya	...	.....	.....	...	.....	.....	.....	.....	...
Dubbo	Coonamble	...	.....	.....	...	.....	.....	5	12,075	...
	Dubbo	13	38,240	59	12	35,290	.....	2	38,250	...
Forbes	Condobolin	3	17,000	23	...	.....	.....	1	1,920	...
	Forbes	...	.....	.....	...	.....	.....	.....	.....	...
	Grenfell	5	13,643	23	4	13,080	.....	1	1,880	...
	Parkes	12	115,124	159	9	70,204	.....	2	12,660	...
Goulburn	Berrima	...	.....	.....	...	.....	.....	.....	.....	...
	Burrowa	2	750	6	1	400	1	.....	.....	...
	Goulburn	1	1,280	3	...	.....	.....	.....	.....	...
	Gunning	...	.....	.....	...	.....	.....	.....	.....	...
	Nowra	...	.....	.....	...	.....	.....	.....	.....	...
	Yass	...	.....	.....	...	.....	.....	.....	.....	...
	Young	...	.....	.....	...	.....	.....	.....	.....	...
Grafton	Grafton	1	1,920	3	1	1,920	.....	.....	.....	...
	Kempsey	...	.....	.....	...	.....	.....	.....	.....	...
	Bellingen	...	.....	.....	...	.....	.....	.....	.....	...
	Port Macquarie	...	.....	.....	...	.....	.....	.....	.....	...
	Casino	...	.....	.....	...	.....	.....	.....	.....	...
	Lismore	...	.....	.....	...	.....	.....	.....	.....	...
	Murwillumbah	...	.....	.....	...	.....	.....	.....	.....	...
Hay	Balranald and Balranald South.	5	18,295	29	5	18,295	.....	3	9,260	...
	Deniliquin	8	19,409	36	7	17,489	1	1	1,000	...
	Hay and Hay North	...	.....	.....	...	.....	.....	.....	.....	...
	Hillston and Hillston North.	9	84,548	105	6	73,408	.....	7	21,560	...
	Wentworth	2	11,520	14	1	7,680	.....	1	1,920	...
Maitland	Cassilis	...	.....	.....	...	.....	.....	1	450	...
	Dungog	...	.....	.....	...	.....	.....	.....	.....	...
	Gosford	...	.....	.....	...	.....	.....	.....	.....	...
	Maitland	...	.....	.....	...	.....	.....	.....	.....	...
	Muswellbrook	1	230	3	1	230	.....	.....	.....	...
	Newcastle	...	.....	.....	...	.....	.....	.....	.....	...
	Paterson	1	226	3	1	226	.....	1	1,680	...
	Raymond Terrace	...	.....	.....	...	.....	.....	.....	.....	...
	Scone	3	1,705	9	2	940	.....	4	3,920	...
	Singleton	...	.....	.....	...	.....	.....	.....	.....	...
	Stroud	...	.....	.....	...	.....	.....	.....	.....	...
	Taree	...	.....	.....	...	.....	.....	.....	.....	...
	Wollombi	...	.....	.....	...	.....	.....	.....	.....	...

Land Board District.	Land District.	Applications made during 1890.						Applications made prior to 1890.		
		No received	Area applied for.	Fees lodged.	No. allowed	Area allowed.	No allowed.	No allowed.	Area allowed.	No disallowed.
				£						
Moree	Bingara	6	25,332	36	3	7,680		1	700	
	Moree	6	63,933	74	3	56,787		2	7,600	
	Warialda	3	26,056	30	3	26,056				
	Walgett	3	9,600	13	2	7,680				
Orange	Bathurst	2	2,680	5	2	2 680				
	Carcoar	5	2,831	15	5	2,831				
	Orange Mudgee Rylstone Cowra Molong Wellington									
	Lithgow									
Sydney	Campbelltown Kiama Liverpool Metropolitan Parramatta Penrith Picton Windsor Wollongong									
Tamworth	Coonabarrabran	16	49,550	63	4	9,450	6	2	7,680	1
	Gunnedah	4	9,960	16	1	640				
	Murrurundi									
	Narrabri	3	9,190	15	1	1,920		3	11,360	
	Tamworth	2	5,450	10				1	5,670	
Wagga Wagga	Albury	2	933	6						
	Cootamundra	6	8,267½	22	1	2,300	2	1	3,500	
	Corowa									
	Gundagai	2	940	6						
	Narrandera	5	9,985	19	2	3,671	1	1	1 280	
	Tumut	1	1,920	3						
	Urana							1	264¼	
	Wagga Wagga	2	2,630	6	1	1,800				
		163	950,259½	1,271	89	448,477	21	47	157,123¼	2

Schedule CIII.

Return showing number of Trespasses on Crown Lands reported during 1890, and action taken thereon under the provisions of the Crown Lands Act of 1884.

Number of cases not disposed of at end of 1889	257	
Number of cases of trespass reported by Crown Lands Bailiffs during 1890	179	
		436
Number of prosecutions in which convictions were obtained	35	
Number of cases dismissed	4	
Trespasses abated after notice, without legal proceedings by the Department	157	
Cases in which action was suspended by the Department, pending investigation of applications to be placed in legal occupation	57	
Number of cases of reported trespass in which, after investigation, it was found that no proceedings were necessary	18	
Number of cases referred to other Departments for action, Department of Mines 15, Department of Works 2	17	
Number of cases in which, on acknowledgment of trespass, no further proceedings were taken	2	
Cases not disposed of at end of year	146	
		436

Schedule CIV.

Comparative Statement of Manuscript Letters, Formal Documents, and Parcels despatched from Head Office during the years 1889 and 1890.

Year.	Manuscript Letters.	Formal Documents, including Printed Letters, Schedules, Ex Co Minutes, *Gazette* Notices, Books of Reference to Benches of Magistrates, and Plans of Roads to same		Parcels.	Total.
		Printed Letters, Ex Co Minutes, &c.	Schedules.		
1889	24,501	82,045	1,040	11,749	119,335
1890	26,817	91,889	1,063	13,386	133,155
Decrease					
Increase	2,316	9,844	23	1,637	Net Increase. 13,820

Telegrams sent during 1889	1,833	
Telegrams sent during 1890	2,603	
Increase		770
Circulars sent during 1889	121	
Circulars sent during 1890	169	
Increase		48

SCHEDULE CV.

COMPARATIVE STATEMENT of Letters Registered during the years 1889 and 1890 at Head Office.

Branch.	Documents Registered.		Increase.	Decrease.
	1889.	1890.		
Ministerial	10,310	15,158	4,848	
Miscellaneous	19,514	19,317		197
Alienation	5,835	11,890	6,005	
Leases	8,462	10,123	1,661	
Conditional Sales	38,434	32,769		5,665
Occupation	14,923	15,491	568	
Miscellaneous Leases		4,401	4,401	
Total	97,528	109,149	17,483	5,862

SCHEDULE CVI.

RETURN showing Number of Letters and Documents received at and despatched from the Head Offices of the Local Land Boards during the year ending 31st December, 1890.

Land Board District.	Received. No. of Letters and Circulars	Despatched.			Total No. Despatched.
		Manuscript Letters.	Formal Documents (partly printed and partly manuscript)	Parcels (including Maps, &c.)	
Armidale	11,594	698	2,383	201	3,282
Bourke	7,436	677	3,374	368	4,419
Cooma	8,403	604	5,339	188	6,131
Dubbo	7,733	405	3,869	28	4,302
Forbes	7,256	661	3,590	289	4,540
Goulburn	6,600	762	7,543	240	8,545
Grafton	8,340	1,020	5,434	353	6,807
Hay	7,333	1,455	5,442	253	7,150
Maitland	13,147	970	8 732	664	10,366
Moree	6,689	376	2,194	255	2,825
Orange	13,513	1,200	9,000	69	10,269
Sydney	5,835	569	1,392	Nil.	1,961
Tamworth	10,041	809	4,564	277	5,641
Wagga Wagga	13,162	2,132	7,313	463	9,908
	127,137	12,329	70,169	3,648	86,146

SCHEDULE CVII.

APPROXIMATE STATEMENT of Area of Land Alienated and Unalienated in the Colony on the 31st December, 1890.

	acres.
1. Area alienated in all forms prior to 1861	7,338,539
2. Area alienated by Auction and After Auction Selection from 1861 to 31st December, 1890	13,022,641
3. Area alienated by Improvement Purchase during same period	2,774,008
4. Area alienated by Conditional Purchase during same period, for which deeds have issued	1,924,422
5. Area alienated by all other forms during same period, including lands dedicated	1,218,423
Area alienated up to 31st December, 1890	26.278,033
6. Estimated area of unalienated land in the Colony on 31st December, 1890	169,604,117
Estimated area of Colony	195,882,150
Area under incomplete Conditional Purchase up to 31st December, 1890, exclusive of forfeitures, lapsings, cancellations, and voidances	18,480,118

SCHEDULE CVIII.

LAND APPEAL COURT.

THE expenses of the above Court for the year 1890 were as follows:—

	£	s.	d.
Salaries	4,802	6	7
Travelling expenses	512	8	5
General expenses	383	12	4
	£5,698	7	4

Schedule CIX.

Area of land measured during 1890, and cost thereof.

Class of survey.	Licensed Surveyors.			Salaried Surveyors.			Aggregate Area—Acres.	Aggregate cost.	Average cost per acre.
	Area—Acres.	Cost.	Average cost per acre.	Area—Acres.	Cost.	Average cost per acre.			
		£ s d			£ s. d.	£ s. d		£ s. d	£ s. d.
Conditional purchases	561,197	28,883 0 0	0 1 0¼	16,607	1,430 5 0	0 1 8	577,804	30,313 5 0	0 1 0¼
Conditional leases	1,169 948	27,610 0 0	0 0 5½	18,813	782 5 0	0 0 9¾	1,188,761	28,392 5 0	0 0 5¾
Special areas	81,339	2,663 0 0	0 0 7¾	Nil			81,339	2,663 0 0	0 0 7¾
Homestead leases	2,247,170	6,885 0 0	0 0 0¾	29,610	132 0 0	0 0 1	2,276,780	7,017 0 0	0 0 0¼
Special leases	1,926	125 0 0	0 1 3½	1,039	81 0 0	0 1 6½	2,965	206 0 0	0 1 4½
Measured in anticipation	105,896	3,618 0 0	0 0 8	13,393	624 5 0	0 0 11¾	119,289	4,242 5 0	0 0 8¾
Auction, country	406,102	12,791 0 0	0 0 7¼	8,593	783 0 0	0 1 9¾	414,695	13,574 0 0	0 0 7¾
Do suburban	2,275	818 0 0	0 6 11	422	205 15 0	0 9 10¾	2,697	1,023 5 0	0 7 7 1/16
Do town	599	855 0 0	1 8 6½	61	166 5 0	2 14 6	660	1,021 5 0	1 10 11¼
Improvement purchases	1,985	115 0 0	0 1 1¼	97	148 5 0	1 10 6½	2,082	263 5 0	0 2 6¼
Special purchases, rescissions, and reclamations	48	171 0 0	3 11 3	198	530 10 0	2 13 6½	246	701 10 0	2 17 0¼
Reserves	26,079	851 0 0	0 0 7¾	3,540	495 0 0	0 2 9½	29,619	1,346 0 0	0 0 10½
Public School sites	308	215 0 0	0 13 11½	185	231 5 0	1 5 0	493	446 5 0	0 18 1¼
Cemeteries	169	154 0 0	0 18 2½	264	215 5 0	0 16 3¼	433	369 5 0	0 17 0½
Parks				10	15 15 0	1 11 6	10	15 15 0	1 11 6
Miscellaneous	10,646	386 0 0	0 0 8½	3,611	442 5 0	0 2 5¼	14,257	828 5 0	0 1 1¾
Amendments				15,288	753 15 0	0 0 11¾	15,288	753 15 0	0 0 11¾
	4,615,687	86,140 0 0	0 0 4⅜	111,731	7,036 15 0	0 1 3⅛	4,727,418	93,176 15 0	0 0 4¾
	Chains.	Cost.	Average per chain.	Chains.	Cost.	Average per chain.	Total length (chains)	Total cost	Average per chain.
Roads (4 Wm IV, No 11)	14,543	986 0 0	0 1 4¼	29,848	3,373 10 0	0 2 3	44,391	4,359 10 0	0 1 11½
Boundaries of pastoral areas	27,916	855 0 0	0 0 7¼	1,081	84 10 0	0 1 6½	28,997	939 10 0	0 0 7⅞
Feature and geographical surveys	33,362	962 0 0	0 0 6¼	26,241	1,620 15 0	0 1 2¾	59,603	2,582 15 0	0 0 10¼
Miscellaneous lengths	19,754	1,067 0 0	0 1 0⅛	89,280	5,392 0 0	0 1 2½	109,034	6,459 0 0	0 1 2¼
	95,575	3,870 0 0	0 0 9⅝	146,450	10,470 15 0	0 1 5⅛	242,025	14,340 15 0	0 1 2¼

Schedule CX.

Special Areas.

Board District.	Land District.	Total Acreage included in Special Areas when proclaimed.	Area thereof since included in Reserves or otherwise rendered unavailable for Conditional Purchase.	Area available for Selection	Area Selected.	Area Unselected on 20 June, 1890.	Total Price represented by land selected	Total received for Deposit Money.	Percentage of Area selected to Area available for selection.
		a. r. p	a r. p	a r. p	a r p.	a r. p.	£ s. d	£ s. d.	per cent.
Armidale	Armidale	3,424 3 30	Nil	3,424 3 30	160 0 0	3,264 3 30	240 0 0	24 0 0	4 7
	Glen Innes	5,008 0 0	Nil.	5,008 0 0	1,193 0 0	3,815 0 0	2,473 2 6	247 6 3	23¾
	Inverell	598 0 0	76 0 0	522 0 0	472 0 0	50 0 0	944 0 0	94 8 0	90¼
	Tenterfield	140 0 0	Nil.	140 0 0	140 0 0	Nil.	210 0 0	21 0 0	100
	Totals	9,170 3 30	76 0 0	9,094 3 30	1,965 0 0	7,129 3 30	3,867 2 6	386 14 3	21½
Bourke	Bourke	9,965 0 0	About 1,573¾	About 8,391 1 0	829 2 0	7,561 3 0	About 1,925 5 0	192 10 6	9 88
	Cobar	2,880 0 0	Nil.	2,880 0 0	Nil.	2,880 0 0	Nil	Nil.	Nil.
	Brewarrina East	2,327 2 0	Nil	2,327 2 0	Nil.	2,327 2 0	Nil	Nil.	Nil.
	Totals	15,172 2 0	About 1,573¾	About 13,598 3 0	829 2 0	12,769 1 0	About 1,925 5 0	192 10 6	6
Cooma	Bega	40 0 0	Nil	40 0 0	40 0 0	Nil.	270 0 0	27 0 0	100
	Bombala	740 2 0	Nil	740 2 0	200 0 0	540 2 0	420 0 0	42 0 0	27
	Cooma	1,807 3 0	1 0 10	1,806 2 30	951 2 0	855 0 30	1,596 12 6	159 13 3	53
	Eden	776 1 0	Nil	776 1 0	363 1 0	413 0 0	908 2 6	90 16 3	46¾
	Queanbeyan	744 1 0	Nil	744 1 0	376 0 0	368 1 0	624 0 0	62 8 0	50½
	Totals	4,108 3 0	1 0 10	4,107 2 30	1,930 3 0	2,176 3 30	3,818 15 0	381 17 6	47
Dubbo	Dubbo	10,871 0 0	385 1 0	10,485 3 0	2,028 1 0	8,457 2 0	3,360 7 6	336 0 9	19 3
	Coonamble	2,550 2 0	Nil	2,550 2 0	Nil	2,550 2 0	Nil.	Nil.	Nil.
	Totals	13,421 2 0	385 1 0	13,036 1 0	2,028 1 0	11,008 0 0	3,360 7 6	336 0 9	15
Forbes	Condobolin	7,634 3 0	120 3 0	7,514 0 0	6 202 0 0	1,312 0 0	10,320 0 0	930 6 0	82½
	Forbes	6,352 2 14	....	6,352 2 14	6,352 2 14	Nil.	10,968 11 3	1,096 17 10	100
	Grenfell	11,466 2 0	1,106 1 0	10,360 1 0	8,180 3 37	2,179 1 3	14,634 6 9	1,463 8 8	79
	Parkes	1,233 0 30		1,233 0 30	1,233 0 30	Nil.	1,919 0 7	335 16 6	100
	Totals	26,686 0 4	1,227 0 0	25,460 0 4	21,968 3 1	3,491 1 3	37,841 18 7	3,826 9 0	87
Goulburn	Boorowa	4,869 0 0	. .	4,869 0 0	3,628 3 0	1,240 1 0	8,218 7 1	821 16 8½	74½
	Gunning	2,523 0 0	285 0 0	2,238 0 0	476 1 0	1,761 3 0	714 7 6	71 8 9	21½
	Yass	1,034 2 0		1,034 2 0	270 3 0	763 3 0	406 2 6	40 12 3	26
	Young	4,762 2 0	.	4,763 2 0	3,150 3 0	1,612 3 0	6,741 7 6	674 2 9	66
	Totals	13,190 0 0	285 0 0	12,905 0 0	7,526 2 0	5,378 2 0	16,080 4 7	1,608 0 5½	58¾
Grafton	Grafton	4,903 0 0	476 0 0	4,425 0 0	2,397 2 0	2,027 2 0	4,689 17 6	468 19 9	54
	Lismore	11,301 0 0	577 0 0	10 724 0 0	7,859 0 0	2,865 0 0	19,872 7 6	1,987 4 9	73
	Casino	2,255 0 0	404 0 0	1,851 0 0	761 0 0	1,090 0 0	1,675 10 0	167 11 0	41
	Murwillumbah	10,422 0 0	718 0 0	9,704 0 0	2,206 1 0	7,497 3 0	4,058 0 0	403 16 0	22
	Kempsey	5,040 0 0	..	5,040 0 0	950 0 0	4,090 0 0	1,425 0 0	142 10 0	18¾
	Bellinger	12,472 0 0	.	12,472 0 0	7,385 1 0	5,086 3 0	11,518 10 0	1,349 17 0	59
	Totals	46,393 0 0	2,175 0 0	44,216 0 0	21,559 0 0	22,657 0 0	43,239 5 0	4,519 18 6	48¾
Hay	Deniliquin	45,454 2 0	5,212 0 0	40,242 2 0	4,503 0 0	35,739 2 0	8,575 0 0	857 10 2	11
	Hay	64,440 3 0	12,391 2 0	52,049 1 0	6,753 1 0	45,296 0 0	11,360 15 0	1,136 13 0	13
	Hillston	812 1 0	Nil.	328 0 0	328 0 0	484 1 0	656 0 0	65 12 0	40
	Totals	110,707 2 0	17,603 2 0	11,584 1 0	11,584 1 0	81,519 3 0	20,591 15 0	2,059 15 2	12½

SCHEDULE CX—*continued.*

Special Areas—*continued.*

Board District	Land District	Total Acreage included in Special Areas when proclaimed	Area thereof since included in Reserves or otherwise rendered unavailable for Conditional Purchase	Area available for Selection	Area Selected	Area Unselected on 20 June, 1890	Total Price represented by land selected	Total received for Deposit Money	Per centage of Area selected to Area available for selection
		a r p	a r p	a r p	a r p	a r p	£ s d	£ s d	per cent
Maitland	Cassilis	1,143 2 0	100 0 0	1,043 2 0	572 1 0	471 1 0	858 7 6	85 16 9	54 8
	Dungog	2,422 2 0		2,422 2 0	960 3 0	1,461 3 0	1,742 15 0	174 2 6	39 6
	Maitland	1,815 3 0	1,533 1 0	282 2 0	282 2 0	Nil	423 15 0	42 7 6	100
	Muswellbrook	49 3 0		49 3 0	Nil	49 3 0			
	Newcastle	339 1 25		339 1 25	Nil	329 1 25			
	Paterson	114 0 0		114 0 0	114 0 0	Nil	285 0 0	28 10 0	100
	Raymond Terrace	180 0 0		180 0 0	Nil	180 0 0			
	Singleton	581 0 0		581 0 0	435 2 20	145 1 20	1,089 1 3	108 18 2	74
	Stroud	46 0 0	46 0 0	Nil	Nil	Nil	53 0 0		
	Taree	700 1 0	30 3 0	669 2 0	198 3 0	470 3 0	531 1 0	53 2 6	296
	Totals	7,392 0 25	1,710 0 0	5,682 0 25	2,563 3 20	3,118 1 5	4,929 19 9	492 17 5	45
Moree	Moree	8,508 0 0	153 0 0	8,405 0 0	3,244 0 0	5,161 0 0	5,169 10 0	516 19 0	38½
	Bingara	228 2 0		228 2 0	100 1 0	128 1 0	300 15 0	30 1 6	44
	Warialda	2,271 2 0	950 0 0	1,321 2 0	952 0 0	369 2 0	1,584 0 0	158 8 0	72
	Walgett	2,157 0 0	640 0 0	1,517 0 0	130 0 0	1,387 0 0	325 0 0	19 10 0	8 5
	Totals	13,215 0 0	1,743 0 0	11,472 0 0	4,426 1 0	7,045 3 0	7,379 5 0	724 18 6	38½
Orange	Cowra	5,604 1 0	2,560 0 0	3,044 3 0	1,372 3 0	1,672 0 0	2,059 2 6	205 18 3	45
	Mudgee	1,628 1 0	Nil	1,628 1 0	584 0 0	1,044 1 0	876 0 0	87 12 0	36
	Bathurst	300 0 0	Nil	300 0 0	151 0 0	149 0 0	226 10 0	22 13 0	50
	Molong	4,596 3 0	1,995 0 0	2,601 3 0	1,791 3 0	811 0 0	4,050 5 0	404 10 6	68
	Wellington	379 3 0	Nil	379 3 0	379 3 0	Nil	569 12 6	56 19 3	100
	Totals	12,509 0 0	4,555 0 0	7,954 2 0	4,279 1 0	3,675 1 0	7,781 10 0	777 13 0	54
Sydney	Berrima	920 0 0	Nil	920 0 0	142 0 0	778 0 0	284 0 0	28 8 0	15 *
	Campbelltown	8,911 3 0	2,021 0 0	6,890 3 0	1,212 0 0	5,677 3 0	2,281 0 0	229 1 0	17 6
	Gosford	791 2 0	Nil	791 2 0	465 1 15	326 0 25	2,263 7 6	226 3 9	59
	Lithgow	1,146 3 0	Nil	1,146 3 0	719 2 0	427 1 0	2,379 0 0	237 18 0	62¾
	Liverpool	96 2 0	Nil	96 2 0	96 2 0	Nil	193 0 0	19 6 0	100
	Metropolitan	40 0 0	Nil	40 0 0	Nil.	40 0 0			Nil
	Milton	2,210 0 0	Nil	2,210 0 0	485 0 0	1,725 0 0	727 10 0	72 15 0	22
	Nowra	248 3 0	Nil	248 3 0	87 3 0	161 0 0	163 11 3	23 8 0	35
	Penrith	1,068 3 0	Nil	1,068 3 0	228 1 0	840 2 0	1,237 10 0	123 15 0	21⅓
	Picton	1,381 1 0	Nil	1,381 1 0	650 1 0	731 0 0	989 0 0	198 18 0	47
	Windsor	220 3 0	Nil	220 3 0	61 2 0	159 1 0	123 0 0	12 6 0	27¾
	Wollongong	28 0 0	Nil	28 0 0	Nil	28 0 0			Nil.
	Totals	17,064 0 0	2,021 0 0	15,043 0 0	4,149 0 15	10,893 3 25	10,640 18 9	1,171 18 9	27½
Tamworth	Coonabarabran	450 0 0	314 0 0	166 0 0	160 0 0	6 0 0	240 0 0	24 0 0	96⅛
	Gunnedah	9,727 1 0	224 0 0	9,503 1 0	2,340 2 0	7,162 3 0	3,983 2 6	398 6 3	24⅔
	Murrurundi	5,949 0 0	137 2 0	584 2 0	2,945 0 0	2,866 2 0	5,902 10 0	590 5 0	50⅞
	Nairabri	18,454 0 0	806 2 0	17,647 2 0	1,113 2 0	16,534 0 0	1,893 6 3	189 6 8	6⅓
	Tamworth	5,088 0 0	Nil	5,088 0 0	1,661 3 0	3,426 1 0	3,747 5 0	374 14 6	33
	Totals	39,698 1 0	1,482 0 0	38,216 1 0	8,220 3 0	29,995 2 0	15,766 3 9	1,546 10 5	21½
Wagga Wagga	Albury	10,142 2 33	611 1 0	9,531 1 33	6,240 0 33	3,291 1 0	14,398 0 0	1,439 16 0	65½
	Corowa	27,495 3 0	7,190 3 0	20,305 0 0	17,001 1 10	3,303 2 30	44,943 13 2	4,485 13 0	83½
	Cootamundra	6,536 3 0	1,298 2 0	5,238 1 0	4 222 2 0	1,015 3 0	7,457 3 9	745 14 5	80½
	Gundagai	5,702 1 0		5,702 1 0	5,699 0 0	3 1 0	11,649 6 3	1,210 18 9	100
	Narrandera	16,561 1 0	2,334 1 0	14,227 0 0	3,309 2 0	10,917 2 0	7,596 7 6	759 16 2	23¼
	Tumut	528 0 0		528 0 0	375 3 10	152 0 30	640 14 4	64 1 6	71
	Urana	29,560 3 18	58 2 0	29,502 1 18	10,711 3 0	18,790 2 18	23,843 0 0	2,384 6 0	36⅓
	Wagga Wagga	38,235 2 0	490 0 0	37,745 2 0	18,788 2 32	18,956 3 8	27,650 0 0	3,830 6 10	49¾
	Totals	134,763 0 11	11,983 1 0	122,779 3 11	66,348 3 5	56,431 0 6	148,178 5 0	14,920 12 8	54
TOTALS AND PERCENTAGE FOR THE WHOLE COLONY —		463,491 2 30	46,822 3 10	416,670 1 10	159,380 0 1	257,290 1 19	325,400 14 7	32,979 16 10½	38¼

Report of the Chief Surveyor to The Under Secretary for Lands.

Sir, Department of Lands, Sydney, 14 March, 1891.

I have the honor to submit the Annual Report for this office for the year 1890.

The surveyors employed on the permanent staff have been classified as follows, viz., twelve district surveyors, two acting district surveyors, and thirty-seven salaried surveyors.

Messrs. W. H. O'M. Wood and J. L. Tritton, first-class surveyors, have been promoted to the positions of district surveyors at Moree and Hay respectively.

Messrs. F. W. Hawkins, W. H. Foster, D. H. Murray, S. R. Beatty, and W. M. Gordon, surveyors, who had been temporarily employed on salary for several years were promoted and appointed to the permanent staff of the Department.

Under the report of the Board of Inquiry the following surveyors were retired from the service, viz., Messrs. C. H. Wansbrough, C. J. Metcalfe, and G. L. Dowe.

Mr. G. H. Knibbs, second-class surveyor, was also allowed to retire from the service under the provisions of the "Civil Service Act."

Twenty-five licensed surveyors were employed temporarily on salary, viz., fifteen surveyors and ten assistant surveyors; three new appointments were made to this temporary staff, viz., Messrs. E. Ekenstedt, H. Welchman, and D. C. White. There were four resignations, viz., Messrs. P. Chambers, R. G. Glasson, W. L. King, and A. Peake.

One hundred and twenty licensed surveyors were employed, more or less continuously, under the usual Departmental contract.

Twelve new licenses and two hundred and twenty-six renewals of licenses under the Real Property Act have been issued to surveyors during the year.

A meeting of the Board for examination of candidates for license to survey Crown Lands was held in June, at which seventeen candidates presented themselves, of whom eight were found to be qualified and were recommended for appointment, viz.:—

G. A. Sweet,	T. M'Donnough,
R. W. B. Darke,	G. A. H. Rowney,
F. J. N. Harris,	R. Fitz Roy,
H. F. Halloran,	E. H. Lack.

The second Board meeting usually held in December was postponed for a few weeks on account of the pressure of more important business.

It may be here conveniently stated that several of the junior licensed surveyors have accepted employment temporarily on salary as assistant surveyors (attached to surveyors' parties); this is a new appointment, created at instance of the Board of Inquiry, which gives to qualified surveyors a better status than obtained heretofore under the designation of field assistants.

During the year a Board of Inquiry was appointed by the Minister to inquire into the General Survey and the Trigonometrical Survey Branches; the recommendations of the Board led to rearrangement of these, which was brought into effect on 1st September, viz., the greater part of the General Survey staff was converted into the Detail Survey Branch, under Mr. D. M. Maitland, surveyor, which is charged with city and environs detail survey for sewerage; and a trigonometrical branch was formed and its duties specifically defined.

The three surveyors who were appointed under the report of the Board for special service have been engaged during the last quarter of the year on surveys for alignment of streets under the Towns Police Act, viz., at Mittagong, Liverpool, Granville, Smithfield, and North Botany, of which the two first named were completed.

Action has been taken as far as possible to carry out the recommendations of the Board as approved and communicated to me by the Under Secretary.

Reports severally of the service performed in the detail survey branch and of the field operations of the trigonometrical survey branch are appended; and these for convenience sake cover the whole year.

A report affording particulars of work done in the Chief Computer's office, is also appended.

The further determination astronomically of stations for geodetic purposes has been discontinued, and the surveyor and field astronomer (Mr. Brooks) who conducted this important work has been placed in charge of field operations of the trigonometrical survey.

The stock and equipment appertaining to the former trigonometrical survey establishment has been disposed of in a satisfactory manner; a considerable part of it was valued and sold to surveyors, who availed themselves of the favourable terms of purchase conceded by the Minister, whilst the residue was sold by auction. In like manner the equipment and scientific instruments outstanding with surveyors were valued, and many of the surveyors willingly availed themselves of the opportunity afforded to purchase under similar conditions. There still remains a considerable stock of scientific instruments to be disposed of in the manner recommended by the Board; these have been properly arranged by the custodian and catalogued; but up to the present time, on account of duties of more pressing importance, it has been impossible to enter upon the examination, valuation, and disposal of them.

Field operations on the trigonometrical survey will be entered on shortly.

TRIGONOMETRICAL SURVEY BRANCH.

THE observations for the determination of astronomical latitudes and longitudes were continued during part of this year.

On the 9th January Mr. Brooks pitched camp near the south-west corner of the common at Balranald. On the 16th a junction was effected with the main telegraph line, and on the same evening preliminary observations for azimuth, latitude, and clock error were made. Owing, however, to the press of business on the lines, the longitude observations were not commenced until the 18th. The weather was rather unfavourable for observing (mainly at Sydney end), and it was not until the evening of the 5th of February that the longitude work was finally completed. At this station, owing to some difficulty at the Sydney Observatory, the "make circuit" system of exchanging clock signals was reverted to, and as the chronometers used in the field are so constructed as to "break circuit" every second, all longitudes on the "make circuit" system require a small unknown correction, due to the increased wave and armature time, consequent on the introduction of a special repeating instrument to convert the "break signals," so as to send "make signals" to the Sydney Observatory. Here it may be proper to remark that there is another correction which has not yet been applied to any of the longitude determinations, and that is the difference of personal equation between the respective observers. Balranald.

Wentworth was the next station. The site selected is near the south-west corner of the gaol, and is on or about the position which was occupied by Mr. Todd, the Government Astronomer at Adelaide, for observing the Transit of Venus in 1882, and advantage was taken of the proximity to the South Australian telegraph line to exchange clock signals with Mr. Todd, and thus to have a double check on the deduced longitude. Wentworth.

On the 22nd of March the preliminary observations were made, but the remainder of that month was persistently cloudy in Sydney, and it was only on the 1st of April that the first comparison was made for longitude. The interval, however, was occupied with latitude observations. The Observatory was taken down on the 18th of April, and camp started for Pooncaira on the 21st, where it arrived on the 26th. A site was selected on a slight rise, near the eastern side of the pound. The 27th and 28th were devoted to the preliminary observations, and on the 29th the longitude work was commenced. Cloudy and rainy weather both at Sydney and Pooncaira caused considerable delay, and it was the 24th of May before the last observations were made. Pooncaira.

Whilst at this station the new Fauth chronograph (ordered about September last year) was received. It was set up and adjusted on the 9th of May. The first sheet taken off showed that it is a very decided improvement on the double pendulum chronograph hitherto used. It has a contrivance by which the speed of rotation of the cylinder can instantly be doubled. Ordinarily for records of star transits a space of about ·36 of an inch represents each second of time, and during exchanges of clock signals the double speed is given to the cylinder, making about ·72 of an inch to one second. When properly adjusted (and it is easy to adjust) it will keep a perfectly straight line bringing each second so exactly under the same second of the preceding minute that the eye (even aided by a magnifying glass) cannot detect a variation.

Owing to the flooded state of the country the camp was shifted by steamer from Pooncaira to Menindee, where a site was selected on a small rise near northern end of the town. Preliminary observations were made on the 24th of June, a week's cloudy weather followed; but on the 30th of June a start was made with the longitude observations, which were completed on the 11th of July, the latitude having been observed on those nights when Sydney was unable to observe. Menindee.

On the 23rd of July the camp arrived at Burns, where the observatory was erected close to the boundary between South Australia and this Colony. Being again close to the South Australian telegraph line, Mr. Todd's co-operation was sought, and he very willingly agreed to exchange clock signals, so that the position of Burns (and the boundary of the Colony) might be determined from both Sydney and Adelaide. On the 25th day of July everything was ready and signals were exchanged with the Adelaide and Sydney observatories; and on the 12th of August the observations were completed. Burns.

It having been decided, on the recommendation of the Board of Inquiry, that the astronomical determinations of longitude and latitude should be discontinued, the camp now started on the return journey towards Sydney; and on the 18th of August Mr. Brooks returned to the office and completed all records of observations.

The station register was next taken in hand for preparation for press, as recommended by the Board of Inquiry. In order to make it as complete as possible the records of every station were examined, and a very large number of plans were got out to see if any additional information could be obtained from them. This resulted in finding that a number of stations had been connected to, in the ordinary course of survey, but that little or no use had been made of such information. In some cases the name of the station was not given and probably that was the reason why there was no record of the connection survey. The register was finally completed so far as could be done with the information at hand, and forwarded for transmission to the Government Printer on the 4th of December.

In the meantime Mr. Healy (who was appointed piling overseer on the 13th of October) was directed to proceed to the County of Camden, for the purpose of clearing and erecting additional stations necessary for triangulation, and to be immediately utilised in the compilation of a new map of that county. Full and detail instructions were issued, and plans, etc., supplied to him for his guidance. Up to the end of December he had completed seven secondary stations and recleared two primary stations, the details of clearing, etc., are shown on the accompanying tabulated statement.

Until the 10th of December Mr. Piling Overseer Taylor was engaged in forming stations for the extension of the triangulation northerly through Counties Gloucester, Hawes, Macquarie, and Parry. During the latter part of December he shifted camp from that locality to the County of Beresford, with a view to completing the piling, etc., of stations in connection with the extension of the triangulation from Lake George base to the Victorian boundary. Mr. Taylor has cleared and formed five primary stations and three secondary stations, besides reclearing and restoring sixteen of the stations piled prior to the end of 1884. The annexed statement shows details of Mr. Taylor's progress for the year.

At the latter end of December Messrs. Richmond and Gordon, surveyors, reported themselves for duty in connection with the triangulation, and were engaged getting instruments, plans, equipment, etc., together.

TABLE

Table of Differences of Longitude, New South Wales, 1890.

Station		Observer at		From *East*, or Sydney Signals	From *West*, or Field Signals	W—E	Mean difference of Longitude	Probable error.	No of Stars observed at				Remarks
		Sydney end	Field end						Sydney end		Field end.		
									Clock	Azimuth	Clock	Azimuth	
				′ ″	′ ″	″	′ ″						
Balranald	January 18	Lenehan	Brooks	30 39 601	30 39 731	+ 130	30 39 666		13	3	27	8	
	,, 19	,,	,,	631	847	216	739		15	3	22	4	One comparison only.
	,, 22	,,	,,	646	·798	152	722		17	5	29	8	
	,, 23	,,	,,	568	735	167	652		20	4	33	8	
	,, 25	,,	,,	662	808	146	735		20	3	33	8	
	,, 26	,,	,,	682	800	118	741		19	4	19	4	
	February 4	,,	,,	601	693	092	647		19	4	32	8	
	,, 5	,,	,,	594	766	+ 172	680		20	3	37	8	
				Final weighted mean			30 39 696	± 005					
Wentworth*	April 1	Lenehan	Brooks	37 10 5·2	37 10 783	+ 199	37 10 682		15	4	33	8	
	,, 2	,,	,,	402	533	131	468		6	1	32	8	
	,, 3	,,	,,	474	666	192	570		11	4	29	8	
	,, 6	Russell	,,	·418	5·7	179	508		14	4	27	8	
	,, 11	Lenehan	,,	454	604	150	529		20	6	32	8	
	,, 12	Russell	,,	576	706	130	641		17	3	32	7	
	,, 13	,,	,,	524	678	154	601		17	5	31	8	
	,, 15	Lenehan	,,	520	682	162	601		15	2	32	8	
	,, 16	,,	,,	512	664	+ 1o2	588		7	3	31	8	
				Final weighted mean			37 10 584	± 007					
Pooncaira	April 29	Lenehan	Brooks	34 31 771	34 32 009	+ 238	34 31 890		14	5	27	7	
	May 7	,,	,,	828	021	193	31 924		19	6	36	10	
	,, 8	,,	,,	·879	092	213	31 986		13	3	35	8	One comparison only.
	,, 12	,,	,,	952	148	196	32 050		18	6	19	6	
	,, 21	,,	,,	846	086	+ 240	31 966		8	4	29	5	One comparison only
				Final weighted mean			34 31 944	± 011					
Menindee	June 30	Lenehan	Brooks	35 7 072	35 7 256	+ 184	35 7 164		18	5	23	6	
	July 1	,,	,,	6 910	7 112	202	7 011		18	5	27	7	Rejected by Pierce's Criterion
	,, 2	,,	,,	6 760	6 982	·222	6 871		19	5	32	8	
	,, 7	,,	,,	7 091	7 291	200	7 191		17	5	35	8	
	,, 9	,,	,,	7 080	7 208	178	7 119		25	6	29	8	
	,, 11	,,	,,	7 046	7 244	+ 198	7 145		15	5	29	6	
				Final weighted mean			35 7 123	± 010					
Burns*	August 1	Lenehan	Brooks	40 49 373	40 49 608	+ 235	40 49 490		26	3	35	8	
	,, 6	,,	,,	334	559	·225	446		18	2	34	8	
	,, 8	,,	,,	441	669	·223	555		16	2	39	8	
	,, 9	Russell	,,	221	459	238	340		22	4	42	8	
	,, 10	,,	,,	364	588	+ 224	476		17	2	41	8	
				Final weighted mean			40 49 452	± 011					

*The values for Wentworth and Burns cannot be accepted as final, pending confirmation by means of similar determinations relatively to Adelaide Observatory, which are not yet reduced

Astronomical Latitudes, 1890.

Station	Date.	Number of Nights	Number of Zenith Pairs.	Latitude.	Probable Error	Situation
				° ′ ″	″	
Balranald . ..	16 January to 3 February.	7	141	34 38 16·46	± ·05	County of Caira, parish of Balranald; bears 0° 5½′ (local true), distant 1,061 links from S W. corner of reserve No. 48. Town of Balranald.
Wentworth	23 March to 10 April.	8	178	34 6 13 50	± ·04	County of Wentworth, parish of Wentworth, bears 274° 19½′ (local true), distant 478 links from S E. corner of Gaol reserve. Town of Wentworth.
Pooncaira .	28 April to 3 May.	6	164	33 23 40 58	± ·04	County of Perry, parish of Pooncaira, bears 160°7′ true distant, 4,048 links from S.E. corner of section 8A. Village of Pooncaira.
Menindee . .	24 June to 4 July.	9	173	32 23 21·45	± ·06	County of Menindee, parish of Perry, bears 206° 25′ (local true), distant 1,097⅓ links from S E corner of reserve for hospital. Town of Menindee.
Burns	24 July to 3 August.	7	193	32 4 24·83	± ·04	County of Yancowinna, parish of Victoria, close to the western boundary of the Colony, and bears 6° 53½′ (local true), distant 1,037 links from N.W. corner of allotment 1, section 1. Town of Burns

Abstract of Services by Piling Overseers, 1890.

Piling Overseer	Stations formed.			Area cleared.		Moved camp		Travelled.	Days lost by bad weather.
	Primary	Secondary	Restored	New Stations.	Old Stations	No of times.	Miles		
				acres.	acres.				
E. H. Taylor	4	3	16	144	49	76	1,409	2,922	48
J. Healy	.....	7	3	27	7	9	187	606	2
Totals	4	10	19	171	56	85	1,596	3,528	50

ANNUAL REPORT FOR THE YEAR 1889.—ERRATA.

On page 69, in descripns of the situations of Tumbarumba and Albury trigonometrical stations, for *inches* read *miles.*

On the same page, for probable error in longitude of Ivanhoe trigonometrical station, given as ± 0·09 read ± ·009

Trigonometrical Computers' Branch.

The operations of this Branch during the three months, October to December, 1890, have been as follows:—

Computation of the geographical position of station at Menindie has been made.

Co-ordinates of trigonometrical stations in the environs of Sydney have been verified and tabulated, as also have been the bearings of the triangle sides, and a copy has been forwarded to the Government Printer with a view to printing.

The reference maps and sketches relating to this survey have been inspected, in order to separate those no longer wanted. The special information on those to be retained would be more convenient if transferred to a few maps for general office use, which would tend to economise time in reference; and the assistance of a draftsman for a month would probably meet this requirement.

Printed copies of descriptions of stations in Sydney and suburbs, published several years ago, have been corrected to date for immediate use of surveyors.

Surveying instruments and apparatus not now required by the Department have been valued for sale from time to time.

Instruments which had been issued for service or lent have been returned; and it may be stated that almost the only instruments, &c., now outstanding are in actual use by officers of the Department.

General Survey Branch and Detail Survey Branch.

The General Survey Branch having been closed, and the Detail Survey Branch formed and placed under Mr. D. M. Maitland's supervision during 1890, in accordance with the scheme of reorganization recommended by the late Board of Inquiry, it will perhaps be convenient to give a *resumé* of the work carried out in the former branch up to the date of its abolition, as a report on the services performed:

1. Up to the date of reorganization (1st September) eighteen surveyors were employed, under Mr. D. M. Maitland's supervision, on detail surveys, alignments, roads, &c.; since that date twelve surveyors who were engaged solely on the detail survey for sewerage purposes.

2. During the portion of the year that alignment surveys were carried out 16 plans of that class of work were transmitted, showing the determination of 72 miles 67 chains of the building lines of 159 streets in various municipalities, the marking being rendered permanent by the erection of 1,548 posts; these surveys were carried out at an average cost of 3s. 10d. per chain of building line, which will be found a considerable reduction on past years.

3. The detail survey of the suburbs has been continued with satisfactory expedition, and considering the very scattered character of the work, as compared with former years, the cost maintains a fairly low rate, being 15s. 11d. per tenement, as compared with 15s. 8d. for 1889, 11s. 6d. in 1888, 17s. in 1887, and £1 3s. 8d. in 1886, while on an area basis the cost, as was to be expected, is steadily decreasing, the respective cost per acre being £1 4s. 1d. for 1890, £1 13s. 11d. in 1889, £3 1s. 6d. in 1888, £6 4s. 7d. in 1887, and £8 12s. 8d. in 1886. The areas surveyed during the years mentioned were 649 acres in 1886, 1,095 acres in 1887, 1,583 acres in 1888, 3,904 acres in 1889, and 6,574 acres in 1890.

The cost of survey has been somewhat lessened in 1890 in consequence of the altered arrangements coming into force on the 1st September, under which detail surveyors forward their field-notes, &c., for the plans to be drawn in the office. Of the new work done, 184 plans and the field-notes of 127 other sheets have been received, making a total of 311 sheets surveyed, showing the full detail of 9,929 separate tenements or holdings. Incidental to this survey has been the fixation of about 176 miles of streets and several miles of watercourses, tram-lines, &c., the exact particulars of which cannot be furnished, as all the plans of surveys made through the year are not yet plotted. In addition to the new work mentioned, a revision survey for the purpose of issuing a second edition of the lithographs has been made of two sheets in Paddington and one in Sydney, showing that in those areas 84 additional tenements have been erected since the date of the first survey. In order that the lithographs of the detail survey sheets should contain the latest possible information, all alterations made on the ground between the date of original survey and the final examination of the lithographs have been placed on the proofs, with the result that 380 holdings have been added to 44 sheets in several municipalities prior to the lithographs being printed. The total number of tenements, therefore, fixed during 1890, was 9,929 in the new work, 84 in the sheets for fresh editions of lithographs, and 380 on the final proofs for first editions, making a total of 10,393.

The distribution of the detail survey is shown in the following tabular statement:—

Municipalities.	No. of Sheets.	Area. Acres.
Alexandria...	1	26
Ashfield	58	1,180
Burwood	25	676
Canterbury	15	262
Concord	24	520
Enfield	12	267
Five Dock	19	380
Leichhardt	4	54
Macdonaldtown	10	136
Manly	16	325
Marrickville	38	1,011
North Sydney	51	970
Randwick	13	262
St. Peters	12	247
Strathfield	9	194
Sydney	2	14
Waverley	2	50
	311	6,574

The

The skeleton survey of Enfield, prior to the commencement of the detail survey was carried out simultaneously with, in fact, as part of the alignment survey of that borough, which was done on the application of the Municipal Council.

5. Five examinations of surveys for the purposes of the Real Property Act were made.

6. Of the services performed during the first eight months of the year in the General Survey Branch, now abolished, a portion of the duties of which are now continued in the Detail Survey Branch, 219 plans of detail survey, 3 of general survey work, 6 of rescissions and reclamations, and 1 skeleton survey, have been examined, checked, and compared with the Trigonometrical Survey. Also it should be stated that there was revision and completion of the photo-lithograph of the City of Sydney and environs map on scale of 8 chains to the inch, which was prepared for use of the Engineer-in-Chief for Sewerage.

7. The maps on a scale of 2 chains to an inch required by the Engineer-in-Chief for Sewerage, of the municipalities of Balmain and Glebe, which were commenced in 1889, were completed in 1890, in addition to which maps on the same scale of Leichhardt, Newtown, Marrickville, Camperdown, and St. Peters, were begun and completed.

8. The parish maps of Southend, Eckersley, Wedderburn, and Heathcote have been completed.

9. The compilation of the northern sheet of the map for military purposes was completed as far as practicable with the surveys in hand. This work has also been utilised as the basis for the compilation of two parish maps.

10. In connection with the office work of the detail survey proper (in addition to the examinations mentioned in paragraph 5) 30 plans have been plotted and drawn, and 25 plans of revision surveys charted up to date, 44 tracings of the revision surveys have been charted up, and 137 sheets of detail survey have been traced; of these 81 were forwarded to the lithographic branch, and 90 sheets were published, making a total of 395 sheets now published.

11. Herewith in Appendix A is a tabular statement showing the comparative amount and cost of alignment and detail surveys from 1886 to 1890 inclusive; and in Appendix B a list of surveyors employed in charge of parties under Mr. D. M. Maitland's direction, together with their respective salaries, and a statement of the duties carried out by them during 1890; and also a map is annexed hereto showing in blue tint the area surveyed for sewerage and water supply purposes during the year 1890, and in red the area surveyed up to the end of 1889.

APPENDIX A.

TABLE showing comparative amount and cost of Alignment and Detail Surveys from 1886 to 1890.

Alignments.	1886.	1887.	1888.	1889.	1890.
					To 31st August.
Number of plans transmitted	56	97	37	27	16
Number of streets surveyed	194	411	206	250	159
Length of building-lines determined	10, m. 41 ch.	230 m. 3 ch.	86 m. 66 ch.	123 m. 61 ch.	72 m. 67 ch.
Number of alignment-posts or cubes erected	2,340	5,277	2,204	2,920	1,548
Average cost per lineal chain of building-line (town)	19s. 3d.	14s. 6d.	9s. 10d.	5s. 2d.	3s. 10d.
Average cost per lineal chain of building-line (country).	7s. 3d.	5s. 2d.	5s. 10d.		

Detail Surveys.	1886.	1887.	1888.	1889.	1890.
Number of sheets surveyed and transmitted	49	91	104	178	311
Number of original sheets revised for second editions of lithographs.	.....	.....	.....	19	3
Number of sheets revised and brought up to date prior to first publication.	.....	.....	.....	.....	44
Area surveyed (ex surveys for second editions)	649 ac.	1,095 ac.	1,583 ac.	3,924 ac.	6,574
Area covered by surveys for second editions	.....	.....	.....	256 ac.	39
Length of streets fixed	28 m.	47 m.	57 m. 41 ch.	111 m. 30 ch.	176 m. 22 ch.
Number of tenements fixed (ex second edition and revision surveys).	5,094	8,309	8,125	8,464	9,929
Number of tenements fixed in surveys for second editions.	.....	.....	.....	511	84
Number of tenements fixed in revision surveys prior to first publication.	.....	.....	.....	.....	380
Average cost per tenement, in the suburbs	£1 3 8	17s.	11s. 6d.	15s. 8d.	15s. 11d.
Average cost per tenement, in the city	1 10 10	14s. 5d.	*	.....	.....
Average cost per tenement of revision and second edition surveys.	.....	.....	.....	11s. 11d.	7s. 11d.
Average cost per acre throughout	8 12 8	£6 4 7	£3 1 6	£1 13s. 11d.	£1 4s. 1d.

*The detail survey of the city was completed in 1887.

APPENDIX B.

SURVEYORS employed in charge of parties.

Surveyor.	Office or rank in Service.	Salary.	Duties on which engaged.	Remarks.
		£		
Wansbrough, C. H. ...	First Class...	425	Alignment survey of streets, Granville, and of Sherwood Road; 2 sheets transmitted, and a large amount of field work done.	Retired from the Service, 30 June, 1890.
Madsen, H. F.	Second Class	350	Detail survey—Macdonaldtown, 10 sheets transmitted; Alexandria, 1 sheet transmitted. Outline survey—Alexandria, sheets 1 to 14. Survey of additional detail—10 sheets, Leichhardt; 5 sheets, Newtown; 6 sheets, Camperdown. Refixing alignment of Wilson-street, Newtown. Resumption surveys, West Botany.	Transferred to detail staff, 1 September, 1890.
Wilson, T. G.	,, ...	350 to 31 Aug 325	Alignment of streets in North Sydney, and detail survey in North Sydney, of which 16 sheets have been transmitted.	do do
Knibbs, G. H.	,, ...	340	Alignment survey of the Municipality of Enfield; examination survey of Dove's subdivision of Enfield; permanently marking part of Main South Road; report upon Greenhills Drainage Union; survey of roads, Holsworthy; skeleton survey of Enfield for detail survey.	Retired from Service, 9 October, 1890.
Mills, W. W.	,, ...	340	Alignment surveys—Hurstville, Paddington, Camden, Bowral, Waverley, Botany, Alexandria; resumption survey, Botany; additional details, outfall sewer, Cook's River.	Services transferred to staff under Chief Surveyor, 1st September, 1890.
Mills, S.	,, ...	350 to 31 Aug. 325	Detail Ashfield, 16 sheets transmitted; detail Enfield, field-work completed; additional detail, city, 1 sheet and 2 sections; additional detail, Paddington, 1 sheet; additional detail, Woollahra, 9 sheets; detail survey of part of Waterloo, field-work commenced.	Transferred to detail staff, 1st September, 1890.
Roberts, R. J. A.	,, ...	340 to 31 Aug. 325	Detail survey, North Shore, 9 sheets transmitted; detail survey, Five Dock, 19 sheets transmitted; detail survey, Concord, 24 sheets transmitted, and field-work in hand of part of Burwood detail.	Transferred to detail staff, 1st September, 1890.
Thomas, W. M....	,, ...	340 to 31 Aug. 325	Detail survey of Burwood, 25 sheets transmitted; detail survey of Strathfield, 9 sheets transmitted; measurement of infected vineyards for Vine Disease Board.	Transferred to detail staff, 1st September, 1890.
Steane, S. A.	Temporary salaried.	300	Detail survey, Manly, 12 sheets transmitted; detail survey, Leichhardt, 4 sheets transmitted.	Transferred from detail staff to East Maitland district, 1st September, 1890.
Shute, H.	,, ...	300	Detail survey of Ashfield, 15 sheets transmitted; other field-work in hand.	Appointed to detail survey staff, 1st September, 1890.
Sloman, T. B. U.	,, ...	300	Detail survey—Manly, 2 sheets transmitted; Randwick, 19 sheets transmitted; Waverley, 4 sheets transmitted, and fieldwork in hand.	do do
Stephen, T. M.	,, ...	300	Detail survey—North Sydney, 6 sheets transmitted; St. Peters, 12 sheets transmitted, and field-work in hand.	do do
Truscott, J. F.	,, ...	300	Detail survey—Ashfield, 15 sheets transmitted ...	Transferred from Detail Survey Staff to General Establishment, 1 Sept., 1890.
Watkins, F.	,, ...	250 to 31 Aug., then 300.	Detail survey—Marrickville, 13 sheets transmitted; Canterbury, 13 sheets transmitted, and field-work in hand.	Appointed to Detail Survey Staff, 1 Sept., 1890.
Riddle, J. D. A.....	,, ...	250 to 31 Aug., then 300.	Detail survey—Marrickville, 14 sheets transmitted; Ashfield, 6 sheets transmitted; Canterbury, 2 sheets transmitted. Additional detail—Petersham, 12 sheets; Balmain, 1 sheet, and Leichhardt, 2 sheets.	do do
Legge, G. H.	,, ...	250 to 31 Aug., then 300.	Detail survey—North Sydney, 2 sheets transmitted; Ashfield, 10 sheets transmitted; Manly, 5 sheets transmitted, and fieldwork in hand. Traverse survey of part of coastline, Manly. Revision survey—City, 1 sheet; Paddington, 2 sheets.	do do
White, D. C.	,, ...	300	Detail survey, Marrickville, 3 sheets transmitted. Revision survey, Newtown, 4 sheets transmitted, and fieldwork in hand.	do do
Lucas, M.	,, ...	300	Detail survey, North Sydney, 5 sheets transmitted, and 1 sheet partly done.	Transferred to Goulburn District, 1 Sept., 1890.
Peake, A.	,, ...	300	Detail survey, North Sydney, 10 sheets transmitted. Additional detail, North Sydney, 4 sheets.	Resigned, 31 July, 1890.

CORRESPONDENCE AND RECORD BRANCH.

A statement of the duties performed in this Branch during the year is shown hereunder:—

Papers received from other Branches and recorded	9,822
Papers, plans, tracings, &c., received by post	12,739
Instructions entered in instruction books and despatched	1,650
Memoranda sent to surveyors	10,160
Letters written and despatched	580
Lithographs, tracings, and plans sent to surveyors	6,900
Minutes written and submitted to Under Secretary	860
Decisions by the Minister noted	740
Telegrams issued	245

A record was also kept of all leave of absence granted to the salaried staff of surveyors, and to the permanent and temporary officers in the Survey Branch, head office.

Four officers were employed in the Branch during the year.

DRAFTING BRANCHES.

The report by the Chief Draftsman upon the work done in the various drafting branches of this office which are under his supervision shows that satisfactory service has been performed, although the effectiveness of his staff has been somewhat reduced by occasional removals to meet the exigencies of business.

The current work of the Drafting Branches has been considerably affected during the year 1890 by the operation of the Crown Lands Act of 1889.

In consequence of the determination of the pastoral leaseholds in the Eastern Division, and the necessity of re-appraising the rentals of the pastoral, leasehold, and occupation licenses under the Act of 1889, a number of plans had to be prepared and certain information collected by the Occupation Branch in a limited period, to perform which that Branch had to be temporarily strengthened from the Compiling Branch.

Later in the year a further demand was made on the Compiling Branch for temporary assistance to certain country offices which had been found unable to cope with the abnormal amount of business appertaining to the location and measurement of the numerous selections and leases taken up under the provisions of the new Land Act.

An endeavour has been made not to interfere with the Charting Branch more than was absolutely necessary, most of the work requiring to be performed by it being of an urgent nature; but even that Branch has been worked for the greater part of the year with a staff one less than its proper number.

The Miscellaneous Contract Branch has been unusually busy, owing to the necessity of duplicating the maps and plans representing several land districts transferred from the Metropolitan Land Board district to adjoining districts, in furtherance of the recommendations of the Board of Inquiry.

An additional duty has been imposed on the Plan Record Branch during the year, in the registration of all requisitions from district offices, and the direct transmission of all plans required to those offices, an arrangement which has been found to effect a considerable saving of time and labour.

The receipt of new bins for the better storage of parish and town lithograghs has permitted of the thorough revision of a large portion of the stock of maps, and the removal of a quantity of obsolete and surplus publications.

The number of parish maps completed and published is considerably smaller than during last year, but this is explained by the introductory remarks, a careful analysis of the detailed returns supplied by the parish map division clearly showing that the average number of maps produced per man is, practically speaking, the same as last year.

The number of town maps published is less than last year, as anticipated in 1889 report.

Satisfactory progress has been made with the new Colony map compilation, a sketch map being annexed to this report illustrating the present condition of this important work.

Although a smaller number of publications has issued than in 1889, the total number of sheets printed is greater, including a number of very large size, which had to be printed by hand-press in a laborious and tedious fashion. A tender has been accepted for supplying a printing machine containing the best modern improvements and accessories, and capable of printing maps of the largest sizes required, which, it is expected, will shortly be erected and in working order.

The contract for lithographing the new map of Sydney and environs has been let to a first-class lithographic artist at a reasonable price, and one sheet has already been completed within contract time in a style which leaves nothing to be desired.

Three members of the staff died during the year—Mr. Nilson of the Roads Branch, Mr. T. Freeman of the Occupation Branch, and Mr. Inglis of the Litho-printing Branch—all meritorious officers. Mr. Keating, lately Officer-in-charge of the Charting Branch, has been promoted to the position of Registrar of the newly-constituted Land Court; Mr. R. D. Hay, also of the Charting Branch, to the position of Cumberland Ranger; and Mr. Reynolds, of the Compiling Branch, to a position in the Department of Agriculture. Two of our best junior clerks have been promoted to vacant positions in the Administrative Branches of the Department.

The Chief Draftsman was engaged for upwards of two months on a Board of Inquiry into the working of the Charting Branch of the Mines Department.

The staff has been reinforced by the appointment of three probationers and an assistant plan-mounter, and the transfer to the Drafting Staff of one clerk and a contract draftsman who had qualified as temporary draftsman.

During the year six candidates were examined in the subjects requiring to be known by temporary draftsmen, all of whom satisfied the examiners.

Further details will be found in the following Branch Reports:—

Miscellaneous Charting Branch.

As already stated, the strength of this Branch was reduced early in 1890 by the promotion of the Officer-in-charge to the position of Registrar of the Land Court.

The second officer, Mr. R. M'Lean, was appointed to the position of Draftsman-in-charge, but the Branch remained one short of its proper number throughout the year.

In addition to the ordinary duties of the Branch, a considerable amount of extra work has been involved in the preparation of lists for publication in the *Government Gazette* and certain weekly papers of measured portions throughout the Colony open to conditional purchase and lease.

The Minister having afterwards decided to publish in pamphlet form, from time to time, particulars of all measured lands open to selection, steps were taken to collect the necessary material from district offices; but although a large amount of information has been received, and is ready for setting up in type, this matter has been unavoidably delayed by the enormous amount of work cast upon certain district offices in connection with the Crown Lands Act of 1889.

A large number of exchange cases under section 46, Act of 1889, were received during the year, and subjected to careful investigation, with plans, maps, and papers, before being referred to the Local Land Boards.

Returns were also prepared showing information called for by Parliament, and supplying particulars required by examiners of public works proposals.

6,621 plans and tracings, comprising 8,315 portions, were charted by contract, at a cost of £310 18s.

Owing to the Branch being shorthanded several matters not of pressing urgency had to be set aside, with a view to being taken up again as soon as current work permits, among which may be mentioned the completion of confirmation noting, the recording and noting of resumptions for different public purposes effected by other Departments, and the adjustment and recompilation of reserve records under an improved and more convenient system.

The year 1890 opened with 755 cases in hand. In August the arrears had increased to 1,115; but at the end of December the number of cases of all kinds undealt with in the Branch had been reduced to 680.

The accompanying returns show the work dealt with in 1889 and 1890, a substantial increase being noticeable in all items except confirmations noted.—

	1889.	1890.
(1) Miscellaneous papers in Branch on 31st December ..	513	533
(2) Auction...	242	147
(3) Cases dealt with during year, inclusive of auction ..	9,600	10,652
(4) Cases dealt with during year, exclusive of auction ...	7,517	8,586
(5) Confirmations noted	18,103	7,491
(6) Plans and tracings charted	6,387	6,907
(7) Area gazetted for auction during the year	90,241 acres.	147,768 acres.

Return of Auction Work for year 1890, excluding Land within the Metropolitan Land Board District.

On hand, 1st of year.	Received during year	Dealt with during year	Cases on hand end of year.	Entered in Schedule during year				Cases under reference end of year.
				Cases.	Allotments	Portions	Areas	
242	1,971	2,066	147	1,011	2,055	2,260	acres. 147,768	2

Return of work done in Miscellaneous Charting Branch, from 1st January to 31st December, 1890.

	Received	Dealt with
Administrative Improvement Purchases	168	143
,, Conditional Purchases	88	85
,, Reserves	968	1,060
,, Towns and Villages	68	70
,, Miscellaneous	3,073	3,039
Check surveys and investigations	18	19
Charting measurements	380	325
,, resumptions	4	4
,, Towns	38	36
,, Reserves	2,592	2,532
General noting	1,160	1,201
District office queries	49	52
Unregistered memoranda	209	209
Deeds Branch inquiries	3,203	3,203
Applications under 46th clause (Exchange)	248	210

COMPILING BRANCH.

Miscellaneous Division.—This division is charged with the compilation and drawing of town, county, colony, and miscellaneous maps. The staff was increased during the latter half-year by the transfer of one officer from the General Survey Branch and one from the Orange District Office, in accordance with recommendations of the Board of Inquiry; but this increase was more that neutralised by the transfer of two draftsmen to the Occupation Branch for a time to assist in special work, the transfer of another draftsman to Armidale District Office for three months, and the withdrawal of the second officer from his ordinary duties on several occasions to act as emergency Crown Lands Agent.

Twenty-three town maps have been compiled and drawn for photo-lithography, maps of two important towns, Newcastle and Willyama (Broken Hill), being now in progress.

Five county maps have been compiled and drawn, viz., Fitzgerald, Livingstone, Thoulcanna, Young, and Rous, one of which, Rous, proved exceptionally difficult and tedious. Two standard county maps have been charted to date for issue of new editions. Seven county maps are now in hand in different stages, two of which, Northumberland and Townsend, are approaching completion.

The sketch map attached to this report exhibits the satisfactory progress made during the year by the four draftsmen now employed on the Colony map, in connection with which it may be mentioned that the introduction of glass pens for use in the pentagraphs has effected a considerable saving in labour in making reductions with those instruments.

Two hundred and forty-six plans of feature surveys, comprising 1,284 miles of survey, have been charted.

The miscellaneous maps, compiled during the year, include a large railway map of the Colony, postal map, Land Board and Land District map, stock route map, map of Australasia for the Premier, and many others of minor importance.

Parish Map Division.—This Division has been engaged as heretofore upon the compilation of parish maps.

The reduced output of parish maps, which has already been alluded to in the general remarks, is primarily due to removals from the staff of this Division in order to meet emergencies in other Branches.

During the early part of the year several draftsmen were temporarily attached to the Occupation Branch assisting in the preparation of appraisement tracings.

The two draftsmen in Miscellaneous Contract Branch, who, in the year 1889, had been able to devote the greater part of their time to parish map compilation, were fully occupied in 1890 with the work of their own branch.

One officer resigned early in the year to accept an appointment in the Department of Agriculture, two draftsmen were temporarily attached to country offices for the last three months, and owing to increased activity in printing operations, the two heliographic operators were of less assistance as compilers than in previous years.

Other circumstances, such as the non-return of proofs by district offices, and the greater proportion of difficult maps disposed of, all combined to render the returns for 1890 much smaller than for 1889, although the cost per map is but slightly in excess of the rate for that year.

The numbers are as follows:—

	1889.	1890.
Parish maps compiled...	325	235
Parish maps prepared for new edition	80	48
Total	405	283

The standard parish maps have again been increased by about 300, the number now being 1,672.

The heliographic printing is greatly in excess of previous years, 2,544 maps having been reproduced, and 4,629 copies taken, as compared with 1,747 in 1889, the average cost per print being only about one-half of that for 1889.

Details of maps published during the year will be found under the head of Lithographic Branch.

LITHOGRAPHIC BRANCH.

The staff of this Branch consists of eighteen persons, viz., the draftsman in charge, three lithographic and zincographic draftsmen, two working overseers of printing, one clerk, eight printers, and three stone polishers and general assistants; these are supplemented by the employment of private persons or firms for drawing or printing by contract, which is either performed in this office or at their business premises outside the Department, as economy and efficiency may dictate.

Early in the year Mr. Inglis, the officer in charge of the Printing Branch, died, his place being filled by the promotion of the second officer, Mr. Ford.

The general business of the Branch for this year shows an increase in the number of copies printed above that completed in 1889; and the following returns, in tabular form, really exhibit the combined results of the map compilation at head-quarters, and the plans of surveys drawn in the field by surveyors, inasmuch as these maps and plans are either lithographed in the Branch, or after photo-lithographic transfers, are prepared at the Government Printing Office; they are here utilised by application to stone or zinc, and the copies printed for office use and for publication.

For convenience of official record lithographs are classified thus:—1. Counties; 2. Towns (comprising cities, towns, and villages); 3. Parishes; 4. Auction Sale Plans; 5. Miscellaneous; 6. Other Departments; and 7. Official Forms.

1. *Counties.*

County lithographs show measured areas, roads, reserves, features, and all other information which is capable of delineation on a scale of 2 miles to an inch—in addition to those printed on a scale of 8 miles to an inch, which are used for official purposes only. The standard price is 5s. per copy.

Twelve counties completed, comprising 2,250 printed copies:

Buller	Fitzgerald*	Thoulcanna*	Wentworth
Buller*	Murray*	Westmoreland	Young
Cook	Thoulcanna	Westmoreland*	Young*

O these maps, those indicated by the asterisk are to the scale of 8 miles to an inch.

2. *Towns.*

Town lithographs show the general design, measured lands, and names of purchasers, reserves, and dedications within town and suburban limits; they are usually photo-lithographed from compilations made at this office, or from the surveyor's original plans, to a scale of 4 or 8 chains to an inch, and sold at 1s. per copy.

Forty-four towns completed, comprising 5,927 printed copies.

Aberdeen	East Maitland	Liverpool	Repton
Alectown	Forster	Mingelo	Stannifer
Alma	Grafton	Moonbi	Sturt
Belford	Gunnedah	Mount Costigan	Termeil
Berrigan	Hay	Morrisset	Teven
Berrigan	Hillgrove	Murrumburrah	Tumbarumba
Brungle	Hillston North	Neranie	Wanaaring
Cargelligo	Huon	Oberon	Woodstock
Carcoar	Jerilderie	Overton	Warialda
Currathool	Katoomba	Paramellowa	Wattle Flat
Dungeree	Kyuga	Peakhill	West Kempsey

Names repeated show that two editions have been printed during the year.

3. *Parishes.*

Parish maps in the Eastern Division are compiled to a scale of 20 chains to an inch for office use, and reduced by photo-lithography to 40 chains scale for publication; maps in the Central Division are published to a scale of 40 chains to an inch.

259 parishes completed, comprising 19,025 printed copies.

8	parishes	in county Auckland	1	parish	in county Fitzroy
8	,,	,, Ashburnham	7	parishes	,, Gloucester
1	parish	,, Arrawatta	9	,,	,, Gough
3	parishes	,, Argyle	1	parish	,, Gordon
3	,,	,, Buccleuch	10	parishes	,, Harden
5	,,	,, Brisbane	4	,,	,, King
3	,,	,, Benarba	7	,,	,, Kennedy
13	,,	,, Bland	3	,,	,, Leichhardt
3	,,	,, Bathurst	1	parish	,, Macquarie
13	,,	,, Baradine	2	parishes	,, Monteagle
10	,,	,, Clarence	1	parish	,, Murray
11	,,	,, Cumberland	2	parishes	,, Nicholson
1	parish	,, Clive	1	parish	,, Nandewar
9	parishes	,, Camden	11	parishes	,, Northumberland
3	,,	,, Cook	4	,,	,, Pottinger
2	,,	,, Clarke	13	,,	,, Rous
1	parish	,, Cunningham	1	parish	,, Richmond
1	,,	,, Clarendon	3	parishes	,, Selwyn
2	parishes	,, Durham	2	,,	,, St. Vincent
9	,,	,, Darling	49	,,	,, Urana
2	,,	,, Denison	1	parish	,, Vernon
1	parish	,, Dudley	2	parishes	,, Wynyard
1	,,	,, Drake	2	,,	,, Wellington
4	parishes	,, Ewenmar	1	parish	,, Westmoreland
4	parishes	,, Forbes			

4. *Auction Sale Plans.*

Lithographs of all lands measured for auction are printed for use at auction sales, and sold at 1s. per copy.

165 Auction sale plans completed, comprising 17,750 printed copies.

5. *Miscellaneous.*

In this class the principal maps printed during the year have been Sheets of the Detail Survey of City and Suburbs; General Map of New South Wales; Index Maps of the Land Board Districts of Goulburn, Orange, and Cooma; Index Map to the Sheets of the Detail Survey of City and Suburbs; Map of the Country between George's River and Broken Bay, showing Trigonometrical Stations; Plans showing Occupation Licenses; Map of Newcastle Pasturage Reserve; and Maps to illustrate Annual Report of Department of Lands.

113 Miscellaneous Maps completed, comprising 43,322 printed copies.

6. *Other Departments.*

Maps, Plans, and Diagrams have been printed for the Departments, of Mines, Railways, Government Statistician, Roads and Bridges, and Colonial Secretary, chiefly comprising:—Maps illustrating Railway Guide Books; Mineral Map of New South Wales; Suburban Maps for sewerage purposes; diagrams of bridges and culverts; Railway Maps of Australia and of New South Wales; Sydney and Suburbs, in 14 sheets, for sewerage purposes; plates of Orchid drawings; plate for *Agricultural Gazette*; diagrams showing river gauges; diagrams showing heights and discharges of Murray and Murrumbidgee Rivers; map showing Routes to the Caves of N.S.W.; and Electoral Map of N.S.W.

Thirty-five maps, plans, and drawings for other Departments completed, comprising 37,415 printed copies.

The approximate value of this work, including drawing, printing, paper, and supervision, amounted to £1,250.

7.

7. Official Forms.

These forms comprise—Circulars, decisions, forms, and memoranda required for use at head-quarters and at country offices.

169 official forms completed, comprising 93,470 printed copies.

COMPARATIVE SUMMARY for 1889 and 1890.

Map, Plan, or Document.	1889.		1890.	
	Number of separate maps.	Number of copies printed.	Number of separate maps.	Number of copies printed.
Counties	17	3,250	12	2,250
Towns	54	10,375	44	5,927
Parishes	378	37,400	259	19,025
Auction sale plans	150	16,605	165	17,750
Miscellaneous	82	17,804	113	43,322
Other Departments	30	66,980	35	37,415
Official forms	122	65,374	169	93,470
Totals	833	217,788	797	219,159

Contractors for lithographic work received the sum of £1,208 0s. 11d., the drawing for this supplementary work costing £1,184 15s. 11d., and the printing £23 5s.

ROADS BRANCH.

This Branch receives and deals with all applications for roads, and takes action thereon under the Act 4 William 4 No. XI, and 42nd section of Act 53 Vic. No. 21; also examines and reports on all applications for the granting of roads in lieu of proclaimed roads under 42nd section of 53 Vic. No. 21, and for purchase of unnecessary roads under 67th section of Act 48 Vic. No. 18; and also it takes action with regard to the alignment of streets under 2 Vic. No. 2, and deals with applications for public gates under 39 Vic. No. 10, as well as various other matters having reference to roads.

335 applications for surveys and opening of roads and streets have been received; also 403 surveyors' reports (exclusive of the letters transmitting plans of surveys); 192 plans of road surveys, showing about 560 miles of road; 23 plans of street-alignment surveys, showing 236 streets; 52 application for public gates; and 200 objections and claims, besides various letters and applications asking for information and inquiring as to road matters, &c., have been dealt with.

The papers with reference to roads, streets, and public gates, in number about 5,370, have been registered, and are kept in the Record room of this Branch; also about 634 papers registered in other Branches have been received, so that a total of about 6,004 papers have been dealt with during the year.

OCCUPATION DRAFTING BRANCH.

This Branch worked throughout 1890 without the services of one of its most efficient officers—Mr. T. Freeman—who died in the latter part of the year.

During the pressure attending the preparation of tracings of pastoral holdings for appraisement purposes, temporary assistance had to be drawn from the Compiling Branch.

Later in the year, when the work had resumed its normal condition, one of the draftsmen was lent to Charting Branch for a time.

1,870 tracings of leasehold and resumed areas were examined and charted to date for appraisement purposes.

1,270 parish maps in the Eastern Division were corrected in respect to expired leaseholds.

Plans of 434 forfeited and vacant lots were charted-up, and forwarded to District Surveyors for revision and report.

Upwards of 1,000 refund schedules were revised and computed, and District Surveyors advised of any amendments made.

231¼ miles of pastoral holding boundaries were surveyed, at a total cost of £600, of which the sum of £228 was recovered from the lessees. A further sum of £145 was contributed by pastoral lessees towards the survey of leasehold boundaries common to homestead leases, and £43 was paid by pastoral lessees for the total cost of survey of 17¾ miles of boundaries, and £12 on account of surveys made by salaried surveyors.

The following schedule shows the principal items dealt with during the year:—

Cases under section 143, Act 1884, section 52, Act 1889	52
County maps charted with pastoral holdings	5
Parish maps charted with pastoral holdings	570
Holding boundaries corrected on office maps	50
Amended plans of holdings prepared	20
Homestead leases charted and noted	185
Surveys of pastoral holdings charted	44
Boundaries corrected on holding plans	392
Tracings and lithos. prepared	276
Annual refund Schedules examined and computed	1,136
Appraisement areas revised	121
Appraisement tracings revised	1,870
Questions as to leasehold or resumed areas	1,232
Questions from other Branches	119
Eastern Division—maps corrected and revised	1,270
Forfeited holdings and lots revised	434

MISCELLANEOUS

Miscellaneous Contract Branch.

At the close of the year 1890 only two cases remained in hand undealt with, which had been in the branch more than a fortnight, and these were not of an urgent nature.

The total number of drawings of all kinds completed during the year was 6,782, being an excess of 2,377 over the preceding year, this large increase being due to the necessity for duplicating all parish and town maps and original plans in the Land Board districts recently severed from the Metropolitan Board District.

A large number of tracings of plans of conditional leases were also required under the provisions of the 29th section Crown Lands Act of 1889.

The following Schedule supplies particulars of each class of work performed:—

Return for 1890—Miscellaneous Contract Branch.

	Tracings.	Charted-up Lithographs.	Helio-graphs.	Sundries.	Totals.
Tracings and charted-up lithographs supplied to District Surveyors, including 708 standard tracings prepared for heliography for the Orange District Office, and 242 town and parish maps for use in offices now dealing with the land districts recently excised from the Metropolitan Land Board District	1,086	261	.....	.....	1,347
Tracings made, and tracings noted to date for use in head office in lieu of original plans transferred to district offices now dealing with land districts excised from the Metropolitan Land Board District	619	.....	.....	.....	619
Tracings and charted-up lithographs supplied to surveyors in the field	527	61	.....	.....	588
Tracings of plans of roads, alignments of streets, &c., supplied to municipalities	81	.....	.....	.....	81
Tracings of alignment and road plans prepared for exhibition at Police Offices	64	.....	.....	.....	64
Tracings prepared for auction sale purposes	1,193	.....	.....	.....	1,193
Tracings and charted-up lithographs prepared for Parliamentary Returns	78	6	.....	.....	84
Tracings and charted-up lithographs prepared for other Departments	137	45	.....	.....	182
Standard tracings of parish maps	77	.....	.....	.....	77
Tracings and heliographs (coloured) of special leases	247	.....	17	.....	264
Tracings and noted heliographs prepared for use of inspectors in the field	331	.....	558	.....	889
Tracings showing land available for alienation, prepared for exhibition at Albury	154	.....	.....	.....	154
Tracings and charted-up lithographs of the parish and town maps in the Deniliquin Land District, prepared for exhibition at Moama	3	207	.....	.....	210
Tracings, charted-up lithographs, &c., prepared for sundry purposes	514	475	6	35	1,030
Totals	5,111	1,055	581	35	6,782
Total number of applications					1,079

Note.—The drawings enumerated above comprise copies of colony, county, parish, and town maps, plans of railway, alignment, road, and feature surveys, and ordinary small plans.

Plan Record Branch.

During the year 1890 the business of registering all applications for original plans from District Offices, which was formerly attached to the Correspondence Branch (Lands), was transferred to Plan Branch, which now receives all such applications direct from District Offices, and transmits through the post all plans applied for. A considerable saving of time is effected in dealing with these applications by this arrangement, the applications passing through fewer hands, and the greater part of the time of one clerk who previously attended to this matter being saved.

Special regulations have been framed governing the inspection and use of original plans, field-books, &c., by authorised surveyors and draftsmen.

Return herewith giving further particulars:

Approximate number of plans entered in the books at end of year	237,000
Approximate number issued to and returned from officers in Head Office, Metropolitan Survey Office, and Mines Department	164,500
Cancelled maps	600
Sent to plan-mounter	14,402
Issued to Inquiry Branch	1,700
Exhibited at counter	2,500
Despatched to District Survey Offices	18,943
Returned from District Survey Offices	13,464
Applications received from District Survey Offices for originals	3,417
Registered memoranda returning originals from District Survey Offices	1,160
Memoranda sent to District Survey Offices for plans	990
Certified copies received	6,571
Surveyors' field-books in branch	1,600
Auction sale lithographs in branch, about	2,330

From the 1st February, 1890, all applications for plans from District Offices have been registered, and since that date have been despatched direct from this branch.

Map Sales Branch.

During the year it was found necessary to transfer the officer in charge of this branch to Plan Record Branch, and the position of clerk in charge is now held by Mr. Stobo, formerly second officer of the branch.

The

The number of maps received during 1890 is less than in 1889, but the number issued is much greater. The proceeds of sales show a slight increase.

New presses have been received for the storage of parish and town maps, which are now kept flat on slides, instead of being rolled up in pigeon-holes. The maps are in consequence kept in better order, and can now be issued and revised in a much shorter time than previously.

Stocks of county lithographs have been revised and rearranged, and old editions cancelled.

Town maps are in process of revision in the same manner, and a large number of detail sheets were cancelled and disposed of in accordance with the recommendations of the Board of Inquiry.

Return herewith giving further particulars:—

Particulars of lithographs received and issued, and a comparison between the numbers for the years 1889 *and* 1890.

Lithographs received from the Lithographic Branch.

	Number.		Copies.		Value.	
	1889.	1890.	1889.	1890.	1889.	1890.
					£ s. d.	£ s. d.
County maps	17	12	3,200	2,200	960 0 0	660 0 0
Cities, towns, village, and environs maps	54	44	10,051	5,560	628 3 9	347 10 0
Parish maps	378	259	30,596	14,360	1,529 16 0	718 0 0
Auction sale maps	150	165	1,570	17,090	78 10 0	854 10 0
Colony maps	.....	7	.....	3,890	.....	486 5 0
Detail surveys	.....	2	.....	252	.....	94 0 0
Miscellaneous maps	77	96	13,805	5,530	1,725 12 6	829 10 0
Totals	676	585	59,222	48,882	4,922 2 3	3,989 15 0

Lithographs sold in 1889—5,419 copies; price realised, £301 13s.*
Lithographs sold in 1890—3,823 copies; price realised, £315 2s. 1d.*
Letters replied to 1889—635.
Letters replied to 1890—763.

* Note.—It should be understood that the amounts quoted here for sales do not include the sales by Local Land Agents.

Copies issued, inclusive of those sent to Land Agents for sale, Local Offices, Railway, Roads, and other Departments.

	Copies.		Value.	
	1889.	1890.	1889.	1890.
			£ s. d.	£ s. d.
Counties	1,316	2,254	394 16 0	676 4 0
Towns, Cities, Village and Environs	838	3,096	52 7 6	193 10 0
Parishes	13,209	17,529	660 9 0	826 9 0
Auction	4,015	3,993	220 15 0	199 13 0
Detail surveys, Sydney	794	3,060	119 2 0	454 0 0
Geographical divisions	31	89	3 17 6	11 2 6
Large Colony	109	178	81 15 0	133 10 0
Small Colony	58	139	3 12 6	8 13 3
Postal	.....	.....	.....	.....
Star-books	4	.....	0 10 0	.....
Surveyors' pocket-books	3	.....	0 6 0	.....
Calculation-books	70	65	6 8 4	5 19 2
Index maps	28	.....	2 2 0	.....
Land Board district maps	15	25	1 2 6	1 17 6
Miscellaneous	87	441	11 19 3	60 10 9
Totals £	20,577	30,869	1,539 2 7	2,571 9 2

Plan-mounting Branch.

The return of this branch shows a grand total of 24,680 pieces of work performed during the year being an increase of 960 on 1889.

Large numbers of original plans, heliographs, certified copies of originals, and various lithographs, are included in the work performed.

The assistant plan-mounter has been transferred to Plan Record Branch, and a lad has been employed in his place at a much smaller salary.

In conclusion it may not be out of place to state that the demand for survey in the country districts, consequent upon settlement under the Crown Lands Act of 1889, will necessitate the withdrawal temporarily from head quarters of some of the salaried surveyors, which, however, may probably be arranged without inconvenience to public business in the Metropolitan District.

E. TWYNAM,
Chief Surveyor.

[Three Plans.]

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

MAP OF NEW SOUTH WALES

SHOWING ALL DIVISIONS FOR THE PURPOSES OF THE CROWN LANDS ACTS.

Scale 32 Miles to 1 Inch

MILES 32 24 16 8 0 32 64 96 128 MILES

NOTE

Land District Boundaries shewn in Green ..... thus

Land Board District Boundaries shewn in Blue thus

Head Offices of Local Land Boards shewn in Blue thus (BOURKE)

Territorial Divisions are shewn in black thus

County Names and Boundaries shewn in red BLAND

Railways shewn thus

Annual Report – 1890

LIST OF LAND DISTRICTS AND HEAD OFFICES OF LOCAL LAND BOARDS

Within each Division of the Colony

Head Office of Land Board	Land Districts Comprised in Land Board Districts	Head Office of Land Board	Land Districts Comprised in Land Board Districts	Head Office of Land Board	Land Districts Comprised in Land Board Districts
1 Bourke	11 Bourke	7 Grafton	96 Bellingen	11 Orange	5 Bathurst
	13 Brewarrina		18 Casino		17 Carcoar
	14 Brewarrina E.		37 Grafton		28 Cowra
	20 Cobar		47 Kempsey		50 Lithgow
	21 Cobar East		49 Lismore		55 Molong
	30 Wilcannia		60 Murwillumbah		58 Mudgee
	97 Willyama		71 Port Macquarie		66 Orange
					74 Rylstone
	6 Bega		3 Balranald		88 Wellington
	9 Bombala		4 Balranald Sth		
	12 Braidwood		29 Deniliquin		16 Campbelltown
	23 Cooma	8 Hay	42 Hay		48 Kiama
2 Cooma	32 Eden		43 Hay North		51 Liverpool
	54 Milton		44 Hillston		53 Metropolitan
	57 Moruya		45 Hillston North	12 Sydney	68 Parramatta
	72 Queanbeyan		89 Wentworth		70 Penrith
					15 Picton
	25 Coonamble		19 Cassilis		91 Windsor
3 Dubbo	30 Dubbo		31 Dungog		93 Wollongong
			35 Gosford		
	22 Condobolin		52 Maitland		24 Goanbarrabran
	33 Forbes		61 Muswellbrook		40 Gunnedah
4 Forbes	38 Grenfell		64 Newcastle	13 Tamworth	59 Murrurundi
	67 Parkes	9 Maitland	69 Paterson		62 Narrabri
			73 Raymond Terrace		78 Tamworth
	2 Armidale		75 Scone		
	34 Glen Innes		76 Singleton		1 Albury
5 Armidale	46 Inverell		77 Stroud		26 Cootamundry
	80 Tenterfield		79 Taree		27 Corowa
	84 Walcha		92 Wollombi		39 Gundagai
				14 Wagga Wagga	63 Narrandera
	7 Berrima		8 Bingara		81 Tumut
	10 Boorowa		56 Moree		82 Urana
	36 Goulburn	10 Moree	85 Walgett		83 Wagga Wagga
6 Goulburn	41 Gunning		86 Walgett North		
	63 Nowra		87 Warialda		
	94 Yass				
	95 Young				

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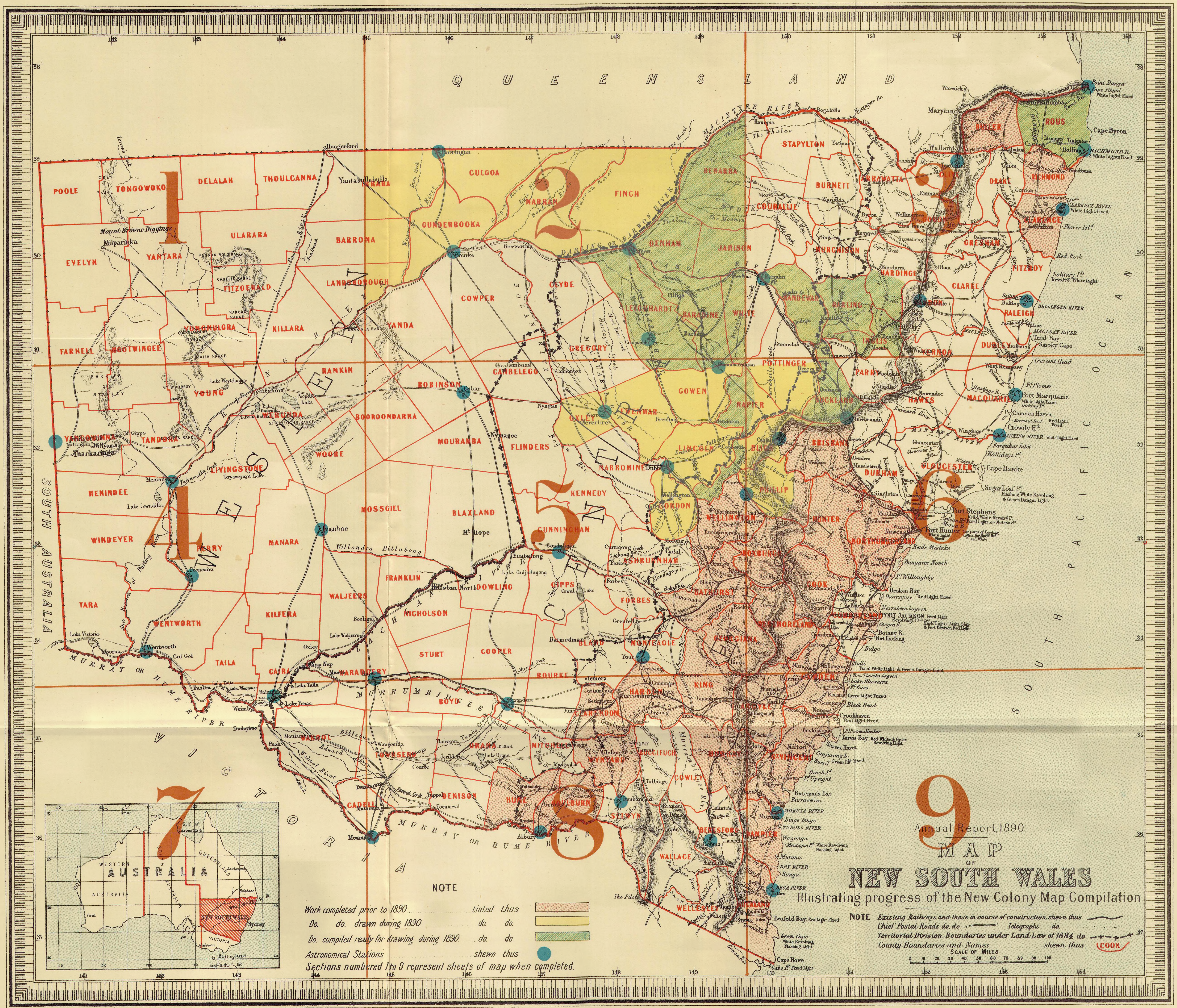

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1891–2.

NEW SOUTH WALES.

TWELFTH ANNUAL REPORT

OF THE

DEPARTMENT OF LANDS,

BEING FOR THE YEAR

1891.

Printed in accordance with Resolutions of both Houses of Parliament.

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1891-2.

NEW SOUTH WALES.

DEPARTMENT OF LANDS.

(TWELFTH ANNUAL REPORT, FOR 1891.)

Printed in accordance with Resolutions of both Houses of Parliament.

To The Hon. Henry Copeland, Esq., M.P., Secretary for Lands.

Sir, Department of Lands, Sydney, 30 March, 1892.

I have the honor to submit, for your information, the Twelfth Annual Report of the Department, dealing with the business transacted during the year 1891.

Introductory.

Among the more important events of the year was the operation of the Crown Rents' Act. This Act, as is sufficiently well known, owed its existence to the case of Alison *v.* Burns, in which the Privy Council—contrary to the judgment of the Supreme Court of the Colony—held that the policy and intention of the Act of 1884 were that the Local Land Boards and the Minister should concur in fixing a fair rent for the occupation of Crown lands. It followed from this, therefore, that where the Minister had fixed a rent at a rate different from that appraised by the Land Board, the rent could not be held to have been legally fixed at all. By the Act referred to it fell upon the Land Court to redetermine the rents upon the application of the lessee or licensee. With comparatively few exceptions the Land Court completed its task before the close of last year; and the next step was to give effect to its decisions either in the way of demanding additional rent or refunding, with interest, amounts paid in excess. This imposed upon the Department a much more difficult task than at first sight would appear; and before the work could be entered upon a series of questions of the greatest intricacy presented themselves, the solution of which required the most careful consideration. The Minister took the earliest opportunity of dealing with these questions, and directed the organisation of a special staff to dispose of the work. This staff was composed of Officers of the Department and two temporary clerks; and the arrangements have worked so admirably as to enable me to report the completion of all Pastoral Lease, Occupation License, and Homestead Lease cases, with the exception of seventeen, of which ten are still to be dealt with by the Land Court, and the remainder are delayed by the neglect of the parties to answer certain official correspondence. In carrying out the work the greatest care and accuracy were aimed at; and the adjustment of the accounts presented exceptional difficulties, inasmuch as the rents paid were not at uniform rates, even in connection with

 the

the same holding, and each year's account had to be separately considered in connection with the fact that the area of the lease, &c., had been, during the whole period of review, in a constant state of fluctuation. It is not to be forgotten, also, that the period of review extended back several years, so that each individual case represented a series of distinct calculations. Schedules have been prepared (more particularly referred to in other parts of the Report) from which may be seen in every case the rates appraised by the Board, fixed by the Minister, and determined by the Court, respectively. So far the result has been that in 412 cases the Minister's rate has been reduced; in 181 cases the Minister's rate has not been altered; and in 104 cases the Minister's rate has been increased. Refunds to the amount of £125,500 15s. 5d. (which represents £105,838 18s. 9d. as rent, and £19,661 16s. 8d. as interest) have been authorised, and £21,498 2s. 1d. has been called for as representing sums underpaid,—the difference as against the Crown being £104,002 13s. 4d. These figures will necessarily exhibit some slight alteration when the whole of the work has been completed—that is to say, when the accounts of the seventeen cases already referred to, and those of the Conditional Leases brought under the Act (of which there are only thirty-eight, and representing small amounts), have been adjusted.

The annual difference to the Crown between the rents charged by the Minister and fixed by the Land Court would have been an interesting addition to the preceding figures; but, as will be seen from the next paragraph, the effect of the Act of 1889 has been, in a very large proportion of cases, to limit the effect of the Crown Rents Act to the expired period of the holding, the rent under the Crown Rents Act being in fact superseded by the rent under the 1889 Act, so far as the future is concerned.

The operation of section 29 of the Act of 1889 which offered lessees (among other privileges as to extended tenure, &c.) the option of retaining their holdings subject to the rental provisions of the Act of 1884, or of having their rentals periodically reappraised, was a matter of even more importance than the operation of the Crown Rents Act. The combined effect of the two Acts has been a review and redetermination of the rent both of the past and the current period of the holdings brought within their provisions. Those brought under the Act of 1889 were 1,002 pastoral, 413 homestead, and 927 conditional leases, together with 487 occupation licenses which were in existence before the Act of 1889, and 420 preferential occupation licenses which came into existence on the expiration of the Eastern Division pastoral leases. The whole of these holdings required appraisement, and this fact necessitated the appointment of qualified persons to inspect the land in order to give evidence before the Board on behalf of the Crown when the Boards should hold their appraisements. At the close of 1891 the work of appraisement was almost complete. In a proportion of cases the parties interested have appealed to the Land Court against the Board's valuations; but in the very large number of cases where appeals have not been made, the Minister has had cast upon him (by the provisions of section 6 of the Act of 1889) the duty of deciding whether he would accept the Board's appraisements or refer them to the Land Court. This has been accomplished, and no illustration is needed of the amount of work which it has involved. Having regard, however, to the importance of the matter, so far as the result is concerned, Schedules have been prepared and placed with this report which show every case in which the rent has been finally settled and gazetted; the original rates as determined by the Minister or the Court respectively, the new rates under the Act of 1889; and, in connection with pastoral and homestead leases, the rate which would have been payable with the statutory increases imposed by section 78 of the Act of 1884 had the provisions of the Act of 1889 not been taken advantage of.

During the past year a number of Supreme Court judgments on questions arising under the Crown Land Acts were delivered, which were necessarily in themselves important, and especially valuable as settling doubtful or difficult points of law; and in view of these facts it has been thought that a brief reference to them would not be uninteresting. It is of the highest advantage, both to the public and to the Department, to have such authoritative decisions to guide them, and the only matter of regret is that the occasion for seeking a judicial interpretation of the law rarely presents itself as early as would be desirable.

As one instance of this, the case of O'Brien may be cited (N.S.W. L.R., Vol. XII, Part II, page 45), the judgment in which case necessitated, in part at least, the Crown Lands Act Amendment Act of 1891. The judgment, while throwing doubt on the efficacy of a provisional reversal of forfeiture, went to show that the Minister had no power to reverse absolutely or otherwise any forfeiture after it had been notified in the *Government Gazette*, and had taken legal effect in accordance with section 136 of the Crown Lands Act of 1884. Prior to this, Ministers had been in the habit of reversing forfeitures, provisionally and absolutely, with special regard to the merits of the cases, but without any special limit of time; and in view of this latter fact a validation of their action became, after the delivery of the judgment referred to, a pressing necessity in order to prevent the disturbance of titles which for years had remained unquestioned. Accordingly the Act referred to was introduced, which, in addition to effecting this object, made suitable provision for the Minister to deal in the future with cases in which the waiver or reversal of forfeiture might be warranted.

It is unnecessary here to refer further to the contents of the Act in this connection, except, perhaps, to say that the moral injustice which a forfeiture would sometimes involve has been so far recognised by the Land Court as to induce it (when dismissing appeals against forfeitures found to have been incurred) to sometimes recommend that the penalty should not be enforced.

Two important provisions of the Act, not related however to this subject, deserve some remark, viz., those contained in section 7 dealing with the matter of balloting for land. This section provides that a successful applicant shall not be entitled to withdraw his application, and that the fact of two or more applications being made by different applicants for one person shall be *prima facie* evidence that none has been made bona-fide for the applicant's sole use and benefit. These provisions were introduced to check abuse, it having been found that one person to increase his chances would sometimes arrange with others to apply also, with the understanding that they would withdraw, in succession, until the real applicant was reached and left in possession of the land. The system of balloting, even as modified by recent legislation, cannot, however, be regarded as satisfactory, and the substitution of some better method of disposing of simultaneous applications would be desirable.

In the case of the A. J. S. Bank (where the Bank appealed to the Supreme Court against the decision of the Land Court) it was sought to set two sections of the existing Acts in opposition to each other, with a view of showing that, contrary to the practice of the Department, a conditional lease could now be granted by virtue of a conditional purchase made under the repealed Acts; but, as was anticipated, the Bank did not succeed.

In the case of the E. S. & A. C. Bank (which was an appeal by the Bank to the Supreme Court against the Land Court) it was held, in support of the Land Court and Departmental action, that an exchange of land between the Crown and the holder of freeholds within a pastoral leasehold could not be approved by the Governor after the expiration of the pastoral lease, notwithstanding that the initiatory proceedings may have commenced before this event happened.

In Shearer's case, (which came before the Land Court and was referred to the higher Court at the instance of the Minister,) the question arose whether the Crown Lands Acts precluded the holder of a pastoral lease from holding a sub-lease of a homestead lease for grazing purposes. The Court decided in the negative. It was hoped that the law would have been found otherwise, merely because in transactions of this nature a certain amount of facility is offered for the defeat of the intentions of the law on account of the great difficulty in discriminating between cases in which the privileges of the Acts are taken advantage of bona-fide and those in which they are not. N.S.W.L.R., Vol. XII, Part I, page 24.

The case of the Attorney-General *v.* Milson (in which the Crown proceeded by writ of intrusion) had reference to land at Cremorne, granted by the Crown in 1833, with a reservation of 100 feet above high-water-mark. The land within this 100 feet was claimed under the plea of adverse possession against the Crown, in whose favour,

favour, however, judgment was delivered. The Nullum Tempus Act 9 George III, cap. 16, was referred to, and the Court held that to defeat the title of the Crown there must be 60 years continuous adverse possession. The effect of the reservation had been (in view of the authority Cooper *v.* Stuart (N.S.W.L.R., Vol. X, Part III, page 172), and Neild *v.* Davidson (N.S.W.L.R., Vol. XI, Part III, page 209) to exclude the land from the grant altogether. N.S.W.L.R., Vol. XII, Part III, page 121.

In the case Ricketson *v.* Barbour (in which Barbour succeeded in an appeal to the Land Court, and Ricketson appealed to the Supreme Court), the former had applied to purchase by virtue of improvements land which at the date of his application was comprised within a reserve from sale. The reserve was revoked, but under the Land Acts revocation would not mature until a certain term after notice in the *Government Gazette*. During this term the Governor in Council approved of Ricketson's application, and after the revocation had taken effect Barbour selected the land. The Court held that until revocation had matured the Crown could not approve of the sale, and the fact of Ricketson having applied during the existence of the reserve rendered his application nugatory. The conditional purchaser therefore succeeded. N.S.W.L.R., Vol. XII, Part III, page 128.

In Baldwin's case the conditional purchaser had, under the provisions of section 22 of the Crown Lands Alienation Act of 1861, acquired a certain area under conditional purchase by virtue of a freehold, and under the repealed Acts he was entitled to extend his holding to 640 acres, inclusive of the area of the freehold. Under the existing Acts he sought to exceed this area; and the Land Court having decided in his favour, the Minister asked for a reference to the Supreme Court of the question whether the first conditional purchase of a series made by virtue of a freehold was an original purchase within the meaning of section 42 of the Crown Lands Act of 1884. The Supreme Court held that it was not. N.S.W.L.R., Vol. XII, Part III, page 128.

In Fergusson *v.* Wilmott (in which the former unsuccessfully appealed from the decision of the Land Court) the parties made conflicting applications, and Willmott, at a ballot which was held to determine priority, was successful. He had tendered his deposit in bank-notes, while Fergusson had tendered his in gold coin. The latter claimed that Wilmott's tender was not a legal one; but the Supreme Court held it to have been sufficient. To applicants for land this decision is obviously most important, seeing that (as the Court pointed out) Government operations would be severely crippled, if not paralysed, if its agents were bound to accept only gold.

In Blomfield *v.* Jenkins another important and convenient ruling was laid down (contrary to the decision of the Land Court), viz., that if two or more persons ballot for land, the unsuccessful applicants are entitled to appear before the Local Land Board as parties to the case without having lodged caveats against the successful application.

In the case of Margaret Arthur, who applied for an additional conditional purchase as administratrix of her late father's estate, it was held (on appeal from, and contrary to, the decision of the Land Court) that she was entitled in that capacity so to apply.

The decision in Boyd's case (in which the Minister succeeded in an appeal from a decision of the Land Court), threw light upon the meaning of "adverse circumstances" as applying to a conditional purchaser desirous of obtaining a certificate from the Land Board, that in consequence of such circumstances he was compelled to abandon his land.

In Walsh's case Walsh made a conditional purchase under the repealed Acts, which he transferred to one Thompson on the 29th May, 1890. This was after issue to, but before the service on, Walsh of a notice that the Land Board intended to inquire into the question whether the conditional purchase had been made bona-fide. The Board decided against the conditional purchaser, but upon an appeal the Land Court held that Thompson was an assignee without notice, and in consequence was protected against the proposed forfeiture of the land by section 9 of the Act of 1875. The matter was, at the instance of the Minister, referred to the Supreme Court,

Court, which, passing by the question of fact whether Thompson had notice (as being beyond the scope of the reference), dealt specially with an argument urged on behalf of the Minister, that as the transfer was made after the repeal of the Act of 1861, section 9 did not apply. The Supreme Court, however, decided otherwise, holding that under section 2 of the Act of 1884 the vitality of section 9 was preserved, and that therefore Thompson was entitled to the benefit of its provisions. N.S.W.L.R. Vol. XII, Part III, Page 200.

In Black's case, (in which a motion to make absolute a rule calling upon the Picton Land Board to show cause why a writ of prohibition should not issue to restrain them from proceeding with an inquiry in the nature of a re-hearing as to the *bonâ fides* of applications for certain conditional purchases in accordance with an order of the Land Court,) the Supreme Court judgment explained the limitations of the jurisdictions of the Land Court and the Minister respectively in connection with matters to be brought before the Board under the provisions of section 20 of the Act of 1884. N.S.W.L.R. Vol. XII, Part II, Page 37.

In the case of Day *v.* Brunker, Day obtained in 1839 a grant of an allotment of land, of which he had for some time previously been in occupation. The land originally had frontage to Darling Harbour, and was so described in the grant. In consequence of the extension of Sussex-street through the water, in front of and a short distance from, the land, the water frontage was cut off, a strip being left between the street and the original frontage. In 1836, before the issue of the grant, Day had presented a memorial in which he referred to the contemplated extension of the street, and asked that access from his premises to the water might be preserved. The Government promised to accede to this by not allowing the erection of buildings on the west side of the street in the situation of the premises, and at the same time permission was given to Day (to be understood as quite distinct from the question of water frontage) to extend his wharf into deep water. In 1862 permission was given to erect a wharf on piles. This permission was to hold for one year, the Government stating that it could not negotiate for the sale of the land reclaimed. Day reclaimed land in front of the street; but an application made in 1883 by his representatives for permission to purchase the reclaimed land was refused, as the applicants did not own the strip of land on the opposite side of the street.

The case came before the Court on a motion for a decree to restrain the Minister from taking possession of the land. The plaintiffs set up a claim to the reclaimed land, or a grant of a right of access to the water, or for declaration that the Government could not dispossess them without compensation. The Court assumed that prior to the issue of the grant Day was in occupation as promisee of a grant, and held that as there was no evidence of any consideration for the promise or of any outlay on the faith of it, the promise conferred no estate at law or in equity, and that the issue of the grant was a mere act of grace on the part of the Crown, and, following from this, that Day had no right or claim to the land in 1836, and that the extension of Sussex-street did not deprive him of anything to which he had a legal or equitable claim. With regard to the alleged right of access the Court held that as the land had been reclaimed without permission the plaintiffs could not claim a right-of-way or easement, the necessity of which had been created solely by Day's own reclamation. Having on these two points decided in favour of the Crown no ground was left to support the claim for compensation. N.S.W.L.R., Vol. XII, Part III, page 157.

In Alley's case, Alley and Richards each applied for the same land, the former being the prior applicant. Alley's application was disallowed by the Land Board for vagueness of description. On appeal by Alley, the Land Court held that his description was such as to have warranted the Board in allowing the deficiencies to be corrected; and upon Richards appealing to the Supreme Court, the decision of the Land Court was upheld.

In Tooth *v.* Power, Tooth made under the Act of 1861 (upon a run held by him) a conditional purchase in the name of Power, when the latter was an infant 6 years of age. The deposit and interest moneys were paid by Tooth, by whom also the necessary improvements were made. The condition of residence was carried out by Power residing on the land with his parents, who were in Tooth's service. Power, after reaching maturity, declined to recognise Tooth, and sought to transfer the

the land to another. The case came before the Equity Court and the Full Court of this Colony, and ultimately before the Privy Council, who considered the question whether any right of conditional purchase had been constituted which could be the subject of a resulting trust for Tooth, and they held that there had not. They pointed out that it is quite consonant with legal principle that what has been done in the name and in the interest of an infant by one who stands in *loco parentis* should be held to have been done by the infant himself so as to constitute compliance with the Act sufficient to create a valid interest in him, but it does not follow that what has been done by a stranger in name of an infant for his own behoof and with no intention of benefiting the infant can be regarded as fulfilment by the latter of the statutory conditions. Upon the facts their Lordships came to the conclusion that the proceedings taken by Tooth, with the view of creating a right of conditional purchase in the infant Power as trustee for Tooth, were simply a colourable attempt to comply with the provisions of the Act. There did not appear to them to have been substantial compliance with any one of the conditions which the Act prescribed. N.S.W.L.R., Vol. XII, Part III, page 127.

The Land Court.

During the year 1891 the Land Court heard and disposed of 1,248 cases, comprising 291 appeals, 149 references, and 73 motions, and including 735 applications for determination of rentals or license fees, under the Crown Rents Act of 1890. Of these latter, 34 were allowed to be withdrawn with the consent of the Minister for Lands, on payment of costs, the rent or license fee being determined at the rate previously fixed by the Minister.

The Court held sittings at Sydney on seventeen different occasions, and in the country, as follows:—Armidale, Bathurst, Dubbo, and Wagga Wagga, each twice; and Hay and Tamworth, each once. At the Sydney sittings 773 cases were heard, whilst 475 were dealt with in the country.

On reference to Schedule CXIX the expenses attaching to the Court may be ascertained.

Auction Sales.

During the year under review 2,295 town lots, comprising an area of 936 acres and $6\frac{1}{4}$ perches, were submitted to auction, and 1,047 lots, containing 435 acres 1 rood $30\frac{1}{2}$ perches, were sold, realizing £30,844 18s., being an average price of £70 16s. 9d. per acre. The results secured are an advance on those of the previous year when 891 lots, representing an area of 360 acres 3 roods $5\frac{3}{4}$ perches, were sold for the sum of £15,234 13s., an average of £42 5s. an acre. (Schedule XXXIV.)

Of suburban lands 1,121 lots, containing 5,577 acres and 2 perches, were offered, and 603 lots, comprising 2,322 acres and $6\frac{1}{4}$ perches, sold for £18,345 17s., at an average price of £7 18s. per acre. The business transacted is also greater than that of 1890, when 461 lots, containing 2,161 acres 3 roods $27\frac{1}{2}$ perches, were sold for £1,2674 7s. 6d., at an average of £5 17s. 3d. an acre. (Schedule XXXV.)

An area of 98,744 acres 3 roods $1\frac{1}{4}$ perches of country lands, comprised in 1,432 lots, was submitted for public competition, and resulted in the sale of 703 lots, with an area of 44,347 acres 3 roods $33\frac{1}{2}$ perches, realizing £92,360 11s. 3d., being an average price of £2 1s. 8d. an acre, as against 66,160 acres 1 rood $29\frac{1}{2}$ perches disposed of for £113,768 2s. 2d. in 1890. (Schedule XXXVI.)

Taking town, suburban, and country lands together, an aggregate of 47,105 acres 1 rood $30\frac{1}{4}$ perches were sold out of 105,257 acres 3 roods $9\frac{1}{2}$ perches submitted. It is unnecessary to point out how far this area was below the maximum which the law allows to be sold (200,000 acres), and it is very satisfactory to notice that in connection with each class the average prices per acre for 1891 were higher than those of 1890. Moreover the results of the 1891 sales approximate very closely to those of the year preceding (being £141,677 2s. 8d. and £141,551 6s. 3d. respectively), notwithstanding the area sold in 1891 was 47,105 acres 1 rood $30\frac{1}{4}$ perches as against the greater area of 68,683 acres and $22\frac{3}{4}$ perches in 1890.

The

The subjoined table exhibits the transactions in the different classes of business under this heading for the years 1890 and 1891 :—

	Year.	No. of lots offered.	Area offered.	No. of lots sold.	Area sold.	Amount realized.	Average price per acre.
			a. r. p.		a. r. p.	£ s. d.	£ s. d.
Town	1890	2,479	1,019 0 19	891	360 3 5¾	15,234 13 0	42 5 0
	1891	2,295	936 0 6¼	1,047	435 1 30½	30,844 18 0	70 16 9
Suburban ...	1890	1,335	7,045 3 11	461	2,161 3 27½	12,674 7 6	5 17 3
	1891	1,121	5,577 0 2	603	2,322 0 6¼	18,345 17 0	7 18 0
Country	1890	1,878	152,779 1 22¾	686	66,160 1 29½	113,768 2 2	1 14 5
	1891	1,432	98,744 3 1¼	703	44,347 3 33½	92,360 11 3	2 1 8

As a consequence of the non-payment of the balance of purchase money within the required time an area of 50 acres 3 roods 19 perches, comprised in 23 lots, and involving deposits to the extent of £144 8s. 1d., was forfeited to the Crown. The sum of £836 4s., representing the value of improvements added to the upset price of certain portions, was refunded, the Crown having waived any claim to the improvements. Guarantee deposits by persons who applied to have land put up for sale, and moneys paid in connection with cancelled sales or paid in excess, to the amount of £182 11s. 7d., were also refunded. (Schedules XXXVIII and XXXIX.)

Conditional Purchases.

As with few exceptions the Eastern Division pastoral leaseholds were thrown open to selection in 1890, it was expected that the special stimulus thus given to the demand for land during that year would not be sustained during the year which followed; and although this expectation was realised, the figures for the two years being,—

	No. of applications.	Area.
1890	8,526	1,713,577 1 0
1891	6,154	1,303,414 1 2

the fact deserves notice that (excluding the year 1890) a larger area was applied for in 1891 than in any year since the Act of 1884 came into operation. The following Schedule shows the relation in which the years since 1885 inclusive, stand to each other, and it will be observed that the last three years (1889, 1890, and 1891) show a higher number of applications than any other three years since the law now existing came into force :—

Year.	Section 26.			Section 42.			Section 47.			Special Areas.			Total.		
	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.
1885	2430	772,718 3 0	77,272 17 0	2639	344,053 3 20	34,405 10 4	302	47,806 3 0	9,251 1 0	6	742 0 0	140 8 0	5377	1,165,351 1 20	121,069 16 4
1886	2660	579,539 2 28	57,954 0 1	2987	330,279 3 2	33,028 0 4	355	43,686 2 37	8,850 5 0	78	9,690 2 0	2,121 17 6	6080	963,196 2 27	101,794 2 11
1887	2300	529,628 2 14	52,962 17 5	2185	231,912 2 5	23,191 5 3	186	20,073 3 12	4,014 16 0	98	11,389 1 0	2,501 12 3	4769	793,004 0 31	82,670 10 11
1888	2474	560,109 3 23	56,010 19 11	2334	247,639 0 16	24,763 18 4	283	26,139 0 22	5,227 17 0	273	31,311 0 17	7,155 9 0	5364	865,199 0 38	93,158 4 3
1889	2722	533,213 0 0	53,321 3 0	2684	283,215 0 20	28,320 15 3	271	26,660 3 0	5,532 3 0	528	60,070 2 29	12,680 5 0	6205	903,159 2 9	99,854 6 3
1890	3252	879,058 3 3	87,907 18 8	4064	600,839 2 16	60,119 2 2	230	28,163 1 33	5,635 10 6	980	205,515 1 28	40,316 1 4	8526	1,713,577 1 0	193,978 12 8
1891	2243	586,570 1 30	58,656 19 5	2541	430,069 3 38	43,007 11 5	127	12,887 0 13	2,571 9 11	1243	273,886 3 1	54,948 17 9	6154	1,303,414 1 2	159,184 18 6

Taking into consideration the whole of the applications lodged in 1891; 3,068, representing an area of 778,348 acres 2 roods 18 perches, were for original purchases, to which was attached the obligation of residence,—2,921 for 506,353 acres 3 roods 11 perches were for additional purchases,—and 165 for 18,711 acres 3 roods 13 perches were for non-residential purchases. These figures include 1,243 applications for 273,886 acres 3 roods 1 perch within special areas, the applications for land within which show an increase over those of 1890. This comparison is clearly shown in the following table:

Year	Section 26.			Section 42.			Section 47.			Total, Special Areas.			Grand Total.		
	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.	No.	Area.	Deposit.
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£
1890				Not within Special Areas.											
	3252	879,058 3 3	87,907 18 8	4064	600,839 2 16	60,119 2 2	230	28,163 1 33	5,635 10 6	..	.....	.....	8526	1,713,577 1 0	193,978
				Within Special Areas.											
	545	125,362 2 14	24,778 18 2	413	77,923 3 14	14,717 6 8	22	2,229 0 0	819 16 6	980	205,515 1 28	40,316 1 4			
1891				Not within Special Areas.											
	2243	586,570 1 30	58,656 19 5	2541	430,069 3 38	43,007 11 5	127	12,887 0 13	2,571 9 11				6154	1,303,414 1 2	159,184 18
				Within Special Areas.											
	825	191,778 0 28	38,372 16 6	380	76,283 3 13	14,682 2 3	38	5,821 3 0	1,893 19 0	1243	273,886 3 1	54,948 17 9			

Details in reference to applications for conditional purchases received during 1891 are set forth in Schedule VII.

Of the applications lodged during the year, 2,035 were confirmed, representing an area of 411,270 acres 2 roods 16 perches, and 876 disallowed. Of those received between the 1st December, 1889, and the 1st January, 1891, 4,179 were confirmed, comprising an area of 832,142 acres 3 roods 37 perches, and 815 were disallowed, while of those applied for prior to the 1st December, 1889, 231 were confirmed for an area of 36,677 acres 1 rood 19 perches, and 46 disallowed. It will thus be seen that 6,445 applications were confirmed during 1891 for an area of 1,280,900 acres 3 roods 32 perches, and 1,737 disallowed, making a total of 8,182 disposed of. (Schedule VIII.)

The conditional purchases current on the 31st December, 1891, numbered 161,008, representing an area of 21,320,188 acres. These, however, include purchases applied for subsequently to the 1st December, 1889, when the Crown Lands Act of 1889 came into force, inasmuch as under that statute the purchase may be said to commence from the date of application. It should, however, be pointed out that some of these applications will no doubt be refused. (Schedule XXIV.)

Schedule IX shows that during the year 11,794 instructions, relating to the inspection of conditional purchases, were issued by the Chairmen of the Land Boards to Inspectors, who furnished 8,691 reports as to the compliance or otherwise with the conditions attached to the selections concerned.

The cases referred to the Local Land Boards from the Head Office during 1891 numbered 1,036, of which 14 were for inspection and 1,022 for inquiry, and 1,596 certificates of conformity were issued in connection with conditional purchases under the repealed Acts where it was found that the conditions had been carried out as by law required. (Schedules X, XI.)

Four hundred and seventy-one conditional purchases, representing an area of 50,039 acres 1 rood 21 perches, were notified as forfeited during the year consequent on non-compliance with the conditions imposed by law, as against 739 conditional purchases containing an area of 109,472 acres 31 perches, forfeited in 1890. Against these, however, should be set 10 conditional purchases comprising an area of 1,180 acres, the forfeiture of which was reversed, the transactions in this respect during 1890 being 14 conditional purchases, with an area of 979 acres 3 roods. (Schedules XIV, XXIII.)

From Schedule XXI it will be seen that 5 conditional purchases of an aggregate area of 1,055 acres were validated under the provisions of the 138th section of the

the Crown Lands Act of 1884, while from Schedule XXII it will be observed that one mining conditional purchase, representing an area of 40 acres, was similarly dealt with under Act 50 Vic. No. 21.

Particulars as to the number of transfers received during 1891 are set forth in Schedule XII, on reference to which it will be noted that 10,240 were received, while 11,494 (some of which were received previously) were finally dealt with, as against 11,464 transfers received during 1890, action on 9,439 being completed during that period. Those received during 1891 related to 24,536 conditional purchases, and represented revenue to the amount of £6,256 in the shape of stamp duty.

During the year 9 conditional purchases, comprising 1,350 acres 2 roods, were declared void, while voidance was reversed in connection with 2 conditional purchases containing 338 acres. Adjustment in area, consequent on reduction or increase in acreage, was carried out in connection with 333 conditional purchases during the same period. (Schedule XVIII.)

Special Areas.

An area comprising 265,553 acres, contained in 310 special areas, was proclaimed during the year. (Schedule LXI.) An interesting reference was made in the Annual Report of the Department for 1890 to the matter of special areas. The information then supplied was, however, somewhat restricted, but the opportunity has since been afforded of collecting fuller materials in connection with special areas from the passing of the Crown Lands Act of 1884 up to the 31st December, 1891.

On reference to Schedule CXVII it will be seen that an area of 962,288 acres 2 roods 8 perches has been proclaimed under the special area clause from the passing of the Crown Lands Act of 1884 to the 31st December, 1891; but as of this area 149,394 acres 2 roods 20 perches were rendered unavailable for alienation by reason of their inclusion in reserves or from other causes, the land actually available for selection comprised 812,893 acres 3 roods 28 perches. The area conditionally purchased during the period was 488,085 acres 3 roods 33 perches, representing a total price of £993,789 17s. 1d., the amount received as deposits being £98,846 11s. 2d. Of the land available for alienation, therefore, no less than 60 per cent. has been conditionally purchased, at an average price of a little over £2 an acre, leaving an area of 324,807 acres 3 roods 35 perches undisposed of on the 31st December last, some of which is included within Special Areas proclaimed with the maximum area of 160 acres under the Act of 1884, and which are still in course of revision.

An analysis of the Schedules shows that the percentage of area selected was highest in the Forbes Land Board District, where 92 per cent. of that available was taken up, Goulburn being next with 85 per cent. and Orange, 81 per cent.; Cooma, 73 per cent.; Wagga Wagga, 70 per cent.; and Moree, 65 per cent., following. The whole of the land available was selected in 11 Land Districts; 90 to 99 per cent. in 8; 80 to 89 per cent. in 7; 70 to 79 per cent. in 9; 60 to 69 per cent. in 9; 50 to 59 per cent. in 7; 40 to 49 per cent. in 7; 30 to 39 per cent. in 7; and in 18 Land Districts the percentage was under 29.

The largest area available was that within the Wagga Wagga Land Board District, where an area of 280,521 acres 2 roods 14 perches was submitted for selection, out of which 196,932 acres 1 rood 21 perches, or 70 per cent., were conditionally purchased, representing a total price of £410,711 15s. 7d., which may be deemed satisfactory.

Conditional Leases.

The references in the preceding chapter to conditional purchases have also application to conditional leases, as these two tenures are so related to each other that such causes as would stimulate or check the demand for the one necessarily have a corresponding influence upon the other; and it has accordingly happened that the year 1891 has fewer conditional lease applications to show than 1890. In

In the subjoined summary are shown the number of applications made, and the area applied for during each year since 1885, inclusive, from which it will be seen that during 1891, 3,952 applications were received for 2,177,810 acres 15 perches as against 5,466 in 1890 for 3,056,774 acres 2 roods 26 perches. Although the earlier of the two years has the advantage in this comparison, it will be observed that when 1891 is compared with any other year, so far as the number of applications is concerned, it possesses the highest record, and, excepting 1885 and 1890, the highest area.

Year.	Number.	Area.	Deposits.
		a. r. p.	£ s. d.
1885	3,816	2,547,045 0 15*	21,225 7 6
1886	2,500	1,207,953 0 8	10,066 5 6
1887	2,228	1,242,380 0 0	10,353 3 4
1888	2,623	1,424,753 1 25	11,872 18 11
1889	3,470	1,569,949 3 30	13,082 18 4
1890	5,466	3,056,774 2 26	25,489 7 2
1891	3,952	2,177,810 0 15	18,140 17 10

* This includes 1,994 applications; area, 1,198,617 acres 30 perches, made under the 54th clause of the Act of 1884.

During the year, in the aggregate 3,973 applications, representing 2,133,381 acres 5 perches, were confirmed, and 1,233 disallowed, making a total of 5,206 applications disposed of. An analysis of the returns shows that of the applications thus disposed of 1,542 were applied for during the year, 896 of which, representing an area of 485,023 acres 2 roods 20 perches, were confirmed, and 646 disallowed. Of the applications lodged between the 1st December, 1889, the date the Crown Lands Act of 1889 came into force, and the 1st January, 1891, 2,933 for an area of 1,576,429 acres 1 rood 25 perches were confirmed, and 560 disallowed, and of those received prior to the 1st December, 1889, 144, comprising 71,928 acres, were confirmed, and 27 were disallowed. (Schedule XXVI.)

The number of conditional leases gazetted during the year was 2,372. The aggregate number gazetted to the 31st December, 1891, under the 48th, 52nd, and 54th clauses of the Principal Act, and in existence, was 14,623, comprising an area of 9,094,977 acres 17 perches, and producing an annual revenue of £111,559 9s. 8d. (Schedules XXXI and XXXII.) To these may be added leases applied for since the 1st December, 1889, but not gazetted, inasmuch as the Crown Lands Act of 1889 confers the right of occupation from the date of application. Taking these into consideration, the number of leases actually in existence will be brought up to 18,039, and the area to 11,234,131 acres. Some of these applications will, however, in all probability be disallowed.

It has already been pointed out in the report for last year that 927 conditional leases were brought under the provisions of the Crown Lands Act of 1889, and 38 under the Crown Rents' Act—to secure, in the one case, a reappraisement of the future, and in the other a reappraisement of the past rent. The cases under the Crown Rents' Act have been settled by the Land Court, but the accounts have not yet been adjusted. It has been found, however, that in 8 cases the Minister's rate has been upheld by the Court; in 1 case the Minister's rate has been increased; and in 29 cases the Minister's rate has been reduced. Details will be found in Schedule LXXVIId.

With regard to the 927 leases brought under the provisions of the Act of 1889, 488 were reappraised and regazetted during 1891, and these represent 167 cases in which the new rent is below the previous rent, and the lessees have consequently secured an advantage; and 236 cases in which the new rent is above the previous rent, and the advantage therefore lies with the Crown. In the balance of the cases (85) the rent is the same as that previously determined. (Schedule LXXVIIi.)

The forfeiture of 571 conditional leases, containing 213,643 acres, and representing an annual rent of £2,665 14s. 11d., was gazetted during the year, and in the same period 1,666 conditional leases were transferred. (Schedules XXVII and XXVIII.)

The

The appraisements of 3,203 conditional leases were submitted to the Minister for the determination of rent, and were dealt with by him in accordance with the provisions of section 6 of the Crown Lands Act of 1889. (Schedule XXX.)

Improvement Purchases.

One thousand and sixty-two applications to purchase, by virtue of improvements, land occupied under the Mining Act, were received during 1891, representing an area of 653 acres 1 rood 27 perches. This represents a slight decrease since 1890, when 1,220 applications were lodged for 674 acres 2 roods 31 perches.

Of the applications received, 102 were refused and 268 granted, an area of 174 acres 14 perches being thus alienated, at an appraised value of £6,994 12s. The area disposed of in satisfaction of applications made prior to the 1st January, 1891, under the provisions of the 46th clause of the Crown Lands Act of 1884, was 274 acres 3 roods 9¼ perches, represented by 495 applications, and realising the sum of £12,195 9s. 1d. In addition to the foregoing 13 portions, comprising an area of 2,821 acres 1 rood 26½ perches, were alienated under the provisions of the 2nd clause of the Lands Acts Amendment Act of 1875, and purchase moneys to the amount of £4,282 19s. 2d. paid thereon.

The details of the business under this head are set forth in Schedules XL, XLI, and XLII, showing that a total area of 3,270 acres 1 rood 9¾ perches, in 776 portions, was alienated, realizing £23,473 0s. 3d.

Sales under the Newcastle Pasturage Reserve Act.

As mentioned in the Report for last year, 1,169 applications to purchase land on the Newcastle Pasturage Reserve, under the special Act dealing with the Reserve, were received in 1890, of which 1,154 were reported on by the Local Land Board during 1890, leaving 15 over for 1891. In addition to the 869 applications gazetted as approved during 1890, 94, representing an area of 226 acres 21 perches, were gazetted in 1891. In connection with these the purchase money amounted to £61,268 6s., or an average of slightly over £271 per acre, a price similar to that secured in 1890.

Of the claims put forward under the Act only one was outstanding on the 31st December, 1891, the deposit money having been paid in respect of 906 applications, and 213 were disallowed. Forfeiture consequent on non-payment of deposit has not been declared in respect of any of the approved claims gazetted to the 31st December, 1891.

It will be observed that the number of applications approved and disallowed, according to the return, total 1,176, whereas only 1,169 were received. The apparent discrepancy is, however, explained by the fact that one application sometimes represented more than one portion, and the disposal of each portion was accounted for in the *Gazette*. (Schedule XLIX.)

Special Purchases.

During the year 127 applications were received for the purchase of land under the provisions of the 63rd, 64th, 66th, and 67th sections of the Act of 1884, 10 being for the rescission of reservation of water frontage, 22 for permission to reclaim, 22 for the purchase of small areas unavailable for selection, and 73 for the purchase of unnecessary roads.

The aggregate area alienated during the year under the sections mentioned, and the 42nd section of the Crown Lands Act of 1889, was 535 acres and 26 perches, the price realised being £2,720 16s. 10d. An area of 8 perches was also alienated during the same period in satisfaction of applications made under the Repealed Acts. The total amount, inclusive of penalties, secured for these sales, was £2,757 5s. 6d. The sale of 10 acres 1 rood 22¼ perches in the county of Cumberland brought the sum of £1,246 14s. 8d. Particulars in respect to the business transacted under this head are set forth in Schedules XLIII, XLIV, XLV.

Surrenders

Surrenders and Exchanges.

Although applications by lessees under section 46 of the Act of 1889 to exchange land with the Crown have the common feature that the land sought for must be within their leaseholds, it has been thought desirable to divide the cases into three classes according to the situation of the land offered to the Crown, which may be either within the leasehold or the resumed area or partly in one and partly in the other.

Applications to the number of 40 were received during the year to surrender lands situated within resumed areas in exchange for lands within leasehold areas, 2 of which were refused, leaving 38 outstanding at the close of the year. Of the applications lodged during 1890, and remaining undisposed of at the close of that that year, 33 were refused or withdrawn during 1891, leaving 24 on which action is proceeding.

Sixteen applications were lodged to surrender lands within leasehold areas in exchange for other lands within leasehold areas, 2 of which were refused or withdrawn during the year. During the same period 21 applications of a similar character, lodged prior to the 31st December, 1890, but undisposed of on that date, were either refused or withdrawn, leaving 26 still outstanding on the 31st December, 1891.

During the year 20 applications to surrender lands situated within leasehold and resumed areas in exchange for other lands within leasehold areas were received, 1 being refused. Action on similar applications outstanding on the 31st December, 1890, during the year resulted in the refusal or withdrawal of 8, leaving 18 undisposed of at the close of the year. (Schedules LXXXI, LXXXII, LXXXIII, LXXXIV, LXXXV, LXXXVI.)

Volunteer Land Order Applications.

On reference to Schedule XLVI it will be observed that during the year 9 applications for an area of 450 acres were received for grants of land by virtue of Volunteer Certificates. In conjunction with those outstanding on the 31st December, 1890, 21, comprising 1,050 acres, were satisfied, while 11, representing an area of 550 acres, were refused, leaving 11 for 550 acres undisposed of at the close of the year. The reasons for the refusal of the 11 applications are set forth in Schedule XLVIII.

A refund of £22 18s. 9d. was also made in connection with survey and subdivision fees, and for value of improvements in connection with, and amounts paid in excess as stamp duty, on Volunteer land order selections. (Schedule XXXIX.)

Cost of Survey.

A somewhat full reference to this subject was made in the Report for 1890, when it was mentioned that since the 1st December, 1889, applicants for conditional purchases and conditional leases have been required to pay a survey fee computed according to a sliding scale on the area applied for. The fee as pointed out was uniform for all similar areas and represented merely the minimum cost to the Crown, which consequently had to bear all special or extra expenses beyond the amount which the fee happened to cover. It will, therefore be recognised that under this arrangement the Crown did not ask any applicant to defray the actual cost of measurement in his own particular case, but merely asked for a contribution towards the general cost of survey. Even thus far the arrangement rested on a basis more liberal to the applicant than might have been insisted upon in terms of the law; and towards the end of 1891 a further concession was made by the Minister reducing the survey fee for an additional conditional purchase or conditional lease to a rate about 25 per cent. below that charged for an original conditional purchase.

In order to give force to these statements, the subjoined return has been compiled of the areas surveyed, payments made, and expenses incurred during the past year under the three great classes of measurement in the various Land Board Districts of the Colony. This shows that 823,232 acres were measured in satisfaction of applications for conditional purchase at a cost to the Crown of

£37,510 1s. 5d., while the survey fees paid thereon amounted to £26,439 0s. 4d. An area of 1,846,550 acres was surveyed for conditional leases, the actual cost incurred being £41,430 9s. 1d., and the survey fees paid, £29,317 0s. 9d. The area measured in satisfaction of homestead lease applications was 960,033 acres, the survey fees paid being £2,019 8s. 3d., while those paid for the measurements amounted to £3,350 7s. 11d. It will thus be seen that the Crown incurred an expense of £82,290 18s. 5d., of which the share borne by the applicants amounted to only £57,775 9s. 4d.

Land Board District.	Conditional Purchase.			Conditional Lease.			Homestead Lease.		
	Area measured.	Cost to Crown.	Survey Fees paid by Applicants.	Area measured.	Cost to Crown.	Survey Fees paid by Applicants.	Area measured.	Cost to Crown.	Survey Fees paid by Applicants.
	Acres.	£ s. d.	£ s. d.	Acres.	£ s. d.	£ s. d.	Acres.	£ s. d.	£ s. d.
Armidale	100,743	5,473 9 11	3,635 11 0	248,184	6,716 8 4	4,669 3 10	.....	.....	.....
Bourke	19,358	334 19 5	307 0 0	58,197	510 13 7	501 13 6	625,241	2,070 5 8	1,218 6 3
Cooma	58,523	4,607 7 9	2,855 9 0	125,417	4,723 2 8	2,971 12 6	.....	.....	.....
Dubbo	84,730	2,129 16 0	1,865 15 0	221,918	3,221 19 8	2,709 2 6	.....	.....	.....
Forbes	101,803	2,098 8 8	2,016 8 7	255,979	2,498 7 5	2,604 14 6	.....	.....	.....
Goulburn	45,927	2,841 0 0	2,164 0 0	90,808	2,994 0 0	2,181 0 0	.....	.....	.....
Grafton	48,000	3,784 16 5	1,747 4 6	75,773	3,425 1 10	1,539 18 0	.....	.....	.....
Hay	45,281	896 18 2	1,045 5 0	69,761	660 1 10	665 7 6	131,928	585 19 2	3 8 12 0
Maitland	27,144	2,344 3 9	1,276 6 6	51,071	1,959 17 8	1,160 13 6	.....	.....	.....
Moree	71,118	1,691 14 9	1,409 9 11	186,869	2,521 10 9	2,010 18 5	202,861	694 3 1	432 10 0
Orange	61,298	3,605 6 9	2,562 12 0	129,784	3,939 5 2	2,896 10 6	.....	.....	.....
Sydney	6,696	1,108 11 4	440 7 6	6,821	351 1 3	120 7 6	.....	.....	.....
Tamworth	68,307	3,134 18 0	2,236 10 0	175,976	4,246 3 0	3,042 12 0	.....	.....	.....
Wagga Wagga	84,304	3,458 10 6	2,877 1 4	149,992	3,662 15 11	2,210 6 6	.....	.....	.....
Total	823,232	37,510 1 5	26,439 0 4	1,846,550	41,430 9 1	29,317 0 9	960,033	3,350 7 11	2,019 8 3

A comparison of the particulars of the return shows that the average cost of measurement varies in the different Board Districts. This is due to a variety of causes, among which are the following:—Where the country is fairly level, the acreage applied for large, and the measurements principally of a regular form, the cost is much less than where the conditions are different, and such as operate against expeditious survey. In some districts, notably those on the coast, the areas applied for are, as a rule, small, and, to a certain extent, survey is hampered by the fact that in many cases the land sought to be acquired impinges on old measurements, in the determination of which great difficulty is experienced, and the cost of marking enhanced.

A return of measurements, for which accounts were rendered during 1891, will be found in Schedule CXVIII; but it has to be borne in mind that the surveys were not necessarily made during 1891, several having been effected previously.

Annual Leases.

During the year 58 lots, comprising an area of 22,002 acres 3 roods, were submitted to lease by auction, under the provisions of the 85th clause of the Crown Lands Act of 1884, and of these, 34, containing 10,809 acres 2 roods, were disposed of at a rental of £227 12s. 3d. As compared with 1890, this shows a falling off in the number and area of lots submitted, but on the other hand the sales for 1891 show a marked improvement on those of 1890 in respect of the number of sold lots, the area leased, and the results of the sales. The particulars of areas submitted during 1891 are set forth in Schedule LI.

The

The area submitted to tender under the same section was 579,534 acres, comprised in 580 lots. This compares favorably in point of area with the transactions of 1890, when 1,068 lots, containing 591,918 acres, were offered, but the results secured are less favourable for 1891 than for the year preceding, seeing that 95 lots, comprising an area of 83,314 acres, were let at an annual rent of £777 16s. 4d. in 1891, as against 446 lots, of an area of 221,006 acres 2 roods, at a rental of £2,453 11s. 1d. in 1890. (Schedule LII.)

The following schedule exhibits these comparisons clearly :—

Year.	No. of lots offered at auction.	Area.	No. sold.	Area.	Annual Rent.
		a. r. p.		a. r. p.	£ s. d.
1890	65	40,625 2 0	11	4,769 0 0	48 18 9
1891	58	22,002 3 0	34	10,809 2 0	227 12 3
	No. of lots offered to tender.				
1890	1,068	591,918 0 0	446	221,006 2 0	2,453 11 1
1891	580	579,534 0 0	95	83,314 0 0	777 16 4

While the business dealt with under the provisions of the 85th section of the Crown Lands Act of 1884 has shown a decline of late years, it is amply compensated for by transactions under the 33rd clause of the Crown Lands Act of 1889. As stated in an earlier report it is apparent that the method introduced by that clause of acquiring land by application, meets with public favor, by reason of the fact that an opportunity is presented to secure a lease at an appraised rent, without submitting to the risk of public competition or tender. During 1891, applications to the number of 2,083 were made for an area of 1,517,795 acres, as against 1,186 applications for 955,467 acres 3 roods 27 perches in 1890. The number of applications under consideration during 1891 numbered 3,033, referring to 2,264,618 acres 2 roods. Of these, 688 were disallowed or withdrawn, and 1,145, representing an area of 756,640 acres and 28 perches, were approved, at an annual rent of £5,877 4s. 7d., leaving 1,201 applications outstanding at the close of the year. (Schedule LVI.)

The annual leases current on the 31st December, 1891, numbered 6,016, comprising a nominal area of 4,018,745 acres 3 roods, and returning an annual rent of £28,212 19s. 4d. (*Vide* Schedule LIII.)

Sixteen annual leases, containing an area of 9,250 acres, were cancelled during the year, and in the same period 366,453 acres 2 roods, comprised in 580 annual leases, were gazetted as forfeited, resulting in the loss of £2,274 8s. 2d. per annum to the revenue. (Schedule LIV, LV.)

Artesian Wells Leases.

Holders of annual lease or occupation licenses desirous of searching for and conserving water on lands held under lease or license by them in the Western Division, are permitted, under the provisions of the Crown Lands Act of 1889, to make applications for leases of land surrounding the situation of proposed operations. The issue of the lease is, however, dependent on the discovery of water in sufficient quantity, but to ensure to the applicant protection for the interim expenditure the temporary reservation of the land, not exceeding a specified area, is provided for.

Six applications, representing an area of 61,440 acres, were tendered during 1891 for permission to bore and search for water, and in connection therewith 61,440 acres were temporarily exempted from sale and lease. No leases were issued, the applications being undisposed of at the close of the year. (Schedule XCIV.)

Homestead Leases.

On reference to the subjoined table, which affords a comparison between the business transacted under this head since 1885, it will be seen that the transactions of 1891 show a decline since 1890; applications to the number of 191, comprising an

an area of 1,515,629 acres, with deposits aggregating £6,278 2s. 1d., having been lodged, as against 310 for 2,620,959 acres, and deposits to the extent of £10,920 13s. 3d. in 1890.

Year.	No. of Applications.	Area applied for.	Deposits.
		Acres.	£ s. d.
1885	391	3,823,235	15,880 2 11
1886	121	1,141,963	4,758 3 7
1887	128	1,198,286	4,992 17 2
1888	141	1,332,691	5,511 15 7
1889	238	2,187,837	9,113 19 9
1890	310	2,620,959	10,920 13 3
1891	191	1,515,629	6,278 2 1

Taking into account the applications undisposed of on the 31st December, 1890, 176 were finally dealt with, of which 41 were refused or withdrawn, and 127, representing an area of 1,085,213 acres approved at an annual rent of £4,521 8s. 6d. Of those lodged during 1891, 7 were approved and 19 declined, 260 remaining undisposed of on the 31st December, 1891. (Schedules LXXXVII, LXXXVIII, LXXXIX.)

The number of homestead leases current on the 31st December, 1891 was 983, with an area of 8,665,035 acres, producing an annual rent of £54,226 1s. 6d. (Schedule XC.)

The transfer of 119 homestead leases was given effect to, leaving 58 outstanding at the close of the year. Applications to the number of 65 were received for refunds of value of improvements situated within homestead leases, and taking into consideration those outstanding on the 31st December, 1890, 99 were dealt with, leaving 4 undisposed of at the close of 1891. (Schedule XCI and XCII.)

As set forth in the Annual Report 1890 advantage was taken, in the case of 413 homestead leases, of the provisions of the Crown Lands Act of 1889, the lessees thus securing (apart from an extension of term) a reappraisement and a periodical revision of rent. Of these 180 were appraised and the new rental gazetted during 1891. (Schedule LXXVIIh.)

With a view to its being understood how far the new rentals have resulted in favour of or against the lessees, a schedule has been prepared showing the details of each of the 180 cases referred to, from which it may be gathered that 114 in cases the lessees have benefited by a reduction of rent; in 64 cases the benefit has been to the Crown by an increase of rent; and in 2 cases rent remains as if the Act of 1889 had not been passed.

With regard to the Crown Rents Act only 5 applications were made in connection with homestead leases, and of these 4 were informal, so that only 1 lease came under that Act. In that instance, however, the rate of rent as determined by the Land Court was below that previously charged by the Minister.

Inferior Lands Leases.

The character of the lands dealt with under this head is such as to render their profitable occupation under the ordinary tenures and at the minimum rents prescribed for those tenures impracticable.

The desirableness of utilising and rendering such lands rent producing is recognised, and leases of lengthened tenure and liberal conditions are provided for by the Crown Lands Act of 1889.

Fifteen applications for leases of inferior lands were under consideration during the year, of which 7 were refused, and 1 lease comprising an area of 4,000 acres was approved to be offered by tender, leaving 7 undisposed of at the close of the year. (Schedule CVIII.)

Pastoral

Pastoral Leases and Occupation Licenses.

The number of pastoral leases existing on the 31st December, 1891, was 1,049 representing an area of 58,416,794 acres, and an annual revenue of £369,727 1s. 7d. The following schedule, which furnishes a comparison between 1890 and 1891, and exhibits the figures for each of the three Divisions, shows 1891 at a slight disadvantage with regard to the number of leases, and, on the other hand, at a slight advantage so far as regards area and rent. This latter fact is explained for the most part by the circumstance that the areas of leaseholds are constantly fluctuating by the reversion to them of forfeited lands, &c., which, of course, carry their proportion of rent.

1890.				1891.			
Division.	No.	Area.	Rent.	Division.	No.	Area.	Rent.
		Acres.	£ s. d.			Acres.	£ s. d.
Eastern	11	240,187	1,045 16 3	Eastern	12	240,957	1,049 2 11
Central	736	18,854,452	185,288 11 0	Central	721	18,641,876	196,212 12 6
Western	316	38,579,526	168,096 19 0	Western	316	39,533,931	172,465 6 2
Total	1,033	57,674,165	354 431 6 3	Total	1,049	58,416,794	369,727 1 7

The difference between the occupation licenses current on the 31st December, 1890, and 31st December, 1891, respectively, would appear from the following schedule to be somewhat great, but the comparison does not apply strictly as between 1890 and 1891. The explanation of this lies in the fact that, until recently, licenses on which the rent was in arrear were treated as nominally current until forfeiture was notified in the *Gazette*, and during 1891 a large number of licenses were so notified, although they had, as a matter of fact, lapsed for non-payment of rent not only for the year 1890, but for previous years. Strictly speaking, therefore, the licenses gazetted as forfeited in 1891 should, for the purposes of comparison, be distributed among the years for which the rent had not been paid.

It is unnecessary to explain that, apart from this, the area of land under license must be regarded as a constantly decreasing quantity, seeing that it is liable to absorption throughout each year by conditional purchase, conditional and homestead lease, &c.

On 31st December, 1890.				On 31st December, 1891.			
Division.	No.	Area.	Rent.	Division.	No.	Area.	Rent.
		Acres.	£ s. d.			Acres.	£ s. d.
Eastern (preferential licenses).	420	6,791,326	21,222 18 0	Eastern (preferential licenses).	424	6,469,847	43,259 2 0
Eastern (ordinary licenses).	506	6,692,831	32,317 16 5	Eastern (ordinary licenses).	333	4,070,090	16,877 10 0
Central	712	13,907,987	79,834 19 1	Central	627	10,094,174	54,635 13 0
Western	265	32,909,510	83,732 10 2	Western	242	29,004,638	63,675 10 0
Total	1,903	60,301,654	217,608 3 8	Total	1,626	49,638,749	178,447 15 0

During the year refunds to the amount of £32,519 19s. 9d. were made to pastoral lessees and occupation licensees on account of the withdrawal of 4,280,590 acres from their holdings. A reference to Schedule LXIII shows that of this area 189,576 acres were withdrawn from 168 leasehold areas, and 4,091,014 acres from 804 resumed areas, the refunds in connection with the former being £5,108 9s. 4d., and in connection with the latter £27,411 10s. 5d.

Two applications were lodged for the subdivision of leasehold areas, one of which was approved and the other refused. During the year 121 pastoral leases and 187 occupation licenses (of which 48 preferential occupation licenses), were transferred. (Schedules LXIX, LXXII.)

Two applications were tendered under section 33 for the preferential occupation license of expired Eastern Division leaseholds, one of which was granted, representing an area of 5,893 acres, and an estimated rent of £49 2s. 2d., and the other withdrawn. (Schedules LXX, LXXI.)

Reversal

Reversal of forfeiture ensued in respect to 1 pastoral lease and 8 occupation licenses during 1891, and similar action in reference to 1 occupation license was cancelled. Two preferential occupation licenses and 13 occupation licenses were surrendered, and the forfeiture of 14 pastoral leases, 1 preferential occupation license, and 282 occupation licenses was declared during the year. In the same period 6 pastoral leases, 6 preferential occupation licenses, and 29 occupation licenses were sold by auction. (Schedules LXXIII, LXXIV, LXXV, LXXVI, LXXVII.)

During the year 193 preferential occupation licenses in the Eastern Division, containing 1,993,400 acres, were notified in the *Government Gazette*, at an appraised rental of £14,337 0s. 5d. (Schedule LXXIX.)

In the opening chapter of this Report so full a reference has been made to the operation of the Crown Rents Act and the Act of 1889 in connection with the subject of redetermination of rent that little remains to be said here.

With regard to the Crown Rents Act, 388 pastoral leases and 319 occupation licenses were brought under its provisions; and of these all, but 7 leases and 3 licenses, have been dealt with by the Land Court. The 381 leases and 316 licenses, the rents of which have been determined by the Court, are shown in Schedule LXXVII a, from which it will be seen that in 99 lease and 82 license cases the Land Court's rate agrees with that of the Minister; in 57 lease and 47 license cases the Minister's rate has been exceeded, and in 225 lease and 187 license cases the Minister's rate has been reduced.

With regard to the Crown Lands Act of 1889, 1,002 pastoral leases and 487 occupation licenses were brought under its provisions; but of these only such are shown as have been disposed of by the notification in the *Gazette* of the New Rents.

From Schedules LXXVII e, f, and g, it will be seen that of the 841 cases therein enumerated the rents of 361 pastoral leases and 166 licenses have been determined at a lower rate than would have been payable under the Act of 1884; in 162 lease and 69 license cases the reverse is the case; while in 30 lease and 50 license cases neither the parties nor the Crown secured any advantage.

Residential Leases.

The provisions of the Mining Act admit of the occupation of Crown lands within gold-fields by virtue of a miner's right, &c., and under the Crown Lands Act of 1884 the area occupied may be purchased by virtue of improvements. The Crown Lands Act of 1889 has extended further by conceding to the holders of a miner's right or a mineral license, a new form of tenure in the shape of a residential lease, which, subject to the approval of the Governor, and on the recommendation of the warden, may be granted of an area of not exceeding 10 acres, for any period not exceeding fifteen years, for the purpose of bona-fide residence, and upon such conditions as are deemed desirable in the public interest.

The provisions of the 48th clause of the Crown Lands Act of 1889 were taken advantage of during the year, resulting in 93 applications being received for residential leases. Inclusive of 139 outstanding on the 31st December, 1890, there were 232 applications under consideration referring to an area of 2,082 acres and 24 perches, of which 117 were disallowed or withdrawn, and 32, containing 308 acres and 34 perches, and returning an annual revenue of £70 12s., granted, leaving 83 that had not matured at the close of the year. (Schedule CIII.)

On the 31st December, 1891, there were 33 residential leases current, comprising 307 acres 1 rood 4 perches, and an annual rent of £69 7s. 4d. (Schedule CIV.)

During the year 4 residential leases, containing 40 acres, and involving the payment of rent amounting to £10 15s., were declared forfeited. (Schedule CV.)

Scrub Leases.

The occupation of a large area of land in the several divisions of the Colony is hampered by the existence of scrub, and the cost of clearing and eradicating such under a tenure of an ordinary character would not be profitable to the lessee. To secure these lands for settlement, provision has been made for the issue of improving leases for a lengthened period at an appraised rent. An

An area of 60,480 acres, comprised in 10 applications, was applied for during 1891 under the 35th section of the Crown Lands Act of 1889 as scrub leases, added to which there were 47 for an area of 389,941 acres outstanding on the 31st December, 1890, making a total of 57 applications for 450,421 acres for consideration. Of these 39 were disallowed or withdrawn, and 4, containing an area of 14,400 acres at an annual rent of £67 5s., granted, leaving 14 undisposed of at the close of the year. There were 13 scrub leases, comprising an area of 86,397 acres, and returning an annual revenue of £81 16s. 7d., current on the 31st December, 1891. (Schedules XCV, XCVI, XCVII.)

Snow Lands Leases.

The leases under this head are restricted to a small portion of the Cooma and Wagga Wagga Land Board Districts, and comprise lands that can only be utilised during the summer season. Having regard to the climatic conditions their occupation cannot be profitably carried on under any other tenure than that provided under the Crown Lands Act of 1889.

During the year 42 lots, comprising an area of 153,010 acres, were submitted to auction as snow land leases; of these 19, containing 64,550 acres, were sold, producing an annual rent of £893 6s. 4d. Ten applications were received during 1891 for the submission of snow land leases to auction, of which 3 were dealt with, leaving 7 outstanding at the close of the year. (Schedules CVI, CVII.)

Special Leases.

There were 354 applications for special leases under the provisions of the Principal Act received during the year, as against 196 lodged in 1890. The applications under consideration during 1891 numbered 456, of which 102 were outstanding at the beginning of the year. An area of 3,390 acres and 29 perches, represented by 136 applications, and returning an annual revenue of £2,236 13s. 6d., was granted, while 94 applications, referring to an area of 7,509 acres 1 rood 27½ perches, were either refused or permitted to be withdrawn, leaving 226 (comprising 10,379 acres 2 roods and 36¾ perches) outstanding at the close of the year. (Schedule CII.)

The special leases current on the 31st December, 1891, were 516, representing an area of 11,287 acres 1 rood 2 perches, and returning an annual revenue of £10,863 8s. 6d. The purposes for which the leases were granted are set out in Schedule C.

The number of special leases forfeited during the year was 21, comprising 782 acres 2 roods 1¼ perches, at an annual rent of £441 10s.; and 47 representing an annual rent of £975, and containing an area of 141 acres 1 rood 10¼ perches, expired during the same period. (Schedules XCVIII, XCIX.)

Rabbit Branch.

The Rabbit Act of 1890 was assented to on the 20th of December of that year, and the work of administration, so far as was permissible, may be said to have taken effect from the commencement of the year 1891.

The first action necessary was the preparation of the Regulations, and these having been assented to by His Excellency the Governor and the Executive Council were published in the *Government Gazette* of the 10th of February, 1891, and in other ways brought under the notice of persons interested.

The 31st section of the Act makes provision for the protection of what are known to be natural enemies of the rabbit, and the imposition of penalties for killing, &c., any such animals. In view of this provision a proclamation was issued on the 13th of March last, prohibiting the wounding, killing or capturing, selling or disposing of the iguana, the native cat, the tiger cat, the ferret, the mongoose, and the stoat, within certain land districts specified; and although up to the present time little, if anything, has been done towards the introduction of well-known natural enemies, it is thought that the action of the Department has tended to the preservation of the iguana, an animal alleged to be very active in destroying rabbits in the summer months, but the utility of which is limited owing to the fact of its hybernating during at least one-half of the year.

One of the principal objects of the Act is to facilitate and encourage the erection of rabbit-proof fencing, and to impose certain liabilities on the owners of lands in connection with such fences. Steps were taken to obtain from the Chairmen of Land Boards, district surveyors, inspectors of conditional purchases, rabbit inspectors, and others, accurate information regarding the prevalence of the pest in various parts of the colony, with the result that on the 20th of March last that part of the Western and Central Divisions of the colony, including the Land Districts of Balranald, Cobar, Hay North, Hillston North, Wentworth, Wilcannia, Willyama, and portions of the Land Districts of Balranald South, Bourke, Cobar East, Condobolin, Deniliquin, Dubbo, Hay, Hillston, Narrandera, Parkes, Urana, and Wagga Wagga, were declared to be "rabbit-infested," and the fencing provisions of the Act became applicable to these districts; action was also taken with a view to extending the infested area still further to the eastward, and into more lightly infested country. However, the final action in this direction had not been completed when the year 1891 came to a close. From information which has come to hand from the reports of the Rabbit Inspectors, it is known that no less than 6,032½ miles of rabbit-proof fencing have been erected (including 632½ miles erected at the sole expense of the Government), and this total is being added to every day; so that a large number of what may be termed barrier fences traverse the infested districts, which tend to confine or localize the pest in such a manner that the work of destruction should be rendered more easy of accomplishment should the compulsory clauses of the Act be resorted to, and the destruction of rabbits made continuous.

Under subsection 2 of section 20 of the Act the Minister is relieved of the liability to contribute to the cost of erecting a rabbit-proof fence along boundaries which are common to "public" and "private" lands, unless particulars of the proposed fence shall have been given to him, and he shall have approved of the erection of the same. The mode of procedure is prescribed in No. 10 of the regulations, and it may be mentioned that during the year under review the approval of the Minister was sought in 64 cases, while 3 applications were lodged with a view to having public lands included within a group, and surrounded by what is known as a ring fence. In the majority of instances the wire-netting used in the erection of fences has been No. 17 gauge, 1⅝ inch mesh, and 36 inches in width, but examples are not wanting where the mesh adopted has been not only 1½ inch, but as small as 1¼ inch. The use of this superior class of netting (which of course has had the effect of materially increasing the total cost) has probably arisen from the many complaints made that netting with a mesh of 1⅝ inch was ineffectual as a rabbit barrier. On this point the Report of the Royal Commission affords some valuable information, which it may not be out of place to reproduce. In page 32 of the Progress Report the following remarks are made :—"The Commission, realising that the cost of netting fencing was a great difficulty, made careful inquiry concerning the minimum height and the maximum mesh that would prove effective. Abundant evidence will be found in the proceedings in favour of the decision of the Commission that netting fencing 3 feet high, with 1⅝ inch mesh, is for all practical purposes an effective barrier. Such was the almost unvarying testimony of those witnesses who had practical experience with netting of this width and mesh. Rabbits die of starvation when their warrens are encircled with this netting; gardens protected by it are free from invasion, though the infested country around is dry and bare. Little weight can be attached to the opinions of witnesses who never used such netting, and still less to experiments in which rabbits are chased in small enclosures."

From information supplied to the Department from time to time it would appear that the deductions of the Commission are in the main correct, and that the fault found with wire-netting of a maximum mesh of 1⅝ inch is due in a great measure to the fact that purchasers have in some instances been supplied with wire-netting, the mesh of which is in excess of that stipulated. This is to some extent caused by the netting being put through compressors in order to reduce the bulk, and thereby lessen the cost of freight, and perhaps also to the want of care exercised in the manufacture owing to the excessive output that has occurred during the past few years. Not many months since one of the Inspectors while examining a rabbit-proof fence, found that out of 200 test measurements

of

of the mesh, more than one half of them were in excess of the proper dimensions ($1\frac{5}{8}$), and in some places in excess of 2 inches. This is by no means a solitary case, as many instances are known where the same defect exists in other fences, the wire-netting used for which has been that of different manufactories.

However, it appears that all these precautions in the way of rabbit-proof fencing will be of little use unless followed up by the active and continuous destruction of rabbits. Evidence is not wanting of the fact that the good effects brought about by the hard work of some of the Crown tenants has been to a great extent neutralised by the apathy or neglect of others, and this state of affairs will probably continue until the destruction of the pest is made compulsory.

During the past year work in the way of rabbit destruction by those lessees who have resorted to it has been confined principally to the summer months, when feed was dry and water scarce. The methods chiefly relied upon were tank traps, poisoned water, and branches and twigs from indigenous shrubs, which are known to be attractive to rabbits, being dipped in a poisonous preparation and distributed in localities where the pest is abundant. Particular success has, at the proper time of the year, attended the use of the traps surrounding tanks and water-holes, and as this method of destruction is not only cheap, easy of application, and wholesale in its results, it is probable that its more universal use at the proper periods would be attended with beneficial results. However, many other methods have been adopted and with varying success. Among these may be mentioned phosphorised grain, bi-sulphide of carbon, sulphur, drives, &c., but in all cases the work has been of a desultory character, and so far the evil appears to be as rampant in the Colony as ever.

The field officers in the employ of the Department number but four, and these officers have been occupied in travelling over very large areas of country inspecting rabbit-proof fences, reporting on the various methods adopted for the destruction of the pest, and in other ways placing the Department in possession of information that will no doubt be of value in the near future. In addition to the officers just referred to, there are twenty-two other Rabbit Inspectors, but as ten of these are Inspectors of Conditional Purchases, and the balance Stock Inspectors, their services are of little value at present.

During the past year the fences erected along the South Australian boundary, and from Bourke to Barringun, have been the subject of careful examination, and where repairs were found to be necessary the owners of the adjoining lands have been called upon to effect the same. The wire-netting attached to the railway fence, extending from Narromine to Bourke, has also undergone a careful inspection, with the result that certain repairs of a trifling nature were found to be requisite; and particulars thereof having been furnished to the Railway Commissioners, the fettlers have been instructed to make all repairs necessary, and to keep the fence rabbit proof.

The Rabbit Act makes provision for the use of permits to persons to keep live rabbits under certain conditions, and in 1891 four licenses of this description were issued, of which, however, but two are in force at the present time.

It may here be remarked that notwithstanding the withdrawal of the offer of the reward of £25,000 for making known a scheme that would result in the extermination of the rabbit-pest so far back as the 30th of September, 1889, fresh competitors for the reward, or a portion of it, are continually submitting their schemes for consideration, no less than 88 of such proposals having been received and dealt with during the past year, none of which, however, possessed sufficient novelty to warrant the Department in incurring any expense in putting its efficacy to the test.

"*Animals Infectious Diseases Act.*"

Among the numerous Acts administered by this Department is the "Animals Infectious Diseases Act," under which during the year no less than 20 licenses were issued to introduce, receive, and keep certain noxious and infectious microbes or substances impregnated therewith, the nature of which is fully described in such licenses, while seven licenses permitting qualified persons to inoculate certain animals with

with such noxious and infectious microbes were issued in conformity with the 7th section of the Act. Every possible precaution is observed in the issue of licenses, and I take this opportunity of acknowledging the prompt and very valuable assistance afforded this Department by the Board of Health in considering the applications for these licenses.

SCHEDULE of Licenses under the 6th section of the "Animals Infectious Diseases Act" issued during the year 1891.

Name.	Nature of License.	Period.	
		From	To
T. P. Anderson-Stuart ...	To introduce and keep at the Laboratory, Sydney University, the substance known as "Dr. Koch's lymph" or "Tuberculine."	24 April, 1891	24 April, 1892
Dr. F. Norton Manning..	To introduce, receive, and keep at the office of the Board of Health "Dr. Koch's lymph" or "Tuberculine," and to distribute the same.	23 ,, 1891	23 ,, 1892
Dr. D. Collingwood	To introduce, receive, and keep at Airedale, Smith-street, Summer Hill, and distribute, "Dr. Koch's lymph" or "Tuberculine."	23 ,, 1891	23 ,, 1892
A. Loir	To rear, propagate, and keep at Rodd Island, microbes known as "Pasteur's vaccine de Paris."	8 Jan., 1891	8 July, 1891
H. N. MacLaurin	To introduce, receive, and keep at No. 155, Macquarie-street, and to distribute "Dr. Koch's lymph" or "Tuberculine."	7 May, 1891	7 May, 1892
Dr. W. H. Coutie	To introduce, receive, and keep at Warminster, Petersham, "Tuberculine."	23 ,, 1891	23 ,, 1892
L. Bruck	To introduce, receive, and distribute six small phials of "Dr. Koch's lymph."	27 ,, 1891	27 Nov., 1891
A. Loir	To propagate and keep at Rodd Island the virus of tuberculosis and pleuro-pneumonia.	23 Jan., 1891	23 July, 1891
Do	To introduce, receive, and keep at Rodd Island, "Tuberculine."	8 July, 1891	8 ,, 1892
George Charles Elliott ...	To introduce, receive, and keep in O'Conneli-street, Sydney, and distribute, "Tuberculine."	8 ,, 1891	8 ,, 1892
Dr. G. W. Watt.....	To introduce, receive, and keep at Bank-street, Hay, and to distribute, "Tuberculine."	14 Aug., 1891	14 Aug., 1892
A. Loir	To propagate and keep at Rodd Island, the virus of pleuro-pneumonia.	21 ,, 1891	21 Feb., 1892
Dr. Jas. Mitchell.	To introduce, receive, and keep at Narrandera, and to use and distribute, "Tuberculine."	26 ,, 1891	26 Aug., 1892
J. A. Gunn .....a.....	To introduce and keep at Yalgogrin Station, "Pasteur's vaccine de Paris."	27 ,, 1891	27 Feb., 1892
Cecil Purser.....	To introduce, receive, and keep at Prince Alfred Hospital, Sydney, and to use and distribute, "Tuberculine."	29 ,, 1891	29 Aug., 1892
C. B. Clubbe..... ...	To introduce, receive, and keep at Catfoss, Belmore Road, Randwick, and to use and distribute, "Tuberculine."	29 ,, 1891	29 ,, 1892
Dr. Reginald Bowman ...	To introduce, receive, and keep at Parramatta, and to use and distribute, "Tuberculine."	1 Sept., 1891	1 Sept., 1892
Edw. Stanley	To inoculate rabbits at Rodd Island with the noxious microbes obtained from swine.	30 April, 1891	30 April, 1892
Adrien Loir	Do do do ..	30 ,, 1891	30 ,, 1892
J. M'G. Smith.....	To inoculate rabbits with micro-organisms of typhoid fever, anthrax, and tuberculosis at Denison-street, Woollahra.	2 June, 1891	2 June, 1892
A. Loir .....a.....	To inoculate cattle, sheep, guinea-pigs, domestic fowls, pigeons, kangaroos, dogs, pigs, cats, and goats at Rodd Island with the virus of tuberculosis and pleuro-pneumonia.	23 Jan., 1891	23 July, 1891
Do	To inoculate certain animals on Rodd Island with "Tuberculine."	8 July, 1891	8 ,, 1892
Do	To inoculate certain animals on Rodd Island with the virus of pleuro-pneumonia.	21 Aug., 1891	21 Feb., 1892
J. A. Gunn	To inoculate sheep on Yalgogrin Station with "Pasteur's vaccine de Paris."	27 ,, 1891	27 ,, 1892

Schedule of Licenses to keep Rabbits issued during year 1891:—

Name.	Place.	Period.		Particulars of license.
		From	To	
Ed. Stanley	Rodd Island.....	24/3/91	24/9/91	Number of rabbits kept at one time shall not exceed thirty.
A. Loir	Do	30/4/91	30/4/92	Do. do
J. M. Smith	Denison-street, Woollahra	3/6/91	3/6/92	Twenty rabbits.
G. S. Samuelson..	Mitchell-street, Bourke	22/10/91	22/10/92	Thirty rabbits.

Expenditure

Expenditure for the year 1891.

The votes for the expenses of the Department are as follows:—

Head of Service.	Estimates-in-Chief.	Proposed in the Supplementary Estimates.	Total.
Department of Lands.	£ s. d.	£ s. d.	£ s. d.
Department of Lands	70,459 0 0	2,412 16 0	72,871 16 0
Minor Roads	1,400 0 0	.....	1,400 0 0
Land Agents, Appraisers, and others	47,265 0 0	15,558 6 8	62,823 6 8
Land Court	6,630 0 0	.....	6,630 0 0
Miscellaneous	23,159 0 0	*25,112 3 10	48,271 3 10
Total for Lands... ...	148,913 0 0	43,083 6 6	191,996 6 6
Survey of Lands.			
Survey of Lands	228,361 0 0	8,016 13 4	236,377 13 4
Triangulation Survey of the Colony	6,419 0 0	350 0 0	6,769 0 0
Total for Survey ...	234,780 0 0	8,366 13 4	243,146 13 4
Special Service—Detail Survey of City and Suburbs for the continuation of the Water Supply and Sewerage schemes	11,714 0 0	.....	11,714 0 0
Total	395,407 0 0	*51,449 19 10	446,856 19 10

* Including £18,000 to meet interest on overpaid rents and license fees under Crown Rents Act of 1890.

The expenditure during the year amounts to £435,156 2s. 9d., made up as follows, viz.:—For the services of 1889 and previous years, £630 9s. 11d.; for 1890, £38,396 5s. 3d., and for 1891, £396,129 7s. 7d.

The amount of outstanding claims for the services of 1891 on the 31st December is estimated at £40,000, so that when all expenses have been discharged the expenditure will be approximately £436,129 7s. 7d. Included in these figures is the sum of £12,613 15s. 9d. for postages and stamp duties, as well as £1,133 6s. 7d for advertising accounts met from the votes of the Treasury; also £419 6s. 7d. from Trust Fund under the 143rd clause of the Crown Lands Act of 1884, and from deposits lodged to the credit of Suspense account at the Treasury by various applicants. These items amount to £14,166 8s. 11d., and it will therefore be seen that the expenditure for the services of 1891 payable from the Department appropriations will be about £421,962 18s. 8d.

As before shown the votes passed and proposed for the year amount to £446,856 19s. 10d. This, however, includes a sum of £18,000 for interest on overpaid rents and license fees under the Crown Rents Act of 1890, which is not properly chargeable against the administration of the Department, and being deducted from the total of £446,856 19s. 10d., leaves the Departmental appropriations at £428,856 19s. 10d. The difference between this and the estimated expenditure from the votes of the Department, viz., £421,962 18s. 8d., is £6,894 1s. 2d., representing various balances of votes for salaries, &c., which will not be required.

Compared with the actual total expenditure for 1890, which amounts to £421,242 14s. 9d., the estimated total expenditure for 1891 of £436,129 7s. 7d. shows an increase amounting to £14,886 12s. 10d. This is accounted for by the fact that the cost of surveys paid for by fees in 1891 exceeded that in 1890 by £18,091 16s. 11d., the difference being a decrease under all other heads of expenditure.

The

The following table shows the strength of the staff, and the annual salaries paid on the 31st December, 1890 and 1891, respectively. The table includes all those temporarily employed, as well as salaried messengers and office cleaners.

	Numbers.		Salaries.	
	31 Dec., 1890.	31 Dec., 1891.	31 Dec., 1890.	31 Dec., 1891.
			£	£
Administrative Branch (Head Office)	161	165	34,680	36,704
Survey Branch (Head Office)	155	160	33,649	34,118
Triangulation Branch	9	10	2,655	2,791
Detail Survey Branch	25	27	7,019	7,371
*Local Land Boards	111	121	32,121	34,497
Land Agents, Appraisers, and Assistants	66	70	11,846	12,023
*District Survey Offices	208	213	57,129	57,612
Rabbit Branch	3	6	880	1,480
Land Appeal Court	7	7	5,030	5,030
	745	779	185,009	191,626

* Excluding messengers who render vouchers for their wages which are charged to the general expenses of the various offices.

The number of vouchers passed through the Account Branch during the year is 19,268, representing payments to the number of 28,500.

With regard to the salaries of Crown Land Agents and Assistant Land Agents it will be seen by the foregoing table that those paid wholly or in part from the funds of this Department numbered 70 on the 31st December. The total number of persons acting as Crown Land Agents, &c., on that date was 91, of which 21 were paid by the Department of Justice.

Reserves and Dedications.

Reserves from sale to the number of 1,188, and representing an area of 1,245,240 acres, were notified during the year, while 757 reserves from sale, comprising 1,026,006 acres, were revoked.

A total area of 161,707 acres, comprised in 207 reserves, was excluded from lease and license, and 148 reserves from lease and license, containing 146,546 acres, were cancelled during 1891. (Schedules LVII, LVIII, LIX, LX.)

Schedule LXII shows that during the year an area of 916 acres $29\frac{1}{20}$ perches was dedicated for the purposes enumerated, and that 111 grants were issued.

Deeds of Grant.

An explanation of the number, area, and purpose for which deeds of grant were prepared during the year is set out in Schedule CIX. On reference thereto it will be observed that the area thus dealt with was 223,532 acres $15\frac{1}{2}$ perches relating to 3,967 deeds.

Applications for permission to Ringbark.

Applications to the number of 119 were made for permission to ringbark over 601,076 acres held under lease, the fees paid thereon amounting to £809. Of the applications thus put forward, 49 were granted for an area of $242,158\frac{1}{2}$ acres, and 11 were disallowed. Taking into account applications made during previous years, the total number disposed of during 1891 was 107, of which 16 were refused and 91 granted, in connection with an area of $400,889\frac{1}{2}$ acres. (Schedule CXI.)

Cases of Trespass on Crown Lands.

The number of trespasses on Crown lands and the particulars relating thereto are set out in Schedule CXII, and inclusive of 146 outstanding on the 31st December, 1890, numbered 320. During the year 200 were dealt with, leaving 120 undisposed of on the 31st December, 1891.

Cases

Cases dealt with by Land Boards.

The Local Land Boards had under consideration 41,778 cases, of which 3,020 were adjourned, the days occupied in the determination of the business aggregating 1,935, as against 26,156 cases disposed of during 1890, the inquiry in respect of 1,757 having been adjourned, the several Local Land Boards having sat for periods totalling 1,323 days. (Schedule V.)

Correspondence.

During the year 109,705 letters were received at the Head Office, and 22,791 manuscript letters, 1,866 telegrams, 225 circulars, 102,397 printed letters, 1,235 schedules, and 13,223 parcels were despatched, the particulars in respect thereto being set forth in Schedules CXIII, CXIV.

On reference to Schedule CXV it will be observed that 148,645 letters were received, and 130,270 letters, parcels, &c., despatched from the several Local Land Board Offices during 1891.

Appended hereto is the report of the Chief Surveyor and Director of Trigonometrical Survey.

W. HOUSTON,
Under Secretary for Lands.

SCHEDULES.

SCHEDULE I.

SALARIES paid during 1891.

	Permanent.	Temporary.	Permanent and Temporary.	Totals.
ADMINISTRATIVE BRANCH.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Head Office Staff	26,997 9 6	7,426 19 1	34,424 8 7	
Local Land Boards	18,558 6 4	5,228 14 6	23,787 0 10	
Land Agents' Assistants	11,300 14 1	301 15 7	11,602 9 8	
Inspectors of C.P.'s	5,982 10 0	3,485 13 4	9,468 3 4	
Messengers and others	1,680 6 8	307 2 4	1,987 9 0	
£	64,519 6 7	16,750 4 10	.....	81,269 11 5
SURVEY BRANCH.				
Head Office Staff	20,977 17 10	11,618 0 10	32,595 18 8	
District Survey Officers	29,634 6 2	11,307 12 3	40,941 18 5	
Salaried Surveyors	11,072 4 10	2,382 4 8	13,454 9 6	
Assistant Surveyors	.....	1,477 4 2	1,477 4 2	
Field Assistants	.....	1,002 8 2	1,002 8 2	
Messengers and others	809 10 0	555 16 9	1,365 6 9	
£	62,493 18 10	28,343 6 10	.....	90,837 5 8
TRIANGULATION, &C., BRANCH.				
Field Staff	1,400 0 0	454 1 7	1,854 1 7	
Office Staff	850 0 0	64 10 3	914 10 3	
£	2,250 0 0	518 11 10	.....	2,768 11 10
DETAIL SURVEY BRANCH.				
Field Staff	2,150 0 0	2,095 12 6	4,245 12 6	
Office Staff	1,431 0 0	1,378 6 6	2,809 6 6	
£	3,581 0 0	3,473 19 0	.....	7,054 19 0
RABBIT BRANCH.				
Clerks	580 0 0	.....	580 0 0	
Inspectors	.....	762 10 0	762 10 0	
£	580 0 0	762 10 0	.....	1,342 10 0
LAND APPEAL COURT.				
Commissioners, Registrar, and Clerks	4,910 0 0	.....	4,910 0 0	
Messenger	.....	120 0 0	120 0 0	
£	4,910 0 0	120 0 0	.....	5,030 0 0
TOTALS... £	138,334 5 5	49,968 12 6	.....	188,302 17 11

SCHEDULE II.

RETURN showing number of Persons employed at the several Local Land Board Offices on the 31st December, 1891.

Land Board District.	No. of Officers.			Total.	Salaries.	Land Board District.	No. of Officers.			Total.	Salaries.
	Chairman and Clerical Staff.	C.P. Inspectors.	Messengers		£ s. d.		Chairman and Clerical Staff.	C.P. Inspectors.	Messengers		£ s. d.
Armidale	9	3	2	14	3,190 0 0	Maitland	7	4	...	11	3,075 0 0
Bourke	6	1	1	8	2,112 0 0	Moree	5	2	1	8	2,101 0 0
Cooma	7	4	1	12	3,112 0 0	Orange	9	4	1	14	3,582 0 0
Dubbo	7	2	1	10	2,475 0 0	Sydney	3	1	...	4	1,440 0 0
Forbes	5	3	1	9	2,100 0 0	Tamworth	6	3	1	10	2,575 0 0
Grafton	6	2	1	9	2,475 0 0	Wagga Wagga	8	3	1	12	3,198 0 0
Goulburn	7	3	2	12	3,095 0 0						
Hay	6	2	1	9	2,195 0 0	Totals	91	37	14	142	36,725 0 0

SCHEDULE III.

RETURN showing number of Officers employed in the District Survey Offices, and Aggregate Annual Amount of Salaries of each Staff on the 31st December, 1891.

District.	No. of Office Staff.	Annual Amount.	No. of Field Staff.	Annual Amount.	Total.
		£ s. d.		£ s. d.	£ s. d.
Armidale	12	2,740 0 0	7	2,384 10 0	5,124 10 0
Bourke	7	1,475 0 0	5	1,675 0 0	3,150 0 0
Cooma	11	2,320 0 0	6	1,934 10 0	4,254 10 0
Dubbo	10	2,345 0 0	4	1,300 0 0	3,645 0 0
Forbes	8	1,800 0 0	2	975 0 0	2,775 0 0
Goulburn	11	2,470 0 0	5	1,784 10 0	4,254 10 0
Grafton	10	2,395 0 0	7	2,126 10 0	4,521 10 0
Hay	8	1,710 0 0	5	1,857 10 0	3,567 10 0
Maitland	13	2,930 0 0	7	2,117 0 0	5,047 0 0
Moree	5	1,370 0 0	5	1,594 0 0	2,964 0 0
Orange	13	2,770 0 0	6	1,874 10 0	4,644 10 0
Sydney	10	2,700 0 0	9	2,644 0 0	5,344 0 0
Tamworth	10	2,045 0 0	3	1,300 0 0	3,345 0 0
Wagga Wagga	12	2,680 0 0	6	2,017 0 0	4,697 0 0
Totals	140	£31,750 0 0	77	£25,584 0 0	£57,334 0 0

Schedule IV.

Return showing the number of Inquiries in Open Court made by the Local Land Boards during 1891, regarding the fulfilment of Conditions relating to Conditional Purchases, Conditional Leases, Homestead Leases, and Miscellaneous Leases.

Land Board Districts.	Land Districts.	Conditional Purchases under Repealed Acts.			Conditional Purchases under Existing Acts.			Conditional Leases.			Homestead Leases.			Miscellaneous Leases.		
		On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which Conditions were found to have been fulfilled.	On which Conditions were found not to have been fulfilled.	Remitted for decision of Land Court.
Armidale	Armidale	1			150	14	1	86	7	1						
	Glen Innes				62	10		27	8							
	Inverell				30	2	1	10	1	1						
	Tenterfield				20	7		11	9							
	Walcha		1		68	4	1	50	5	2						
Bourke	Bourke	4									7					
	Brewarrina				1						17					
	Brewarrina East															
	Cobar															
	Cobar East	1				3										
	Wilcannia		1													
	Willyama															
Cooma	Bega				72	17		7	4							
	Bombala				13	9		6	9							
	Braidwood	1			61	20		11	11							
	Cooma	1	1		23	25		6	9							
	Eden				42	13		7	8							
	Milton				25	9		9	4							
	Moruya				36	13		4	1							
	Queanbeyan	1		1	40	18	2	15	4							
Dubbo	Coonamble		1	2	48	21		19	13	2						
	Dubbo		1		104	31	1	1	59	15						
Forbes	Condobolin				30	2		3	1							
	Forbes				49	15		12	6							
	Grenfell				126	22		30	9							
	Parkes				57	21		11	13							
Goulburn	Berrima, now Moss Vale				29	8		1	2							
	Burrowa	8			131	20		47	4							
	Goulburn	14	1		51	26		6	6							
	Gunning				53	8		13	6							
	Nowra				15	1			1							
	Yass				27	13		8	2							
	Young	3			59	5		18	1							
Grafton	Bellingen				11	10			1							
	Casino				24	20			6							
	Grafton				68	39			6	1						
	Kempsey				12	14		1	6							
	Lismore				17	18	1	1	4							
	Murwillumbah				18	15										
	Port Macquarie	1			22	20	1									
Hay	Balranald / Balranald South	1									7	2				
	Deniliquin	1			37			3								
	Hay / Hay North				91	5		60	1		29	1				
	Hillston / Hilston North	1			19	3		13			10	4	1			
	Wentworth										5					

SCHEDULE IV—*continued.*

Land Board Districts.	Land Districts.	Conditional Purchases under Repealed Acts.			Conditional Purchases under Existing Acts.			Conditional Leases.			Homestead Leases.			Miscellaneous Leases.		
		On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.	On which conditions were found to have been fulfilled.	On which conditions were found not to have been fulfilled.	Remitted for decision of Land Court.
Maitland	Cassilis	...	...	...	75	6	1	36	4	...	...	...	...	...	...	...
	Dungog	...	...	...	44	6	...	8	...	...	...	...	...	...	...	...
	Gosford	1	2	...	34	11	...	...	...	...	...	...	...	...	...	...
	Maitland	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
	Muswellbrook	...	...	...	30	5	...	5	...	...	...	...	...	...	...	...
	Newcastle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Paterson	...	...	...	15	1	...	2	...	...	...	...	...	...	...	...
	Raymond Terrace	...	...	...	17	5	...	...	...	...	...	...	...	...	...	...
	Scone	1	...	...	79	9	...	38	1	...	...	...	...	...	...	...
	Singleton	...	...	...	57	7	...	7	4	...	...	...	...	...	...	...
	Stroud	...	...	...	25	11	...	4	4	...	...	...	...	...	...	...
	Taree	...	...	...	69	12	...	4	...	...	...	...	...	...	...	...
	Wollombi	...	...	...	12	13	...	3	1	...	...	...	...	...	...	...
Moree	Bingera	...	...	...	10	1	...	1	2	...	...	...	...	...	...	...
	Moree	...	...	...	102	4	...	6	6	...	...	...	...	...	...	...
	Walgett	...	...	...	7	1	...	1	...	...	...	...	...	...	...	...
	Walgett, North	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Warialda	...	...	...	25	3	...	...	2	...	19	...	...	...	...	...
Orange	Bathurst	...	...	...	31	11	2	...	6	...	...	...	...	...	...	...
	Carcoar	...	...	...	27	5	...	...	1	...	...	...	...	...	...	...
	Cowra	...	...	...	46	9	...	...	...	...	...	...	...	...	...	...
	Lithgow	...	...	...	26	21	3	...	...	...	...	...	...	...	...	...
	Molong	2	...	...	20	10	...	...	2	...	...	...	...	...	...	...
	Mudgee	...	...	...	22	7	2	...	...	...	...	...	...	...	...	...
	Orange	...	...	...	22	6	...	...	2	...	...	...	...	...	...	...
	Rylstone	...	...	...	6	4	...	...	2	...	...	...	...	...	...	...
	Wellington	...	...	...	44	6	1	...	...	...	...	...	...	...	...	...
Sydney	Campbelltown	...	...	...	4	8	...	...	2	...	...	...	...	...	...	...
	Kiama	...	...	...	3	4	...	...	...	...	...	...	...	...	...	...
	Liverpool	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
	Metropolitan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Parramatta	...	...	...	11	14	...	...	...	...	...	...	...	...	...	...
	Penrith	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...
	Picton	...	2	...	14	11	2	...	3	...	...	...	...	...	...	...
	Windsor	...	...	...	27	21	...	...	...	...	...	...	...	...	...	...
	Wollongong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamworth	Coonabarabran	...	...	...	26	22	1	8	10	1	...	...	...	...	...	...
	Gunnedah	...	1	...	46	19	1	23	16	...	...	...	...	...	...	...
	Murrurundi	1	1	...	56	20	1	19	7	...	...	...	...	...	...	...
	Narrabri	...	...	...	39	19	3	25	7	1	...	...	...	...	...	...
	Tamworth	...	...	...	108	39	2	56	30	1	...	...	...	...	...	...
Wagga Wagga	Albury	...	1	...	57	19	...	...	5	...	...	...	...	...	...	...
	Cootamundra	...	...	...	43	17	...	1	4	...	...	...	...	...	...	...
	Corowa	...	...	...	49	11	...	...	1	...	...	...	...	...	...	...
	Gundagai	...	...	...	19	11	...	...	1	...	...	...	...	...	...	...
	Narrandera	...	...	...	33	15	...	...	...	...	...	...	...	...	...	...
	Tumut	...	...	...	29	17	1	...	3	...	...	...	...	...	...	...
	Urana	...	1	...	11	4	...	...	1	...	...	...	...	...	...	...
	Wagga Wagga	1	...	...	96	13	...	1	10	...	...	...	...	...	...	...
		44	14	3	3,272	960	28	744	364	25	94	7	1	...	...	...

SCHEDULE V.

RETURN of Meetings of Local Land Boards showing the number of Cases heard and adjourned.

Land Board District.	No. of Days occupied.	No. of Cases dealt with.	No. of Cases adjourned.	Land Board District.	No. of Days occupied.	No. of Cases dealt with.	No. of Cases adjourned.
Armidale	205	3,983	434	Maitland	108	2,358	21
Bourke	252	1,694	394	Moree	119	1,965	409
Cooma	113	3,451	77	Orange	130	3,784	192
Dubbo	128	2,397	24	Sydney	54	743	10
Forbes	120½	2,682	6	Tamworth	168	3,519	277
Goulburn	108	3,280	432	Wagga Wagga	198½	3,728	336
Grafton	134	3,051	179				
Hay	147	2,123	229	Total	1,985	38,758	3,020

SCHEDULE VI.

STATEMENT of Travelling Expenses and Fees paid in connection with Local Land Board Meetings during the year 1891.

District.	Particulars.	Amount.	Total.
		£ s. d.	£ s. d.
Bourke	Chairman's and clerk's travelling expenses	583 8 0	
	Members' travelling expenses	284 9 3	
	Members' fees	753 7 6	
	Fees and travelling expenses of surveyors, witnesses, and others	245 15 10	
			1,867 0 7
Cooma	Chairman's and clerk's travelling expenses	374 11 11	
	Members' travelling expenses	177 13 9	
	Members' fees	422 2 0	
	Fees and travelling expenses of surveyors, witnesses, and others	129 7 11	
			1,103 15 7
Dubbo	Chairman's and clerk's travelling expenses	367 16 2	
	Members' travelling expenses	169 7 9	
	Members' fees	689 6 6	
	Fees and travelling expenses of surveyors, witnesses, and others	442 5 0	
			1,668 15 5
Forbes	Chairman's and clerk's travelling expenses	382 13 11	
	Members' travelling expenses	41 3 0	
	Members' fees	508 14 6	
	Fees and travelling expenses of surveyors, witnesses, and others	74 16 0	
			1,007 7 5
Armidale	Chairman's and clerk's travelling expenses	493 0 0	
	Members' travelling expenses	37 6 9	
	Members' fees	569 12 6	
	Fees and travelling expenses of surveyors, witnesses, and others	128 1 3	
			1,228 0 6
Goulburn	Chairman's and clerk's travelling expenses	454 14 4	
	Members' travelling expenses	104 9 9	
	Members' fees	347 0 6	
	Fees and travelling expenses of surveyors, witnesses, and others	48 7 3	
			954 11 10
Grafton	Chairman's and clerk's travelling expenses	414 3 9	
	Members' travelling expenses	140 10 0	
	Members' fees	338 2 0	
	Fees and travelling expenses of surveyors, witnesses, and others	372 8 0	
			1,265 3 9
Hay	Chairman's and clerk's travelling expenses	711 6 8	
	Members' travelling expenses	19 5 0	
	Members' fees	264 1 6	
	Fees and travelling expenses of surveyors, witnesses, and others	284 12 0	
			1,279 5 2
Maitland	Chairman's and clerk's travelling expenses	493 4 5	
	Members' travelling expenses	138 19 6	
	Members' fees	271 19 0	
	Fees and travelling expenses of surveyors, witnesses, and others	12 9 8	
			916 12 7
Moree	Chairman's and clerk's travelling expenses	384 10 9	
	Members' travelling expenses	137 19 0	
	Members' fees	410 11 0	
	Fees and travelling expenses of surveyors, witnesses, and others	219 16 4	
			1,152 17 1
Orange	Chairman's and clerk's travelling expenses	502 16 0	
	Members' travelling expenses	195 15 2	
	Members' fees	402 3 0	
	Fees and travelling expenses of surveyors, witnesses, and others	36 6 10	
			1,137 1 0
Sydney	Chairman's and clerk's travelling expenses	107 11 0	
	Members' travelling expenses	95 13 8	
	Members' fees	274 11 6	
	Fees and travelling expenses of surveyors, witnesses, and others	67 18 0	
			545 14 2
Tamworth	Chairman's and clerk's travelling expenses	477 2 3	
	Members' travelling expenses	185 18 3	
	Members' fees	712 8 6	
	Fees and travelling expenses of surveyors, witnesses, and others	230 17 2	
			1,606 6 2
Wagga Wagga	Chairman's and clerk's travelling expenses	388 13 8	
	Members' travelling expenses	187 5 7	
	Members' fees	502 19 0	
	Fees and travelling expenses of surveyors, witnesses, and others	71 6 5	
			1,150 4 8
	Grand total		£16,882 15 11

SCHEDULE VII.

RETURN showing the Number and Area of Conditional Purchases applied for during 1891, with the amount of Deposits and Survey Fees received.

Local Land Board District	Land District	Class of Land	Section 26				Section 42				Section 47				Total in each Class			
			No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee.
				a r p	£ s d	£ s d		a r p	£ s d	£ s d		a r p	£ s d	£ s d		a r p	£ s d	£ s d
Armidale	Armidale	Ordinary lands	110	21,382 1 30	2,138 4 11	704 0 0	148	18,590 2 30	1,859 1 5	791 5 0	1	320 0 0	64 0 0	8 0 0	259	40 293 0 20	4,061 6 4	1,503 5 0
		Special areas	6	973 0 0	183 1 0	36 7 6	5	914 1 0	153 4 9	31 7 6	1	58 1 0	17 9 6	4 10 0	12	1,945 2 0	353 15 3	72 5 0
	Glen Innes	Ordinary lands	20	3,349 2 0	334 19 0	118 10 0	18	3,526 2 0	352 13 0	108 15 8					38	6,876 0 0	687 12 0	227 5 8
		Special areas	4	654 2 0	109 18 0	24 5 0	5	754 0 0	159 15 0	29 10 0					9	1,408 2 0	269 13 0	53 15 0
	Inverell	Ordinary lands	43	6,938 0 0	693 16 0	254 5 0	79	9,871 0 24	987 2 3	396 5 0	1	50 0 0	10 0 0	4 5 0	123	16,859 0 24	1,690 18 3	654 15 0
		Special areas					1	76 0 0	15 4 0	5 0 0					1	76 0 0	15 4 0	5 0 0
	Tenterfield	Ordinary lands	21	3,678 0 0	367 16 0	128 12 6	20	2 246 2 0	224 13 0	104 0 0	1	100 0 0	20 0 0	5 5 0	42	6,024 2 0	612 9 0	237 17 6
		Special areas	5	150 0 0	37 10 0	17 7 6									5	150 0 0	37 10 0	17 7 6
	Walcha	Ordinary lands	64	10,951 2 0	1 095 3 0	387 17 6	57	6,797 2 0	679 15 3	279 12 4	6	809 0 0	155 5 0	33 17 6	127	18,558 0 0	1,930 3 3	701 7 4
		Special areas	4	855 0 0	171 0 0	26 15 0	7	1,232 1 0	246 9 0	43 10 0					11	2,087 1 0	417 9 0	70 5 0
Bourke ..	Bourke	Ordinary lands					3	3,420 0 0	342 0 0	38 15 0					3	3,420 0 0	342 0 0	38 15 0
		Special areas	2	868 1 0	134 11 6	17 10 0									2	868 1 0	134 11 6	17 10 0
	Brewarrina	Ordinary lands																
		Special areas																
	,, East	Ordinary lands	11	6,880 0 0	688 0 0	109 0 0									11	6,880 0 0	688 0 0	109 0 0
		Special areas																
	Cobar	Ordinary lands																
		Special areas	1	200 2 0	30 1 6	6 12 6									1	200 2 0	30 1 6	6 12 6
	,, East	Ordinary lands	31	18,150 0 0	1,815 0 0	297 5 0	1	320 0 0	32 0 0	8 0 0					32	18,470 0 0	1,847 0 0	305 5 0
		Special areas																
	Wilcannia	Ordinary lands																
		Special areas																
	Willyama	Ordinary lands																
		Special areas																
Cooma ...	Bega	Ordinary lands	12	1,620 0 0	162 0 0	65 15 0	8	504 0 0	50 8 0	31 2 6	1	164 0 0	32 16 0	6 2 6	21	2,288 0 0	245 4 0	103 0 0
		Special areas	20	1,532 0 17	766 2 2	92 4 6	2	143 0 10	71 10 8	9 15 0					22	1,675 0 27	837 12 10	101 19 6
	Bombala	Ordinary lands	22	2,984 0 0	298 8 0	122 2 6	26	1,841 2 0	184 3 0	120 10 0					48	4,825 2 0	482 11 0	242 12 6
		Special areas																
	Braidwood	Ordinary lands	10	1,170 0 0	117 0 0	51 10 0	22	2,447 0 0	244 14 0	112 12 6	1	50 0 0	10 0 0	4 5 0	33	3,667 0 0	371 14 0	168 7 6
		Special areas																
	Cooma	Ordinary lands	58	4,978 0 0	497 16 0	281 2 6	115	11,206 0 0	1,120 12 0	554 7 6					173	16,184 0 0	1,618 8 0	835 10 0
		Special areas	9	1,168 0 0	188 0 0	50 2 6	8	1 010 2 0	161 15 6	44 5 0					17	2,178 2 0	349 15 6	94 7 6
	Eden	Ordinary lands	13	1,059 2 0	105 19 0	62 17 6	24	2,067 1 0	206 14 6	117 17 6	3	158 3 0	31 15 0	13 0 0	40	3,285 2 0	344 8 6	193 15 0
		Special areas																
	Milton	Ordinary lands	7	473 0 0	47 6 0	31 2 6	4	347 1 0	34 14 6	19 12 6					11	820 1 0	82 0 6	50 15 0
		Special areas	1	70 0 0	10 10 0	4 15 0									1	70 0 0	10 10 0	4 15 0
	Moruya	Ordinary lands	22	1,935 0 0	193 10 0	107 5 0	20	1,470 1 0	147 0 6	84 17 6	6	360 0 0	72 0 0	26 10 0	48	3,765 1 0	412 10 6	218 12 6
		Special areas																
	Queanbeyan	Ordinary lands	25	3,148 2 0	314 17 0	133 17 6	70	8,079 1 37	807 19 0	354 12 0					95	11,227 3 37	1,122 16 0	488 9 6
		Special areas	5	241 1 0	78 10 0	20 14 6									5	241 1 0	78 10 0	20 14 6
Dubbo ..	Dubbo	Ordinary lands	91	34,331 0 0	3,433 2 0	736 5 0	71	21,057 1 0	2,105 14 6	448 12 9	2	260 0 0	52 0 0	11 5 0	164	55,648 1 0	5 590 16 6	1,196 2 9
		Special areas	14	7,737 3 0	1 210 5 3	133 5 0	8	2 367 1 0	412 15 9	56 0 0	1	175 0 0	70 0 0	6 5 0	23	10,280 0 0	1,693 1 0	195 10 0
	Coonamble	Ordinary lands	74	32,977 0 0	3,297 14 0	628 15 0	50	13 516 0 0	1,351 12 0	345 19 0					129	46,493 0 0	4,649 6 0	974 14 0
		Special areas					5	2 814 3 0	401 12 0	44 0 0	1	294 0 0	117 12 0	7 15 0	6	3 108 3 0	519 4 0	51 15 0
Forbes .	Condobolin	Ordinary lands	107	50,749 1, 0	5,074 18 6	938 0 0	23	6,994 0 0	699 8 0	152 11 0	2	560 0 0	112 0 0	15 0 0	132	58,303 1 0	5,886 6 6	1,105 11 0
		Special areas	2	371 3 0	56 5 3	12 15 0	1	97 2 0	14 12 6	5 5 0					3	469 1 0	70 17 9	18 0 0
	Forbes	Ordinary lands	1	159 3 0	15 19 6	6 0 0	10	3,447 0 0	344 14 0	67 12 6					11	3 606 3 0	360 13 6	73 12 6
		Special areas	66	5,586 1 39	1,055 8 7	193 11 6	8	1,737 1 28	328 10 4	38 5 10					74	7,323 3 27	1,383 18 11	231 17 4
	Grenfell	Ordinary lands	18	3,836 0 0	383 12 0	115 15 0	39	7,177 1 35	717 15 0	212 17 6					57	11,013 1 35	1,101 7 0	328 12 6
		Special areas	23	5,185 0 0	937 2 3	152 12 6	13	2,846 2 0	531 9 3	87 0 0	1	45 0 0	13 10 0	4 2 6	37	8,076 2 0	1 482 1 6	243 15 0
	Parkes	Ordinary lands	31	12 953 0 0	1 295 6 0	259 2 6	13	11,778 0 0	1,177 16 0	133 5 0					44	24,731 0 0	2,473 2 0	392 7 6
		Special areas	38	17,383 3 0	2,608 6 3	328 7 6	5	798 1 0	119 14 9	30 10 0	1	320 0 0	96 0 0	8 0 0	44	18 507 0 0	2 824 1 0	366 17 6
Goulburn	Burrowa	Ordinary lands	25	3,911 2 0	391 3 0	146 7 6	82	8,867 0 0	886 14 0	423 12 6					107	12,778 2 0	1,277 17 0	570 0 0
		Special areas	12	2 700 0 0	619 6 3	82 7 6	8	2,184 3 0	482 15 9	59 2 6					20	4,884 2 0	1,102 2 0	141 10 0
	Goulburn	Ordinary lands	37	2 676 1 0	267 12 6	174 0 0	90	7,249 3 0	724 19 6	422 15 0	1	40 0 0	8 0 0	4 0 0	128	9,966 0 0	1 000 12 0	600 15 0
		Special areas	4	399 1 0	79 17 0	20 15 0					1	40 0 0	16 0 0	4 0 0	5	439 1 0	95 17 0	24 15 0
	Gunning	Ordinary lands	16	1,787 0 0	178 14 0	86 7 6	42	3,403 1 0	340 6 6	188 2 6					58	5,190 1 0	519 0 6	274 10 0
		Special areas																
	Berrima now Moss Vale	Ordinary lands	19	2,737 0 0	273 14 0	106 7 6	8	754 0 0	75 8 0	39 10 0	6	503 0 0	100 12 0	29 10 0	33	3,994 0 0	449 14 0	175 7 6
		Special areas																
	Nowra	Ordinary lands	17	1,569 0 0	156 18 0	83 12 6	6	387 1 0	38 14 6	27 7 6	2	320 0 0	64 0 0	12 0 0	25	2,276 1 0	259 12 6	123 0 0
		Special areas																
	Yass	Ordinary lands	17	2,460 0 0	246 0 0	90 5 0	44	4,126 3 0	412 13 6	224 8 9	1	60 0 0	12 0 0	4 10 0	62	6,646 3 0	670 13 6	324 3 9
		Special areas	2	376 2 0	56 9 6	12 15 0					1	61 3 0	13 10 6	4 2 6	3	438 1 0	75 0 0	16 17 6
	Young	Ordinary lands	31	3 387 2 0	338 15 0	94 17 6	18	6,805 1 0	680 10 6	215 0 0	1	40 0 0	8 0 0	4 0 0	50	10 232 3 0	1,027 5 6	313 17 6
		Special areas	57	3,828 3 29	1,207 8 3	214 6 10	8	1,075 3 0	231 17 0	45 0 0					65	4,904 2 29	1,439 5 3	259 6 10

SCHEDULE VII—*continued.*

Local Land Board District	Land District	Class of Land	Section 26				Section 42				Section 47				Total in each class			
			No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee	No	Area	Deposit	Survey Fee
				a r p	£ s d	£ s d		a r p	£ s d	£ s d		a r p	£ s d	£ s d		a r p	£ s d	£ s d.
Grafton	Bellingen	Ordinary lands	27	3,726 0 0	372 12 0	146 12 6	12	834 0 0	83 8 0	55 2 6	4	173 0 0	34 12 0	16 7 6	43	4,733 0 0	490 12 0	218 2 6
		Special areas	8	780 3 0	117 2 3	41 7 6	2	141 0 0	21 3 0	9 12 6					10	921 3 0	138 5 3	51 0 0
	Casino	Ordinary lands	24	5,967 1 0	596 14 6	165 12 6	37	5,387 0 0	538 14 0	190 11 3	2	446 0 0	89 4 0	13 12 6	63	11,800 1 0	1 224 12 6	369 16 3
		Special areas	1	155 0 0	31 0 0	6 0 0	3	400 0 0	151 12 0	17 5 0					4	555 0 0	182 12 0	23 5 0
	Grafton	Ordinary lands	19	2 380 0 0	238 0 0	100 2 6	24	2,265 3 0	226 11 6	118 10 0	5	401 0 0	80 4 0	23 15 0	48	5,046 3 0	544 15 6	242 7 6
		Special areas	3	52 3 8	15 19 0	8 4 0	1	40 0 0	7 0 0	4 0 0					4	92 3 8	22 19 0	12 4 0
	Kempsey	Ordinary lands	20	1 770 0 0	177 0 0	98 5 0	26	2,618 3 0	261 17 6	132 7 6	3	410 0 0	82 0 0	16 5 0	49	4 798 3 0	520 17 6	246 17 6
		Special areas	20	2,694 0 0	409 2 0	114 0 0	5	748 1 0	112 4 9	28 5 0	1	82 0 0	24 12 0	5 2 6	26	3 524 1 0	545 18 9	147 7 6
	Lismore	Ordinary lands	7	746 0 0	74 12 0	36 7 6	11	953 0 0	95 6 0	52 11 3					18	1,699 0 0	169 18 0	88 18 9
		Special areas	4	340 0 0	98 19 0	19 12 6	3	142 0 0	34 11 6	12 15 0					7	482 0 0	133 10 6	32 7 6
	Murwillumbah	Ordinary lands	9	1 060 0 0	106 0 0	49 2 6	16	2,881 3 0	288 3 6	93 12 6	1	200 0 0	40 0 0	6 10 0	26	4,141 3 0	434 3 6	149 5 0
		Special areas	2	238 1 0	35 14 9	11 0 0	3	212 0 0	34 18 0	14 2 6					5	450 1 0	70 12 9	25 2 6
	Port Macquarie	Ordinary lands	30	2,940 0 0	294 0 0	143 0 0	7	486 0 0	48 12 0	32 0 0					37	3,426 0 0	342 12 0	175 0 0
		Special areas																
Hay	Balranald	Ordinary lands																
		Special areas																
	Balranald South	Ordinary lands																
		Special areas																
	Denihquin	Ordinary lands	19	7 031 0 0	703 2 0	110 10 0	24	12,710 2 0	1 271 1 0	190 1 11					43	19,741 2 0	1 974 3 0	300 11 11
		Special areas	91	37,456 2 0	7,054 17 6	748 5 0	29	7,517 2 0	1,298 18 0	198 15 8	10	2,840 0 0	858 0 0	75 10 0	130	47,814 0 0	9 211 15 6	1,022 10 8
	Hay	Ordinary lands	35	12 991 1 0	1,299 2 6	278 0 0	31	8,907 1 0	890 14 6	216 3 9					66	21 898 2 0	2 189 17 0	494 3 9
		Special areas	12	6,696 3 0	1,184 0 10	113 0 0	5	1,566 0 0	300 14 3	36 5 0	1	320 0 0	96 0 0	8 0 0	18	8,582 3 0	1,580 15 1	157 5 0
	Hay North	Ordinary lands																
		Special areas																
	Hillston	Ordinary lands	20	10,610 3 0	1,061 1 6	185 5 0	3	1,030 0 0	103 0 0	21 2 6					23	11,640 3 0	1,164 1 6	206 7 6
		Special areas	2	326 3 0	49 0 3	12 5 0	3	848 0 0	143 10 6	22 0 0					5	1,174 3 0	192 10 9	34 5 0
	Hillston North	Ordinary lands																
		Special areas																
	Wentworth	Ordinary lands																
		Special areas																
Maitland	Cassilis	Ordinary lands	35	5 372 0 0	537 4 0	202 10 0	52	5,583 2 0	558 7 0	250 15 0	2	120 0 0	24 0 0	9 0 0	89	11,075 2 0	1,119 11 0	462 5 0
		Special areas	1	168 1 0	25 4 9	6 2 6									1	168 1 0	25 4 9	6 2 6
	Dungog	Ordinary lands	2	543 3 0	54 7 6	14 0 0	5	395 3 0	39 11 6	24 15 0				. ..	7	939 2 0	93 19 0	38 15 0
		Special areas					1	40 0 0	6 0 0	4 0 0					1	40 0 0	6 0 0	4 0 0
	Gosford	Ordinary lands	5	264 0 0	26 8 0	21 12 6	8	380 0 0	38 0 0	33 10 0	1	40 0 0	8 0 0	4 0 0	14	684 0 0	72 8 0	59 2 6
		Special areas	2	157 3 0	31 11 0	8 11 0	1	50 0 0	10 0 0	4 5 0					3	207 3 0	41 11 0	12 16 0
	Maitland	Ordinary lands																
		Special areas																
	Muswellbrook	Ordinary lands	11	1 488 1 0	148 16 6	60 7 6	18	1,505 1 0	150 10 6	84 8 9	2	160 0 0	32 0 0	9 10 0	31	3,153 2 0	331 7 0	154 6 3
		Special areas	15	1,398 3 0	291 6 0	76 5 0	2	88 2 0	20 2 0	8 7 6					17	1,487 1 0	311 8 0	84 12 6
	Newcastle	Ordinary lands					1	98 3 0	9 17 6	5 5 0					1	98 3 0	9 17 6	5 5 0
		Special areas	1	40 0 0	12 0 0	4 0 0									1	40 0 0	12 0 0	4 0 0
	Paterson	Ordinary lands	3	340 0 0	34 0 0	15 7 6	5	440 0 0	44 0 0	22 10 0					8	780 0 0	78 0 0	37 17 6
		Special areas	1	159 3 0	23 19 3	6 0 0	2	320 0 0	48 0 0	12 2 6					3	479 3 0	71 19 3	18 2 6
	Raymond Terrace	Ordinary lands	2	141 1 0	14 2 6	9 7 6					2	140 0 0	28 0 0	9 5 0	4	281 1 0	42 2 6	18 12 6
		Special areas																
	Scone	Ordinary lands	23	5,982 2 0	598 5 0	182 15 0	49	5,511 2 20	551 3 6	258 12 6	1	52 0 0	10 8 0	4 7 6	78	11,546 0 20	1,159 16 6	445 15 0
		Special areas	1	251 1 38	50 6 0	7 5 0									1	251 1 38	50 6 0	7 5 0
	Singleton	Ordinary lands	15	1,628 1 0	162 16 6	79 12 6	24	1,670 0 0	167 0 0	110 5 0	7	1,115 0 0	223 0 0	40 10 0	46	4,413 1 0	552 16 6	230 7 6
		Special areas																
	Stroud	Ordinary lands	1	100 0 0	10 0 0	5 5 0	8	1,037 3 0	103 15 6	44 15 0					9	1,137 3 0	113 15 6	50 0 0
		Special areas																
	Taree	Ordinary lands	45	4,567 2 0	456 15 0	225 12 6	59	4 774 1 0	477 8 6	273 10 0	3	212 2 0	42 10 0	13 17 6	107	9,554 1 0	976 13 6	513 0 0
		Special areas	2	95 2 0	14 6 6	8 10 0	1	138 3 0	20 16 3	4 6 3					3	234 1 0	35 2 9	12 16 3
	Wollombi	Ordinary lands	8	560 0 0	56 0 0	37 0 0	2	87 3 0	8 15 6	8 5 0	2	80 0 0	16 0 0	8 0 0	12	727 3 0	80 15 6	53 5 0
		Special areas					2	162 0 0	32 8 0	10 5 0					2	162 0 0	32 8 0	10 5 0
Moree	Bingara	Ordinary lands	27	8,756 0 0	875 12 0	200 15 0	28	3,233 2 0	323 7 0	146 5 0					55	11,989 2 0	1,198 19 0	347 0 0
		Special areas	1	320 0 0	64 0 0	.									1	320 0 0	64 0 0	
	Moree	Ordinary lands	110	56 543 0 0	5,654 6 0	993 7 6	41	25,054 1 0	2,505 9 6	364 5 0					151	81,597 1 0	8,159 15 6	1,357 12 6
		Special areas	10	2 872 1 0	516 10 3	69 15 0	6	1,484 2 0	222 13 6	41 10 0					16	4,356 3 0	739 3 9	111 5 0
	Walgett	Ordinary lands	82	47,360 2 0	4,736 1 0	795 15 0	22	23,419 2 0	2,341 19 0	249 7 6					104	70,780 0 0	7,078 0 0	1,045 2 6
		Special areas										...						
	Walgett North	Ordinary lands																
		Special areas																
	Warialda	Ordinary lands	31	10,768 2 0	1,076 17 0	237 12 6	30	4,703 0 0	470 6 0	172 0 0					61	15,471 2 0	1,547 3 0	409 12 6
		Special areas	.	.	. ...	.	3	1,070 1 0	172 12 5	25 0 0					3	1,070 1 0	172 12 5	25 0 0

SCHEDULE VII—*continued.*

Local Land Board District.	Land District.	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each Class.			
			No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
				a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.
Orange.....	Bathurst	Ordinary lands ..	22	3,028 3 0	302 17 6	124 2 6	50	5,602 1 0	560 4 6	256 10 0	4	183 0 0	36 12 0	16 12 6	76	8,814 0 0	899 14 0	397 5 0
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Carcoar	Ordinary lands ..	31	3,932 0 0	393 4 0	167 5 0	43	4,048 3 0	404 17 6	213 7 6	..	.....	.....	.....	74	7,980 3 0	798 1 6	380 12 6
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Cowra	Ordinary lands ..	25	5,827 0 0	582 14 0	174 0 0	30	5,539 3 0	553 18 6	164 0 1	..	.....	.....	.....	55	11,366 3 0	1,136 12 6	338 0 1
		Special areas	22	3,942 0 6	786 19 3	132 13 6	12	1,215 1 12	286 5 1	57 9 0	3	467 0 0	221 6 0	18 0 0	37	5,624 1 18	1,294 10 4	208 2 6
	Lithgow	Ordinary lands ..	43	3,675 2 0	367 11 0	207 0 0	51	3,804 1 0	380 8 6	237 7 6	2	163 1 10	32 13 3	9 17 6	96	7,643 0 10	780 12 9	454 5 0
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Molong.....	Ordinary lands ..	121	36,533 0 0	3,653 5 6	889 4 6	106	14,801 1 0	1,480 2 6	591 8 9	4	920 0 0	184 0 0	27 10 0	231	52,254 1 0	5,317 8 0	1,508 3 3
		Special areas	10	2,225 3 0	445 3 0	68 0 0	13	1,833 1 0	363 15 0	74 5 0	1	56 0 0	22 8 0	4 10 0	24	4,115 0 0	831 6 0	146 15 0
	Mudgee	Ordinary lands ..	25	3,480 2 0	348 1 0	137 7 6	34	2,916 3 0	291 13 6	157 11 3	1	320 0 0	64 0 0	8 0 0	60	6,717 1 0	703 14 6	302 18 9
		Special areas	2	209 0 0	33 16 0	10 5 0	5	501 0 0	98 4 0	26 0 0	..	.....	.....	.....	7	710 0 0	132 0 0	36 5 0
	Orange.....	Ordinary lands ..	13	1,360 0 0	136 0 0	66 17 6	16	2,027 0 0	202 14 0	87 2 6	..	.....	.....	.....	29	3,387 0 0	338 14 0	154 0 0
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Rylstone	Ordinary lands ..	12	842 0 0	84 4 0	56 5 0	17	1,561 0 0	156 2 0	84 2 6	2	296 0 0	59 4 0	11 15 0	31	2,699 0 0	299 10 0	152 2 6
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Wellington	Ordinary lands ..	20	3,370 0 0	337 0 0	120 5 0	35	5,007 1 0	500 14 6	191 5 8	2	370 0 0	74 0 0	12 5 0	57	8,747 1 0	911 14 6	323 15 8
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
Sydney.	Picton	Ordinary lands ..	18	2,870 3 0	287 1 6	106 7 6	9	1,263 0 0	126 6 0	48 7 6	3	460 0 0	92 0 0	17 5 0	30	4,593 3 0	505 7 6	172 0 0
		Special areas	1	80 0 0	16 0 0	5 0 0	1	40 0 0	8 0 0	4 0 0	3	240 0 0	76 0 0	14 0 0	5	360 0 0	100 0 0	23 0 0
	Campbelltown ..	Ordinary lands ..	1	50 0 0	5 0 0	4 5 0	..	.....	.....	.....	..	.....	.....	.....	1	50 0 0	5 0 0	4 5 0
		Special areas	4	290 0 0	43 10 0	18 5 0	..	.....	.....	.....	2	140 0 0	42 0 0	9 10 0	6	430 0 0	85 10 0	27 15 0
	Penrith	Ordinary lands ..	1	42 0 0	4 4 0	4 2 6	..	.....	.....	.....	5	370 0 0	74 0 0	23 12 6	6	412 0 0	78 4 0	27 15 0
		Special areas	..	.....	.....	.....	..	.....	.....	.....	4	226 3 0	85 19 0	17 17 6	4	226 3 0	85 19 0	17 17 6
	Parramatta.....	Ordinary lands ..	4	226 0 0	22 12 0	17 12 6	..	.....	.....	.....	9	434 2 0	87 10 6	37 7 6	13	660 2 0	110 2 6	55 0 0
		Special areas	..	.....	.....	.....	..	.....	.....	.....	2	85 0 0	17 0 0	8 2 6	2	85 0 0	17 0 0	8 2 6
	Windsor	Ordinary lands ..	25	1,195 0 0	119 10 0	104 12 6	4	231 2 0	23 3 0	17 15 0	11	550 0 0	110 0 0	46 15 0	40	1,976 2 0	252 13 0	169 2 6
		Special areas	..	.....	.....	.....	..	.....	.....	.....	2	80 0 0	16 0 0	8 0 0	2	80 0 0	16 0 0	8 0 0
	Liverpool	Ordinary lands ..	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Wollongong	Ordinary lands ..	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Kiama	Ordinary lands ..	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Metropolitan	Ordinary lands ..	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
Tamworth	Coonabarabran ..	Ordinary lands ..	22	7,580 1 0	758 0 6	163 7 6	32	6,545 0 0	654 10 0	193 12 6	1	60 0 0	12 0 0	4 10 0	55	14,185 1 0	1,424 10 6	361 10
		Special areas	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....	..	.....	.....	.....
	Gunnedah	Ordinary lands ..	27	9,775 0 0	977 10 0	211 2 6	41	7,471 3 0	747 13 6	248 19 5	..	.....	.....	.....	68	17,246 3 0	1,725 3 6	460 1 11
		Special areas	29	3,315 3 0	696 3 9	145 10 0	5	593 3 0	117 15 9	25 11 6	..	.....	.....	.....	34	3,909 2 0	813 19 6	171 1 6
	Murrurundi	Ordinary lands ..	13	2,253 0 0	225 6 0	79 15 0	32	5,559 3 0	555 19 6	187 12 6	2	270 0 0	54 0 0	11 7 6	47	8,082 3 0	835 5 6	278 15 0
		Special areas	5	680 1 0	118 4 0	28 17 6	7	556 3 0	103 0 0	32 18 2	..	.....	.....	.....	12	1,237 0 0	221 4 0	61 15 8
	Narrabri	Ordinary lands ..	52	21,195 0 0	2,119 10 0	419 5 0	38	12,345 0 0	1,234 10 0	250 19 5	4	535 0 0	107 0 0	22 2 6	94	34,075 0 0	3,461 0 0	692 6 11
		Special areas	1	278 0 0	48 13 0	7 10 0	3	1,002 0 0	156 7 0	22 12 6	..	.....	.....	.....	4	1,280 0 0	205 0 0	30 2 6
	Tamworth	Ordinary lands ..	69	13,428 1 0	1,342 16 6	438 7 6	74	8,086 2 0	808 13 0	384 10 8	1	40 0 0	8 0 0	4 0 0	144	21,554 3 0	2,159 9 6	826 18 2
		Special areas	30	5,734 2 0	1,343 9 2	190 7 6	21	3,549 0 0	729 9 3	125 16 11	..	.....	.....	.....	51	9,283 2 0	2,072 18 5	316 4 5
Wagga Wagga	Albury	Ordinary lands ..	29	7,069 0 0	706 18 0	199 0 0	47	9,158 3 0	915 17 6	289 1 3	..	.....	.....	.....	76	16,227 3 0	1,622 15 6	488 1 3
		Special areas.....	31	7,338 3 0	1,664 19 6	214 17 6	40	7,268 3 3	1,600 4 8	248 12 6	1	160 0 0	32 0 0	6 0 0	72	14,767 2 3	3,297 4 5	469 10 0
	Cootamundra ..	Ordinary lands...	23	4,833 3 0	483 7 6	151 15 0	33	5,222 3 0	522 5 6	170 7 6	1	107 3 3	21 11 2	5 7 6	57	10,164 1 3	1,027 4 2	327 10 0
		Special areas	100	25,474 2 0	5,064 9 6	718 7 6	57	11,177 2 0	2,154 1 4	365 2 6	1	134 0 0	53 12 0	5 15 0	158	36,786 0 0	7,272 2 10	1,089 5 0
	Corowa	Ordinary lands ..	1	162 0 0	16 4 0	6 2 6	13	3,457 1 0	345 14 6	88 11 3	..	.....	.....	.....	14	3,619 1 0	361 18 6	94 13 9
		Special areas	13	2,489 3 36	817 0 6	83 7 6	4	538 0 0	148 6 0	22 10 0	..	.....	.....	.....	17	3,027 3 36	965 6 6	105 17 6
	Gundagai.	Ordinary lands ..	10	1,580 0 0	158 0 0	58 10 0	37	3,715 0 0	371 10 6	182 7 6	2	116 3 0	23 7 0	9 0 0	49	5,411 3 0	552 17 6	249 17 6
		Special areas	13	2,260 3 15	574 19 2	76 13 0	4	184 2 0	37 18 0	16 15 0	..	.....	.....	.....	17	2,445 1 15	612 17 2	93 8 0
	Narrandera	Ordinary lands ..	19	7,210 1 0	720 19 6	149 7 6	15	6,863 0 0	686 6 0	105 17 6	..	.....	.....	.....	34	14,073 1 0	1,407 5 6	255 5 0
		Special areas	12	4,086 3 0	834 15 0	93 0 0	6	2,694 2 0	545 1 6	52 0 0	..	.....	.....	.....	18	6,781 1 0	1,379 16 6	145 0 0
	Tumut	Ordinary lands ..	31	6,827 2 0	682 15 0	196 12 6	76	12,771 1 0	1,277 2 6	445 15 0	..	.....	.....	.....	107	19,598 3 0	1,959 17 6	642 7 6
		Special areas	9	1,595 0 0	246 5 9	56 2 6	4	426 0 0	67 8 0	20 17 6	..	.....	.....	.....	13	2,021 0 0	313 13 9	77 0 0
	Urana	Ordinary lands ..	1	320 0 0	32 0 0	8 0 0	7	3,059 0 12	305 18 6	53 15 0	..	.....	.....	.....	8	3,379 0 12	337 18 6	61 15 0
		Special areas	18	5,860 0 0	1,381 16 6	139 17 6	9	1,357 3 0	277 8 11	50 2 6	..	.....	.....	.....	27	7,217 3 0	1,659 5 5	190 0 0
	Wagga Wagga ...	Ordinary lands ..	17	2,034 2 0	203 9 0	92 0 0	42	14,745 1 0	1,474 10 6	297 17 6	3	346 2 0	69 6 0	16 7 6	62	17,126 1 0	1,747 5 6	406 5 0
		Special areas	73	21,425 2 0	4,692 0 1	536 17 6	32	10,004 3 0	1,988 7 4	235 7 6	..	.....	.....	.....	105	31,430 1 0	6,680 7 5	772 5 6
		Total.....	3,068	778,348 2 18	97,029 15 11	2,305 10 10	2,921	506,353 3 11	57,689 13 8	16,492 4 6	165	18,711 3 13	4,465 8 11	859 7 6	6,154	1,303,414 1 2	159,184 18 6	37,657 2 10

Schedule VIII.

Return showing the Number of Conditional Purchase Applications Confirmed or Disallowed during 1891.

Local Land Board District.	Land District	Class of Application.	Applications made during 1891.						Applications made between 1st December, 1889, and 1st January, 1891				Applications made prior to 1st December, 1889.				Total.			
			Confirmed.				Disallowed		Confirmed.		Disallowed.		Confirmed		Disallowed.		Confirmed.		Disallowed	
			No.	a. r. p.			No	a r. p.	No.	a r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Armidale.....	Armidale ..	Original . ..	27	6,469	3	0	17	3,251 0 0	119	25964 0 0	18	3,571 3 0	3	329 1 0	1	120 0 0	149	32763 0 0	36	6,942 3 0
		Additional	55	7,997	3	30	19	2,258 1 0	168	23165 0 0	21	2,887 1 16	3	441 1 0	1	90 0 0	226	31604 0 30	41	5,235 2 16
		Non-residential	.	.....			1	320 0 0	1	177 0 0	.	... ...	1	50 0 0	...	....	2	227 0 0	1	320 0 0
	Glen Innes...	Original	8	1,762	2	0	4	526 0 0	30	5,960 2 0	5	1,441 0 20	...	.....	...	....	38	7,723 0 0	9	1,967 0 20
		Additional	9	1,372	2	0	3	956 0 0	'44	9,468 3 0	7	1,370 0 30	...	... .	...	.....	53	10841 1 0	10	2,326 0 30
		Non-residential	..	.		..	.	. .. ..	..	.....	...	..... .	...	... .	...	... .	...	. ...	. .	... .
	Inverell	Original	4	435	0	0	10	1,503 0 0	33	7,396 3 0	8	1,716 0 0	2	250 0 0	...	. .....	39	8,081 3 0	18	3,219 0 0
		Additional	12	2,251	0	0	8	970 3 0	45	5,471 2 0	23	2,705 3 0	...	.....	...	....	57	7,722 2 0	31	3,676 2 0
		Non-residential	.	.		.	...	...	...	. .....	. .	.....	1	320 0 0	. .	. . ..	1	320 0 0		..... .
	Tenterfield..	Original	3	120	0	0	4	683 0 0	25	3,773 0 0	5	930 0 0	...	.....	. .	..... .	28	3,893 0 0	9	1,613 0 0
		Additional...	7	490	0	0	5	650 0 0	18	2,107 1 0	2	240 0 0	...	... .		....	25	2,597 1 0	7	890 0 0
		Non-residential	1	94	1	0	.		...	...	...	. .	1	296 0 0	...	... .	2	390 1 0		....
	Walcha	Original... .	14	1,967	2	0	13	2,633 2 0	78	16367 3 0	20	3,777 3 0	3	276 0 0	...	..... .	95	18611 1 0	33	6,411 1 0
		Additional ..	20	2,905	2	0	9	943 0 0	88	10424 1 0	21	2,471 2 0	...	.. ..	3	300 0 0	108	13329 3 0	33	3,714 2 0
		Non-residential	2	298	3	0	...	... . .	3	231 0 0	5	922 0 0	...	... .	...	. . . .	5	529 3 0	5	922 0 0
Bourke	Bourke	Original . .	1	350	1	0	.	..... .	.	... .	...	... .	. .	... .	...	....	1	350 1 0	...	..... .
		Additional ..	...	. ...			...	.	.	.... .	...	. . . .	...	....	...	....	. .	.....	..	. . ..
		Non-residential	. .	... .			.	. . .	.	. ... .	. .	. .. .. .	. .	....	...	....	...	..... .	.	... .
	Brewarrina..	Original .	.	. . .. .			...	... .	...	. . .	...	.... .	...	..... .	. .	....	.	. .		... .
		Additional .		... .			...	..... .	...	. . ...	. .	... .	...	....	...	.....	...	... ...	...	..... .
		Non-residential	. .	...			...	... ..	...	...	...	... .	...	.. ..	...	... .	.	.	...	... .
	Brewarrina East.	Original ..	4	2,560	0	0	. .	....	9	5,598 0 0	1	640 0 0	1	640 0 0	...	..... .	14	8,798 0 0	1	640 0 0
		Additional .	. .	....			..	....	1	473 0 0	..	.....	...	.....	...	.. ..	1	473 0 0	. .	... .
		Non-residential	. .	.. ... .			...	. ..	...	. ... ..		.....	...	. . ..	...	....	. .	....	...	.....
	Cobar.....	Original	...	. ... . .			1	200 2 0	. .	..... .	...	. . . .	...	....	...	... .	...	. . ..	1	200 2 0
		Additional	. .	.. . .			..	... .	...	... .	. .	. .... .	. .	... .	...	....	...	....	. .	....
		Non-residential	...	. . .			..	.. . ...	.	... ...	...	... .	...	... .	. .	... .	. .	... .	...	... .
	Cobar East..	Original	11	6,440	0	0	1	480 0 0	3	1,920 0 0	3	1,920 0 0	. .	.....	...	....	14	8,360 0 0	4	2,400 0 0
		Additional.....	1	320	0	0	...	.....	...	. ... . .	...	....	.	. .....	...	... .	1	320 0 0		... .
		Non-residential	...	. .....			...	... .	...	... ...		.....	...	. .. . .	.	... .	...	... .	.	. .. .. .
	Wilcannia...	Original..... ...	. .	. ...			...	.....		....	..	... .	.	. .....	...	....	...	.. ..	...	....
		Additional	...	..... .			...	..... .	...	....	...	... .	...	....	...	.....	...	.....		. .....
		Non-residential	...	. ... . .			...	. . .. .	...	..... .	...	... .	..	....	...	.. ..	. .	....	...	.....
	Willyama	Original ..	...	.. ..			...	.....	...	... ..	. .	. . ..	...	....	...	... .	...	.....	. .	. ...
		Additional ..	...	....			. .	. ... .	...	....	. .	.....	. .	... .	...	... .	. .	. ...	...	....
		Non-residential	. .	...			...	.. ..	. .	... .	...	.....	...	....	...	..... .	. .	.. .	...	..... .
Cooma..... .	Bega	Original ..	15	1,443	0	37	2	111 1 30	9	1,727 0 0	..	...	...	. .... .	. .	. ...	24	3,170 0 37	2	111 1 30
		Additional .	6	342	1	10	1	49 0 0	7	400 0 0	1	60 0 0	...	... .	...	... .	13	742 1 10	2	109 0 0
		Non-residential	.	.....			1	164 0 0	...	.....	1	60 0 0	...	....	...	.....	. .	... .	2	224 0 0
	Bombala ..	Original ..	8	628	2	0	3	320 0 0	25	3,405 3 0	3	180 0 0	. .	..... .	...	... .	33	4,034 1 0	6	500 0 0
		Additional..	7	341	3	0	4	350 3 0	38	3,639 0 0	1	40 0 0	...	....	...	.....	45	3,980 3 0	5	390 3 0
		Non-residential	..	.		.	...		1	40 0 0	.	... .	...	.. ..	...	.. ..	1	40 0 0	. .	.. ..
	Braidwood...	Original ..	3	192	3	0	2	80 0 0	8	1,520 0 0	2	122 0 0	4	541 2 0	1	40 0 0	15	2,254 1 0	5	242 0 0
		Additional	8	880	0	0	5	570 0 0	19	1,279 3 0	6	610 0 0	5	383 2 0	1	80 0 0	32	2,543 1 0	12	1,260 0 0
		Non-residential	1	50	0	0	...			...	2	200 0 0	. .	... .	1	100 0 0	1	50 0 0	3	300 0 0
	Cooma	Original...	31	2,568	1	0	8	591 0 0	71	9965 2 33	7	1,280 0 0	...	.....	...	. . .. ..	102	12533 3 33	15	1,871 0 0
		Additional .	56	4,726	3	0	12	1,495 2 0	197	22035 2 20	17	1,783 2 0	.	.. .. ..	...	. .	253	26762 1 20	29	3,279 0 0
		Non-residential	.	...			...	.. ..	...	. ..	3	319 2 33	...	.....	...	... ...	...	... .	3	319 2 33

SCHEDULE VIII—*continued.*

Local Land Board District.	Land District.	Class of Application.	Applications made during 1891.				Applications made between 1st December, 1890, and 1st January, 1891.				Applications made prior to 1st December, 1890.				Total			
			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.	
			No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
	Eden ...	Original	7	499 2 0	2	140 0 0	14	2,118 2 0	...	...	..	...	...	...	21	2,618 0 0	2	140 0 0
		Additional	9	762 3 0	4	277 0 0	12	1,053 3 0	2	300 0 0	.	...	...	...	21	1,816 2 0	6	577 0 0
		Non-residential	1	68 3 0	...	...	2	152 0 0	1	60 0 0	...	...	...	...	3	220 3 0	1	60 0 0
	Milton ..	Original	6	460 0 0	1	43 0 0	8	574 0 0	..	...	1	40 0 0	1	50 0 0	15	1,074 0 0	2	93 0 0
		Additional	1	170 0 0	2	120 0 0	1	122 0 0	1	60 0 0	...	...	...	...	2	292 0 0	3	180 0 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
	Moruya.....	Original	6	360 0 0	3	520 0 0	20	2,608 0 0	1	120 0 0	12	1,041 0 0	2	150 0 0	38	4,009 0 0	6	790 0 0
		Additional.....	9	560 2 0	3	180 0 0	23	1,420 1 0	4	760 0 0	17	1,591 3 0	...	...	49	3,572 2 0	7	940 0 0
		Non-residential	3	200 0 0	1	60 0 0	...	...	...	...	..	...	...	...	3	200 0 0	1	60 0 0
	Queanbeyan.	Original	13	1,621 1 10	3	400 0 0	34	7,097 0 0	2	200 0 0	...	...	...	...	47	8,718 1 10	5	600 0 0
		Additional...	26	2,378 0 0	17	1,470 0 0	56	7,051 0 0	3	384 0 0	...	...	...	...	82	9,429 1 0	20	1,854 0 0
		Non-residential	...	...	...	...	2	360 0 0	1	100 0 0	...	...	..	...	2	360 0 0	1	100 0 0
Dubbo... ...	Dubbo .	Original	42	17291 1 0	12	4,197 1 0	71	30939 2 0	10	4,003 0 0	2	730 0 0	...	...	115	48960 3 0	22	8,200 1 0
		Additional .	20	9,562 3 0	10	2,929 0 0	28	9,514 1 0	8	5,168 2 0	...	...	..	...	48	19077 0 0	18	8,097 2 0
		Non-residential	...	...	1	175 0 0	2	640 0 0	..	..	...	...	...	...	2	640 0 0	1	175 0 0
	Coonamble..	Original ..	25	10693 0 0	15	7,190 0 0	87	36537 2 0	1	500 0 0	4	1,860 0 0	2	350 0 0	116	49090 2 0	18	8,040 0 0
		Additional . .	18	4,480 0 0	11	1,624 1 0	31	5,674 1 0	2	465 0 0	7	1,001 0 0	..	...	56	11155 1 0	13	2,089 1 0
		Non-residential	...	...	...	...	1	121 3 0	.	...	...	...	..	...	1	121 3 0	..	...
Forbes.....	Condobolin..	Original	36	17196 0 0	13	5,890 3 0	82	46332 3 0	18	10167 2 0	1	640 0 0	...	...	119	64168 3 0	31	16058 1 0
		Additional ..	7	2,102 0 0	4	920 0 0	20	5,278 1 0	2	560 0 0	1	627 0 0	1	114 0 0	28	8,007 1 0	7	1,594 0 0
		Non-residential	2	560 0 0	...	...	.	...	...	.	...	...	...	...	2	560 0 0	...	...
	Forbes	Original	47	3,064 0 20	8	830 0 13	13	2,845 2 26	.	.. ....	..	...	...	...	60	5,909 3 0	8	830 0 13
		Additional.....	11	2,423 0 28	1	505 0 0	2	200 0 0	...	...	.	...	..	...	13	2,623 0 28	1	505 0 0
		Non-residential	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...
	Grenfell ...	Original...	29	6,298 0 0	5	904 3 0	17	4,775 3 0	3	1,226 1 0	...	...	...	...	46	11073 3 0	8	2,131 0 0
		Additional	31	6,180 3 0	5	1,144 0 0	23	6,492 0 0	4	885 2 0	...	...	...	...	54	12672 3 0	9	2,029 2 0
		Non-residential	...	...	...	.	...	...	1	300 0 0	...	...	...	...	...	...	1	300 0 0
	Parkes	Original	51	22346 2 0	3	928 0 0	43	20400 0 0	9	3,205 0 0	...	...	1	200 0 0	94	42746 2 0	13	4,333 0 0
		Additional .	10	5,292 0 0	6	7,178 0 0	12	3,587 1 0	1	200 0 0	...	...	...	...	22	8,879 1 0	7	7,378 0 0
		Non-residential	1	320 0 0	...	...	...	...	...	...	...	...	...	...	1	320 0 0	...	...
Goulburn	Burrowa ..	Original . . .	7	1,371 2 0	11	2,356 3 0	46	7,021 2 0	8	1,701 0 0	1	280 0 0	...	...	54	8,673 0 0	19	4,057 3 0
		Additional .	35	3,934 2 0	24	3,601 0 0	102	10506 2 0	29	3,308 3 0	3	500 0 0	3	345 0 0	140	14941 0 0	56	7,254 3 0
		Non-residential	...	...	...	...	3	422 0 0	...	...	...	...	...	...	3	422 0 0	...	...
	Goulburn ..	Original . ..	16	1 233 2 0	2	160 0 0	31	2,648 2 0	3	420 0 0	4	497 0 0	1	40 0 0	51	4,379 0 0	6	620 0 0
		Additional .	27	2,941 2 0	13	795 0 0	62	4,641 1 0	6	430 0 0	13	918 0 0	2	90 0 0	102	8,500 3 0	21	1,315 0 0
		Non-residential	2	80 0 0	...	..	1	74 2 0	...	...	...	..	...	...	3	154 2 0	...	...
	Gunning	Original .	1	66 0 0	2	80 1 0	15	2,191 2 20	3	230 0 0	...	.	...	...	16	2,257 2 20	5	310 1 0
		Additional .	15	1,601 1 0	7	428 1 0	37	3,090 0 0	8	785 0 0	...	...	...	...	52	4,691 1 0	15	1,213 1 0
		Non-residential	...	...	...	..	1	40 0 0	...	.	..	...	...	..	1	40 0 0	...	...
	Moss Vale .	Original .	6	1,270 0 0	2	370 0 0	13	1,722 3 0	..	.	...	...	...	...	19	2,992 3 0	2	370 0 0
	late Berrima	Additional	3	357 0 0	1	55 0 0	8	941 1 0	...	...	...	...	...	...	11	1,298 1 0	1	55 0 0
		Non-residential	2	123 0 0	...	..	4	160 0 0	1	40 0 0	...	...	...	...	6	283 0 0	1	40 0 0
	Nowra	Original .	3	237 2 0	1	50 0 0	8	588 0 0	2	120 0 0	3	340 0 0	...	...	14	1,165 2 0	3	170 0 0
		Additional .	...	...	2	130 0 0	4	274 2 0	2	170 0 0	1	65 0 0	...	...	5	339 2 0	4	300 0 0
		Non-residential	...	...	...	...	1	40 0 0	...	...	1	60 0 0	...	...	2	100 0 0	...	...
	Yass	Original... ..	4	796 2 0	5	910 0 0	24	4,920 3 0	2	244 0 0	1	60 0 0	1	80 0 0	29	5,777 1 0	8	1,234 0 0
		Additional .	10	824 3 0	10	747 0 0	37	3,167 0 0	15	1,124 0 0	...	...	1	300 0 0	47	3,991 3 0	26	2,171 0 0
		Non-residential	.	..	2	121 3 0	.	...	3	175 3 0	...	...	...	...	...	...	5	297 2 0
	Young	Original ..	50	3,409 1 7	16	3,548 0 20	47	11422 2 0	6	1,230 0 0	...	...	...	...	97	14831 3 7	22	4,778 0 20
		Additional . .	13	2,357 3 0	4	671 0 0	33	5,726 3 0	9	1,807 1 0	..	...	...	...	46	8,084 2 0	13	2,478 1 0
		Non-residential	1	40 0 0	...	...	2	457 3 0	1	180 0 0	...	...	...	...	3	497 3 0	1	180 0 0

Schedule VIII—*continued.*

Local Land Board District	Land District.	Class of Application.	Applications made during 1891.						Applications made between 1st December, 1890, and 1st January, 1891.				Applications made prior to 1st December, 1890.				Total.			
			Confirmed.			Disallowed.			Confirmed.		Disallowed.		Confirmed.		Disallowed		Confirmed.		Disallowed.	
			No.	a. r. p.		No.	a. r. p.		No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Grafton	Bellingen ..	Original	12	1,100 2 0		4	350 0 0		17	3,203 0 0	2	145 1 0	.	. ... ..	...	... .	29	4,303 2 0	6	495 0 0
		Additional .. .	5	343 0 0		1	50 0 0		9	1,667 2 0	8	1,757 0 0	.	....		.....	14	2,010 2 0	9	1,807 0 0
		Non-residential	1	43 0 0		. .	.....		3	289 0 0	1	150 0 0	...	. . ..	...	.....	4	332 0 0	1	150 0 0
	Casino ...	Original	15	3,187 2 0		4	1,040 0 0		87	31662 0 0	15	4,289 3 0	...	....	...	....	102	34849 2 0	19	5,329 3 0
		Additional ...	17	2,220 1 0		7	1,269 1 0		36	5,832 0 16	6	1,509 0 0	. .	.....	.	.....	53	8,052 1 16	13	2,778 1 0
		Non-residential	1	180 0 0		1	266 0 0		7	1,101 1 0	...	. .....	...	... . .	...	... ..	8	1,281 1 0	1	266 0 0
	Grafton	Original ...	9	1,130 3 8		4	391 0 0		13	1,804 0 0	.	.....	...	....		.....	22	2,934 3 8	4	391 0 0
		Additional. .	12	1,542 1 0		3	120 0 0		18	2,173 1 0	3	178 0 0	...	... ...	.	.....	30	3,715 2 0	6	298 0 0
		Non-residential		... ...		4	361 0 0		1	50 0 0	.	.....	...	.. ..	...	... ...	1	50 0 0	4	361 0 0
	Kempsey	Original.. ...	17	1,953 0 0		4	433 0 0		56	8,178 0 0	15	2,615 0 0	1	60 0 0	...	.....	74	10191 0 0	19	3,048 0 0
		Additional .	5	433 1 0		5	687 0 0		43	4,630 3 0	10	951 0 0	1	40 0 0	...	.....	49	5,104 0 0	15	1,638 0 0
		Non-residential	. .	... ..		...	...		4	370 0 0	2	120 0 0	...	... . .	.	....	4	370 0 0	2	120 0 0
	Lismore	Original	7	664 0 0		...	.. ..		7	1,436 0 0	2	245 0 0	...	. ... ..	...	.....	14	2,100 0 0	2	245 0 0
		Additional	4	212 0 0		1	100 0 0		11	1,066 2 0	2	450 0 0	.	....	.	... .	15	1,278 2 0	3	550 0 0
		Non-residential	.	... . ..		...	..		1	40 2 0			...	.....		....	1	40 2 0	.	. ...
	Murwillumbah.	Original .. .	7	886 1 0		1	110 0 0		11	1,698 3 0	2	140 0 0	...	. . ..	...	.....	18	2,585 0 0	3	250 0 0
		Additional	9	1,451 1 0		3	662 0 0		13	1,291 1 0	1	460 0 0	...	.....	...	.....	22	2,745 2 0	4	1,122 0 0
		Non-residential	...			...	.. ..		2	192 2 0	...	... ..		....		.....	2	192 2 0	...	... ..
	Port Macquarie.	Original . ..	4	440 0 0		1	80 0 0		16	1,554 3 0	3	197 0 0	5	688 0 0	1	180 0 0	25	2,682 3 0	5	457 0 0
		Additional .	1	40 0 0		.	. . ..		5	277 2 0	1	40 0 0	4	760 0 0	...	.... .	10	1,077 2 0	1	40 0 0
		Non-residential		... ...		.	.. ..		...	... .. .	.	..... .	...	. . ..	...	..... .	.	....	...	.....
Hay	Balranald	Original ..	...	... : .		...	..... .		.	. . ..	...	..... .	. .	.....	. .	.....	...	....	...	....
		Additional .	.	. .		.			...	... ...	...	..... .	...	....	...	.... ..	...	.. ..	...	. .....
		Non-residential	...	... .		...	...			...		. . .	...	. .....	.	....	...	. .....	.	... ...
	Balranald South.	Original ...	.	.		...	... .. .		1	640 0 0	.	... .	...	....	...	..... .	1	640 0 0	...	. .. ..
		Additional...	.	... .		.	.....		...	. . . .	.	.....	.	. . ..	...	... ..	...	....	...	. ...
		Non-residential	...	...		.	... .		...	. .....	...	.....	...	... ..	...	... .	...	.....	...	.. ...
	Deniliquin...	Original ..	46	17251 1 0		10	3,490 0 0		10	6,080 0 0	1	553 0 0	1	78 2 19	...	....	57	23409 3 19	11	4,043 0 0
		Additional	8	3,966 3 0		7	1,137 0 0		17	5,564 3 0	4	1,286 1 0	1	320 0 0	...	... ...	26	9,851 2 0	11	2,423 1 0
		Non-residential	4	780 0 0		1	320 0 0		1	244 0 0	...	. .....	1	320 0 0	.	. .	6	1,344 0 0	1	320 0 0
	Hay	Original .	20	9,644 3 0		4	1,482 0 0		21	11753 0 0	...	....	...	... .	...	... ..	41	21397 3 0	4	1,482 0 0
		Additional	9	2,504 1 0		4	1,909 0 0		7	1,912 3 0		... . ..	...	.....	.	....	16	3,417 0 0	4	1,909 0 0
		Non-residential	.	.....		.	.....		1	113 2 0	...	. ...	..	.. . ..		.. ..	1	113 2 0	. .	....
	Hay North..	Original... ..	...	. .....		...	....		.	. . ..	...	..... .	..	.. .	...	. ...	...	... .	. .	... .
		Additional		.....		..	.....		...	....	...	... . ..	.	....		... .	...	....	.	....
		Non-residential		.....		.	.. ..		..	... . ..	...	.....	...	... .	..	...	...	....	.	.. ...
	Hillston...	Original... ...	13	6,696 0 0		...	....		11	6,660 0 0	1	640 0 0	...	... ...		.... ..	24	13356 0 0	1	640 0 0
		Additional	...	..		1	140 0 0		3	529 3 0	1	80 0 0	...	.....	.	. ...	3	529 3 0	2	220 0 0
		Non-residential	. .	.. ..			....		...	....		.. ..	.	.. ..	...	. . ...	...	....	.	. . .
	Hillston North.	Original	...	....			... ..		.	... .		....	.	.....	..	... ...	...	....	...	....
		Additional ...	..	. ..		...	.....		...	... .	...	....	.	... .	...	.....	..	.....	...	. .....
		Non-residential		... .		..	... .		...	... .. .		... .	. .	...	...	.. ..	...	... .	...	. .. ..
	Wentworth..	Original ..	...	....		.	... .			... .	...	....	...	.....		.....	. .	..... .	..	... .
		Additional .	...	... .		..	... .				.	... .		.....	...	... ..	...	.....	...	. ...
		Non-residential	...	.. ...		...	. .....		. .	.. ..	...	... .	...	. . ..	...	....	...	... .	.	..... .
Maitland	Cassilis	Original	18	2,671 1 0		3	414 1 0		9	2,705 3 0	1	640 0 0	.	....		.....	27	5,377 0 0	4	1,054 1 0
		Additional .	16	1,794 3 0		8	967 2 0		16	2,195 0 0	4	351 0 0	...	....		....	32	3,989 3 0	12	1,318 2 0
		Non-residential	.	. .. .		. .	... .		2	500 0 0	...	.....		... .	.	....	2	500 0 0	...	... .
	Dungog	Original	2	543 3 0		.	... .		2	105 1 0	1	40 0 0	1	40 0 0	.	....	5	689 0 0	1	40 0 0
		Additional...	2	161 0 0		2	140 0 0		4	360 3 0	1	250 0 0	...	... .	. .	.....	6	521 3 0	3	390 0 0
		Non-residential	...	..... .		...	... .		...	....	...	....	...	.....	...	.....	...	.....	...	....

Local Land Board District.	Land District	Class of Application.	Applications made during 1891				Applications made between 1st December, 1890, and 1st January, 1891				Applications made prior to 1st December, 1890.				Total.			
			Confirmed		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed		Disallowed.	
			No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Maitland	Gosford	Original	3	117 3 0	1	80 0 0	16	854 3 0	4	756 3 0	2	100 0 0			21	1,072 2 0	5	836 3 0
		Additional	7	350 0 0			3	186 2 0	2	80 0 0					10	536 2 0	2	80 0 0
		Non-residential	1	40 0 0			2	80 0 0			2	100 0 0	1	250 0 0	5	220 0 0	1	250 0 0
	Maitland	Original					2	433 2 0							2	432 2 0		
		Additional					1	85 0 0							1	85 0 0		
		Non-residential							1	110 0 0							1	110 0 0
	Muswellbrook	Original	17	1,679 3 0	1	160 0 0	1	40 0 0							18	1,719 3 0	1	160 0 0
		Additional	9	628 2 0	1	90 0 0	6	715 0 0	1	40 0 0					15	1,343 2 0	2	130 0 0
		Non-residential																
	Newcastle	Original																
		Additional	1	98 3 0											1	98 3 0		
		Non-residential																
	Paterson	Original	1	159 3 0	1	50 0 0	5	755 3 0			2	350 0 0			8	1,265 2 0	1	50 0 0
		Additional	4	440 0 0	1	80 0 0	7	630 3 0	1	40 0 0	4	321 1 0	1	40 0 0	15	1,392 0 0	3	160 0 0
		Non-residential																
	Raymond Terrace	Original	2	141 1 0			3	356 2 0	1	40 0 0	1	112 2 0			6	610 1 0	1	40 0 0
		Additional																
		Non-residential	1	49 0 0			2	100 0 0	1	100 0 0			1	40 0 0	3	140 0 0	2	140 0 0
	Scone	Original	11	1,890 0 0	2	120 0 0	10	1,897 0 0	2	372 0 0					21	3,787 0 0	4	492 0 0
		Additional	30	3,071 2 0	6	926 3 30	9	1,619 1 0	2	82 0 0	1	40 0 0			40	4,730 3 0	8	1,008 3 30
		Non-residential	1	52 0 0			1	80 0 0							2	132 0 0		
	Singleton	Original	9	956 1 0	4	552 0 0	3	211 0 0							12	1,167 1 0	4	552 0 0
		Additional	8	441 3 0	7	456 2 0	10	1,360 0 0			1	200 0 0			19	2,001 3 0	7	456 2 0
		Non-residential	1	40 0 0	5	830 0 0									1	40 0 0	5	830 0 0
	Stroud	Original	1	100 0 0			2	700 0 0	1	80 0 0					3	800 0 0	1	80 0 0
		Additional	5	737 3 0	2	220 0 0	4	680 0 0	1	100 0 0					9	1,417 3 0	3	320 0 0
		Non-residential																
	Taree	Original	24	2,285 2 0	3	468 0 0	36	2,651 2 0	1	40 0 0	1	40 0 0			61	4,977 0 0	4	508 0 0
		Additional	35	2,537 0 0	13	660 0 0	28	2,496 2 0	8	975 0 0	1	100 0 0	1	160 0 0	64	5,133 2 0	22	1,795 0 0
		Non-residential	3	212 2 0											3	212 2 0		
	Wollombi	Original	5	309 0 0	1	120 0 0	1	40 0 0			2	172 0 0			8	521 0 0	1	120 0 0
		Additional	3	168 3 0	1	81 0 0	3	153 2 0			1	60 0 0			7	382 1 0	1	81 0 0
		Non-residential							1	60 0 0	2	100 0 0			2	100 0 0	1	60 0 0
Moree	Bingara	Original	4	1,296 0 0	6	1,960 0 0	5	1,530 0 0	1	100 0 0			1	50 0 0	9	2,826 0 0	8	2,110 0 0
		Additional	4	268 0 0	16	2,003 0 0	9	2,591 0 0	1	40 0 0					13	2,859 0 0	17	2,043 0 0
		Non-residential																
	Moree	Original	36	16347 3 0	24	12302 0 0	28	13881 0 0	9	3,075 0 0			1	120 0 0	64	30228 3 0	34	15497 0 0
		Additional	15	7,886 0 0	6	1,050 0 0	18	5,837 2 0	5	3,124 3 0					33	13723 2 0	11	4,174 3 0
		Non-residential																
	Walgett	Original	15	9,400 0 0	3	1,920 0 0	26	15536 0 0	5	3,200 0 0	9	5,754 2 0			50	30690 2 0	8	5,120 0 0
		Additional	2	1,227 2 0	4	545 0 0	3	807 0 0			1	240 0 0			6	2,274 2 0	4	545 0 0
		Non-residential					2	255 2 0							2	255 2 0		
	Walgett, North	Original																
		Additional																
		Non-residential																
	Warialda	Original	3	890 0 0	5	1,182 2 0	9	4,768 1 0	1	250 0 0	4	678 0 0	1	300 0 0	16	6,336 1 0	7	1,732 2 0
		Additional	10	1,778 0 0	4	550 0 0	16	3,372 1 13	7	850 2 0	2	242 0 0			28	5,392 1 13	11	1,400 2 0
		Non-residential					1	162 0 0							1	162 0 0		

Schedule VIII—*continued.*

Local Land Board District.	Land District.	Class of Application.	Applications made during 1891.				Applications made between 1st December, 1890, and 1st January, 1891.				Applications made prior to 1st December, 1890.				Total			
			Confirmed.		Disallowed.		Confirmed		Disallowed.		Confirmed.		Disallowed		Confirmed.		Disallowed.	
			No.	a. r. p.	No.	a. r. p	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
Orange	Bathurst	Original	2	308 3 0	3	460 0 0	21	3,045 2 0	1	250 0 0		.....	...	.....	23	3,354 1 0	4	710 0 0
		Additional	8	1,046 0 0	11	1,726 1 0	51	6,530 0 0	4	480 0 0	1	200 3 0	..	....	60	7,776 3 0	15	2,206 1 0
		Non-residential		...	1	63 0 0	2	150 0 0	...	.....	...	. ...	...	... . .	2	150 0 0	1	63 0 0
	Carcoar ..	Original	3	470 0 0		. ...	23	3,739 3 0	1	320 0 0	3	360 0 0	...	... .	29	4,569 3 0	1	320 0 0
		Additional	11	1,493 1 0	7	590 0 0	26	2,329 3 0	3	210 1 0	...	... .	..	. ... .	37	3,823 0 0	10	800 1 0
		Non-residential		. . .	..	.... .	1	200 0 0	...	.. .. .	...	.... .	..	.. . ..	1	200 0 0		.... ..
	Cowra	Original.....	11	1,353 0 20	10	1,858 2 0	26	4,349 0 30	5	641 1 30	.	. . ...	...	. .	37	5,702 1 10	15	2,499 3 30
		Additional . .	13	1,795 1 10	9	1,113 1 0	14	1,635 3 0	4	452 0 0	1	60 0 0	...	....	28	3,491 0 10	13	1,565 1 0
		Non-residential	1	147 2 0	1	147 2 0	1	115 0 0		..	.	.. ..	...	... ...	2	262 2 0	1	147 2 0
	Lithgow .. .	Original... .	6	440 0 0	2	110 0 0	8	460 0 0	1	40 0 0	4	250 2 0	...	..	18	1,150 2 0	3	150 0 0
		Additional.....	7	588 3 0	6	635 0 0	7	395 0 0	1	50 0 0	8	682 2 0	2	80 0 0	22	1,666 1 0	9	765 0 0
		Non-residential		. .....	1	63 1 10	1	50 0 0	...	. . ... .	..	... ...	...	.... ..	1	50 0 0	1	63 1 10
	Molong	Original ..	5	828 3 0	16	3,602 2 0	45	9,717 2 0	6	1,446 0 0	...	..	1	200 0 0	50	10546 1 0	23	5,248 2 0
		Additional	26	3,364 3 0	12	2,116 3 0	69	9,863 2 0	21	3,500 2 0	...	... .	2	279 0 0	95	13228 1 0	35	5,896 1 0
		Non-residential	...	... .	.	....	1	320 0 0	.	....	.	.....	..	...	1	320 0 0		... . .
	Mudgee...	Original .	4	194 1 0	.	.	9	1,704 0 0	2	318 0 0	.	. .....	...	.. .	13	1,898 1 0	2	318 0 0
		Additional	6	620 0 0	6	536 0 0	16	1,166 1 0	4	320 0 0	.	... .	...	.....	22	1,786 1 0	10	856 0 0
		Non-residential		.. ...	...	...	1	70 0 0	1	320 0 0	.	.....	..	.. .	1	70 0 0	1	320 0 0
	Orange	Original ...	5	340 0 0	...	..... .		...		. ...	...	. . ..	...	.	5	340 0 0	...	...
		Additional .	4	611 0 0	4	372 0 0	3	650 0 0	.	.. ... .		.. ..	..	... ...	7	1,261 0 0	4	372 0 0
		Non-residential	...	...	.	. .	..	.....	...	... . .	.	... .	...	.....	...	...	...	...
	Rylstone ..	Original	2	147 2 0	2	120 0 0	10	910 0 0		.. ..	1	160 0 0	.	.. . .	13	1,217 2 0	2	120 0 0
		Additional	1	42 0 0	1	80 0 0	9	934 0 0		.	...	..... .		... .	10	976 0 0	1	80 0 0
		Non-residenti l	...	... .	1	180 0 0	2	344 0 0	1	40 0 0		.			2	344 0 0	2	220 0 0
	Wellington.	Original	2	120 0 0	4	760 0 0	20	4,620 0 0		. ....	5	835 0 0	.		27	5,575 0 0	4	760 0 0
		Additional	9	1,548 1 0	4	984 0 0	27	2,608 3 0	3	280 0 0	2	140 0 0	..	..... .	38	4,297 0 0	7	1,264 0 0
		Non-residential		....	...	.....	...	... ..	...	..		.....	...	... .	...	....		. .....
Sydney	Campbell-town.	Original	2	200 0 0	...	....	1	319 3 0	1	160 0 0	...	. ...		. .... .	3	519 3 0	1	160 0 0
		Additional	...	.....	. .	....			. .	....	.	.	..	....	...	. . ....	..	....
		Non-residential	..	. .....	.	.. ..	...	.....	...	... .	.	... .. .	...	... .	.	... .	.	. ... .
	Penrith.... .	Original	.	. ...	1	42 0 0		..... .	...	. .	...	. ... .	...	....	...	....	1	42 0 0
		Additional	...	.... ..	. .	.. ..	...	....		. . .	...	..... .	...	.... . .	...	.. . .	...	.. . ..
		Non-residential	2	97 3 0	3	169 0 0		.	...	... .		....	...	... .	2	97 3 0	3	169 0 0
	Picton	Original	10	1,260 3 0	1	240 0 0	14	2,750 0 0	2	90 0 0	1	187 0 0	.	.....	25	4,197 3 0	3	330 0 0
		Additional ...	8	1,183 0 0	2	120 0 0	3	183 0 0		. . ... .	1	290 0 0		.....	12	1,656 0 0	2	120 0 0
		Non-residential	2	140 0 0	...	..... .	4	160 0 0	1	40 0 0		....	...	. . ..	6	300 0 0	1	40 0 0
	Windsor . .	Original	3	160 0 0	3	140 0 0	9	530 3 0	2	525 0 0	6	320 0 0	2	90 0 0	18	1,010 3 0	7	755 0 0
		Additional		..... .	1	40 0 0	11	720 3 0	2	80 0 0	2	186 0 0	...	...	13	906 3 0	3	120 0 0
		Non-residential	7	300 0 0	3	160 0 0	15	865 0 0	1	40 0 0	5	440 0 0	.	... .	27	1,605 0 0	4	200 0 0
	Parramatta	Original ..	4	226 0 0	.	.....	2	112 0 0		. ..	1	40 0 0	...	... .	7	378 0 0		. ...
		Additional .		.....	.	. .....	..	.. .		... .		.. ...	...	.. ...	. .	....	. .	... . ..
		Non-residential	4	181 0 0	5	249 0 0	6	440 0 0	1	50 0 0	9	725 3 0		....	19	1,346 3 0	6	299 0 0
	Liverpool .	Original .	..	... .		. . ..	. .	...		... . . .	.	... .	.	. . . . .	. .	.....	...	... .
		Additional		. . ..	.	.... .		..... .	..	.. ..	...	. . ..	...	... .		... .		....
		Non-residential	.	. . ...	...	..		.	..	.	...	.. ..	...	....	.	.....	.	... .
	Wollongong	Original	. .	... ...	.	... .		... .	...	... ..	...	....	...	... .		.....	. .	..... .
		Additional . .	...	. .....	...	... .	.	. . . ..	.	....	.	....		... .	...	... .	...	... .
		Non-residential		.. ...	...	. .	.	.....	.	. ...	...	....	. .	.....	...	....	...	.....

Local Land Board District.	Land District	Class of Application.	Applications made during 1891.				Applications made between 1st December, 1890, and 1st January, 1891.				Applications made prior to 1st December, 1890.				Total			
			Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.	
			No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.	No.	a. r. p.
	Kiama	Original	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Additional	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Metropolitan	Original	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Additional	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamworth	Coonabarabran.	Original	3	810 1 0	7	2,100 0 0	5	1,560 0 0	2	520 0 0	...	...	...	...	8	2,370 1 0	9	2,620 0 0
		Additional	3	817 0 0	10	934 0 0	11	1,083 3 0	1	274 1 0	...	...	...	...	14	1,900 3 0	11	1,208 0 0
		Non-residential	...	...	1	160 0 0	2	300 0 0	1	215 0 0	...	...	...	...	2	300 0 0	2	375 0 0
	Gunnedah	Original	28	3,239 2 0	6	1,210 0 0	9	2,795 2 0	2	911 0 0	...	...	...	...	37	6,035 0 0	8	2,121 0 0
		Additional	4	672 0 0	8	1,192 1 0	13	2,965 0 0	3	725 0 0	...	...	...	...	17	3,637 0 0	11	1,917 1 0
		Non-residential	...	...	...	...	...	...	1	84 0 0	...	...	...	...	...	...	1	84 0 0
	Murrurundi	Original	8	1,558 1 0	1	50 0 0	15	3,724 0 0	...	...	...	...	...	...	23	5,282 1 0	1	50 0 0
		Additional	14	1,647 3 0	6	851 1 0	32	5,275 2 0	1	320 0 0	1	358 0 0	...	...	47	7,281 1 0	7	1,171 1 0
		Non-residential	1	128 2 0	...	...	1	320 0 0	...	...	...	...	...	...	2	448 2 0	...	...
	Narrabri	Original	12	5,728 2 0	10	4,630 0 0	22	9,377 2 0	2	700 0 0	1	606 3 0	1	640 0 0	35	15712 3 0	13	5,970 0 0
		Additional	12	5,079 0 0	8	2,165 0 0	16	3,811 0 0	2	740 0 0	...	...	...	...	28	8,890 0 0	10	2,905 0 0
		Non-residential	1	100 0 0	2	115 0 0	...	...	...	...	...	...	...	...	1	100 0 0	2	115 0 9
	Tamworth	Original	37	7,435 1 0	9	1,610 0 0	83	17129 2 0	13	2,355 0 0	1	340 0 0	...	...	121	24904 3 0	22	3,965 0 0
		Additional	27	3,661 0 0	20	1,908 2 0	145	20564 0 0	7	630 0 0	1	40 0 0	...	...	173	24265 0 0	27	2,538 2 0
		Non residential	1	40 0 0	...	...	3	367 0 0	1	200 0 0	1	320 0 0	...	...	5	727 0 0	1	200 0 0
Wagga Wagga	Albury	Original	6	1,041 1 0	9	2,443 2 0	50	11841 2 0	35	9,668 1 0	3	700 0 0	1	640 0 0	59	13582 3 0	45	12751 3 0
		Additional	19	2,569 3 0	6	654 1 3	86	12874 1 9	32	3,978 3 0	1	80 0 0	...	...	106	15524 0 0	38	4,633 0 3
		Non-residential	...	...	...	...	1	160 0 0	...	...	2	254 3 0	...	...	3	414 3 0	...	...
	Cootamundra.	Original	43	10786 3 0	14	3,527 3 0	80	22458 1 0	19	5,430 2 0	2	355 0 0	...	...	125	33600 0 0	33	8,958 1 0
		Additional	24	3,831 3 0	16	3,231 3 0	29	7,156 1 0	23	5,008 1 0	2	499 1 0	...	...	55	11487 1 0	39	8,240 0 0
		Non-residential	1	133 0 0	...	...	...	...	...	...	...	...	...	...	1	133 0 0	...	...
	Corowa	Original	9	1,782 0 36	1	162 0 0	13	3,181 0 0	1	160 0 0	...	...	...	...	22	4,963 0 36	2	322 0 0
		Additional	10	2,156 0 0	4	790 0 0	16	3,595 1 25	7	904 0 0	...	...	...	...	26	5,751 1 25	11	1,694 0 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gundagai	Original	5	1,032 3 0	2	370 0 0	29	7,470 0 0	11	2,911 0 0	1	76 2 0	...	...	35	8,579 1 0	13	3,281 0 0
		Additional	12	971 3 0	8	757 0 0	34	3,812 3 0	22	2,609 0 29	5	1,002 0 0	...	...	51	5,786 2 0	30	3,366 0 29
		Non-residential	1	40 0 0	...	...	3	337 3 0	1	110 0 0	...	...	...	...	4	377 3 0	1	110 0 0
	Narrandera	Original	16	6,211 3 0	7	2,319 0 0	15	6,852 2 0	8	3,191 0 0	1	640 0 0	...	...	32	13704 1 0	15	5,510 0 0
		Additional	10	4,759 3 0	5	1,464 0 0	4	1,421 2 0	3	947 3 0	...	...	...	...	14	6,181 1 0	8	2,411 3 0
		Non-residential	...	...	...	...	...	...	1	96 0 0	1	40 0 0	...	...	1	40 0 0	1	96 0 0
	Tumut	Original	14	2,688 1 0	1	57 0 0	16	3,367 3 0	12	2,952 1 0	3	485 0 0	1	100 0 0	33	6,541 0 0	14	3,109 1 0
		Additional	17	1,986 1 0	13	2,045 0 0	25	3,580 3 0	26	2,823 3 0	2	250 3 0	1	40 0 0	44	5,817 3 0	40	4,908 3 0
		Non-residential	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Urana	Original	13	4,723 3 0	1	320 0 0	16	4,629 2 0	1	640 0 0	...	...	...	...	29	9,353 1 0	2	960 0 0
		Additional	6	1,233 1 0	4	2,280 3 0	11	2,106 3 0	4	835 0 0	...	...	...	...	17	3,340 0 0	8	3,115 3 0
		Non-residential	...	...	...	...	1	99 0 0	...	...	...	...	1	40 0 0	1	99 0 0	1	40 0 0
	Wagga Wagga	Original	29	6,780 3 0	4	1,219 0 0	41	8,877 2 0	3	980 0 0	3	340 0 0	1	160 0 0	73	15998 1 0	8	2,359 0 0
		Additional	24	9,172 3 0	7	1,149 2 0	33	5,685 0 20	5	565 0 0	3	716 3 0	1	40 0 0	60	15574 2 20	13	1,754 2 0
		Non-residential	2	266 2 0	1	80 0 0	1	160 0 0	...	...	...	...	1	160 0 0	3	426 2 0	2	240 0 0
Total			2,035	411,270 2 16	876	169,557 1 26	4,179	832,142 3 37	815	161,620 1 38	231	36677 1 19	46	6,058 0 0	6,445	1,280,090 3 32	1,737	337,235 3 24

Schedule IX.

Return showing the number of Instructions issued to, and Reports received from, Inspectors regarding Conditiona Purchases, Conditional Leases, Homestead Leases, or Miscellaneous Leases during the year 1891.

Land Board District.	Land District.	No. of Instructions issued to Inspectors to report on C.P's., C.L's., H.L's., or Misc. L's.					No. of C.P's., C.L's., H.L's., or Misc. L's. visited and reported on by Inspector.				
		Under Repealed Acts. C.P's.	Under Existing Acts.				Under Repealed Acts. C.P's.	Under Existing Acts.			
			C.P's.	C.L's.	H.L's.	Misc. L's.		C.P's.	C.L's.	H.L's.	Misc. L's.
Armidale	Armidale	1	370	397	.....	2	.....	414	343	.....	2
	Glen Innes	.....	105	67	.....	1	.....	116	45	.....	1
	Inverell	.....	84	69	.....	.....	.....	82	42	.....	.....
	Tenterfield	.....	44	42	.....	.....	.....	48	19	.....	.....
	Walcha	.....	131	136	.....	4	.....	127	127	.....	4
Bourke	Bourke	4	8	.....	162	.....	.....	8	.....	103	.....
	Brewarrina	.....	.....	.....	71	.....	.....	.....	.....	68	.....
	Brewarrina, East	1	1	1	.....	.....	1	.....	.....	.....	.....
	Cobar	.....	.....	.....	18	.....	.....	.....	.....	.....	.....
	Cobar, East	.....	21	11	.....	.....	.....	.....	.....	.....	.....
	Wilcannia	.....	.....	.....	9	.....	.....	.....	.....	2	.....
	Willyama	.....	.....	.....	1	.....	.....	.....	.....	1	.....
Cooma	Bega	.....	111	11	.....	.....	.....	117	11	.....	.....
	Bombala	.....	71	46	.....	.....	.....	42	10	.....	.....
	Braidwood	2	129	35	.....	.....	2	116	21	.....	.....
	Cooma	.....	224	234	.....	1	6	172	65	.....	1
	Eden	1	133	25	.....	.....	1	103	18	.....	.....
	Milton	.....	53	12	.....	.....	.....	77	19	.....	.....
	Moruya	.....	124	19	.....	.....	.....	111	15	.....	.....
	Queanbeyan	4	176	62	.....	.....	19	123	26	.....	.....
Dubbo	Coonamble	1	340	176	.....	.....	1	152	96	.....	.....
	Dubbo	.....	443	257	.....	3	.....	320	155	.....	.....
Forbes	Condobolin	.....	288	119	.....	.....	.....	77	34	.....	.....
	Forbes	.....	276	97	.....	1	.....	196	78	.....	.....
	Grenfell	.....	298	107	.....	.....	.....	214	92	.....	.....
	Parkes	.....	417	232	.....	.....	.....	243	143	.....	.....
Goulburn	Berrima, now Moss Vale	.....	99	14	.....	.....	.....	44	5	.....	.....
	Burrowa	2	277	148	.....	1	1	214	48	.....	1
	Goulburn	4	251	155	.....	.....	3	151	30	.....	.....
	Gunning	.....	155	72	.....	1	1	95	41	.....	1
	Nowra	.....	63	2	.....	.....	.....	20	1	.....	.....
	Yass	6	139	55	.....	.....	10	101	23	.....	.....
	Young	4	172	31	.....	1	4	81	14	.....	1
Grafton	Bellingen	.....	126	19	.....	.....	.....	129	15	.....	.....
	Casino	3	188	83	.....	10	2	121	55	.....	3
	Grafton	.....	232	74	.....	71	.....	168	44	.....	39
	Kempsey	.....	183	47	.....	.....	2	81	12	.....	.....
	Lismore	3	122	14	.....	.....	1	111	10	.....	.....
	Murwillumbah	.....	95	8	.....	.....	.....	47	1	.....	.....
	Port Macquarie	.....	105	19	.....	.....	.....	79	8	.....	.....
Hay	Balranald	.....	.....	8	26	.....	.....	.....	.....	22	.....
	Balranald (South)	.....	4	1	.....	.....	.....	3	.....	.....	.....
	Deniliquin	.....	71	24	.....	.....	.....	32	6	.....	.....
	Hay	.....	321	199	.....	.....	.....	192	80	.....	.....
	Hay (North)	.....	.....	3	60	.....	.....	.....	.....	54	.....
	Hillston	.....	34	34	.....	.....	.....	26	13	.....	.....
	Hillston (North)	.....	.....	4	24	.....	.....	.....	.....	21	.....
	Wentworth	.....	.....	31	17	.....	.....	.....	.....	.....	.....
Maitland	Cassilis	.....	317	150	.....	.....	.....	200	80	.....	.....
	Dungog	.....	76	24	.....	.....	.....	71	22	.....	.....
	Gosford	4	70	1	.....	.....	4	60	.....	.....	.....
	Maitland	.....	16	1	.....	.....	.....	5	.....	.....	.....
	Muswellbrook	.....	70	36	.....	.....	23	55	13	.....	.....
	Newcastle	.....	4	.....	.....	.....	.....	3	.....	.....	.....
	Paterson	.....	74	25	.....	.....	.....	9	.....	.....	.....
	Raymond Terrace	.....	53	10	.....	.....	.....	30	2	.....	.....
	Scone	.....	249	103	.....	.....	.....	224	92	.....	.....
	Singleton	1	106	36	.....	.....	.....	79	29	.....	.....
	Stroud	.....	75	18	.....	.....	.....	21	5	.....	.....
	Taree	.....	349	40	.....	.....	.....	191	21	.....	.....
	Wollombi	.....	51	9	.....	.....	4	42	7	.....	.....

SCHEDULE IX—*continued.*

Land Board District.	Land District.	No. of Instructions issued to Inspectors to report on C.P's., C.L's., H.L's., or Misc. L's.					No. of C.P's., C.L's., H.L's., or Misc. L's. visited and reported on by Inspector.				
		Under Repealed Acts. C.P's.	Under Existing Acts.				Under Repealed Acts. C.P's.	Under Existing Acts.			
			C.P's.	C.L's.	H.L's.	Misc. L's.		C.P's.	C.L's.	H.L's.	Misc. L's.
Moree	Bingara	2	27	20	.....	.....	2	27	8	.....	.....
	Moree	.....	159	115	.....	.....	.....	159	112	.....	.....
	Walgett	.....	78	11	.....	.....	.....	58	10	.....	.....
	Walgett North	.....	.....	12	30	13	.....	.....	4	30	10
	Warialda	.....	73	59	.....	.....	.....	67	27	.....	.....
Orange	Bathurst	.....	96	29	.....	.....	.....	37	11	.....	.....
	Carcoar	2	167	46	.....	.....	.....	119	33	.....	.....
	Cowra	.....	131	44	.....	.....	.....	35	11	.....	.....
	Lithgow	8	194	27	.....	.....	8	97	12	.....	.....
	Mólong	.....	123	28	.....	.....	.....	72	22	.....	.....
	Mudgee	.....	99	22	.....	.....	.....	74	23	.....	.....
	Orange	.....	45	19	.....	.....	.....	19	6	.....	.....
	Rylstone	.....	78	29	.....	.....	.....	89	22	.....	.....
	Wellington	.....	195	84	.....	.....	.....	147	66	.....	.....
Sydney	Campbelltown	.....	19	10	.....	.....	.....	18	8	.....	.....
	Kiama	.....	7	.....	.....	.....	.....	4	.....	.....	.....
	Liverpool	.....	4	.....	.....	.....	.....	4	.....	.....	.....
	Metropolitan	.....	5	.....	.....	.....	.....	5	.....	.....	.....
	Parramatta	.....	43	.....	.....	.....	.....	40	.....	.....	.....
	Penrith	.....	18	1	.....	.....	.....	17	1	.....	.....
	Picton	.....	91	14	.....	.....	.....	83	11	.....	.....
	Windsor	.....	114	.....	.....	.....	.....	104	.....	.....	.....
	Wollongong	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tamworth	Coonabarrabran	2	117	59	.....	2	2	121	61	.....	2
	Gunnedah	.....	75	22	.....	4	.....	66	46	.....	.....
	Murrurundi	.....	103	39	.....	.....	.....	99	43	.....	.....
	Narrabri	.....	158	85	.....	.....	.....	128	74	.....	.....
	Tamworth	.....	345	241	.....	9	.....	281	155	.....	5
Wagga Wagga	Albury	1	180	51	.....	.....	1	173	34	.....	.....
	Cootamundra	.....	227	32	.....	.....	.....	157	13	.....	.....
	Corowa	.....	108	11	.....	.....	.....	114	9	.....	.....
	Gundagai	1	93	44	.....	1	1	66	2	.....	1
	Narrandera	.....	115	60	.....	.....	.....	72	29	.....	.....
	Tumut	1	77	79	.....	.....	5	107	21	.....	.....
	Urana	.....	81	32	.....	.....	.....	48	15	.....	.....
	Wagga Wagga	3	294	100	.....	.....	3	331	105	.....	.....
	Totals	61	11,733	5,078	418	125	107	8,581	3,030	301	71

SCHEDULE X.

RETURN showing the number of Cases referred to the Local Land Boards from 1st January to 31st December, 1891.

Land Districts.	Cases for Inspection.	Cases for Inquiry.	Total.	Land Districts.	Cases for Inspection.	Cases for Inquiry.	Total.
Armidale	2	14	16	Maitland	Nil	87	87
Bourke	Nil	1	1	Moree	4	66	70
Cooma	4	176	180	Orange	Nil	143	143
Dubbo	Nil	75	75	Sydney	Nil	24	24
Forbes	Nil	30	30	Tamworth	Nil	115	115
Goulburn	Nil	109	109	Wagga Wagga	3	41	44
Grafton	1	129	130				
Hay	Nil	12	12	Total	14	1,022	1,036

Schedule XI.

Return showing the number of Certificates issued during the year 1891, with the number of Amended Certificates issued on account of alterations:—

No. of Certificates	1,584
,, Amended Certificates	12
	1,596

Schedule XII.

Return showing the number of Transfers of Conditional Purchases received from 1st January to 31st December, 1891, and the number dealt with, inclusive of those on hand, during that period:—

Number of Transfers received	10,240
,, ,, intimated to Treasury	11,494
,, Conditional Purchases thereby transferred	24,536
,, ,, actually transferred	16,727
,, Transfers upon which Stamp Duty was paid	3,133
Amount of Stamp Duty paid thereon	£6,256
Number of Transfers registered in Registrar-General's Office	11,236
,, ,, in Registrar-General's Office awaiting registration	246
,, Crown Solicitor's Certificates received	341
,, Notices despatched informing parties, Crown Land Agents, and Chairmen of Local Land Boards of Registration	19,461

Schedule XIII.

Return showing the number of Transfers intimated to the Treasury, the number of C.P's. included therein, and the actual number of C.P.'s and area thereof transferred during the year ending the 31st December, 1891.

District.	No. of Transfers	No. of C.P's.	Area actually transferred.	No. of C.P's. actually transferred.	District.	No. of Transfers.	No. of C.P's.	Area actually transferred.	No. of C.P's. actually transferred.
			a. r. p.					a. r. p.	
Albury	512	1,029	117,577 0 33	764	Milton	22	51	2,564 3 22	40
Armidale	293	610	58,176 1 35	455	Moama	.....	.....	.....	.....
Balranald	17	24	4,396 2 0	19	Molong	435	1,018	70,843 3 7	657
Bathurst	176	478	22,219 3 28	301	Moree	163	240	65,167 2 0	158
Bega	118	281	11,999 0 29	193	Moruya	38	103	4,350 0 19	68
Bellingen	77	121	6,032 3 24	86	Moss Vale	63	107	4,942 1 0	81
Bingera	47	92	8,015 3 36	77	Mudgee	74	224	9,095 0 27	164
Bombala	371	726	65,660 2 13	436	Murrurundi	158	325	24,101 3 36	198
Bourke	34	49	13,517 3 0	41	Murwillumbah	75	124	10,486 0 12	90
Braidwood	75	193	10,740 3 0	163	Muswellbrook	64	151	7,583 3 36	130
Brewarrina	16	34	5,089 2 0	22	Narrabri	129	178	38,906 0 0	115
Burrowa	327	850	49,705 1 22	548	Narrandera	152	215	72,839 0 0	138
Campbelltown	.....	.....	.....	.....	Newcastle	6	8	887 1 0	5
Carcoar	132	332	18,389 2 20	216	Nowra	52	93	5,791 2 28	81
Casino	95	213	16,341 2 17	112	Orange	213	501	19,049 2 26	284
Cassilis	53	158	10,014 3 20	130	Parkes	101	149	28,846 0 0	95
Cobar	13	27	2,964 1 0	27	Parramatta	4	6	224 0 0	5
Condobolin	35	53	14,851 3 0	44	Paterson	13	37	1,961 3 0	36
Cooma	340	884	72,364 1 19	635	Penrith	7	9	1,252 0 0	8
Coonabarabran	54	97	10,867 1 12	84	Picton	12	14	746 0 0	13
Coonamble	144	280	51,098 0 26	166	Port Macquarie	50	98	6,057 0 17	86
Cootamundra	412	1,051	70,260 0 25	597	Queanbeyan	322	1,042	54,230 1 18	701
Corowa	242	449	77,782 0 11	314	Raymond Terrace	7	21	1,371 0 0	20
Cowra	159	409	29,713 2 26	238	Rylstone	35	77	4,014 3 30	60
Deniliquin	185	264	48,532 2 15	191	Scone	102	254	15,076 1 24	221
Dubbo	262	433	86,649 0 34	300	Singleton	122	271	15,850 3 12	185
Dungog	9	32	2,063 2 4	32	Stroud	20	34	2,629 3 0	30
Eden	99	233	15,982 3 35	160	Tamworth	310	613	43,631 2 5	356
Forbes	177	362	48,304 1 0	226	Taree	156	338	15,583 0 0	234
Glen Innes	141	363	29,297 2 36	267	Tenterfield	40	82	5,586 3 0	61
Gosford	52	82	4,266 1 5	70	Tumut	161	388	23,028 1 6	236
Goulburn	210	551	29,910 3 39	457	Urana	197	261	58,133 2 3	184
Grafton	156	377	21,291 3 4	224	Wagga Wagga	662	1,329	191,737 3 11	918
Grenfell	152	268	41,766 1 37	162	Walcha	88	175	24,638 2 10	126
Gundagai	143	369	22,313 2 28	262	Walgett	17	21	8,909 1 0	18
Gunnedah	202	363	62,946 0 36	279	Warialda	93	171	26,775 1 15	98
Gunning	194	601	29,181 3 1	415	Wellington	129	295	15,535 1 17	198
Hay	162	232	77,049 3 31	176	Wentworth	17	22	4,543 0 0	20
Hillston	34	47	14,496 3 0	39	Wilcannia	.....	.....	.....	.....
Inverell	213	417	34,223 3 11	252	Willyama	2	2	81 0 0	2
Kempsey	105	213	14,835 1 31	156	Windsor	10	12	860 0 0	12
Kiama	11	14	695 3 18	12	Wollombi	16	28	1,616 0 0	24
Lismore	362	540	31,258 0 33	346	Wollongong	.....	.....	.....	.....
Lithgow	45	99	5,321 0 33	86	Yass	180	403	25,161 1 33	313
Liverpool	1	1	96 2 0	1	Young	300	713	48,775 2 38	454
Maitland	20	32	2,076 2 0	23					
Metropolitan	.....	.....	.....	.....	Total	11,494	24,536	2,333,807 2 39	16,727

Schedule XIV.

Return showing Number and Area of Conditional Purchases declared forfeited during the year 1891 for non-fulfilment of the required conditions.

District.	Crown Lands Alienation Act of 1861.												Crown Lands Act of 1884.													
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26.		Section 42.		Section 47.		Sections 26, 24.		Sections 42, 24.		Sections 47, 24.		Total.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		a. r.		a. r.		a. r.		a. r.		a. r.		a. r.		a. r. p.		a. r.		a. r.		a. r.		a.		a.		a. r. p.
Albury	...	.....	...	.....	3	120 0	...	.....	...	.....	3	120 0	1	250 0 0	1	40 0	...	.....	...	...	...	..	1	40	3	330 0 0
Armidale	...	.....	...	.....	...	.....	..	.....	...	.....	...	.....	8	937 2 0	4	347 2	...	.....	...	...	...	...	...	...	12	1,285 0 0
Balranald	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Bathurst	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	3	148 3 0	3	120 0	...	.....	...	...	...	...	...	...	6	268 3 0
Bega	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	6	320 0 0	6	265 0	...	.....	...	...	...	...	...	...	12	585 0 0
Bellingen	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	7	520 0 0	...	.....	...	.....	1	110 0	...	...	...	...	8	636 0 0
Berrima	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	3	131 0 0	1	70 2	3	140 0	...	...	...	...	...	...	7	341 2 0
Bingera	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Bombala	...	.....	1	40 0	...	.....	...	.....	...	.....	1	40 0	1	40 0 0	...	.....	1	40 0	...	...	...	...	...	...	2	80 0 0
Bourke	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Braidwood	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	3	120 0 0	5	388 0	1	40 0	..	...	...	...	...	...	9	548 0 0
Brewarrina	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Burrowa	...	.....	...	.....	...	.....	...	.....	...	.....	..	.....	4	180 0 0	...	.....	...	.....	...	...	...	...	...	...	4	180 0 0
Campbelltown	...	.....	...	.....	...	.....	...	.....	...	.....	..	.....	3	500 0 0	..	.....	...	.....	...	...	...	...	...	...	3	500 0 0
Carcoar	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	1	40 0 0	1	120 0	...	.....	...	...	...	...	...	...	2	160 0 2
Casino	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	4	684 3 0	...	.....	...	.....	...	...	...	...	...	..	4	684 3 0
Cassilis	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	5	407 0 0	1	318 2	...	.....	...	...	...	...	...	...	6	725 2 0
Cobar	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Condobolin	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Cooma	1	100 0	...	.....	...	.....	...	.....	...	.....	1	100 0	6	1,035 0 0	4	170 0	...	.....	...	...	...	...	...	...	10	1,205 0 0
Coonabarabran	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	7	680 0 0	...	.....	1	40 0	...	...	...	...	...	...	8	720 0 0
Coonamble	...	.....	...	.....	...	.....	...	.....	..	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Cootamundra	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	1	160	...	...	1	160 0 0
Corowa	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	1	167 3 0	...	.....	1	60 0	3	289 2	...	...	...	...	5	517 1 0
Cowra	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	1	40 0 0	...	.....	...	.....	...	...	...	...	...	...	1	40 0 0
Deniliquin	2	603 2	...	.....	...	.....	1	60 0	...	.....	3	663 2	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Dubbo	...	.....	...	.....	...	.....	...	.....	...	.....	..	.....	1	50 0 0	...	.....	...	.....	...	...	...	...	...	...	1	50 0 0
Dungog	...	.....	...	.....	...	.....	...	.....	...	.....	..	.....	1	40 0 0	...	.....	...	.....	...	...	...	...	...	...	1	40 0 0
Eden	1	40 0	...	.....	...	.....	...	.....	...	.....	1	40 0	9	787 0 0	1	40 0	...	.....	...	...	...	...	...	...	10	827 0 0
Forbes	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	1	2 0	...	...	...	...	1	2 0 0
Glen Innes	1	640 0	...	.....	...	.....	...	.....	...	.....	1	640 0	1	320 0 0	1	49 0	...	.....	...	...	...	...	...	...	2	369 0 0
Gosford	...	.....	..	.....	...	.....	...	.....	...	.....	...	.....	2	80 0 0	1	40 0	4	283 2	...	...	...	...	...	...	7	403 2 0
Goulburn	...	.....	1	48 0	...	.....	...	.....	...	.....	1	48 0	14	925 0 0	8	488 0	1	203 0	...	...	...	...	...	...	23	1.616 0 0
Grafton	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	7	594 0 0	3	240 0	3	170 0	1	141 0	...	...	...	...	14	1,145 0 0
Grenfell	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	6	1,283 2 0	...	.....	...	.....	...	...	...	...	...	..	6	1,283 2 0
Gundagai	...	.....	...	.....	1	240 0	...	.....	...	.....	1	240 0	2	80 0 0	1	200 0	..	.....	...	...	...	...	...	...	3	280 0 0
Gunnedah	..	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	2	460 0	...	.....	...	...	...	...	...	...	2	460 0 0
Gunning	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	3	247 0 0	1	430 0	...	.....	...	...	...	...	...	...	4	677 0 0
Hay	..	.....	...	.....	...	.....	...	.....	...	.....	...	.....	2	425 0 0	...	.....	...	.....	...	...	...	...	...	...	2	425 0 0
Hillston	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	...	...	...	...	...	.....
Inverell	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	4	330 0 0	2	89 0	...	.....	...	...	...	...	...	...	6	419 0 0
Kempsey	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	5	379 1 0	...	.....	2	88 1	...	...	...	...	...	...	7	467 2 0
Kiama	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	3	338 0 0	...	.....	...	.....	...	...	...	...	...	...	3	338 0 0
Lismore	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	4	271 2 0	1	40 0	1	40 0	2	94 1	...	...	..	...	8	445 3 0
Lithgow	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	9	1,249 3 32	...	.....	...	.....	...	...	...	..	...	...	9	1,249 3 32
Liverpool	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	...	..	...	...	...	...	.....
Maitland	..	.....	...	.....	...	.....	...	.....	...	.....	...	.....	1	40 0 0	...	.....	...	.....	...	...	...	...	...	...	1	40 0 0

SCHEDULE XIV—*continued.*

District.	Crown Lands Act of 1861.												Crown Lands Act of 1884.																	
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26.		Section 42.		Section 47.		Sections 26, 24.		Sections 42, 24.		Sections 47, 24.		Total.						
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.				
		a. r.		a. r.		a. r.		a. r.		a. r.		a. r.		a. r. p.		a. r.		a. r.		a. r.						a. r. p.				
Milton	...	...	...	...	...	...	...	...	...	...	...	...	3	197 1 0	2	312 0	...	...	...	...	...	...	...	...	5	509 1 0				
Moama	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Molong	...	...	...	...	...	...	...	...	...	...	...	...	1	50 0 0	...	...	...	...	...	...	...	...	...	...	1	50 0 0				
Moree	...	...	...	...	...	...	...	...	...	...	...	...	8	2,890 0 0	2	93 2	...	...	...	...	...	...	...	...	10	2,983 2 0				
Moruya	...	...	...	...	...	...	...	...	...	...	...	...	1	50 0 0	...	...	...	...	...	...	...	...	...	...	1	50 0 0				
Mudgee	...	...	...	...	...	...	...	...	...	...	...	...	4	162 0 0	...	...	...	...	...	...	...	...	...	...	4	162 0 0				
Murrurundi	1	50 0	...	...	...	...	...	...	...	...	1	50 0	4	1,496 2 9	1	40 0	...	...	...	...	...	...	...	...	5	1,536 2 0				
Murwillumbah	...	...	...	...	...	...	...	...	...	...	...	...	6	404 0 0	1	40 0	1	320 0	3	230 0	1	40	...	...	12	1,034 0 0				
Muswellbrook	...	...	...	...	...	...	...	...	...	...	...	...	4	678 1 0	1	95 3	...	...	...	...	...	...	...	...	5	774 0 0				
Narrabri	...	...	...	...	...	...	...	...	...	...	...	...	7	1,990 3 0	...	...	1	51 0	...	...	...	...	...	...	8	2,041 3 0				
Narrandera	1	198 0	...	...	...	...	...	...	...	...	1	198 0	1	250 0 0	...	...	...	...	...	...	...	...	...	...	1	250 0 0				
Newcastle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Nowra	...	...	...	...	...	...	...	...	...	...	...	...	1	98 1 0	...	...	...	...	...	...	...	...	...	...	1	98 1 0				
Orange	...	...	...	...	...	...	...	...	...	...	...	...	1	60 0 0	1	40 0	...	...	...	...	...	...	...	...	2	100 0 0				
Parkes	...	...	...	...	...	...	...	...	...	...	...	...	1	640 0 0	...	...	1	180 0	...	...	...	...	...	...	2	820 0 0				
Parramatta	...	...	...	...	...	...	...	...	...	...	...	...	1	49 2 0	...	...	3	209 0	...	...	...	...	...	...	4	258 2 0				
Paterson	...	...	...	...	...	...	...	...	...	...	...	...	1	40 0 0	1	40 0	...	...	...	...	...	...	...	...	2	80 0 0				
Penrith	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	104 0	...	...	...	...	...	...	2	104 0 0				
Picton	...	...	...	...	2	80 0	...	...	...	...	2	80 0	8	705 0 0	2	160 0	2	120 3	...	...	...	...	...	...	12	985 3 0				
Port Macquarie	...	...	...	...	...	...	...	...	...	...	...	...	7	690 0 0	...	...	...	...	...	...	...	...	...	...	7	690 0 0				
Queanbeyan	...	...	...	...	...	...	...	...	...	...	...	...	8	691 1 0	5	602 1	...	...	...	...	...	...	...	...	13	1,293 2 0				
Raymond Terrace	...	...	...	...	...	...	...	...	...	...	...	...	1	273 3 0	...	...	1	241 0	...	...	...	...	...	...	2	514 3 0				
Rylstone	...	...	...	...	...	...	...	...	...	...	...	...	2	80 0 0	...	...	...	...	...	...	...	...	...	...	2	80 0 0				
Scone	...	...	...	...	...	...	...	...	...	...	...	...	5	530 0 0	2	120 0	...	...	...	...	...	...	...	...	7	650 0 0				
Singleton	...	...	...	...	...	...	...	...	...	...	...	...	5	370 0 0	1	40 0	...	...	...	...	...	...	...	...	6	410 0 0				
Stroud	...	...	...	...	...	...	...	...	...	...	...	...	6	440 0 0	3	230 1	...	...	...	...	...	...	...	...	9	670 1 0				
Sydney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Tamworth	...	...	...	...	...	...	...	...	...	...	...	...	8	620 2 0	...	...	1	60 3	...	...	...	...	...	...	9	681 1 0				
Taree	...	...	...	...	...	...	...	...	...	...	...	...	23	1,841 3 20	4	203 0	1	40 0	...	...	...	...	...	...	28	2,084 3 20				
Tenterfield	...	...	...	...	...	...	...	...	...	...	...	...	5	500 0 9	3	193 0	3	160 0	...	...	...	...	...	...	11	853 0 9				
Tumut	...	...	...	...	1	317 0	...	...	...	...	1	317 0	9	1,108 1 0	9	1,537 0	...	...	...	...	...	...	...	...	18	2,645 1 0				
Urana	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Wagga Wagga	2	720 0	...	...	3	420 0	1	360 0	6	1,500 0	6	648 1 0	...	...	...	...	2	320 0	...	...	1	146 3	9	1,015 0 0				
Walcha	...	...	...	...	...	...	...	...	...	...	...	...	4	537 2 0	1	75 3	...	...	...	...	...	...	...	...	5	613 1 0				
Warialda	1	519 0	...	...	...	...	...	...	1	519 0	6	696 0 0	...	...	...	...	...	...	...	...	...	...	...	6	696 0 0				
Walgett	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Wellington	...	...	...	...	...	...	...	...	...	...	...	...	1	80 0 0	...	...	...	...	...	...	...	...	...	...	1	80 0 0				
Wentworth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Wilcannia	1	100 0	...	...	1	40 0	...	...	...	...	2	140 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Willyama	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Windsor	...	...	...	...	...	...	...	...	...	...	...	...	5	210 0 0	...	...	2	98 0	...	...	...	...	...	...	7	308 0 0				
Wollombi	...	...	...	...	...	...	...	...	...	...	...	...	10	474 3 0	1	40 0	...	...	...	...	...	...	...	...	11	514 3 0				
Wollongong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Yass	...	...	...	...	...	...	...	...	...	...	...	...	1	40 0 0	...	...	1	40 0	...	...	...	...	...	...	2	80 0 0				
Young	...	...	...	...	...	...	...	...	...	...	...	...	1	40 0 0	1	81 0	...	...	...	...	...	...	...	...	2	121 2 0				
Total	11	2,970 2	2	88 0	7	480 0	5	797 0	1	360 0	26	4,695 2	303	33,275 2 21	88	7,859 2	37	2,729 1	13	1,192 3	2	200	2	86 3	445	45,343 3 21				

Grand Total, 471 Conditional Purchases. Area, 50,039 acres 1 rood 21 perches.

Schedule XV.

Return showing Number and Area of Conditional Purchases declared forfeited during the year 1891 for non-payment of balance, interest, or instalment of purchase money.

Nil.

Schedule XVI.

Return showing the Number and Area of Conditional Purchases forfeited each year to 31st December, 1891.

Year.	Number.	Area.			Year.	Number.	Area.		
		a.	r.	p.			a.	r.	p.
1864	26	1,666	1	0	1879	141	15,510	0	0
1865	24	1,490	0	0	1880	492	66,658	0	0
1866	29	1,658	2	0	1881	557	71,924	3	3
1867	366	23,750	0	0	1882	523	78,551	2	5
1868	357	20,253	0	0	1883	822	104,534	2	17
1869	631	45,654	3	0	1884	1,163	190,936	2	0
1870	180	11,546	0	0	1885	1,227	225,610	2	31
1871	335	18,602	0	10	1886	386	48,556	0	20
1872	139	9,304	3	0	1887	702	138,479	0	21
1873	288	39,778	1	16	1888	2,022	288,399	3	31
1874	234	42,003	2	29	1889	796	96,925	3	5
1875	1,166	126,342	2	35	1890	*791	114,622	0	31
1876	724	89,915	1	0	1891	471	50,039	1	21
1877	802	107,536	3	5					
1878	1,075	136,308	0	0	Total	16,469	2,166,558	3	0

* This includes 52 C.P's., area 5,150 acres, declared lapsed.

Schedule XVII.

Return showing the number and total Area of Conditional Purchases lapsed (under the Repealed Acts) in each year up to 31st December, 1891.

Year.	Number.	Area.			Year.	Number.	Area.		
		a.	r.	p.			a.	r.	p.
1865	415	32,748	3	6	1880	1,308	185,255	0	31
1866	556	38,821	3	2	1881	990	119,880	2	34
1867	392	28,394	1	24	1882	451	43,830	2	10
1868	178	11,045	2	24	1883	341	35,568	1	6
1869	372	30,009	3	34	1884	958	125,274	2	0
1870	366	26,259	0	1	1885	998	124,827	2	10
1871	136	9,630	0	0	1886	753	126,283	0	39
1872	213	13,085	3	0	1887	.....	.....		
1873	663	48,330	0	28	1888	.....	.....		
1874	143	10,375	3	0	1889	.....	.....		
1875	503	33,043	0	19	1890	52	5,150	0	0
1876	966	78,841	1	37	1891	.....	.....		
1877	2,422	236,364	2	21					
1878	1,811	210,014	3	18	Total	16,228	1,708,559	2	8
1879	1,241	135,524	0	33					

Schedule XVIII.

Return showing number of Conditional Purchases increased or reduced in area, or declared void, with general reasons for such voidance, and a synopsis of the areas and sums called for and refunded in connection therewith.

District.	Increased.		Reduced.		Void.	
	No.	Area.	No.	Area.	No.	Area.
		a. r. p.		a. r. p.		a. r. p.
Albury	3	22 3 0	29	203 2 1	.....	.....
Armidale	.....	.....	2	2 3 30	.....	.....
Balranald	.....	.....	.....	.....	.....	.....
Bathurst	1	7 2 6	3	4 3 33	.....	.....
Bega	1	3 0 0	11	14 0 15	.....	.....
Bellingen	.....	.....	.....	.....	.....	.....
Berrima	.....	.....	3	1 3 10	.....	.....
Bingera	.....	.....	.....	.....	4	500 0 0
Bombala	1	3 1 0	2	5 1 0	.....	.....
Bourke	.....	.....	1	0 3 20	.....	.....
Braidwood	.....	.....	2	3 0 20	.....	.....
Brewarrina	.....	.....	.....	.....	.....	.....
Burrowa	2	11 2 0	1	1 1 0	1	40 0 0
Campbelltown	.....	.....	1	7 0 0	.....	.....
Carcoar	.....	.....	1	60 0 0	.....	.....
Casino	2	1 1 0	3	28 1 0	.....	.....
Cassilis	.....	.....	1	4 0 15	.....	.....
Cobar	.....	.....	5	33 1 4	.....	.....
Condobolin	1	0 0 13	.....	.....	.....	.....

SCHEDULE XVIII—*continued.*

District.	Increased.		Reduced.		Void.	
	No.	Area.	No.	Area.	No.	Area.
		a. r. p.		a. r. p.		a. r. p.
Cooma	1	0 1 0	20	23 2 39	.....	.....
Coonabarabran	.....	.....	.....	.....	.....	.....
Coonamble	.....	.....	.....	.....	2	640 0 0
Cootamundra	1	0 1 0	2	2 0 20	.....	.....
Corowa	.....	.....	28	153 2 12	.....	.....
Cowra	.....	.....	5	15 0 39	.....	.....
Deniliquin	.....	.....	.....	.....	.....	.....
Dubbo	.....	.....	3	18 2 10	.....	.....
Dungog	.....	.....	.....	.....	.....	.....
Eden	.....	.....	.....	.....	.....	.....
Forbes	3	10 3 0	5	22 2 0	.....	.....
Glen Innes	.....	.....	3	9 3 4	.....	.....
Gosford	2	40 2 0	1	2 0 0	.....	.....
Goulburn	.....	.....	1	11 1 0	.....	.....
Grafton	.....	.....	3	2 3 39	.....	.....
Grenfell	.....	.....	.....	.....	.....	.....
Gundagai	2	16 3 29	1	1 0 0	1	100 0 0
Gunnedah	.....	.....	.....	.....	.....	.....
Gunning	1	2 0 0	.....	.....	.....	.....
Hay	.....	.....	.....	.....	.....	.....
Hillston	.....	.....	5	32 3 36	.....	.....
Inverell	.....	.....	1	3 1 10	.....	.....
Kempsey	2	20 0 30	8	14 2 5	.....	.....
Kiama	.....	.....	1	0 3 0	.....	.....
Lismore	4	14 2 25	35	82 1 4	.....	.....
Lithgow	.....	.....	1	0 0 18	.....	.....
Liverpool	1	3 1 0	.....	.....	.....	.....
Maitland	.....	.....	.....	.....	.....	.....
Milton	.....	.....	1	0 0 24	.....	.....
Moama	.....	.....	.....	.....	.....	.....
Molong	1	3 0 10	2	1 1 30	.....	.....
Moree	.....	.....	.....	.....	.....	.....
Moruya	2	2 1 10	.....	.....	.....	.....
Mudgee	2	15 3 30	2	3 2 25	.....	.....
Murrurundi	1	10 0 0	11	32 2 20	.....	.....
Murwillumbah	1	1 2 0	8	14 2 15	.....	.....
Muswellbrook	.....	.....	.....	.....	.....	.....
Narrabri	.....	.....	.....	.....	.....	.....
Narrandera	2	12 3 37	.....	.....	.....	.....
Newcastle	.....	.....	3	26 2 33½	.....	.....
Nowra	.....	.....	1	0 1 0	.....	.....
Orange	.....	.....	3	3 2 30	.....	.....
Parkes	2	4 1 13	2	3 3 33	.....	.....
Parramatta	.....	.....	.....	.....	.....	.....
Paterson	.....	.....	.....	.....	.....	.....
Penrith	.....	.....	.....	.....	.....	.....
Picton	.....	.....	.....	.....	.....	.....
Port Macquarie	.....	.....	.....	.....	.....	.....
Queanbeyan	.....	.....	1	0 1 25	.....	.....
Raymond Terrace	.....	.....	.....	.....	.....	.....
Rylstone	1	2 0 0	2	8 0 20	.....	.....
Scone	.....	.....	1	2 1 0	.....	.....
Singleton	4	4 3 0	21	49 0 10	.....	.....
Stroud	.....	.....	.....	.....	.....	.....
Sydney	.....	.....	.....	.....	.....	.....
Tamworth	1	7 2 0	3	6 1 5	.....	.....
Taree	.....	.....	7	14 1 26	.....	.....
Tenterfield	.....	.....	.....	.....	.....	.....
Tumut	.....	.....	2	2 2 20	.....	.....
Urana	.....	.....	7	64 3 20	.....	.....
Wagga Wagga	2	2 3 9	3	17 2 3	.....	.....
Walcha	.....	.....	.....	.....	.....	.....
Walgett	.....	.....	.....	.....	.....	.....
Warialda	2	7 0 20	.....	.....	.....	.....
Wentworth	.....	.....	.....	.....	.....	.....
Wellington	.....	.....	.....	.....	.....	.....
Wilcannia	.....	.....	4	7 0 20	.....	.....
Willyama	.....	.....	.....	.....	.....	.....
Windsor	.....	.....	.....	.....	.....	.....
Wollombi	.....	.....	.....	.....	.....	.....
Wollongong	.....	.....	.....	.....	.....	.....
Yass	.....	.....	7	20 1 16	.....	.....
Young	2	24 1 0	3	0 2 0	1	70 2 0
Total	51	256 2 32	282	1,047 2 39½	9	1,350 2 0

Reasons of Voidance.

The land having been found to be auriferous	4
Conditional Purchase separated from its base by the voidance of an intermediate Additional Conditional Purchase	1
Selector was not of the prescribed age at date of application	2
Land was not available at date of application	1
Maximum area exceeded	1
Total	9

SYNOPSIS.

	No.	Area.	Amount authorised for refund.
		a. r. p.	£ s. d.
Conditional Purchases declared void	9	1,350 2 0	177 12 6
Conditional Purchases reduced in area	282	1,047 2 39½	157 8 1
	291	2,398 0 39½	335 0 7

	No.	Area.	Amount of deposit called for.
		a. r. p.	£ s. d.
Conditional Purchases increased in area	51	256 2 32	81 19 10
Conditional Purchases voidance revoked	2	338 0 0	84 10 0
	53	594 2 32	166 9 10

	No.	Area.	Deposits.
		a. r. p.	£ s. d.
Reversals of forfeiture other than for non-payment of balance, interest, or instalment of purchase money*—Crown Lands Alienation Act of 1861	5	1,351 1 0	337 16 3
Reversals of forfeiture other than for non-payment of balance, interest, or instalment of purchase money—Crown Lands Act of 1884	6	949 3 0	98 19 6
	11	2,301 0 0	436 15 9

* See also Schedule xxiii. Reversals of Forfeiture, 10 C.P's., 1,180 acres.

SCHEDULE XIX.

RETURN of Miscellaneous Amounts authorised for Refund during the year ending 31st December, 1891 :—

Balance of purchase money	£188 1 3
Deed fees	12 0 0
Excess stamp duty and fines lodged with transfers of Conditional Purchases	9 5 0
Registration fees, acknowledgment fees, and stamp duty on disallowed Transfers	131 0 0
Total	£340 6 3

SCHEDULE XX.

SUMMARY of Number and Area of Conditional Purchases applied for from the year 1862 to 1891 inclusive.

Years.	Applied for.		Years.	Applied for.	
	No.	Area.		No.	Area.
		a. r. p.			a. r. p.
1868 to 1869	28,139	2,161,390 2 2	1882	14,606	2,392,217 2 35
1870	4,471	329,318 1 2	1883	10,674	1,617,712 0 7
1871	4,751	358,682 2 8	1884	10,657	1,453,937 0 33
1872	8,281	749,586 3 0	1885	5,377	1,165,351 1 20
1873	13,417	1,391,719 0 0	1886	6,080	963,196 2 27
1874	14,352	1,586,282 0 0	1887	4,769	793,004 0 31
1875	14,517	1,756,678 0 0	1888	5,364	865,199 0 38
1876	12,654	1,984,212 0 0	1889	6,205	903,159 2 9
1877	12,009	1,699,816 0 0	1890	8,526	1,713,577 1 0
1878	12,602	1,588,247 3 18	1891	6,153	1,303,094 0 12
1879	7,540	924,136 1 0			
1880	8,583	1,147,001 2 39	Total	233,947	31,176,722 1 16
1881	14,220	2,329,202 0 15			

SCHEDULE XXI.

RETURN for the year 1891, showing the Number and Area of Conditional Purchases validated under the 138th section, Crown Lands Act of 1884.

District.	No. of C.P.'s.	Area.
Inverell	2	230 acres
Wagga Wagga (now Narrandera)	1	125 ,,
Wagga Wagga	1	640 ,,
Yass	1	60 ,,
Total	5	1,055 acres

Schedule XXII.

Return for the year 1891, showing the number and area of Mineral Conditional Purchases validated under 50 Vic. No. 21.

District.	Mineral Conditional Purchases validated under section 3 on account of being within a Gold-field.	
	No. of C.P.	Area.
		acres.
Wilcannia (now Willyama)	1	40

Schedule XXIII.

Return for the year 1891, showing the number and area of Conditional Purchases, forfeiture of which has been reversed.

District.	No.	Area.	District.	No.	Area.
		acres.			acres.
Armidale	1	60	Gunning	1	40
Bega	1	40	Molong	3	120
Bombala	1	80	Wilcannia (now Willyama)	1	40
Bourke	1	640			
Grenfell	1	160	Total	10	1,180

Schedule XXIV.

Summary of number and area of Conditional Purchases existing on the 31st December, 1891.

	No.	Area.	No.	Area.
		a. r. p.		a. r. p.
No. and area of Conditional Purchases selected up to 31st December, 1890, after deducting area cancelled, forfeited, lapsed, and disallowed	156,201	20,236,861 2 32		
	No.	Area.		
		a. r. p.		
No. and area of Conditional Purchases cancelled, forfeited, and lapsed during 1891	480	51,389 3 21		
Less reversals of forfeiture, lapsings, and voidances	10	1,180 0 0	470	50,209 3 21	155,731	20,186,651 3 11
No. and area of Conditional Purchases applied for during 1891						
Less disallowances and withdrawals			.....	.....	5,277	1,133,536 3 16
Total			.....	.....	161,008	21,320,188 2 27

Schedule XXV.

Return showing the number and area of Conditional Leases applied for during 1891, with amount of Deposits and Survey Fees received.

Local Land Board District.	Land District.	No.	Area.	Deposit.	Survey Fee.
			a. r. p.	£ s. d.	£ s. d.
Armidale	Armidale	248	107,410 3 10	895 3 3	2,056 13 9
	Glen Innes	44	16,042 2 0	133 14 2	339 0 8
	Inverell	107	43,111 0 0	359 5 2	856 5 8
	Tenterfield	25	11,899 2 0	99 3 3	218 17 6
	Walcha	119	43,558 2 0	363 0 3	918 7 0
Bourke	Bourke	.....	.....	.....	.....
	Brewarrina	.....	.....	.....	.....
	,, East	11	18,540 0 0	154 10 0	165 0 0
	Cobar	.....	.....	.....	.....
	,, East	34	58,406 0 0	486 14 4	508 12 0
	Wilcannia	.....	.....	.....	.....
	Willyama	.....	.....	.....	.....
Cooma	Bega	8	2,683 2 0	22 7 4	57 5 0
	Bombala	30	11,110 0 0	92 11 8	237 7 6

SCHEDULE XXV—*continued.*

Local Land Board District.	Land District.	No.	Area.	Deposit.	Survey Fee.
			a. r. p.	£ s. d.	£ s. d.
Cooma—*continued*	Braidwood	17	4,490 0 0	37 8 4	115 10 0
	Cooma	119	31,115 2 0	259 6 2	821 7 6
	Eden	13	2,828 3 0	23 11 6	84 0 0
	Milton	9	1,939 3 0	16 3 4	57 10 0
	Moruya	14	2,207 0 0	18 7 10	83 2 6
	Queanbeyan	76	20,840 1 0	173 13 6	524 7 6
Dubbo	Dubbo	164	128,982 3 0	1,074 17 4	1,671 14 5
	Coonamble	144	129,443 2 0	1,078 14 1	1,705 5 0
Forbes	Condobolin	135	165,141 1 0	1,376 3 7	1,731 2 6
	Forbes	6	1,712 1 0	14 5 5	48 5 0
	Grenfell	42	16,494 1 0	137 9 1	327 2 6
	Parkes	38	40,710 3 0	339 5 1	452 11 3
Goulburn	Burrowa	109	32,479 2 0	270 14 0	782 1 3
	Goulburn	97	19,225 1 0	160 4 4	603 3 9
	Gunning	50	12,604 1 0	105 0 11	334 3 9
	Moss Vale (late Berrima)	23	6,476 0 0	54 19 4	160 12 6
	Nowra	3	221 0 0	1 16 10	14 7 6
	Yass	58	17,539 0 0	146 4 3	409 5 1
	Young	38	22,044 1 0	183 14 1	346 15 1
Grafton	Bellingen	15	2,742 0 0	22 17 0	92 2 6
	Casino	51	17,673 3 0	147 5 8	386 15 0
	Grafton	26	5,799 0 0	48 6 6	168 7 6
	Kempsey	34	7,467 0 0	62 4 6	221 10 0
	Lismore	5	715 0 0	5 19 2	29 0 0
	Murwillumbah	7	1,100 0 0	9 3 4	40 15 0
	Port Macquarie	14	2,435 0 0	20 5 10	79 11 10½
Hay	Balranald	.....	.....	.....	.....
	Balranald South	.....	.....	.....	.....
	Deniliquin	20	19,719 0 0	164 7 0	229 15 0
	Hay	68	55,853 1 5	465 7 8	731 13 9
	Hay North	.....	.....	.....	.....
	Hillston	22	31,224 3 0	260 4 2	296 11 3
	Hillston North	.....	.....	.....	.....
	Wentworth	.....	.....	.....	.....
Maitland	Cassilis	67	21,642 2 0	180 7 3	494 17 6
	Dungog	5	1,045 3 0	8 14 10	32 17 6
	Gosford	4	340 0 0	2 16 8	19 5 0
	Maitland	.....	.....	.....	.....
	Muswellbrook	16	2,461 1 0	20 10 3	92 15 0
	Newcastle	.....	.....	.....	.....
	Paterson	15	2,966 3 0	24 14 7	91 3 9
	Raymond Terrace	1	273 3 0	2 5 8	7 10 0
	Scone	84	30,352 2 0	252 19 1	642 12 6
	Singleton	30	5,417 3 0	45 3 2	185 12 6
	Stroud	5	750 0 0	6 5 0	29 7 6
	Taree	64	11,805 0 0	98 7 7	389 17 6
	Wollombi	4	340 0 0	2 16 8	19 15 0
Moree	Bingara	49	31,514 0 0	262 12 4	451 5 6
	Moree	147	183,491 1 0	1,528 6 1	1,847 11 3
	Walgett	96	151,390 0 0	1,261 11 9	1,358 6 4
	,, North	.....	.....	.....	.....
	Warialda	67	44,030 3 0	366 18 6	647 4 5
Orange	Bathurst	57	22,956 3 0	191 6 2	463 17 6
	Carcoar	61	17,997 1 0	150 0 0	434 2 6
	Cowra	38	18,252 2 0	152 2 2	295 6 9
	Lithgow	71	15,845 3 0	132 1 0	468 7 6
	Molong	201	93,630 3 0	780 4 8	1,709 9 5
	Mudgee	48	16,519 2 0	137 13 5	352 1 11
	Orange	28	9,687 2 0	80 14 8	211 10 0
	Rylstone	28	6,219 2 0	51 16 7	182 12 6
	Wellington	52	16,760 0 0	139 13 4	374 6 11
Sydney	Windsor	2	283 2 0	2 7 3	11 12 6
	Picton	18	8,449 0 0	70 8 2	155 12 6
Tamworth	Coonabarrabran	47	31,145 3 0	259 11 0	448 17 6
	Gunnedah	71	43,964 2 0	364 14 3	663 17 6
	Murrurundi	25	11,270 0 0	93 19 3	215 17 6
	Narrabri	80	73,994 2 0	616 12 7	866 8 3
	Tamworth	145	65,125 0 0	542 14 5	1,202 15 5
Wagga Wagga	Albury	73	33,081 0 0	275 12 9	614 18 9
	Cootamundra	46	19,153 2 0	153 14 1	362 10 0
	Corowa	.....	.....	.....	.....
	Gundagai	38	11,341 1 0	94 10 3	272 11 6
	Narrandera	19	19,815 0 0	164 12 6	222 12 6
	Tumut	76	31,713 2 0	264 3 9	620 5 0
	Urana	.....	.....	.....	.....
	Wagga Wagga	31	8,797 0 0	73 6 3	213 17 6
	Totals	3,952	2,177,810 0 15	18,140 17 10	34,579 10 8½

Schedule XXVI.

Return showing the Number of Conditional Lease Applications Confirmed or Disallowed during 1891.

Local Land Board District.	Land District.	Applications made during 1891.						Applications made between 1st December, 1889, and 1st January, 1891.				Applications made prior to 1st December, 1889.				Total.			
		Confirmed.			Disallowed.			Confirmed.			Disallowed.	Confirmed.			Disallowed.	Confirmed.			Disallowed.
		No.	a. r. p.		No.	a. r. p.		No.	a. r. p.		No. a. r. p.	No.	a. r. p.		No. a. r. p.	No.	a. r. p.		No. a. r. p.
Armidale	Armidale	55	24,797 0 0		38	16,202 3 0		209	89,771 1 0		42 20,587 1 0	5	2,097 1 0		2 630 0 0	269	116,665 2 0		82 37,420 0 0
	Glen Innes	11	4,364 2 0		7	2,421 0 0		51	23,387 2 0		12 6,141 0 0	1	289 0 0		...	63	28,041 0 0		19 8,562 0 0
	Inverell	8	3,069 0 0		17	6,529 1 0		55	24,348 3 0		31 14,029 0 0	3	636 0 0		1 240 0 0	66	28,053 3 0		49 20,798 2 0
	Tenterfield	1	80 0 0		4	2,050 0 0		36	13,177 2 0		7 3,750 0 0	...	.....		1 120 0 0	37	13,257 2 0		12 5,920 0 0
	Walcha	22	7,003 2 0		22	8,798 0 0		137	61,503 3 0		41 15,840 3 30	2	678 0 0		... .	161	69,185 1 0		63 24,638 3 30
Bourke	Bourke	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		... .
	Brewarrina	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		... .
	Brewarrina East.	3	4,480 0 0		...	.....		9	15,639 0 0		... .	1	1,920 0 0		... .	13	22,039 0 0		... .
	Cobar	...	.....		...	.....		...	.....		... .	...	.. ..		... .	...	.....		... .
	Cobar East	12	19,684 0 0		1	1,440 0 0		3	5,760 0 0		3 5,760 0 0	...	.. ..		... .	15	25,444 0 0		4 7,200 0 0
	Wilcannia	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		... .
	Willyama	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		... .
Cooma	Bega	2	193 2 0		...	.....		8	1,641 2 0		1 94 0 0	...	.....		... .	10	1,835 0 0		1 94 0 0
	Bombala	6	1,255 0 0		5	1,710 0 0		51	14,171 3 0		2 180 0 0	...	.....		... .	57	15,426 3 0		7 1,890 0 0
	Braidwood	6	960 0 0		2	370 0 0		22	4,978 2 0		6 1,200 0 0	6	937 3 0		2 180 0 0	34	6,876 3 0		10 1,750 0 0
	Cooma	39	8,478 0 0		11	3,202 2 0		220	66,514 0 0		22 7,096 3 0	...	.....		... .	259	74,992 0 0		33 10,299 1 0
	Eden	3	514 3 0		3	380 0 0		16	3,288 3 0		... .	...	... .		... .	19	3,803 2 0		3 380 0 0
	Milton	1	388 0 0		5	1,070 0 0		1	240 0 0		... .	1	132 0 0		... .	3	760 0 0		5 1,070 0 0
	Moruya	4	778 1 0		5	660 0 0		14	2,337 2 0		4 1,430 0 0	3	320 0 0		... .	21	3,435 3 0		9 2,090 0 0
	Queanbeyan	34	8,243 0 0		19	4,916 2 0		78	29,893 3 0		4 1,705 0 0	...	.....		.. ..	112	38,136 3 0		23 6,621 2 0
Dubbo	Dubbo	45	42,397 0 0		22	15,601 0 0		96	96,877 0 0		14 13,786 0 0	2	2,181 0 0		... .	143	141,455 0 0		36 29,387 0 0
	Coonamble	43	41,962 1 0		32	27,836 0 0		134	126,598 0 0		2 1,680 0 0	13	7,455 1 0		2 1,050 0 0	190	176,015 2 0		36 30,566 0 0
Forbes	Condobolin	38	45,698 3 0		17	16,975 0 0		87	129,468 3 0		18 29,310 0 0	3	4,010 0 0		1 106 3 0	128	179,177 2 0		36 46,391 3 0
	Forbes	2	797 0 0		...	.....		6	4,788 2 0		... .	...	.....		... .	8	5,585 2 0		... .
	Grenfell	17	5,644 0 0		6	2,752 0 0		25	11,995 0 0		6 1,433 3 0	...	.....		... .	42	17,639 0 0		12 4,185 3 0
	Parkes	23	23,383 0 0		2	2,000 0 0		51	62,387 3 0		11 11,385 0 0	...	.....		2 750 0 0	74	85,770 3 0		15 14,135 0 0
Hay	Hillston	...	.....		...	.....*		1	194 2 0		... .	...	.....		... .	1	194 2 0		... .
Goulburn	Burrowa	27	6,336 2 0		27	8,835 1 0		146	43,073 2 0		35 10,974 2 0	3	1,905 0 0		3 1,035 0 0	176	51,315 0 0		65 20,844 3 0
	Goulburn	22	5,235 2 0		15	3,439 0 0		58	14,895 0 0		7 1,980 0 0	10	1,702 0 0		... .	90	21,832 2 0		22 5,419 0 0
	Gunning	10	2,787 1 0		10	1,692 2 0		30	6,867 2 0		8 2,765 0 0	...	.....		... .	40	9,654 3 0		18 4,457 2 0
	Moss Vale (late Berrima).	4	1,374 0 0		7	2,280 0 0		9	2,749 2 0		... .	2	1,040 0 0		... .	15	5,163 2 0		7 2,280 0 0
	Nowra	...	.....		1	81 0 0		2	305 0 0		2 160 0 0	1	120 0 0		... .	3	425 0 0		3 241 0 0
	Yass	13	3,385 3 0		13	4,106 3 0		57	13,445 2 0		11 1,781 1 0	1	122 1 0		2 1,140 0 0	71	16,953 2 0		26 7,028 0 0
	Young	3	563 1 0		17	11,147 0 0		45	20,696 3 0		4 972 1 0	...	.....		... .	48	21,260 0 0		21 12,119 1 0
Grafton	Bellingen	...	.....		...	.....		12	5,664 3 0		6 2,157 0 0	...	.....		... .	12	5,664 3 0		6 2,157 0 0
	Casino	22	5,737 2 0		9	4,001 0 0		101	53,363 3 0		15 7,784 0 0	1	600 0 0		1 932 0 0	124	59,701 1 0		25 12,717 0 0
	Grafton	13	3,309 0 0		6	1,130 0 0		14	5,736 3 0		2 400 0 0	...	.....		... .	27	9,045 3 0		8 1,530 0 0
	Kempsey	4	660 0 0		6	1,589 0 0		65	19,851 0 0		21 6,108 0 0	...	.....		... .	69	20,511 0 0		27 7,697 0 0
	Lismore	2	217 0 0		1	200 0 0		5	1,438 0 0		... .	...	.....		... .	7	1,655 0 0		1 200 0 0
	Murwillumbah	2	562 0 0		1	90 0 0		6	2,002 0 0		3 500 0 0	1	50 0 0		... .	9	2,614 0 0		4 590 0 0
	Port Macquarie.	...	.....		..	.....		9	2,067 3 0		2 350 0 0	4	1,582 0 0		... .	13	3,649 3 0		2 350 0 0
Hay	Balranald	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		... .
	Do South	...	.....		...	.....		1	1,920 0 0		... .	...	.....		... .	1	1,920 0 0		... .
	Deniliquin	2	931 0 0		2	1,245 1 0		2	767 0 0		... .	...	.....		... .	4	1,698 0 0		2 1,245 1 0
	Hay	19	17,504 3 0		8	8,101 3 0		24	30,791 2 20		... .	...	.....		... .	43	48,296 1 20		... .
	Do North	...	.....		...	.....		...	.....		... .	...	.....		... .	...	.....		8 8,101 3 0

SCHEDULE XXVI—*continued.*

Local Land Board District.	Land District.	Applications made during 1891.												Applications made between 1st December, 1889, and 1st January, 1891.										Applications made prior to 1st December, 1889.										Total.									
		Confirmed.						Disallowed.						Confirmed.						Disallowed.				Confirmed.						Disallowed.				Confirmed.						Disallowed.			
		No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.
Hay	Hillston	11	15,828	1	0	...	.....			15	20,882	3	0	2	2,880	0	0	...	.....			...	.....			26	36,711	0	0	2	2,880	0	0								
	Do North	...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....										
	Wentworth	...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....										
Maitland	Cassilis	19	6,539	3	0	6	2,195	0	0	23	8,627	2	0	3	669	0	0	...	.....			...	.....			42	15,167	1	0	9	2,864	0	0								
	Dungog	1	413	3	0	...	.....			3	358	3	0	1	141	2	0	...	.....			...	.....			4	772	2	0	1	141	2	0								
	Gosford	3	280	0	0	1	60	0	0	1	140	0	0	1	40	0	0	...	.....			...	.....			4	420	0	0	2	100	0	0								
	Maitland	...	.....			...	.....			2	1,028	0	0	...	.....			...	.....			...	.....			2	1,028	0	0	...	.....										
	Muswellbrook	7	1,381	0	0	1	80	0	0	5	827	1	0	1	200	0	0	...	.....			...	.....			12	2,208	1	0	2	280	0	0								
	Newcastle	...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....										
	Paterson	6	723	1	0	2	200	0	0	11	2,418	0	0	1	90	0	0	2	327	1	0	...	.....			19	3,468	2	0	3	290	0	0								
	Raymond Terrace	1	273	3	0	...	.....			...	.....			...	.....			...	.....			...	.....			1	273	3	0	...	.....										
	Scone	36	10,244	2	0	16	4,821	1	0	19	9,743	0	20	3	1,126	0	0	1	120	0	0	...	.....			56	20,107	2	20	19	5,947	1	0								
	Singleton	12	2,297	0	0	8	1,333	1	0	15	5,022	3	5	1	450	0	0	1	600	0	0	...	.....			28	7,919	3	5	9	1,783	1	0								
	Stroud	2	300	0	0	1	200	0	0	4	2,016	3	0	...	.....			...	.....			...	.....			6	2,316	3	0	1	200	0	0								
	Taree	38	7,884	3	0	8	955	2	0	22	3,565	0	0	2	675	0	0	2	220	0	0	...	.....			62	11,669	3	0	10	1,630	2	0								
	Wollombi	3	240	0	0	...	.....			2	120	0	0	1	420	0	0	1	60	0	0	...	.....			6	420	0	0	1	420	0	0								
Moree	Bingara	5	3,446	0	0	18	11,189	0	0	13	11,606	3	0	2	300	0	0	...	.....			...	.....			18	15,052	3	0	20	11,489	0	0								
	Moree	42	48,502	2	0	31	33,750	2	0	38	45,573	3	0	8	6,162	0	0	...	.....			...	.....			80	94,076	1	0	39	39,912	2	0								
	Walgett	16	24,705	2	0	8	7,675	0	0	32	52,058	2	0	5	9,600	0	0	12	19,028	0	0	...	.....			60	95,792	0	0	13	17,275	0	0								
	Walgett North	...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....										
	Warialda	14	7,051	0	0	12	7,764	0	0	21	12,446	2	0	6	3,090	0	0	4	1,728	0	0	1	900	0	0	39	21,225	2	0	19	11,754	0	0								
Orange	Bathurst	2	507	0	0	17	7,372	3	0	44	13,477	1	0	3	1,210	0	0	1	238	2	0	...	.....			47	14,222	3	0	20	8,582	3	0								
	Carcoar	5	1,898	0	0	6	1,860	0	0	38	13,105	3	0	3	2,220	0	0	6	2,360	0	0	...	.....			49	17,363	3	0	9	4,080	0	0								
	Cowra	6	818	0	0	9	4,065	0	0	19	6,996	3	0	6	1,490	0	0	1	180	0	0	...	.....			26	7,994	3	0	15	5,555	0	0								
	Lithgow	8	1,404	0	0	6	1,125	0	0	10	1,622	3	0	3	870	0	0	13	2,834	3	0	2	240	0	0	31	5,861	2	0	11	2,235	0	0								
	Molong	13	3,458	3	0	33	12,781	0	0	83	36,457	0	0	22	11,886	0	0	...	.....			3	960	0	0	96	39,915	3	0	58	25,627	0	0								
	Mudgee	3	348	3	0	...	.....			19	3,725	2	0	...	.....			...	.....			...	.....			22	4,074	1	0	...	.....										
	Orange	6	930	0	0	4	1,242	0	0	4	2,448	2	0	...	.....			1	68	0	0	...	.....			11	3,446	2	0	4	1,242	0	0								
	Rylstone	...	.....			4	480	0	0	14	4,987	0	0	...	.....			2	780	0	0	...	.....			16	5,767	0	0	4	480	0	0								
	Wellington	11	2,026	1	0	5	2,312	0	0	42	18,214	3	0	4	780	0	0	9	3,155	1	0	...	.....			62	23,396	1	0	9	3,092	0	0								
Sydney	Campbelltown	...	.....			...	.....			1	120	0	0	...	.....			...	.....			...	.....			1	120	0	0	...	.....										
	Picton	8	3,520	0	0	2	840	0	0	12	6,518	1	0	1	40	0	0	2	1,060	0	0	...	.....			22	11,098	1	0	3	880	0	0								
	Windsor	1	153	2	0	1	130	0	0	5	1,219	2	0	...	.....			...	.....			...	.....			6	1,373	0	0	1	130	0	0								
Tamworth	C'nabarabran	9	2,873	3	0	14	9,090	0	0	17	11,743	0	0	4	3,114	0	0	2	940	0	0	...	.....			28	15,556	3	0	18	12,204	0	0								
	Gunnedah	6	1,864	0	0	13	5,390	0	0	23	15,626	3	0	4	2,953	0	0	1	200	0	0	...	.....			30	17,690	3	0	17	8,343	0	0								
	Murrurundi	9	4,180	0	0	1	270	0	0	40	18,276	3	0	1	880	0	0	...	.....			...	.....			49	22,456	3	0	2	1,150	0	0								
	Narrabri	15	14,200	0	0	13	16,019	0	0	40	31,547	1	0	4	2,460	0	0	1	120	0	0	1	1,920	0	0	56	45,867	1	0	18	20,399	0	0								
	Tamworth	27	11,764	2	0	24	11,992	1	0	206	96,872	1	0	21	8,836	0	0	2	1,860	0	0	...	.....			235	110,496	3	0	45	20,828	1	0								
Wagga Wagga	Albury	3	859	0	0	7	2,636	3	0	69	30,841	3	0	54	32,244	0	0	6	2,080	2	0	1	640	0	0	78	33,781	1	0	62	35,520	3	0								
	Cootamundra	7	2,327	1	20	10	4,985	0	20	43	21,642	3	0	19	11,950	3	0	3	620	0	0	...	.....			53	24,590	0	20	29	16,935	3	20								
	Corowa	...	.....			...	.....			...	.....			...	.....			1	283	3	0	...	.....			1	283	3	0	...	.....										
	Gundagai	5	645	2	0	6	1,292	2	0	22	5,272	0	20	13	3,245	0	0	...	.....			1	600	0	0	27	5,917	2	20	20	5,137	2	0								
	Narrandera	4	3,404	3	0	6	5,364	0	0	18	22,483	0	0	8	9,573	0	0	2	3,840	0	0	...	.....			24	29,727	3	0	14	14,937	0	0								
	Tumut	7	3,081	0	0	10	3,150	0	0	19	7,272	0	0	8	3,688	3	0	3	774	2	0	1	300	0	0	29	11,127	2	0	19	7,138	3	0								
	Urana	...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....			...	.....										
	Wagga Wagga	7	1,874	0	0	2	1,144	0	0	23	14,925	0	0	3	989	0	0	2	672	0	0	...	.....			32	17,471	0	0	5	2,133	0	0								
	Total	896	485,023	2	20	646	326,617	1	20	2,933	1,576,429	1	25	560	295,623	3	30	144	71,928	0	0	27	11,743	3	0	3,973	2,133,381	0	5	1,233	633,985	0	10								

SCHEDULE XXVII.

STATEMENT showing Total Number, Area, and Rent of Conditional Leases in each District notified forfeited during the year 1891.

District.	Total No. of Leases.	Area.	Rent.	District.	Total No. of Leases.	Area.	Rent.
		Acres.	£ s. d.			Acres.	£ s. d.
Albury	14	6,339¼	68 19 5	Lithgow	11	4,260	56 10 5
Armidale	21	7,279½	91 8 3	Milton	6	934	9 10 7
Bathurst	18	3,843¼	50 6 9	Molong	1	315	5 18 2
Bega	5	534½	10 4 8	Moree	9	11,596	137 1 6
Bellingen	8	1,054	13 11 10	Moruya	3	1,300	13 9 2
Berrima	6	1,769	24 0 8	Mudgee	5	1,240	15 13 4
Bingara	11	4,990	51 9 9	Murwillumbah	2	600	15 0 0
Bombala	16	6,046	67 18 11	Murrurundi	3	1,369½	12 5 8
Braidwood	11	2,983½	33 5 2	Muswellbrook	1	120	1 0 0
Brewarrina	4	3,649	35 14 10	Narrabri	9	5,839	63 4 11
Burrowa	16	3,769¼	31 9 10	Narrandera	4	575¾	7 0 10
Campbelltown	2	1,200	13 0 0	Nowra	2	489	7 6 11
Carcoar	7	2,475½	33 8 8	Orange	1	180	2 5 0
Cassilis	16	3,824¾	50 16 9	Parkes	1	1,920	16 0 0
Casino	22	10,519¾	185 17 7	Paterson	2	160	1 10 0
Cobar	1	1,920	20 0 0	Picton	7	1,933	23 8 2
Cooma	73	33,138¼	376 8 11	Port Macquarie	2	790	17 11 3
Coonabarabran	8	3,076	32 10 3	Queanbeyan	27	9,643¼	109 1 10
Coonamble	16	13,253	170 13 11	Raymond Terrace	1	120	1 5 0
Cootamundra	3	838¼	7 12 2	Rylstone	2	240	2 15 0
Corowa	1	47¾	1 3 11	Scone	3	1,183¼	17 7 3
Cowra	2	1,048¼	34 11 10	Singleton	5	460½	6 7 2
Dubbo	3	480	6 7 7	Stroud	9	1,047¼	11 1 10
Dungog	2	180	2 0 0	Taree	6	1,045	13 0 5
Eden	13	2,679¼	33 19 10	Tamworth	11	2,433	23 1 0
Forbes	1	180	1 10 0	Tenterfield	12	3,423¾	49 9 8
Glen Innes	6	2,287	38 6 5	Tumut	9	4,159	60 8 10
Gosford	1	152½	2 10 10	Urana	1	292½	4 17 6
Goulburn	30	6,873	104 14 5	Wagga Wagga	9	2,637½	33 5 7
Grafton	8	1,190	18 4 2	Walcha	6	2,333½	34 18 2
Grenfell	4	1,285	11 1 11	Walgett	2	2,775	38 8 9
Gundagai	1	95	1 9 9	Warialda	5	2,983½	30 10 9
Gunnedah	1	829	8 12 9	Wellington	4	1,907¼	30 11 11
Gunning	9	2,943½	49 9 3	Wollombi	3	142¾	2 4 3
Hay	2	2,367	25 14 2	Yass	5	1,701¼	20 13 2
Inverell	1	300	2 16 3	Young	1	259¾	2 14 2
Kempsey	11	2,321	23 12 1				
Lismore	7	3,073¼	33 13 3	Total	571	213,643	2,665 14 11

SCHEDULE XXVIII.

RETURN showing the Number of Conditional Lease Transfers passed in each Land District during the year 1891.

District.	No.	District.	No.	District.	No.	District.	No.
Albury	42	Corowa	3	Molong	32	Stroud	0
Armidale	96	Cowra	25	Moree	89	Taree	9
Balranald	3	Deniliquin	5	Moruya	1	Tamworth	44
Bathurst	32	Dubbo	124	Mudgee	8	Tenterfield	3
Bega	0	Dungog	0	Murwillumbah	3	Tumut	17
Bellingen	1	Eden	6	Murrurundi	15	Urana	10
Berrima	11	Forbes	40	Muswellbrook	4	Wagga Wagga	71
Bingera	2	Glen Innes	18	Narrabri	27	Walcha	29
Bombala	5	Gosford	0	Narrandera	38	Walgett	0
Bourke	5	Goulburn	10	Newcastle	0	Warialda	14
Braidwood	7	Grafton	20	Nowra	2	Wellington	39
Brewarrina	3	Grenfell	65	Orange	20	Wentworth	1
Burrowa	51	Gundagai	17	Parkes	70	Wilcannia	0
Cambelltown	0	Gunnedah	27	Parramatta	0	Willyama	0
Carcoar	9	Gunning	34	Paterson	2	Windsor	0
Cassilis	13	Hay	98	Penrith	0	Wollombi	0
Casino	9	Hillston	12	Picton	2	Wollongong	0
Cobar	1	Inverell	25	Port Macquarie	2	Yass	11
Condobolin	9	Kempsey	6	Queanbeyan	21	Young	33
Cooma	64	Lismore	1	Raymond Terrace	1		
Coonabarabran	7	Lithgow	4	Rylstone	10	Total	1,666
Coonamble	85	Maitland	0	Scone	19		
Cootamundra	9	Milton	2	Singleton	13		

SCHEDULE XXIX.

No. of Refund Vouchers issued by the Lease Branch during the Year 1891:—2.

SCHEDULE XXX.

STATEMENT showing Total No. of Conditional Leases submitted to the Minister for Determination of Rent during the Year 1891.

Total No., 3,203.

SCHEDULE XXXI.

STATEMENT showing the Total No. of Conditional Leases gazetted during the Year 1891.

Total No., 2,372.

Schedule XXXII.

Statement showing total number, area, and rent of gazetted Conditional Leases (all clauses) in existence on the 31st December, 1891.

Total number of Leases.	Total Area.	Total Rent.
14,623	a. r. p. 9,094,977 0 17	£ s. d. 111,559 9 8

Schedule XXXIII.

Return showing Number and Area of Conditional Leases applied for during the years 1885, 1886, 1887, 1888, 1889, 1890, and 1891.

Year.	Number.	Area.
		a. r. p.
1885	3,816	2,547,045 0 15*
1886	2,500	1,207,953 0 8
1887	2,228	1,242,380 0 0
1888	2,623	1,424,753 1 25
1889	3,470	1,569,949 3 30
1890	5,466	3,056,774 2 26
1891	3,952	2,177,810 0 15
	24,055	13,226,666 0 39

* This includes 1,994 applications, area 1,198,617a. 0r. 30p., made under section 54 of the Act of 1884.

Schedule XXXIV.

Return of Auction Sales of Town Lands under the 61st section of the Crown Lands Act of 1884.

Land Districts.	Counties.	No. of Lots offered.	Area offered.	No. of Lots sold.	Area sold.	No. of Lots not bid for.	Area not bid for.	Amount realised.	Average price per acre.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.
Albury	Selwyn	1	0 2 0	1	0 2 0	...	.....	10 0 0	20 0 0
	Goulburn	25	10 1 0	13	5 1 0	12	5 0 0	115 3 0	21 18 8
Armidale	Sandon	101	42 2 10¼	83	35 1 1	18	7 1 9¼	2,072 13 0	58 15 9
Balranald	Caira	20	9 1 30	11	5 0 4	9	4 1 26	106 15 0	21 4 10
Bathurst	Roxburgh	43	11 0 2¼	8	2 2 26	35	8 1 16¼	73 0 0	27 8 4
	Westmoreland	3	1 2 0	3	1 2 0	...	.....	77 0 0	51 6 8
	Bathurst	83	35 0 21	16	6 1 25½	67	28 2 35½	545 10 0	85 2 2
Bega	Auckland	9	4 1 35	7	3 2 0	2	0 3 35	52 0 0	14 17 2
Bellingen	Raleigh	8	4 0 0	5	2 2 0	3	1 2 0	75 0 0	30 0 0
Bingara	Murchison	2	0 3 0	2	0 3 0	...	.....	19 5 0	25 13 4
Bombala	Wellesley	18	9 0 0	17	8 2 0	1	0 2 0	323 7 0	38 0 10
Bourke	Canbelego	10	5 0 0	3	1 2 0	7	3 2 0	124 0 0	82 13 4
	Culgoa	17	8 2 0	10	5 0 0	7	3 2 0	117 10 0	23 10 0
	Cowper	15	7 2 0	15	7 2 0	...	.....	572 5 0	76 6 0
Burrowa	Harden	14	6 0 17½	14	6 0 17½	...	.....	71 14 0	11 14 9
Carcoar	Bathurst	38	18 0 29	5	2 1 30	33	15 2 39	20 0 0	8 4 1
	Georgiana	43	20 3 18	3	1 0 2	40	19 3 16	17 10 0	17 5 8
Cooma	Wallace	44	10 3 32½	44	10 3 32½	...	.....	564 2 0	51 10 0
Coonabarrabran	Gowen	21	9 2 8	17	7 2 18	4	1 3 30	223 0 0	29 5 11
Cootamundra	Bland	11	2 2 4¾	11	2 2 4¾	...	.....	260 16 0	103 1 11
	Harden	50	24 3 10	50	24 3 10	...	.....	1,162 10 6	46 17 1
Corowa	Denison	62	30 3 18	62	30 3 18	...	.....	838 0 0	27 3 1
	Hume	164	45 2 22	65	18 1 28	99	27 0 34	214 12 0	11 12 7
Deniliquin	Townsend	5	2 2 0	3	1 2 0	2	1 0 0	16 10 0	11 0 0
Dubbo	Lincoln	81	40 2 0	43	21 2 0	38	19 0 0	249 4 0	11 11 10
	Oxley	32	12 2 32	23	9 0 16	9	3 2 16	749 0 0	82 6 2
Forbes	Ashburnham	7	1 2 0¼	6	1 1 22¾	1	0 0 17½	152 10 0	109 10 10
Gosford	Northumberland	98	40 3 23	9	4 0 17	89	36 3 6	156 0 0	37 19 10
Grafton	Clarence	3	1 0 5	...	.....	3	1 0 5	.....	.....
Grenfell	Monteagle	1	0 1 22	1	0 1 22	...	.....	15 10 0	40 0 0
	Bland	60	27 2 16	20	9 2 2½	40	18 0 13½	91 15 0	9 12 10
Gunnedah	Pottinger	34	17 0 0	34	17 0 0	...	.....	915 17 0	53 17 6
Gunning	King	26	10 3 12	22	9 1 23¼	4	1 1 28¾	79 0 0	8 8 2
Hillston	Dowling	4	1 3 17	3	1 1 17	1	0 2 0	105 0 0	77 8 5
Kiama	Camden	5	1 2 20½	...	.....	5	1 2 20½	.....	.....
Kempsey	Dudley	1	0 2 0	1	0 2 0	...	.....	30 0 0	60 0 0
Lismore	Rous	56	21 2 1	31	10 2 35	25	10 3 6	2,025 18 0	189 0 1
Lithgow	Cook	2	0 2 27	...	.....	2	0 2 27	.....	.....
Maitland	Northumberland	121	54 0 2¼	23	10 2 38¾	98	43 1 3½	802 10 0	74 14 1
Metropolitan	Cumberland	1	0 0 7¼	...	.....	1	0 0 7¼	.....	.....
Molong	Ashburnham	20	8 0 4	13	5 1 14	7	2 2 30	211 5 0	39 11 7
Moruya	St. Vincent	5	2 0 12	3	1 0 2	2	1 0 0	13 8 0	13 4 8
Mudgee	Phillip	1	0 0 36	1	0 0 36	...	.....	14 10 0	64 8 11
Murrurundi	Buckland	2	1 0 0	...	.....	2	1 0 0	.....	.....
Narrabri	Pottinger	17	7 1 13	8	3 1 28	9	3 3 25	68 0 0	19 17 11
	White	23	10 2 32	13	5 2 32	10	5 0 0	197 0 0	34 11 3
Narrandera	Bourke	37	17 2 17½	29	13 2 17½	8	4 0 0	326 11 6	23 19 11
	Cooper	48	12 2 39	17	4 1 31	31	8 1 8	821 0 0	185 6 4
Parkes	Ashburnham	26	10 3 22¾	14	6 1 18½	12	4 2 4½	643 10 0	101 2 4
	Narromine	32	15 3 39½	32	15 3 39½	...	.....	203 5 0	12 14 1
Parramatta	Cumberland	15	3 1 9½	8	1 3 19¼	7	1 1 30¾	10,766 0 0	5,756 5 2

SCHEDULE XXXIV—*continued.*

Land Districts.	Counties.	No. of Lots offered.	Area offered	No. of Lots sold.	Area sold.	No. of Lots not bid for.	Area not bid for.	Amount realised.	Average price per acre.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.
Port Macquarie...	Macquarie	8	3 2 12	4	1 2 31¼	4	1 3 20¾	120 0 0	70 15 8
Queanbeyan	Murray.....	82	33 1 15	21	7 3 20	61	25 1 35	139 3 0	17 13 5
Raymond Terrace	Gloucester	1	0 1 0	1	0 1 0	...	.....	121 0 0	484 0 0
Singleton	Northumberland.....	89	39 1 22	17	6 1 20	72	33 0 2	75 9 0	11 16 8
Tamworth	Inglis	54	23 2 30	37	16 0 25	17	7 2 5	2,058 10 0	127 8 3
	Parry	21	10 0 24	5	2 1 34	16	7 2 30	28 0 0	11 7 5
Taree	Gloucester	55	21 2 12	9	4 0 15	46	17 1 37	36 0 0	8 15 11
Wagga Wagga ...	Bourke	78	36 2 14	52	23 1 1	26	13 1 13	538 0 0	23 2 8
	Mitchell	102	49 3 12½	...	.....	102	49 3 12½	.....	.....
	Wynyard	14	5 1 27¼	4	1 0 26	10	4 1 1¼	581 10 0	500 4 4
Wentworth	Wentworth	8	4 0 0	8	4 0 0	...	.....	65 10 0	16 7 6
Wellington.....	Wellington	16	5 3 18	8	3 2 13	8	2 1 5	52 15 0	14 14 7
Windsor.....	Cumberland.....	148	36 3 28	33	8 0 26½	115	28 3 1½	245 10 0	30 1 4
Willyama	Menindie	8	4 0 0	8	4 0 0	...	.....	145 0 0	36 5 0
Yass	Harden.....	24	11 0 20	8	3 2 37	16	7 1 23	32 0 0	8 11 6
	Murray..... ...	9	2 2 20	...	.....	9	2 2 20	.....	. .....
Young.....	Monteagle	13	3 2 2¾	10	2 3 2¾	3	0 3 0	297 15 0	107 12 0
		2,295	936 0 6¼	1,047	435 1 30½	1,248	500 2 15¾	30,844 18 0	70 16 9

NOTE.—The area sold equals 46·52 per cent. of the area offered.

SCHEDULE XXXV.

RETURN of Auction Sales of Suburban Lands under the 61st section of the Crown Lands Act of 1884.

Land Districts.	Counties.	No. of Lots offered.	Area of Lots offered.	No. of Lots sold.	Area sold.	No. of Lots not bid for.	Area not bid for.	Amount realised.	Average price per acre.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.
Albury	Selwyn	7	13 1 0	4	7 1 0	3	6 0 0	54 10 0	7 10 4
Bathurst	Bathurst	3	5 3 28	3	5 3 28	...	.....	303 0 0	51 2 9
Bega	Auckland.....	13	50 0 21	13	50 0 21	...	.....	263 10 0	5 5 1
Braidwood.....	St. Vincent	3	10 2 22	3	10 2 22	...	.....	90 0 0	8 9 2
Burrowa	Harden.....	7	52 3 21	3	22 2 20	4	30 1 1	68 10 0	3 0 7
Carcoar	Bathurst	18	79 3 23	2	10 1 28	16	69 1 35	29 0 0	2 15 8
	Georgiana.....	31	147 3 5	10	39 2 35	21	108 0 10	133 10 0	3 7 3
Cootamundra.....	Bland	2	5 2 36	2	5 2 36	...	.....	88 10 0	15 9 2
Corowa	Hume	35	27 1 20	19	14 0 13	16	13 1 7	123 1 0	8 15 1
Deniliquin	Cadell	2	2 2 0	2	2 2 0	...	.....	18 0 0	7 4 0
	Townsend..... ..	6	98 2 0	6	98 2 0	...	.....	825 10 0	8 7 5
Dubbo	Canbelego.....	3	29 0 5	1	10 0 0	2	19 0 5	52 0 0	5 4 0
	Oxley	3	19 3 12	3	19 3 12	...	.....	205 0 0	10 6 10
Forbes	Ashburnham	6	29 1 21	6	29 1 21	...	.....	221 4 0	7 10 7
Glen Innes.....	Gough	12	93 3 3	12	93 3 3	...	.. ..	330 0 0	3 10 4
Gosford	Northumberland.....	14	44 3 25	2	7 3 38	12	36 3 27	36 0 0	4 10 2
Grafton	Clarence	27	183 1 8	23	152 1 16	4	30 3 32	747 10 0	4 18 1
Grenfell	Bland	15	84 3 28	6	35 3 9	9	49 0 19	90 0 0	2 10 3
	Forbes	20	126 2 38	...	.....	20	126 2 38	.....	.....
	Monteagle	12	26 0 21	8	11 3 28	4	14 0 33	74 0 0	6 4 1
Gundagai	Clarendon	3	2 1 22	3	2 1 22	...	.. ..	43 10 0	18 4 5
	Wynyard	2	3 1 3	2	3 1 3	...	.....	13 0 0	3 19 6
Gunnedah	Pottinger	30	109 3 28	8	33 1 9	22	76 2 19	145 12 0	4 7 5
Gunning	King	14	215 3 31	4	58 3 2	10	157 0 29	223 0 0	3 15 11
Hay	Waradgery	2	1 2 18	2	1 2 18	...	.....	16 0 0	9 18 5
Lismore	Rous	58	68 1 11	21	35 3 8	37	32 2 3	190 16 0	5 6 7
Lithgow	Cook	113	1,109 3 29	21	192 3 3	92	917 0 26	1,294 10 0	6 14 4
Maitland	Northumberland.....	1	0 2 0	1	0 2 0	...	.....	70 0 0	140 0 0
Molong	Ashburnham	32	152 1 4	4	29 1 17	28	122 3 27	144 0 0	4 18 1
Moree	Courallie	17	87 1 39	11	57 1 37	6	30 0 2	1,012 0 0	17 12 1
Moruya	Dampier	14	157 1 34	6	67 3 23	8	89 2 11	172 10 0	2 10 10
Mudgee	Phillip	4	36 1 32	3	33 2 20	1	2 3 12	121 0 0	3 11 11
	Wellington	8	55 2 9	1	6 3 2	7	48 3 7	22 0 0	3 5 1
Muswellbrook ...	Brisbane	2	11 0 15	2	11 0 15	...	.....	58 2 6	5 4 9
Newcastle	Northumberland.....	65	28 1 20	44	18 2 14¼	21	9 3 5¾	2,955 0 0	158 19 3
Orange	Bathurst	5	75 0 30	...	.....	5	75 0 30	.....	.....
Parkes	Ashburnham	15	14 2 18	15	14 2 18	...	.....	414 19 6	28 8 0
Parramatta	Cumberland.....	79	381 3 39	55	246 0 14	24	135 3 25	1,246 0 0	5 1 3
Port Macquarie...	Macquarie	8	94 0 16	...	.....	8	94 0 16	.....	.....
Scone	Durham	18	49 0 8½	14	35 1 17½	4	13 2 31	163 0 0	4 12 2
Singleton	Northumberland.....	16	32 2 18	10	21 2 18	6	11 0 0	98 0 0	4 10 8
Tamworth	Buckland	1	1 2 0	1	1 2 0	...	.....	6 0 0	4 0 0
	Parry	2	2 0 0	2	2 0 0	...	.....	16 0 0	8 0 0
Taree	Gloucester	49	119 3 30	22	47 1 4	27	72 2 26	187 10 0	3 19 4
Tenterfield	Buller	5	10 2 39	1	2 2 3	4	8 0 36	8 0 0	3 3 6
Tumut	Wynyard	154	341 2 35½	153	338 0 35½	1	3 2 0	3,831 8 6	11 6 7
Wagga Wagga ...	Bourke	41	193 2 16	20	55 3 36	21	137 2 20	557 10 0	9 19 2
	Mitchell	11	131 1 17	3	22 0 7	8	109 1 10	177 0 0	8 0 7
Wollombi	Northumberland.....	2	20 0 6	2	20 0 6	...	.....	79 10 0	3 19 4
Yass	Harden.....	20	177 3 29	17	157 2 10	3	20 1 19	414 1 0	2 12 7
Young.....	,, ...	38	548 1 17	6	77 3 23	32	470 1 34	475 10 0	6 2 1
	Monteagle	53	209 0 11	21	97 2 11	32	111 2 0	437 12 6	4 9 8
		1,121	5,577 0 2	603	2,322 0 6¼	518	3,254 3 35¾	18,345 17 0	7 18 0

NOTE.—The area sold equals 41·63 per cent. of the area offered,

Schedule XXXVI.

Return of Auction Sales of Country Lands under the 61st Section of the Crown Lands Act of 1884.

Land Districts.	Counties.	No. of Lots. offered.	Area offered.	No. of Lots sold.	Area sold.	No. of Lots not bid for.	Area not bid for.	Amount realised.	Average price per acre.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.
Albury	Goulburn	13	2,235 3 20	12	2,075 3 20	1	160 0 0	6,099 17 11	2 18 9
	Hume	4	64 0 0	4	64 0 0	...	.....	132 10 0	2 1 5
	Selwyn	3	37 2 20	3	37 2 20	...	.....	247 15 2	6 11 8
Armidale	Clarke	7	668 1 0	3	140 0 0	4	528 1 0	210 0 0	1 10 0
	Hardinge	5	373 3 0	2	80 0 0	3	293 3 0	100 0 0	1 5 0
	Inglis	5	1,016 3 0	...	.....	5	1,016 3 0	.....	.....
	Sandon	24	1,414 2 0	17	1,026 0 0	7	388 2 0	1,407 0 0	1 7 5
Bathurst	Bathurst	9	501 1 0	7	404 0 0	2	97 1 0	514 10 0	1 5 6
	Georgiana	2	160 0 0	...	.....	2	160 0 0	.....	.....
	Roxburgh	6	226 0 32	3	86 2 32	3	139 2 0	136 15 0	1 11 6
	Wellington	3	161 1 38	...	.....	3	161 1 38	.....	.....
	Westmoreland	2	120 0 0	...	.....	2	120 0 0	.....	.....
Bega	Auckland	2	80 0 0	1	40 0 0	1	40 0 0	50 0 0	1 5 0
	Dampier	1	79 2 0	1	79 2 0	...	.....	124 4 5	1 11 3
Bellingen	Fitzroy	2	53 0 0	1	13 0 0	1	40 0 0	65 0 0	5 0 0
	Raleigh	1	343 0 0	...	.....	1	343 0 0	.....	.....
Berrima	Camden	10	1,224 3 0	2	497 1 0	8	727 2 0	621 11 3	1 5 0
Bingara	Murchison	28	502 3 20	14	249 0 10	14	253 3 10	721 14 5	2 17 11
Bombala	Wellesley	5	737 3 19	1	9 0 19	4	728 3 0	13 13 9	1 10 0
Braidwood	Murray	5	980 2 0	...	.....	5	980 2 0	.....	.....
	St. Vincent	1	40 0 0	...	.....	1	40 0 0	.....	.....
Brewarrina	Clyde	11	2,586 3 0	...	.....	11	2,586 3 0	.....	.....
Burrowa	Harden	3	188 1 0	2	130 3 0	1	57 2 0	163 8 9	1 5 0
	King	2	195 1 0	...	.....	2	195 1 0	.....	.....
	Monteagle	2	64 2 0	2	64 2 0	...	.....	156 15 0	2 8 7
Campbelltown	Cumberland	1	31 1 0	...	.....	1	31 1 0	.....	.....
Carcoar	Bathurst	1	24 1 10	1	24 1 10	...	.....	60 15 8	2 10 0
	Georgiana	7	703 2 0	2	41 0 0	5	662 2 0	55 0 0	1 6 10
Casino	Drake	31	2,697 2 0	6	470 1 0	25	2,227 1 0	705 7 6	1 10 0
	Richmond	2	400 0 0	...	.....	2	400 0 0	.....	.....
	Rous	9	1,207 1 0	4	531 3 0	5	675 2 0	777 12 6	1 9 3
Cassilis	Bligh	10	540 3 19	6	170 2 19	4	370 1 0	279 13 2	1 12 9
	Brisbane	4	646 2 0	2	120 0 0	2	526 2 0	170 0 0	1 8 4
Condobolin	Cunningham	2	213 1 0	1	114 0 0	1	99 1 0	171 0 0	1 10 0
	Gipps	3	510 2 0	3	510 2 0	...	.....	1,102 5 0	2 3 2
Cooma	Beresford	9	1,848 2 0	...	.....	9	1,848 2 0	.....	.....
	Wallace	4	640 0 0	...	.....	4	640 0 0	.....	.....
	Wellesley	3	170 0 0	1	40 0 0	2	130 0 0	50 0 0	1 5 0
Coonabarabran	Gowen	1	38 2 0	...	.....	1	38 2 0	.....	.....
Coonamble	Gregory	1	230 1 0	...	.....	1	230 1 0	.....	.....
	Leichhardt	14	3,330 3 0	10	2,313 1 0	4	1,017 2 0	3,345 8 0	1 8 11
Cootamundra	Bland	34	1 995 3 28	30	926 0 28	4	1,069 3 0	3,003 9 11	3 4 10
	Harden	3	69 3 30	2	54 1 30	1	15 2 0	108 17 6	2 0 0
Corowa	Hume	1	38 2 0	1	38 2 0	...	.....	134 15 0	3 10 0
Cowra	Bathurst	1	40 0 0	1	40 0 0	...	.....	82 0 0	2 1 0
	Forbes	3	780 1 0	1	360 0 0	2	420 1 0	714 0 0	1 19 8
Deniliquin	Townsend	2	278 2 0	1	149 2 0	1	129 0 0	356 3 8	2 7 7
	Wakool	8	2,527 3 0	8	2,527 3 0	...	.....	4,528 11 0	1 15 10
Dubbo	Gregory	20	5,886 3 0	12	4,054 2 0	8	1,832 1 0	6,397 0 0	1 11 7
	Narromine	1	113 0 0	1	.....	1	113 0 0	.....	.....
	Oxley	5	909 0 0	5	909 0 0	...	.....	1,474 3 9	1 12 5
Dungog	Gloucester	3	320 0 0	...	.....	3	320 0 0	.....	.....
Eden	Auckland	5	240 0 0	...	.....	5	240 0 0	.....	.....
Forbes	Ashburnham	5	216 0 25	1	13 1 0	4	202 3 25	46 9 5	3 10 2
	Forbes	9	465 3 2	8	463 3 2	1	2 0 0	942 14 3	2 0 8
	Gipps	2	50 0 13	2	50 0 13	...	.....	79 5 0	1 11 8
Glen Innes	Gough	7	1,082 0 0	1	25 2 0	6	1,056 2 0	65 19 8	2 11 9
Gosford	Northumberland	11	700 1 34	2	1 1 24	9	699 0 10	28 10 0	20 7 1
Goulburn	Argyle	34	2,715 1 11	9	371 2 11	25	2,343 3 0	682 11 4	1 16 9
	Georgina	16	1,812 1 0	1	45 1 0	15	1,767 0 0	61 1 9	1 7 0
Grafton	Clarence	25	1,561 1 32	3	141 3 10	22	1,419 2 22	317 18 3	2 4 10
	Fitzroy	3	585 0 0	1	50 0 0	2	535 0 0	75 0 0	1 10 0
	Gresham	3	185 1 0	...	.....	3	185 1 0	.....	.....
Grenfell	Bland	4	257 1 0	4	257 1 0	...	.....	355 6 3	1 7 7
	Monteagle	13	284 1 32	9	131 3 39	4	152 1 33	446 17 11	3 7 9
Gundagai	Clarendon	10	434 0 0	6	288 3 0	4	145 1 0	450 18 9	1 11 3
	Harden	2	60 0 0	2	60 0 0	...	.....	84 3 9	1 8 1
	Wynyard	1	300 0 0	...	.....	1	300 0 0	.....	.....
Gunnedah	Buckland	1	139 1 0	...	.....	1	139 1 0	.....	.....
	Nandewar	1	49 0 0	...	.....	1	49 0 0	.....	.....
	Pottinger	28	1,560 0 39	4	449 3 0	24	1,110 1 39	613 19 6	1 7 4
Gunning	King	10	559 3 0	4	140 0 10	6	419 2 30	223 11 8	1 11 11
Hay	Sturt	1	72 3 0	1	72 3 0	...	.....	145 10 0	2 0 0
	Townsend	11	2,509 3 0	11	2,509 3 0	...	.....	4,278 8 9	1 14 1
	Waradgery	4	1,246 1 0	4	1,246 1 0	...	.....	1,958 8 9	1 11 5
Hillston	Nicholson	1	29 0 0	...	.....	1	29 0 0	.....	.....
Inverell	Arrawatta	14	1,846 1 0	5	236 1 0	9	1,610 0 0	365 6 3	1 10 11
	Burnett	4	327 2 0	3	283 1 0	1	44 1 0	419 11 11	1 9 8
	Hardinge	2	108 0 0	2	108 0 0	...	.....	171 14 0	1 11 9
	Murchison	2	386 1 0	2	386 1 0	...	.....	502 2 6	1 6 0
Kempsey	Dudley	9	544 2 36	6	283 3 38	3	260 2 38	492 3 11	1 14 8
	Macquarie	3	197 1 0	2	157 1 0	1	40 0 0	221 11 3	1 8 2

SCHEDULE XXXVI—*continued.*

Land Districts.	Counties.	No. of Lots offered.	Area offered.	No. of Lots sold.	Area sold.	No. of Lots not bid for.	Area not bid for.	Amount realised.	Average price per acre.
			a. r. p.		a. r. p.		a. r. p.	£ s. d.	£ s. d.
Kiama	Camden	1	2 0 0	1	2 0 0	...	.....	10 0 0	5 0 0
Lismore	Richmond	3	1,209 1 0	...	.....	3	1,209 1 0	.....	.....
	Rous	5	1,305 2 20	1	37 2 20	4	1,268 0 0	94 1 3	2 10 0
Lithgow	Cook	6	398 1 7	1	0 3 7	5	397 2 0	10 0 0	12 12 0
	Georgiana	4	155 0 0	...	.....	4	155 0 0	.....	.....
	Westmoreland	4	338 2 0	2	227 3 0	2	110 3 0	284 13 9	1 5 0
Liverpool	Cumberland	2	66 3 0	2	66 3 0	...	.....	268 5 0	4 0 4
Maitland	Northumberland	3	325 2 0	1	138 3 0	2	186 3 0	242 16 3	1 15 0
Metropolitan	Cumberland	164	530 1 30	131	365 3 21	33	164 2 9	10,441 8 11	28 10 9
Milton	St. Vincent	4	310 0 0	...	.....	4	310 0 0	.....	.....
Molong	Ashburnham	6	211 3 24¼	2	20 0 34¼	4	191 2 30	79 12 6	3 18 9
	Gordon	1	50 0 0	...	.....	1	50 0 0	.....	.....
	Wellington	1	11 1 10	1	11 1 10	...	.....	33 18 9	3 0 0
Moree	Benarba	5	1,467 1 0	4	1,415 3 0	1	51 2 0	1,923 8 9	1 7 2
	Courallie	5	1,530 1 0	3	1,130 1 0	2	400 0 0	1,695 7 6	1 10 0
Moruya	Dampier	12	674 2 13	2	31 1 31	10	643 0 22	118 3 0	3 15 2
	St. Vincent	2	80 0 0	2	80 0 0	...	.....	166 10 0	2 1 8
Mudgee	Phillip	5	180 0 0	1	10 0 0	4	170 0 0	40 0 0	4 0 0
	Wellington	6	469 0 28	3	385 3 0	3	83 1 28	578 12 6	1 10 0
Murrurundi	Brisbane	8	508 1 20	6	439 1 20	2	69 0 0	639 3 8	1 9 1
	Buckland	4	311 1 0	4	311 0 0	...	.....	446 17 6	1 8 9
	Pottinger	2	77 3 0	2	77 3 0	...	.....	155 13 5	2 0 0
Muswellbrook	Hunter	7	526 0 0	2	80 0 0	5	446 0 0	130 0 0	1 12 6
Narrabri	Jamison	5	1,408 1 0	5	1,408 0 0	...	.....	2,112 7 6	1 10 0
Narrandera	Cooper	6	1,284 2 0	5	1,204 2 0	1	80 0 0	2,653 0 6	2 4 0
Newcastle	Northumberland	132	40 0 20	71	18 2 11¼	61	21 2 8¾	4,614 0 0	248 9 3
Nowra	Camden	2	168 0 0	1	68 0 0	1	100 0 0	85 0 0	1 5 0
	St. Vincent	10	689 2 23	4	113 2 23	6	576 0 0	196 9 0	1 14 7
Orange	Wellington	9	645 2 20	7	440 2 30	2	204 3 30	600 12 6	1 7 3
Parkes	Ashburnham	20	504 2 11	17	277 0 11	3	227 2 0	675 18 0	2 8 9
	Cunningham	2	261 2 20	1	15 1 20	1	246 1 0	19 4 5	1 5 0
	Flinders	1	640 0 0	...	.....	1	640 0 0	.....	.....
	Kennedy	1	100 0 0	1	100 0 0	...	.....	125 0 0	1 5 0
	Narromine	2	74 0 38	...	.....	2	74 0 38	.....	.....
Parramatta	Cumberland	101	420 1 27	10	87 3 29	91	332 1 38	479 13 10	5 9 1
Paterson	Durham	3	129 1 10	1	32 3 10	2	96 2 0	133 14 3	4 1 6
Penrith	Cook	1	50 0 0	1	50 0 0	...	.....	75 0 0	1 10 0
	Cumberland	1	13 1 0	1	13 1 0	...	.....	72 17 6	5 10 0
Picton	Camden	5	260 2 0	...	.....	5	260 2 0	.....	.....
	Westmoreland	1	40 0 0	...	.....	1	40 0 0	.....	.....
Port Macquarie	Macquarie	3	122 0 0	3	122 0 0	...	.....	152 10 0	1 5 0
Queanbeyan	Cowley	1	120 0 0	...	.....	1	120 0 0	.....	.....
	Murray	4	290 0 0	1	40 0 0	3	250 0 0	50 0 0	1 5 0
Raymond Terrace	Gloucester	19	1,421 2 0	...	.....	19	1,421 2 0	.....	.....
Rylstone	Phillip	1	66 0 0	...	.....	1	66 0 0	.....	.....
	Roxburgh	4	281 0 0	2	81 0 0	2	200 0 0	101 5 0	1 5 0
Scone	Brisbane	2	77 2 0	...	.....	2	77 2 0	.....	.....
Singleton	Durham	6	111 2 35	2	22 2 20	4	89 0 15	66 12 6	2 18 11
	Northumberland	2	77 0 0	2	77 0 0	...	.....	115 10 0	1 10 0
Stroud	Gloucester	5	360 0 0	...	.....	5	360 0 0	.....	.....
Tamworth	Buckland	12	760 3 0	11	721 0 0	1	39 3 0	1,035 15 0	1 8 9
	Darling	14	1,454 3 0	12	1,104 3 0	2	350 0 0	1,539 1 3	1 7 10
	Parry	12	437 0 0	11	435 0 0	1	2 0 0	1,237 6 0	2 16 10
	Pottinger	2	80 0 0	2	80 0 0	...	.....	140 0 0	1 15 0
Taree	Gloucester	36	1,428 3 14	7	180 0 30	29	1,248 2 24	284 9 5	1 11 7
	Macquarie	7	300 1 36	4	176 1 36	3	124 0 0	279 14 5	1 11 8
Tenterfield	Buller	1	40 0 0	...	.....	1	40 0 0	.....	.....
	Clive	5	604 0 0	3	120 0 0	2	484 0 0	175 2 6	1 9 2
Tumut	Wynyard	5	156 3 0	1	111 3 0	4	45 0 0	139 13 9	1 5 0
Urana	Urana	8	1,077 0 28	5	656 0 0	3	421 0 28	1,460 10 0	2 4 6
Wagga Wagga	Bourke	2	440 0 0	...	.....	2	440 0 0	.....	.....
	Clarendon	2	52 0 0	2	52 0 0	...	.....	147 15 0	2 16 10
	Mitchell	2	365 1 0	2	365 1 0	...	.....	730 10 0	2 0 0
	Wynyard	3	56 2 0	1	38 3 0	2	17 3 0	155 0 0	4 0 0
Walcha	Hawes	12	682 1 0	12	682 1 0	...	.....	872 16 3	1 5 7
	Vernon	26	855 0 30	25	834 1 30	1	20 3 0	1,791 16 2	2 2 11
Walgett	Clyde	3	552 0 0	1	180 0 0	2	372 0 0	360 0 0	2 0 0
	Leichhardt	9	2,303 2 0	9	2,303 2 0	...	.....	2,879 7 6	1 5 0
Warialda	Burnett	19	3,345 3 0	3	208 2 0	16	3,137 1 0	312 15 0	1 10 0
Wellington	Bligh	2	129 2 0	...	.....	2	129 2 0	.....	.....
	Gordon	1	40 0 0	...	.....	1	40 0 0	.....	.....
Windsor	Cumberland	7	322 1 20	3	153 0 0	4	169 1 20	229 15 0	1 10 0
	Cook	5	400 1 0	...	.....	5	400 1 0	.....	.....
	Northumberland	1	40 0 0	...	.....	1	40 0 0	.....	.....
Wollombi	"	2	38 0 22	1	17 3 32	1	20 0 30	44 17 6	2 10 0
Yass	Cowley	1	49 1 0	...	.....	1	49 1 0	.....	.....
	King	1	66 0 0	...	.....	1	66 0 0	.....	.....
	Murray	8	662 1 20	3	89 3 20	5	572 2 0	264 2 5	2 18 9
Young	Bland	2	289 2 0	2	289 2 0	...	.....	579 6 5	2 0 0
	Harden	3	5 3 37	3	5 3 37	...	.....	31 18 6	5 6 9
	Monteagle	30	539 1 18	9	369 1 16	21	170 0 2	671 8 3	1 16 4
		1,432	98,744 3 1¼	703	44,347 2 33½	729	54,396 3 7¾	92,360 11 3	2 1 8

NOTE.—The area sold equals 44·91 per cent. for the area offered.

Schedule XXXVII.

Return showing the situation of, and amount realised for, Town and Suburban Lands sold at Auction during 1891.

Town or Village of	Town.			Suburban.		
	Lots.	Area.	Total amount realised.	Lots.	Area.	Total amount realised.
	No.	a. r. p.	£ s. d.	No.	a. r. p.	£ s. d.
Aberdeen	.....	.....	.....	14	35 1 17½	163 0 0
Adaminaby	44	10 3 32½	564 2 0	.....	.....	.....
Adelong	.....	.....	.....	2	3 1 3	13 0 0
Araluen	.....	.....	.....	2	8 2 22	70 0 0
Armidale	81	34 3 25½	2,057 13 0	.....	.....	.....
Arthur (Trunkey)	1	0 0 37	6 0 0	9	33 1 35	116 10 0
Baan Baa	8	3 1 28	68 0 0	.....	.....	.....
Balranald	11	5 0 4	106 15 0	.....	.....	.....
Barooga	62	30 3 18	838 0 0	.....	.....	.....
Barratta	.....	.....	.....	6	98 2 0	825 10 0
Bathurst	16	6 1 25½	545 10 0	3	5 3 28	303 0 0
Berowra	.....	.....	.....	55	246 0 14	1,246 0 0
Bimbi	20	9 2 2½	91 15 0	6	35 3 9	90 0 0
Binalong	14	6 0 17½	71 14 0	.....	.....	.....
Bingara	2	0 3 0	19 5 0	.....	.....	.....
Bogabri	34	17 0 0	915 17 0	.....	.....	.....
Bookham	.....	.....	.....	3	22 2 20	68 10 0
Bowna	13	5 1 0	115 3 0	.....	.....	.....
Bowning	8	3 2 37	32 0 0	17	157 2 10	414 1 0
Bowra	5	2 2 0	75 0 0	.....	.....	.....
Broke	17	6 1 20	75 9 0	.....	.....	.....
Buller	1	0 2 0	7 10 0	.....	.....	.....
Bundella	.....	.....	.....	2	2 0 0	41 2 0
Burraga	2	0 3 5	11 10 0	1	6 1 0	17 0 0
Byrock	15	7 2 0	572 5 0	.....	.....	.....
Captain's Flat	1	0 0 26	10 0 0	.....	.....	.....
Cargelligo	3	1 1 17	105 0 0	.....	.....	.....
Cargo	.....	.....	.....	2	18 1 27	77 0 0
Cavvanba	16	5 0 0	1,971 0 0	.....	.....	.....
Colombo	7	3 2 0	52 0 0	13	50 0 21	263 10 0
Coolabah	3	1 2 0	124 0 0	.....	.....	.....
Coolamon	41	17 3 1	494 0 0	20	55 3 36	557 10 0
Coonabarabran	17	7 2 18	223 0 0	.....	.....	.....
Cootamundra	50	24 3 10	1,162 10 6	.....	.....	.....
Corowa	65	18 1 28	214 12 0	19	14 0 13	123 1 0
Currabubula	.....	.....	.....	1	1 2 0	6 0 0
Currawananna	11	5 2 0	44 0 0	.....	.....	.....
Currawong	.....	.....	.....	6	77 3 23	475 10 0
Delegete	17	8 2 0	323 7 0	.....	.....	.....
Enngonia	10	5 0 0	117 10 0	.....	.....	.....
Forbes	6	1 1 22¾	152 10 0	6	29 1 21	221 4 0
Glenrouth	.....	.....	.....	3	22 0 7	177 0 0
Gol Gol	8	4 0 0	65 10 0	.....	.....	.....
Gosford	1	0 1 0	116 0 0	.....	.....	.....
Grabben Gullen	.....	.....	.....	4	58 3 2	223 0 0
Grenfell	1	0 1 22	15 10 0	8	11 3 28	74 0 0
Greta	.....	.....	.....	1	0 2 0	70 0 0
Grong Grong	29	13 2 17½	326 11 6	.....	.....	.....
Gulgong	1	0 0 36	14 10 0	3	33 2 20	121 0 0
Gulligal	.....	.....	.....	5	28 3 7	73 0 0
Gundagai (North)	.....	.....	.....	3	2 1 22	43 10 0
Gunnedah	.....	.....	.....	1	2 2 2	31 10 0
Gunning	22	9 1 23½	79 0 0	.....	.....	.....
Hillgrove	2	0 1 15¾	15 0 0	.....	.....	.....
Jembaicumbene	.....	.....	.....	1	2 0 0	20 0 0
Katoomba	.....	.....	.....	21	192 3 3	1,294 10 0
Kempsey, West	1	0 2 0	30 0 0	.....	.....	.....
Kincumber	8	3 3 17	40 0 0	1	4 3 38	15 0 0
Krambach	1	0 1 0	5 0 0	13	13 0 0	73 0 0
Kyuga	.....	.....	.....	2	11 0 15	58 2 6
Maclean	.....	.....	.....	23	152 1 16	747 10 0
Maitland, East	18	8 1 27¾	687 10 0	.....	.....	.....
Maryland	.....	.....	.....	1	2 2 3	8 0 0
Maude	.....	.....	.....	2	1 2 18	16 0 0
Menindie	8	4 0 0	145 0 0	.....	.....	.....
Mingelo	32	15 3 39½	203 5 0	.....	.....	.....
Moama	.....	.....	.....	2	2 2 0	18 0 0
Mogo	3	1 0 12	13 8 0	.....	.....	.....
Molong, West	13	5 1 14	211 5 0	2	10 3 30	67 0 0
Moree	.....	.....	.....	11	57 1 37	1,012 0 0
Morrisset	.....	.....	.....	1	3 0 0	21 0 0
Mudgee	.....	.....	.....	1	6 3 2	22 0 0
Mulbring	5	2 1 11	115 0 0	.....	.....	.....
Murringo	.....	.....	.....	12	88 3 10	272 0 0
Murrumbidgerie	43	21 2 0	249 4 0	.....	.....	.....
Narrandera	17	4 1 31	821 0 0	.....	.....	.....
Neranie	8	3 3 15	31 0 0	4	4 0 0	10 0 0
Neville	5	2 1 30	20 0 0	2	10 1 28	29 0 0
Newcastle	.....	.....	.....	44	18 2 14¼	2,955 0 0
Noorooma	.....	.....	.....	6	67 3 23	172 10 0
Nundle	.....	.....	.....	2	2 0 0	16 0 0
Nyngan	.....	.....	.....	1	10 0 0	52 0 0
Oberon	3	1 2 0	77 0 0	.....	.....	.....
Parkes	14	6 1 18¼	643 10 0	15	14 2 18	414 19 6

SCHEDULE XXXVII—*continued.*

Town or Village of	Town.			Suburban.		
	Lots.	Area.	Total amount realised.	Lots.	Area.	Total amount realised.
	No.	a. r. p.	£ s. d.	No.	a. r. p.	£ s. d.
Parramatta	8	1 3 19¼	10,766 0 0	.....	.....	.....
Port Macquarie, East	4	1 2 31¼	120 0 0	.....	.....	.....
Queanbeyan	20	7 2 34	129 3 0	.....	.....	.....
Raglan	4	1 1 26	23 0 0	.....	.....	.....
Raymond Terrace	1	0 1 0	121 0 0	.....	.....	.....
Somerton	5	2 1 34	28 0 0	.....	.....	.....
Stonehenge	.....	.....	.....	12	93 3 3	330 0 0
Stuart	8	3 2 13	52 15 0	.....	.....	.....
Sunny Corner (Mitchell)	4	1 1 0	50 0 0	.....	.....	.....
Tamworth	37	16 0 25	2,058 10 0	.....	.....	.....
Tarcutta	2	1 0 0	22 10 0	.....	.....	.....
Temora	11	2 2 4¾	260 16 0	2	5 2 36	88 10 0
Teven	15	5 2 35	54 18 9	21	35 3 8	190 16 0
Tinonee	.....	.....	.....	4	29 1 4	96 10 0
Tumbarumba	1	0 2 0	10 0 0	4	7 1 0	54 10 0
Tumut	.....	.....	.....	153	338 0 35½	3,831 8 6
Wagga Wagga	2	0 0 26	559 0 0	.....	.....	.....
Wangonilla	3	1 2 0	16 10 0	.....	.....	.....
Warren	23	9 0 16	749 0 0	3	19 3 12	205 0 0
Wee Waa	13	5 2 32	197 0 0	.....	.....	.....
Windsor	33	8 0 26½	245 10 0	.....	.....	.....
Wittingham	.....	.....	.....	10	21 2 18	98 0 0
Wollomba	.....	.....	.....	1	1 0 0	8 0 0
Wollombi	.....	.....	.....	2	20 0 6	79 10 0
Young	9	2 1 2¾	290 5 0	9	8 3 1	165 12 6
	1,047	435 1 30½	30,844 18 0	603	2,322 0 6¼	18,345 17 0

SCHEDULE XXXVIII.

RETURN of Deposits and Instalments forfeited, during 1891, under the 62nd section of the Crown Lands Act of 1884 and 1st section of the Crown Lands (Auction Sales Balances) Act of 1887, on account of non-payment of balance of purchase-money within the required time.

Description of Land.	Land District.	County.	No. of Lots.	Area.	Amount of Deposit forfeited.
				a. r. p.	£ s. d.
Town	Armidale	Sandon	3	1 1 35½	3 12 3
,,	Deniliquin	Cadell	1	0 2 0	4 9 0
,,	Eden	Auckland	1	0 1 0	1 8 2
,,	Goulburn	Argyle	1	0 2 0	2 15 6
,,	Hay	Waradgery	1	0 2 0	5 0 0
,,	Newcastle	Gloucester	1	0 1 0	37 10 0
,,	Parramatta	Cumberland	5	1 1 10	4 10 0
,,	Tumut	Wynyard	1	0 1 16¾	1 8 3
Suburban	Gosford	Northumberland	4	15 1 16	43 2 6
,,	Scone	Brisbane	1	2 3 35	7 10 0
,,	Tamworth	Darling	1	2 1 27	6 5 0
Country	Carcoar	Georgiana	1	19 2 30	8 17 3
,,	Orange	Wellington	1	1 0 8¾	10 0 0
,,	Young	Monteagle	1	4 1 0	8 0 2
		Total	23	50 3 19	144 8 1

SCHEDULE XXXIX.

RETURN showing miscellaneous amounts authorised for refund in connection with Auction Sales, &c., during the year 1891.

Number of Refunds.	Nature of Refund.	Amount.
		£ s. d.
18	Value of improvements added to the upset price of land sold by auction in accordance with the provisions of the 61st section of the Crown Lands Act of 1884	836 4 0
2	Purchase Moneys and Deed Fees paid upon Auction Sales which have been cancelled	141 19 11
8	Purchase Moneys and Deed Fees paid in excess in connection with Auction Sales	40 1 8
2	Survey and Subdivision Fees paid in connection with Volunteer Land Order Selections	12 10 0
2	Amounts paid in excess as Stamp Duty and value of improvements in connection with Volunteer Land Order Selections	10 8 9
1	Guarantee Deposits paid under section No. 30 of the Land Act Amendment Act of 1875.	0 10 0
33	£	1,041 14 4

Schedule XL.

Return of Applications to purchase land in virtue of improvements under the 2nd clause of the Lands Acts Amendment Act of 1875 upon which the purchase money was paid during 1891.

County.	Land District	Total number of portions purchased in each county, area purchased, and amount paid, exclusive of penalties, during 1891.			Class of Land.	Total number of portions, area, and amount paid, exclusive of penalties, for land contained within each Land District.			Penalties.	Total amount paid.
		No.	a. r. p.	£ s. d.		No.	a. r. p.	£ s. d.	£ s. d.	£ s. d.
Ashburnham	Parkes	1	0 1 26½	150 0 0	Town	1	0 1 26½	150 0 0	. .	150 0 0
Bland	Cootamundra	1	0 1 0	5 0 0	,,	1	0 1 0	5 0 0	0 10 0	5 10 0
Gipps	Condobolin	2	240 0 0	300 0 0	Country	2	240 0 0	300 0 0	.	300 0 0
Inana	Bourke	1	40 0 0	50 0 0	,,	1	40 0 0	50 0 0	. .	50 0 0
Jamison	Narrabri	4	1,805 0 0	2,835 0 0	,,	4	1,805 0 0	2,835 0 0	.	2,835 0 0
Narromine	Dubbo	1	46 3 0	58 8 9	,, . .	1	46 3 0	58 8 9	.	58 8 9
Robinson	Cobar ..	1	40 0 0	52 10 5	,,	1	40 0 0	52 10 5	5 5 0	57 15 5
Wakool	Deniliquin	1	589 0 0	736 5 0	,,	1	589 0 0	736 5 0	. . .	736 5 0
Wynyard	Wagga Wagga	1	60 0 0	90 0 0	,, . .	1	60 0 0	90 0 0	.	90 0 0
	Total .	13	2,821 1 26½	4,277 4 2		13	2,821 1 26½	4,277 4 2	5 15 0	4,282 19 2

Schedule XLI.

Return showing Number and Area of Improvement Purchases applied for during 1891, under the 46th section of the Crown Lands Act of 1884, and action taken thereon, to 31st December, 1891.

County.	Land District	Number of applications and area applied for		Total number of applications and area applied for in each county.		Number disallowed	Number of applications approved, and area		Class of Land	Amount realised, inclusive of fines	Number of applications not finally dealt with on 31 Dec., 1891	Land Board District.
		No.	a. r. p.	No.	a. r. p.		No.	a. r. p.		£ s. d.		
Ashburnham	Forbes	17	4 0 22	...	... . .	2	2	0 2 0	Town	75 0 0	13	Forbes.
,,	,, ...	3	2 3 2	...	..... .	1	...	.....	Suburban	... .	2	,,
,,	Parkes	39	37 1 3½	...	.....	10	6	5 3 24	,,	166 4 0	23	,,
,,	,, ...	18	4 1 39½	77	48 2 27	7	1	0 0 39½	Town.....	200 0 0	10	,,
Bathurst ...	Carcoar	2	1 1 0	2	1 1 0	.	...	... .	Suburban	.... ..	2	Orange.
Bland	Cootamundra ..	10	10 0 0	.	.....	3	...	. . ....	,,	....	7	Wagga Wagga
,, ...	,, ...	12	2 2 29	...	.....	2	...	....	Town...	.. ... .	10	,,
,, ...	Grenfell ...	5	1 2 0	27	14 0 29	2	.	....	,, ...	. ...	3	Forbes.
Clarke	Armidale ...	1	0 1 0	1	0 1 0	...	.	.... ..	,, ...	..... .	1	Armidale.
Dampier	Bega	1	1 0 0	...	. ....	1	...	.....	Suburban	....	....	Cooma.
,, ...	Moruya	1	1 0 0	2	2 0 0	1	...	.....	,,	. .	..	,,
Dowling	Hillston	2	0 2 0	2	0 2 0	...	..	. . ..	Town .	....	2	Hay.
Drake	Casino	1	1 0 0	...	.....	...			Suburban	... .	1	Grafton.
,, ...	,, ...	1	0 1 0	2	1 1 0	...	...	.....	Town....	... ..	1	,,
Evelyn	Willyama	1	0 1 0	...	.. ..	...	...	... .	,, ...	.....	1	Bourke.
,,	,, ...	2	2 0 0	3	2 1 0	.	...	....	Suburban	..... .	2	,,
Farnell	,, . .	6	1 1 38¾	.	..... .	2	...	.....	Town .. .	....	4	,,
,, ...	,, ...	5	5 0 0	11	6 1 38¾	3	...	.....	Suburban	....	2	,,
Gloucester ...	Stroud	1	0 0 37½	1	0 0 37½	...	...	...	Town	... .	1	Maitland.
Goulburn .	Albury	1	1 0 0	1	1 0 0	...	...	... .	Suburban	... .	1	Wagga Wagga
Hardinge ...	Inverell	1	1 0 0	1	1 0 0	.	...	.... .	,,	... ..	1	Armidale.
Kennedy	Parkes	25	6 1 0	25	6 1 0	3	4	1 0 0	Town.....	41 0 0	18	Parkes.
Monteagle .	Grenfell	1	0 1 0	...	.....	...	1	0 1 0	,, ...	20 0 0	...	Forbes.
,, ...	,, ...	3	3 0 0	..	.....	1	...	.....	Suburban	... ...	2	,,
,, ...	Young	4	0 3 23½	. .	... ...	...	. .	.....	Town.....	... ...	4	Goulburn.
,, ..	,, ...	2	2 0 0	10	6 0 23½	...	...	... ...	Suburban	... .	2	,,
Murray	Queanbeyan ..	1	0 1 0	...	..... .	.	..	.....	Town ...	... .	1	,,
,, ...	,, ..	3	1 3 0	4	2 0 0	.	.	...	Suburban	... .	3	,,
Narromine ...	Dubbo	30	7 2 0	...	.....	3	8	2 0 0	Town...	195 0 0	19	Dubbo.
,, ...	,, ...	2	0 1 20	..	... ...	2	...	....	Suburban	....	...	,,
,, ...	Parkes	6	1 2 0	38	9 1 20	...	...	....	Town...	..... .	6	Forbes.
Parry	Tamworth	2	2 0 0	.	.....	1	...	..... .	Suburban	..... .	1	Tamworth.
,, ...	,, ...	7	1 3 0	9	3 3 0	...	...	... ...	Town	....	7	,,
Phillip	Mudgee	1	0 1 0	1	0 1 0	1	...	.....	,, ...	.. ..	. .	Orange.
Raleigh	Bellingen	1	1 0 0	1	1 0 0	...	..	... .	Suburban	... .	1	Grafton.
Rous	Lismore.....	1	0 1 0	1	0 1 0	...	...	... .	Town	. ...	1	,,
Roxburgh ...	Bathurst	5	5 0 0	...	.....	...	...	.....	Suburban	... .	5	Orange.
,, ...	,,	2	0 2 0	..	..	...	...	... .	Town .	. ....	2	,,
,,	Lithgow	1	1 0 0	8	6 2 0	...		... .	Suburban	... . .	1	,,
Sandon	Armidale	2	2 0 0	...	.....	1	...	.....	,,	. ...	1	Armidale.
,, ...	,, ...	11	2 3 0	13	4 3 0	...	2	0 1 30¾	Town...	65 0 0	9	,,
Selwyn	Albury	2	0 2 0	2	0 2 0	...		... .	,, ...	..... .	2	Wagga Wagga
St. Vincent's...	Braidwood	1	1 0 0	...	.....	...	...	.....	Suburban	.....	1	Cooma.
,, ...	Moruya	2	1 1 0	...	. . . . .		.	.....	,,	... ..	2	,,
,, ...	Nowra	4	1 2 0	...	. ...	...	...	. .... .	,,	. ...	4	Goulburn.
,, ...	,, ...	2	0 2 0	9	4 1 0	..	...	.....	Town	... .	2	,,
Tongowoko ...	Willyama	6	1 1 29	...	..	1	...	... .	,, .	... .	5	Bourke.
,,	,, ...	8	8 0 0	14	9 1 29	1	...	....	Suburban	.....	7	,,
Wellington ...	Wellington ...	4	2 2 0	...	.....	...	...	.....	,,	....	4	Orange.
,, ...	,, ...	1	0 1 0	5	2 3 0	1	...	... .	Town .	..... .	.....	,,
Wynyard ...	Gundagai	2	0 3 2	2	0 3 2	1	...	....	Suburban	. ...	1	Wagga Wagga
Yancowinna ..	Willyama	204	48 1 3	.	..... .	17	50	12 0 20⅞	Town	2,078 15 0	137	Bourke.
,, ...	,, ...	586	468 0 18⅔	790	516 1 21⅔	35	194	151 2 19⅘	Suburban	4,153 13 0	357	,,
		1062	653 1 27⅝⅝	1062	653 1 27⅝⅝	102	268	174 0 14⅝⅝		6,994 12 0	692	

Schedule XLII.

Return showing Number of Improvement Purchase Applications applied for prior to 1891, under the 46th section of the Crown Lands Act of 1884, and for which the Purchase Money was paid during 1891.

County.	Land District	Number of applications and area alienated.		Total number of applications and area alienated in each county		Class of Land.	Penalties.	Amount realised (exclusive of penalties).
		No.	a. r. p.	No.	a. r. p.		£ s. d.	£ s. d.
Ashburnham	Forbes	2	0 1 35	...	...	Town	1 18 0	59 18 0
do	Parkes	13	3 0 34	...	...	do	12 4 0	739 4 0
do	do	11	11 0 0	26	14 2 29	Suburban	...	250 0 0
Bathurst	Carcoar	1	0 1 0	1	0 1 0	Town	...	6 19 9
Bland	Grenfell	1	0 1 0	1	0 1 0	do	...	12 0 0
Buller	Casino	1	1 0 0	1	1 0 0	Suburban	...	4 0 0
Durham	Scone	1	1 0 0	1	1 0 0	do	1 0 0	11 0 0
Farnell	Willyama	1	0 1 0	..	.. ...	Town	0 18 0	9 18 0
do	do	8	8 0 0	9	8 1 0	Suburban	2 8 0	214 8 0
Kennedy	Parkes	2	0 1 34¾	2	0 1 34¾	Town	...	18 0 0
Narromine	Dubbo	26	6 2 0	...	...	do	12 2 0	628 12 0
do	do	3	0 3 0	29	7 1 0	Suburban	2 8 0	74 8 0
Roxburgh	Bathurst	2	0 2 0	..	... ..	Town	...	56 10 0
do	do	1	1 0 0	3	1 2 0	Suburban	...	7 10 0
Sandon	Armidale	11	2 2 12½	...	... ..	Town	1 18 0	317 8 0
do	do	1	0 1 0	12	2 3 12½	Suburban	...	10 0 0
Selwyn	Albury	2	0 2 0	2	0 2 0	Town	...	8 10 0
Tongowoko	Willyama	1	0 0 20	1	0 0 20	do	0 13 0	7 3 0
Wellington	Wellington	1	0 1 0	1	0 1 0	do	...	11 1 8
Yancowinna	Willyama	148	34 3 28	...	...	do	125 18 2	4,637 11 8
do	do	258	201 2 5	406	236 1 33	Suburban	124 15 0	5,111 7 0
	Total	495	274 3 9¼	495	274 3 9¼		286 2 2	12,195 9 1

Schedule XLIII.

Return showing the number of Special Purchase Applications received within the various Land Districts during the year 1891.

Land Board and Land District.	Clause 63	64	66	67	Total.	Land Board and Land District.	Clause 63	64	66	67	Total.
Armidale—						Maitland—					
Armidale	..	...	...	3		Gosford	...	...	...	1	
Inverell	.	...	1	1	6	Maitland	...	...	1	2	8
Tenterfield	...	...	1	...		Newcastle	2	1	...	...	
Bourke—						Paterson	...	...	1	...	
Bourke	...	..	.	1	1	Moree—					
Cooma—						Moree	...	...	2	2	4
Bombala	.	.	1	2	4	Orange—					
Braidwood	...	.	...	1		Bathurst	...	...	1	...	7
Dubbo—						Carcoar	..	...	...	1	
Coonamble	...	...	...	2	2	Cowra	...	...	...	1	
Forbes—						Lithgow	...	...	1	...	
Condoublin	...	.	1			Molong	...	...	...	1	
Forbes	.	...		8	10	Wellington	..	...	1	1	
Grenfell	...	.	1	...		Sydney—					
Grafton—						Kiama	...	...	...	1	32
Bellingen	..	...	2			Parramatta	...	1	...	1	
Grafton	..	.		1		Sydney	8	15	3	3	
Lismore	...	1	...	..	7	Tamworth—					
Murwillumbah	.	...	.	1		Gunnedah	.	...	...	1	6
Macleay River	...	2	...			Tamworth	...	...	...	5	
Goulburn—						Wagga Wagga—					
Berrima	...	...	1	...		Albury	...	...	1	3	
Goulburn	...		2	.	8	Corowa	...	..	...	8	
Nowra	...	...		1		Cootamundra	..	...	...	2	19
Young	...	...	...	4		Gundagai	...	...	...	1	
Hay—						Urana	...	..	...	1	
Balranald	...	...	...	1		Wagga Wagga	...	...	...	3	
Deniliquin	...	2	...	...	13						
Hay	...	..	1	3		Grand Totals	10	22	22	73	127
Hillston	...	...	...	6							

Schedule XLIV.

Return of Lands alienated during the year 1891 in satisfaction of Special Purchase Applications made under the Crown Lands Act of 1884 and 1889.

County.	Area alienated—Act of 1884.					Area alienated—Act of 1889, clause 42.	Purchase money paid.	Penalties.	Land Board District.
	Clause 63.	Clause 64.	Clause 66.	Clause 67.	Clause 69				
	a. r. p.	a. r. p.	a. r. p.	a. r. p.		a. r. p.	£ s. d.	£ s. d.	
Ashburnham	.....	.....	.....	30 2 18	.....	.....	105 5 10	.....	Orange.
Bathurst	.....	.....	37 3 0	.....	.....	.....	122 7 7	.....	,,
Bland	.....	.....	.....	9 0 0	.....	.....	27 0 0	.....	Wagga Wagga.
Bligh	.....	.....	.....	9 0 16	.....	.....	13 13 0	.....	Maitland.
Brisbane	.....	.....	.....	3 0 32	.....	.....	6 8 0	.....	,,
Buccleuch	.....	.....	.....	11 2 16	.....	.....	34 16 0	.....	Wagga Wagga.
Camden	.....	.....	.....	2 0 30	.....	.....	10 18 9	.....	Goulburn.
Cook	.....	.....	0 2 6	.....	.....	.....	54 0 0	.....	Orange.
,,	.....	.....	.....	2 3 16	.....	.....	14 2 6	1 8 3	,,
Cooper	.....	.....	.....	.....	.....	33 0 10	....	.....	Wagga Wagga.
Cowley	.....	.....	.....	5 0 0	.....	.....	12 15 0	.....	Cooma.
Cumberland	0 1 37	.....	.....	.....	.....	.....	145 6 10	.....	Sydney.
,,	.....	.....	8 1 33	.....	.....	.....	408 16 1	1 10 4	,,
,,	.....	1 1 32¼	.....	.....	.....	.....	692 11 9	5 14 4	,,
Dudley	.....	.....	.....	7 0 35	.....	.....	83 0 4	.....	Grafton.
Forbes	.....	.....	.....	50 3 12	.....	.....	129 11 8	.....	Forbes.
Hume	.....	.....	.....	168 2 15	.....	.....	351 14 9	.....	Wagga Wagga.
King	.....	.....	.....	3 1 27	.....	.....	7 13 10	.....	Goulburn.
Macquarie	6 1 6	.....	.....	.....	.....	.....	127 2 0	.....	Grafton.
Monteagle	.....	.....	0 0 4¾	.....	.....	.....	38 5 0	3 16 6	Forbes.
Murray	.....	.....	.....	1 2 20	.....	.....	3 5 0	.....	Cooma.
Nandewar	.....	.....	.....	6 3 14	.....	.....	14 5 2	.....	Tamworth.
Rous	.....	.....	.....	3 1 23	.....	.....	16 19 5	.....	Grafton.
Roxburgh	.....	.....	.....	4 0 0	.....	.....	8 0 0	.....	Orange.
Sandon	.....	.....	21 3 0	.....	.....	.....	55 13 9	5 11 3	Armidale.
,,	.....	.....	.....	8 3 33	.....	.....	26 9 9	.....	,,
Townsend	.....	.....	.....	9 0 25	.....	.....	41 4 1	.....	Hay.
,,	.....	.....	.....	73 2 26	.....	.....	110 11 4	.....	,,
Urana	.....	.....	.....	6 3 16	.....	.....	17 2 6	.....	Wagga Wagga.
Wynard	.....	.....	.....	7 1 3	.....	.....	41 16 11	.....	,,
	6 3 3	1 1 32¼	68 2 3¾	425 1 17	.....	33 0 10	2,720 16 10	18 0 8	

Schedule XLV.

Return of Lands alienated during the year 1891 in satisfaction of Special Purchase Applications made under the Crown Lands Alienation Act of 1861.

County.	Area alienated.				Purchase money paid.	Penalties.	Land Board District.
	Clause 9.	Clause 10.	Clause 11.	Clause 12.			
	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	
Cumberland	0 0 8	.....	.....	.....	18 8 0	.....	Sydney.

Schedule XLVI.

Return showing the number of Volunteer Land Order Applications received, and the number refused, during 1891.

Land District.	County.	Number of applications received.	Area applied for.	Number of applications refused.	Area refused.
			a. r. p.		a. r. p.
Corowa	Denison	.....	.....	2	100 0 0
Coonamble	Leichhardt	1	50 0 0	.....	.....
Deniliquin	Townsend	1	50 0 0	1	50 0 0
Gundagai	Wynyard	.....	.....	2	100 0 0
Inverell	Murchison	1	50 0 0	.....	.....
Kempsey	Dudley	2	100 0 0	2	100 0 0
Scone	Brisbane	2	100 0 0	1	50 0 0
Tamworth	Buckland	1	50 0 0	1	50 0 0
Wagga Wagga	Wynyard	1	50 0 0	2	100 0 0
	Total	9	450 0 0	11	550 0 0

Schedule XLVII.

Return showing the number of applications in virtue of Volunteer Land Orders refused in 1891, the number satisfied in 1891, and the number remaining undisposed of or unsatisfied on 31st December, 1891.

Refused		Satisfied.		Unsatisfied or undisposed of.		Remarks.
Number	Area	Number.	Area.	Number.	Area	
11	550 acres	21	1,050 acres	11	550 acres	One application made during 1891 and satisfied during 1891.

Schedule XLVIII.

Return showing reason of refusal of Volunteer Land Order Applications during the year 1891.

No of Applications refused	Reason of refusal
2	Application allowed to be withdrawn.
4	The land not being available at the date of application.
1	The applicant according to the transfer recorded on the back of the certificate not being entitled to same.
2	For vagueness of description.
1	Application lodged prior to the disposal of a former application made in virtue of same certificate.
1	The land being applied for in an illegal form.
11	Total refused.

Schedule XLIX.

Newcastle Pasturage Reserve Act, 53 Vic. No. 1.

Return up to 31st December, 1891, showing state of applications to purchase by pre-emption.

Total number of applications received.	Number of applications reported on by the Board.		Number of applications in which sale has been gazetted.		Area.	Amount of purchase money	Number of applications upon which deposit money has been paid.	Number of applications disallowed.	Number of cases undisposed of
	1890	1891.	1890.	1891.					
1,169	1,154	15	869	94	a. r. p. 226 0 21	£ s. d. 61,268 6 0	906	213	1

Note—As several applications for more than one portion were gazetted "approved" for one portion, and again gazetted "disallowed" for the other portions those applications appear in both columns three and seven and thus apparently show a larger number of applications dealt with than were actually received

Schedule L.

Return of Lands resumed under the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, during 1891.

Originally reserved or dedicated for	Place.	County	Parish.	Area	Portion	Allotment	Section	Why resumed.
				a r p				
Permanent common	Wilberforce	Cook	Wilberforce	7,970 0 0				To be set apart as special areas, Temporary Common, &c
Show Ground	Moree	Courallie	Moree	5 0 0	123	.		Reservation for travelling stock.
General cemetery	Wyrallah ...	Rous	Tuckurimba	3 3 0½		.		Reservation for preservation of graves
Post and Telegraph Office site	Windsor	Cumberland	St Matthew	0 1 3		.		Rededicated for Town Hall site
Market	Windsor	,,	,,	1 1 0				Rededicated for addition to Public School site.
South Head Road	Paddington	,,	Alexandria	0 1 4½				Rededicated for Town Hall site
General cemetery	Rodborough	,,	Manly Cove	3 0 0				To be set apart for water supply
,,	Thirlmere (Redbank)	Camden	Couridjah	10 3 20				Reservation for public recreation
Roman Catholic Church and Presbytery sites	Currabubula	Buckland	Currabubula	1 2 0		6, 7, & 8	13	Land not having been used for the purpose for which it was dedicated
General cemetery	Tumbulgum (North Arm, Tweed River)	Rous	Berwick	8 2 10		.		Rededicated in an amended form
Mechanic's Institute site	Nowra	St Vincent	Nowra	0 2 0		11	26	With a view to sale by auction.
Public recreation	Wallendbeen	Harden	Wallendoon	4 1 15			15	Dedication of an area in lieu
,,	Brunswick River	Rous	Brunswick	100 0 0		.		Rededicated as at "Mullumbimby"
,,	Gundagai North	Clarendon	Gundagai	1.3 0 0				Rededicated for Race course
Public Library site	Scone	Brisbane	Scone	0 0 2½		1	14	Reservation for Trigonometrical purposes
Benevolent Asylum site	,,	,,	,,	2 2 0		16 to 20	3	With a view to sale by auction or other appropriation under the Crown Lands Acts
Mechanic's Institute site	,,	,,	,,	0 1 19½		3	14	With a view to sale by auction or other appropriation under the Crown Lands Acts
General cemetery	Arakoon	Macquarie	Arakoon	8 1 8				Reservation for preservation of grave
Library site	Kiama	Camden	Kiama	0 2 0		5	3	With a view to sale or other appropriation under the Crown Lands Acts
Roman Catholic Church and Presbytery sites	Murwillumbah	Rous	Murwillumbah	1 2 0		2 & 3	14	Included in an area dedicated for extension to General Cemetery
School of Arts site	Swanake	Denison	Swanake	0 2 0		10	19	Alienated prior to dedication
General cemetery	Tamworth	Inglis	Tamworth	1 1 30				With a view to sale by auction

Schedule LI.

Return showing Numbers and Area of Lots offered at Auction, and Number, Area, and Rental of Leases purchased at or selected after Auction, under Section 85 of the Crown Lands Act of 1884.

Land District.	No. of lots offered.	Area of lots offered.	No of leases purchased at or selected after auction.	Area leased.	Rent.
		acres.		acres.	£ s. d.
Berrima			3	1,420	6 0 0
Cootamundra	1	100			
Corowa	3	107¾			
Glen Innes	1	1,300			
Grenfell	3	3,060	3	3,060	10 0 0
Inverell	1	1,760	1	1,760	15 7 6
Liverpool	21	12,220	4	2,560	8 0 0
Narrandera	25	3,119½	22	1,829½	168 14 9
Queanbeyan	1	180	1	180	19 10 0
Taree	1	8			
Tumut	1	147½			
Totals	58	22,002¾	34	10 809½	227 12 3

Schedule LII.

Return showing Number and Area of Lots offered, and Number, Area, and Rental of Leases granted by Tender, Section 85, Act of 1884.

Land District	No of Lots offered	Area of Lots offered	No of Leases granted	Area Leased.	Rent	Land District	No of Lots offered	Area of Lots offered	No of Leases granted	Area Leased.	Rent
		acres		acres.	£ s. d.			acres.		acres.	£ s. d.
Bathurst	19	12,352	11	6,480	76 11 6	Moruya	17	16,860	4	3,800	12 10 0
Berrima	7	3,990				Mudgee	21	9,994	1	1,110	8 2 6
Braidwood	41	41,710	4	2,700	11 12 6	Murrurundi	3	4,820	3	4,820	43 6 0
Burrowa	13	6,490	4	2,620	12 5 0	Nowra	12	7,550	12	7,550	33 0 0
Campbelltown	3	714	1	330	2 10 0	Parkes	7	7,239	3	2,789	12 0 0
Carcoar	8	5,235	2	1,180	10 18 4	Penrith	12	6,640			
Condobolin	6	4,562	5	4,240	102 3 3	Picton	36	17,876			
Cooma	54	37,646	3	2,060	8 12 1	Queanbeyan	12	10,194	1	1,280	5 6 8
Coonamble	26	39,680	7	12,140	38 0 0	Rylstone	1	36			
Cowra	8	4,590	1	1,540	8 1 0	Taree	2	32			
Dubbo	139	237,060	14	17,740	163 13 10	Tumut	1	471	1	471	25 10 0
Forbes	1	80	1	80	4 6 8	Walgett, North	4	5,660	2	2,680	18 10 0
Glen Innes	3	2,630	2	730	14 14 0	Warialda	11	14,645			
Grenfell	2	1,404	2	1,404	9 0 0	Wellington	14	9,460	4	2,710	127 10 6
Goulburn	1	60	1	60	3 12 6	Yass	35	33,650	1	730	2 10 0
Hay	6	8,984				Young	15	8.125	2	1,250	11 0 0
Lithgow	1	520									
Milton	36	18,384½	1	640	4 0 0	Totals	580	579,534	95	83,314	777 16 4
Molong	3	190½	2	180	8 10 0						

Schedule LIII.

Return showing Number, Area, and Rental of Annual Leases current on 31st December, 1891.

Land District	Number	Area	Rent	Land District.	Number	Area	Rent
Eastern Division.		acres.	£ s. d	Eastern Division—*continued.*		acres	£ s. d.
Albury	22	13,098½	173 10 0	Grafton	202	136,637	663 15 11
Armidale	21	13,480	138 14 10	Gundagai	13	4,618	314 18 0
Bathurst	757	501,271	3,348 8 9	Gunning	156	92,278	555 15 10
Bega	3	417	16 0 0	Inverell	11	10,425	118 11 1
Bellingen	14	12,300	81 10 0	Kempsey	10	5,318½	32 2 0
Bombala	44	31,211	254 17 3	Kiama			
Braidwood	115	76,663	380 9 8	Lismore			
Burrowa	149	91,536	757 10 5	Lithgow	244	162,455¼	735 9 9
Campbelltown	3	958	7 0 0	Liverpool	4	2,540	8 0 0
Carcoar	578	403,894½	2,453 13 11	Maitland	3	967	36 6 0
Casino	31	32,885	393 16 6	Metropolitan			
Cassilis	421	265,263	1,449 10 2	Milton	13	6,600	46 10 0
Cooma	84	54,962¾	456 15 2	Molong	68	43,313½	473 1 4
Cootamundra	14	9,522	212 15 6	Moruya	21	11,800	68 0 10
Cowra	61	38,541	472 14 5	Moss Vale	35	27,964	126 5 0
Dungog	3	2,210	9 1 0	Mudgee	445	279,201½	1,693 1 2
Eden	2	300	5 0 0	Murrurundi	42	27,821¾	178 16 8
Glen Innes	37	16,012	197 10 10	Murwillumbah			
Gosford	1	50	1 0 0	Muswellbrook	12	7,124	36 3 7
Goulburn	245	148,432	917 12 6	Newcastle			

SCHEDULE LIII—*continued.*

Land District.	Number.	Area.	Rent.	Land District.	Number.	Area.	Rent.
EASTERN DIVISION—*continued.*		acres.	£ s. d.	CENTRAL DIVISION—*continued.*		acres.	£ s. d.
Nowra	49	29,194	171 12 1	Grenfell	36	26,927¼	254 2 8
Orange	188	112,220	705 5 3	Gunnedah	1	750	5 0 0
Parramatta	.....	.....	.....	Hay	27	15,183	178 13 5
Paterson	32	18,067¾	108 13 3	Hillston	12	4,569	90 10 0
Penrith	13	7,340	39 10 0	Moree	6	4,484	105 5 0
Picton	103	71,847	353 18 6	Narrabri	.....	.....	.....
Port Macquarie	18	12,985	58 0 1	Narrandera	22	1,929½	168 14 9
Queanbeyan	60	49,112¾	330 5 9	Parkes	12	9,989	75 5 9
Raymond Terrace	4	2,527	16 0 0	Urana	1	500	56 5 0
Rylstone	286	182,259	1,063 6 6	Wagga Wagga	.....	.....	.....
Scone	290	215,302¼	1,360 13 9	Walgett	3	1,635	44 0 0
Singleton	19	10,893¼	70 9 7	Warialda	.....	.....	.....
Stroud	114	86,039	467 6 6				
Tamworth	34	34,749	211 12 6	Totals	303	218,487¼	3,466 16 8
Taree	35	22,595	157 10 0				
Tenterfield	.....	.....	.....				
Tumut	6	1,938	74 10 0				
Walcha	8	5,120	21 6 8	WESTERN DIVISION.			
Wellington	449	328,345	2,151 19 9				
Windsor	2	530	8 16 3	Balranald	.....	.....	.....
Wollombi	10	6,932	29 12 6	Bourke	.....	.....	.....
Wollongong	.....	.....	.....	Brewarrina	4	3,590	46 7 6
Yass	73	45,710	272 10 8	Cobar	.....	.....	.....
Young	23	13,394¼	87 18 4	Hay, North	2	2,115	56 0 0
				Hillston, North	.....	.....	.....
Totals	5,700	3,789,080½	24,575 6 0	Walgett, North	4	3,860	29 0 0
				Wentworth	.....	.....	.....
				Wilcannia	3	1,613	39 9 2
CENTRAL DIVISION.				Willyama	.....	.....	.....
				Totals	13	11,178	170 16 8
Balranald, South	.....	.....	.....				
Bingera	.....	.....	.....				
Brewarrina, East	.....	.....	.....				
Cobar, East	.....	.....	.....				
Condobolin	13	9,068	208 14 3	Eastern Division	5,700	3,789,080½	24,575 6 0
Coonabarabran	13	10,798	88 11 0				
Coonamble	15	16,260	94 17 6	Central Division	303	218,487¼	3,466 16 8
Corowa	1	360	18 0 0				
Deniliquin	48	27,790	1,124 12 7	Western Division	13	11,178	170 16 8
Dubbo	83	83,937	906 17 4				
Forbes	10	4,307¼	47 7 5	GRAND TOTALS	6,016	4,018,745¾	28,212 19 4

SCHEDULE LIV.

RETURN showing Number, Area, and Rental of Annual Leases notified forfeited during the year 1891.

Land District.	Number.	Area.	Rent.	Land District.	Number.	Area.	Rent.
		acres.	£ s. d.			acres.	£ s. d.
Albury	3	1,907½	11 10 0	Maitland	2	1,860	10 0 0
Armidale	4	2,090	12 10 0	Milton	4	2,430	8 0 0
Bathurst	36	19,549	126 5 0	Molong	4	3,110	22 14 3
Berrima	9	6,040	28 16 3	Moruya	4	1,800	12 0 0
Bombala	1	840	5 0 0	Mudgee	27	14,252	88 13 0
Braidwood	19	11,390	72 14 2	Murrurundi	18	12,276	62 17 6
Burrowa	34	19,690	106 6 8	Muswellbrook	1	640	2 10 0
Carcoar	51	22,504	206 11 9	Nowra	3	1,630	11 10 0
Casino	1	200	7 10 0	Orange	7	3,058½	28 1 0
Cassilis	14	8,283¾	41 4 7	Paterson	5	3,208	16 17 6
Cooma	5	5,040	23 17 6	Picton	22	14,620	63 1 0
Coonabarabran	1	300	2 10 0	Port Macquarie	5	3,200	12 16 8
Cowra	3	1,393	10 10 9	Queanbeyan	33	21,354	115 3 9
Dubbo	1	1,920	10 0 0	Rylstone	20	12,892	72 13 3
Dungog	1	400	5 0 0	Scone	45	40,510	177 15 4
Glen Innes	2	1,280	8 3 9	Singleton	2	1,390	7 13 4
Goulburn	47	30,716	286 8 2	Stroud	12	10,914	53 9 9
Gosford	2	1,920	7 10 0	Tamworth	3	1,327	9 10 0
Grafton	19	13,740	73 5 2	Taree	7	4,747	28 6 8
Grenfell	3	1,936¾	18 15 0	Tumut	1	900	5 0 0
Gundagai	1	915	30 0 0	Urana	1	596	15 19 5
Gunning	10	6,795	40 12 3	Wagga Wagga	4	6,190	36 0 0
Hay	1	300	2 10 0	Walgett	2	620	11 0 0
Hillston	3	450	29 0 0	Wellington	31	18,303	100 5 0
Inverell	11	5,705	29 7 6	Yass	4	1,790	12 6 3
Kempsey	3	1,310	15 0 0				
Lithgow	24	13,661	71 6 0				
Liverpool	4	2,560	8 0 0	Totals	580	366,453½	2,274 8 2

Schedule LV.

Return showing number, area, and rent of Annual Leases cancelled during the year 1891.

District	No	Area	Rent
		acres.	£ s d.
Armidale	1	640	8 0 0
Casino	2	1,260	42 0 0
Cowra	3	1,920	8 8 9
Gunning	3	1,560	9 16 3
Hilston	2	300	24 0 0
Molong	1	640	3 0 0
Wellington	3	1,530	8 6 3
Yass	1	1,400	8 15 0
Totals	16	9,250	112 6 3

Schedule LVI

Return showing number and area of Annual Leases applied for under section 33 of Crown Lands Act of 1889, and how they have been disposed of for 1891.

Land District	Number of Applications: Out standing from 1890	Number of Applications: Received during 1891	Total to be dealt with	Area of Applications: Received during 1890	Area of Applications: Received during 1891	Area to be acted upon during 1891	No of Applications disallowed and withdrawn during 1891	No of Applications approved during 1891	No of Applications not finally dealt with on 31st December, 1891	No of leases granted under 33rd clause during the year	Area of leases granted	Rent
				a r p	acres	acres					a r p	£ s d
Albury	6	7	13	2,108 0 0	2,154¾	4,229¾	7	3	3	3	1,179 0 0	28 0 0
Armidale	12	62	74	12,219 0 0	49,972	62,041	25	12	37	12	8,474 0 0	101 16 8
Balranald		1	1		6	6	1					
Bathurst	42	73	115	28,328 3 0	44,716¼	68,889¾	4	88	23	88	54 967 0 0	372 14 4
Bombala	46	49	95	43,878 0 0	34,7o5	69,165	30	36	29	36	25,771 0 0	234 7 3
Bellingen	15	16	31	18,560 0 0	13,140	31,700	10	11	10	11	10,380 0 0	74 10 0
Bega		3	3		1,920	1,920			3			
Bingara		3	3		5 120	5,120	1		2			
Braidwood	9	23	32	6,840 0 0	16,034	22,234	4	18	10	18	12,779 0 0	50 19 10
Bourke		1	1	800 0 0	1,600	1,600	1					
Brewarrina		2	2		2,560	2,560			2			
Burrowa	29	51	80	15,133 0 0	24,226	42,705½	30	35	15	35	21,883 0 0	187 19 3
Campbelltown		1	1	300 0 0	314	314		1		1	314 0 0	2 10 0
Carcoar	51	109	160	22,221 0 0	71,067	113,603	23	78	59	78	65,208 0 0	444 2 0
Casino	41	109	150	38,626 0 0	80,945½	121 022¼	46	22	82	22	26,912 0 0	214 17 10
Cassilis	14	75	89	8,995 0 0	31,985	40,804	20	60	9	60	25,830 3 0	176 4 2
Corowa		1	1		28	28			1			
Coonamble		4	4		2,460	2,460		4		4	2 540 0 0	36 15 10
Coonabarabran		24	24		15,477	15,477	1	2	21	2	2,175 0 0	24 10 0
Cooma	23	80	103	22,376 0 0	59,373	79,939	19	40	44	40	27,920 0 0	203 14 8
Cootamundra	16	45	61	15,349 2 1	51,172	63,490	14	8	39	8	7,125 0 0	190 7 2
Cowra	48	65	113	25,853 1 30	32,997¾	58 851	47	21	4o	21	8,189 3 0	147 16 10
Denliquin	7	3	10	11,590 0 0	994	6 334	2	5	3	5	4,080 0 0	122 10 0
Dubbo	16	58	74	18,937 2 0	6o,305	82,(91	12	31	31	31	34,036 0 0	306 10 9
Dungog	1	1	2	370 0 0	640	1,010		1	1	1	370 0 0	1 11 0
Eden	1		1	640 0 0		640	1					
Forbes	2	1	3	1,888 0 0	70½	1,9o8½	2	1		1	70 2 31	3 10 9
Glen Innes	50	35	8o	78,260 0 0	23,438	98,2o8	54	8	23	8	5 305 0 0	57 5 0
Gosford		1	1		50	50		1		1	50 0 0	1 0 0
Goulburn	28	53	81	41 185 3 0	35,351¾	48,983½	7	61	13	61	33,472 0 0	198 15 5
Grafton	116	140	256	155,664 2 30	107,154¼	195,923¼	72	66	118	66	47,742 1 10	234 10 6
Grenfell	4	13	17	15,575 0 0	6,779¼	10,649¾	1	14	2	14	9,334 2 7	144 1 0
Gundagai	8	51	59	5,336 0 0	23,584½	28,920½	11	4	44	4	1,580 0 0	141 3 0
Gunnedah	4	26	30	7,600 0 0	19,482½	27,082¼	4		26			
Gunning	20	15	3o	44,143 2 0	7,800	17,735	4	24	7	24	12,841 3 0	79 9 7
Hay	1	4	5	260 0 0	2,959	3,219	1		4			
Hillston	1	10	11	1o0 0 0	10,149	10,299	1		10			
Inverell	12	45	57	37,930 0 0	57,463	72,313	15	7	35	7	7,065 0 0	102 10 3
Kempsey	1	11	12	57 1 0	9,000	9,057¼	1	1	10	1	57 1 0	2 0 0
Lismore		1	1		30	30			1			
Lithgow	33	31	64	19,070 0 0	16,591	35,661	15	38	11	38	19,019 2 0	128 0 0
Maitland	1		1	3o 0 0		3o		1		1	35 0 0	1 0 0
Milton	1		1	480 0 0		480		1		1	480 0 0	2 0 0
Molong	50	106	156	50,281 0 0	60,186	105,357	49	48	59	48	30,269 2 0	327 4 7
Moree	1	2	3	150 0 0	1 432	1,605		1	2	1	150 0 0	11 5 0
Moss Vale (late Berrima)		6	6	1,664 0 0	3,547	5,211		4	2	4	2,5o0 0 0	11 10 0
Mudgee	27	60	87	15,395 2 0	35,089¼	50,124¾	11	43	33	43	24,985 3 0	170 17 5
Moruya		7	7		4,980	4,980		2	5	2	1,040 0 0	10 10 0
Murrurundi	15	9	24	10,654 0 0	5,250	15,281	4	11	9	11	6,557 3 0	31 0 0
Muswellbrook	1	8	9	259 0 0	7,080	7,33)		5	4	5	2,819 0 0	14 9 10
Narrabri		2	2		1,280	1 280			2			
Narrandera	0	7	7		4,880	4,880			7			
Nowra	2	12	14	691 1 0	8,000	8,691¼		2	12	2	788 0 0	4 13 4
Orange	16	65	81	4,829 0 11	39,462	43,652	13	62	6	62	40,7o2 0 20	222 19 0
Picton		2	2		990	990		2		2	990 0 0	5 0 0
Parkes	1	3	4	Not stated	2,380	2,9o0		4		4	3,220 0 0	29 8 9
Paterson	7	8	15	2,320 0 0	2,755½	6,155½	1	11	3	11	5,372 3 0	33 0 10
Penrith	3		3	740 0 0		740	2	1		1	640 0 0	3 0 0
Port Macquarie	3	19	22	3,200 0 0	17,924	21 124	3		19			
Queanbeyan	4	9	13	2,717 0 0	8 220	10,920	6	6	1	6	5,08o 0 0	27 16 3
Raymond Terrace	1	2	3	320 0 0	2,420	2 640		3		3	2,395 0 0	13 0 0
Rylstone	38	69	107	22,838 0 0	33 064½	54,622¼	4	74	29	74	41,560 0 0	2o0 11 0
Scone	23	26	49	24,457 0 0	17,6o5	33,096	23	17	9	17	8,150 1 0	38 12 2
Singleton	3	11	14	714 3 0	5,015¾	5,730¼	2	11	1	11	4,288 1 0	27 2 1
Stroud	4	10	14	4 785 0 0	7,040	9,260	1	9	4	9	9,456 0 0	23 18 8
Tamworth	41	75	116	52,502 3 0	89,364	138 226¾	17	31	68	31	32,899 0 0	193 10 10
Taree	6	7	13	7,380 0 0	3 162	10,542	5	5	3	6	5,180 0 0	24 1 8
Tenterfield		38	38		48,640	48,640	8		30			
Tumut	3	10	13	3,012 0 0	10,661¼	13,673¼	3		10			
Urana	2		2	635 0 0		635	2					
Wagga Wagga	1	3	4	20 0 35	3,840	3,848	1		3			
Walcha	1	68	69	6,400 0 0	82,330	88,730	10	8	51	8	5,120 0 0	21 6 8
Walgett	2		} 3	1,180 0 0	1,340	2,520	0	2	1	2	1,180 0 0	10 10 0
Walgett, North		1	}									
Warialda		16	16		16,351	16,3o1			16			
Wellington	15	61	76	10,096 3 0	41,001¼	48,830¾	11	44	21	44	27,526 0 0	223 7 11
Wilcannia	2		2	1,200 0 0		1,200	1	1		1	480 0 0	18 0 0
Wollombi	1		1	3,840 0 0		1,280		1		1	1,280 0 0	5 6 8
Yass	8	39	47	9,283 0 0	18,396¾	23,719¾	11	21	15	21	12,070 0 0	64 14 2
Young	10	19	29	13 142 1 0	5,191¼	10 898¼	14	12	3	12	7,684 1 0	43 4 2
Totals	950	2,083	3,033	955,467 3 27	1,517,795	2,264,618½	688	1,144	1,201	1,145	756,640 0 28	5,877 4 7

SCHEDULE

RETURN of Reserves from

Purpose :—	Aborigines		Access.		Camping		Conditional Sale.		Cemetery.		Exchange of Land.		Mining.		Other than Auction Sale only.		Public Buildings.		Preservation and growth of Timber.		Police.		Plantation.		Pounds.		Quarry.	
Land Board and Land District.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area.
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale—																												
Armidale	...	...	1	1	5	575	1	60	1	4	...	...	...	...	...	...	1	1	1	260	1	40	...	...	...	...	3	3
Glen Innes	...	...	..	..	2	197	...	...	...	..	..	...	...	...	...	...	1	1	..	...	..	...	1	1	...	...	...	...
Inverell	..	...	..	...	1	105	...	..	...	...	..	...	...	...	...	...	1	2	...	...	..	...	.	...	...	...	1	53
Tenterfield	...	...	1	43	..			...	1	1	..	...	..	...		...	.	...	1	16000	..	...	..	...	...	..	...	...
Walcha	...	..	...	.	...	..		.		...	.	...		.	...	...		...	3	58185	..	...	...	...	..	...	.	.
Bourke—																												
Bourke	...	...	...	...	...	...	...	...	..			...	...	...	.	...	...	..	..	..	3	560	..	...	..	...	..	...
Brewarrina	....	...	...	..	...	...		..	..	...	...	..	.	...	.	...	...	...	1	2560			...	...	...	...	.	.
Cobar	..	..	...	...	...	...	..	...	.	...	...	..	...	...	...	...	...	...	4	16100	2	244	.	...	...	...	..	...
Wilcannia	..	...	...	...	..	...	...	...	.	.	...	.	..	...	..	...	2	2	...	...	...	...	...	.	..	...	...	..
Willyama	.	...	...	.	..	...		..	1	12	.	.	...	...	.	...	11	29	10	3005	...	...	..	...	1	3	.	...
Cooma—																												
Bega	1	330	1	164	..	...	.	..	..	..	...	.	...	...	...	...	1	1	...	...	.	...	..	...	...	...	...	...
Bombala	.	...	..	...		...	...	...	.	...	..	...	.	.	.	...	.	...	...	..	...	..	...	...	..	..	..	...
Braidwood	.	...	..	...	1	3	...	...	1	22	.	...	..	...	...	...	.	...	..	...	..	...	.	...	...	...	...	...
Cooma	...	...	...	...	..	...	..	...	1	1	...	...	.	...	..	...	...	...	.	...	.	...	1	4	...	...	.	...
Eden	...	...	...	...	1	40	.	...	..	.	...	...	.	..	..	.	1	1	..	...	..	...	...	...	...	...	...	..
Milton	...	...	...	. .	...	...	.	...	.	.	...	...	.	..	..	.	1	1	.	...	...	...	.	...	..	...	..	..
Moruya	...	...		...	...	...	...	...		...	..	..	..	...	...	...	.	...	...	...	...	...	...	...	.	...	...	...
Queanbeyan	...	...	..	...	1	27	1	1180	...	...	..	...	.	...	...	...	1	1	1	3470	2	14	...	...	..	...	..	...
Dubbo—																												
Coonamble	...	...	..	...	1	870	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
Dubbo	...	...	...	...	...	...	...	...	1	1	...	. .	1	436	2	80	...	...	...	...	...	...	1	14	1	4	...	...
Forbes—																												
Condoublin	...	...	1	256	1	208	..	...	...	...	...	. .	..	...	..	...	...	...	5	6581	1	40	1	3	..	...	..	...
Forbes	...	...	3	197	2	596	...	...	..	..	..	...	1	129	...	...	...	...	..	...	...	...	...	...	...	...	1	5
Grenfell	..	...	..	...	4	1117	...	...		...	..	...	...	...	...	...		...	1	209	1	38	...	...	1	5	3	155
Parkes	...	...	...	...	...	...	.	...	...	...	...	...	..	...	...	...	1	1	3	7761	1	72	1	4	...	...	.	...
Goulburn—																												
Boorowa		...	1	40	1	2	..	...	.	...		...	...	...	...	...	...	...	..	...	.	...	.	...	...	...	.	...
Goulburn	...	..	...	...	1	360	...	...	.	..	...	...	...	...	...	...	.	...	..	...	1	40	...	...	...	...	.	...
Gunning	.	...	...	.	1	54		...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Moss Vale	..	...	...	...	...	...	...	...	..	...	..	...	...	...	...	...	..	...	..	...	...	...	...	...	...	...	.	...
Nowra		...	1	15	...	...	..	...	...	...	...	...	...	...	..	...	1	1	...	...	..	...	..	...	...	...	...	...
Yass	..	...	.	...		...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Young	...	...	...	...	3	669	.	...	...	...	...	...	..	...	1	1790	1	5		...	1	120		...	...	...	...	...
Grafton—																												
Bellingen	1	250	..	...	..	...	..	. .	.	...	..	...	..	...	...	...	...	...	1	6600	1	4	..	...	...	...	...	...
Casino	1	380	1	11	3	408	..	...	...	...	...	...	.	...	..	...	.	...	..	...	..	...	.	...	.	...		...
Grafton	1	120	1	33	...	...	.	...	..	...	...	...	...	...	..	...	2	4	.	...	2	18	..	...	1	1	1	4
Kempsey	...	...	1	8	...	...	...	...	1	8	...	...	...	...	..	. .	..	...	2	54000	1	17	2	16	..	...	...	...
Lismore	..	...	3	413	4	337	..	...	2	4	...	..	1	1400	..	...	..	...	.	...	...	...	1	8	...	...	1	190
Murwillumbah	1	37	1	200	..	...	...	...		...	...	...	...	...	..	...	..	...	..	...	..	...	2	5	...	...	..	...
Port Macquarie	...	...	..	...	..	...	...	...	..	...	..	...	..	..	...	...	...	...	1	3600	..	...	1	6	...	...	2	713
Hay—																												
Balranald	.	..	.	.	.	..	..	...	...	...	..	.		...		...	.	...	1	3200	...	...	...	...	...	...	...	...
Deniliquin	..	...	2	192	..	...	...	...	..	...	...	. .	...	...		...	..	...	4	2133	.	...	..	. .	..	...	...	...
Hay	.	...	2	66	...	...	.	...	..	...	.	...	...	...	..	...	.	...	2	460	...	...	3	16		...	..	...
Hillston	..	. .	...	...	..	...	.	.	..	.	...	...		...	..	...		...	4	11020	.	...		...		...	...	...
Wentworth	.	...	1	1	1	640	.	...	..	...		...		..	...	...	5	17	1	22000	.	...	...	...	1	1	1	160

LVII.

Sale, notified during 1891.

Railway.		Recreation.		Refuge in time of Flood.		School.		Subdivision.		Temporary Common		Travelling Stock.		Traffic.		Trigonometrical		Village.		Water.		Sundries.			Totals.	
No.	Area.	No	Area.	No	Area	No.	Area	No.	Area	No	Area.	No	Area.	No	Area	No	Area.	No	Area.	No.	Area	Purpose.	No.	Area.	No.	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.			ac.		ac.
...	..	.	...	.	...		...	.			..	15	8008	..	.		...	..	...	1	160	Show ground	1	4	32	9136
	...	.		.		.	.				.	3	179	.		.	...	..	...	1	40	Crossing	1	20		
1	240			..	...		..	.	...		...	9	4055		...	.	...	..	...	2	648	Conditional purchase...	1	40000	9	40418
..	..	2	190	.	..	.	...	.			...	3	850	..		...	...	1	1440	4	2045	.. ..	...	..	15	5143
.	...	..	...	.	...		.	.	...		...	1	40				...	1	950	1	106	Conditional purchase	1	11500	14	32069
																						.....	..	...	6	59281
.	...		..	...	...	.	...	..	...	2	2240	..	...		...		.	..	...	..	...	.....	..	...	5	2800
...	...		...		...	..	...		...			..	...	.	...	.	.	.	...	..	...	... .	.	...	1	2560
.	...		...	.	..	..	..	.	...	1	106	..	...	.	.	.	...	..	...	..	...	Military	1	4	8	16454
	...	...	...	.	...	...	..	...	...			8	19439		...	...	...	.	.	...	..	..... .	..	...	10	19441
..	...	8	320	...	...	...	...	...	...		...	4	1740		...	..	...	...	...	2	8	Wharf	2	13	41	5178
																						Rubbish	1	45		
																						Crossing	1	3		
..	...	.	...	..	.		..	...	...	1	720	1	700	.	...		...	.	...	...	...	.....	...	...	5	1915
2	99	..	...			1	4		...		...	1	131	.	...			..	...	1	64	.....	..	...	5	298
...	.	.	...		...		1	3	...		...		...	.		3	33	.	...	..	...	.....	..	...	6	61
.	..		...		...		...	1	41850		...	13	5130	.	...	2	35	.	...	1	37	Storage of water	1	4800	20	51857
	.	.			...		..				.	..			.			1	465	9	835	....	..	..	12	1341
	...	.		.	...	1	4		...		..		...	.	...	.	...	.	...		.	Conditional purchase...	1	2000	3	2005
.	...	.	..		...	...		.	...		.	...			..		...		...	1	152	....	..	...	1	152
.	.	.	...					1	41850	.	..	2	412	..	...	7	84	.	...	1	10	Racecourse	2	200	19	47278
	...		...	.	..		...		...	.		1	164	1	50	.	...	1	2200	7	1259	....	..	...	11	4543
1	46720		..	..		.	..	1	130	.	...	6	5620		..		...	..	...	3	1505	Conditional purchase	1	6520	20	227630
																						Tramway	1	166400		
																						Racecourse	1	200		
..	..	...	..		...	...	...		.		...	1	683	.	...	..	...	.	...	...	...	....		...	10	7771
.	..	..	...	...	..		...	.	...	1	1265	..	...	.	...	..	...	..	...	...	...	... ...	...	...	8	2192
	...	.	...		..	.	..		..	2	5690	2	820	..	...	..	...	..	...	1	10	.. ..	...	...	15	8044
	...		..	...	...	.	...		..	2	9350	3	471	..	...	..	...	...	...	3	1160	. ...	...	...	14	18819
.	...	..			...			.	..	.	..	3	905	..	...	1	8	..	...	1	175	....	..	...	7	1130
...	...	1	690	...	...	..	...		..	...	...	4	3680	..	...	3	10	...	...	3	1070	....	...	...	13	5850
	...		.	.	.	.	...		..	...	..	...	...		...	1	7	...	...	...	...	.....	...	...	2	61
	...	1	1450	...	.	.	...	.	..	...	...	..	...	..	...	1	10	...	..	..	.	Racecourse	1	56	3	1516
...	...	.	...	..	...	.	...		...	.	...	...	...	.	...	..	...	.	...	2	250	Reserve from sale	1	4000	5	4266
	...		...		..	.	.		.	.	...	...	...	.	...	1	40	.	...	..		....	...	...	1	40
1	4	1	16				..	.	...		...		...	.	...	...	...	...	...	9	134	....	...	...	17	2738
1	23040		...	.	...	.	...	1	13000	.	...	.	...	1	8500	7	1637	1	320	...	...	.. ..	...	...	14	53351
4	12100			.		.	...		.	..	..		.		...	1	40	...	...	13	6130	. .. .	.	...	23	19069
1	23040	2	75	1	301	2	6	..	..	..	...	3	1380	.	...	.	...	.	...	3	37	Wharf	1	1	21	25020
.	...		. .		..		...	.		...	...	2	620	1	8533	...	...	.	...	1	190	Harbour	1	20	13	63457
																						Drainage	1	75		
...	...	1	10	2	32	1	8	.	...		...	..	...		...	...	...	2	900	4	1160	Military	1	20	27	6162
																						Agricultural School & Experimental Farm.	4	1680		
	...		..	..	...	1	1		...	1	300	..	...	.	...	.	...	2	650	1	670	Show-ground	1	10	10	1873
	...		...		. .		..	...			.	..	. .	1	8500		...	.	...	..	.	. ...	.	...	5	12819
...	...	...	...		.	...	...		.	.	...	6	8290	.	...	.	...	.	...	1	5	... .	..	...	8	11504
...	...	...	.	..	. .	..	...	1	1210	..	..	.	..	.	.	.	...		...	1	632	Canal	6	1373	14	5540
...	...	.	...	.	...	...	...		. .	.	...	..	. .	.	...		...	.	...	1	800	Clearing scrub	1	3663	9	5005
..	...	...	...		...		...	1	1600	1	5	10	2909	.	. .	.	...		...	2	82	Municipal.....	1	5	20	15626
																						Rubbish	1	5		
																						Crossing	1	7	24	26945
...	...	6	212	...	...		...	...	...	1	3484	1	350	...	...	...	...	.	...	3	53	Wharf	2	20		

SCHEDULE

Land Board and Land District.	Aborigines.		Access.		Camping.		Conditional Sale		Cemetery.		Exchange of Land		Mining.		Other than Auction Sale only		Public Buildings.		Preservation and growth of Timber.		Police.		Plantation.		Pounds.		Quarry.	
	No.	Area.	No.	Area.	No.	Area	No	Area.	No.	Area.	No	Area.	No.	Area.	No	Area.	No.	Area.	No.	Area.	No	Area.	No.	Area.	No.	Area.	No.	Area.
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Maitland—																												
Cassilis	...	...	2	19	1	13	...	...	.	..	..	...	..	...		..	1	1	...	...	.	.	.	...		. .	..	...
Dungog	..	...	...	...	...	.		. .		...	...	...	...			...	1	1	...	. .	..	.	...	. .	..	...	...	...
Gosford	..	...	2	30	..	...	.	...		...	...	...	.	...	3	143	3	5	1	6150	.	...	1	2	...	...	...	...
Maitland	...	...	...	..	..	...	.	...	...	...		.	...	..	.	...	...	..	..	...	.	...	1	3	...	...	1	1
Muswellbrook	.	..	..	.	1	150	...	...		...		...	. .	..	..	...	..	...	.	...	.	. .	.	. .	...	...	...	...
Newcastle		..	..	...	.	...		...		. .	.	...		..	...	.	...	..	...	...	...	...	3	37	1	2	2	4
Paterson	..	...	1	5	..	. .	..	...	.	...	..	. .	...	...	...	...	..	...	..	...	...	. .	..	...	..	...	...	...
Raymond Terrace	...	...	1	1		...	..	.	...	...	..	.	...	...	.	...	1	66	.	..	..	...	...	...	...	...	...	...
Scone	...	..	3	63	.	...	...	. .	...	.	...	...	...	...	.	...	1	2	1	630	1	109	...	...	...	...	...	...
Stroud		...	..		...	...	...	...	.	...	.	...	..	. .		...	...	...	1	3730	...	. .	...	...	.	...	...	...
Taree	2	8	3	74	4	264	.	...	.	...		...		...	...	...	9	11	1	2700	6	27	2	11	..	...	2	46
Wollombi	..	..	.	...	.		...	...	...	...	..	...	...	...	.	...	...	...	.	...	..	..	..	...	..	...	...	...
Singleton	1	1	1	1	1	6	..	...	...	...	...	...	...	. .	.	.	...	...	..	...	..	.		...	...	...	...	...
Moree—																												
Bingara	...	...	..	...	1	400	...	...	.	...	...	...	...	...	..	...	...		1	1440	...	...	.	. .		...	..	...
Moree	.	...	2	780	6	2375	...	...	..	.	...	...	...	...	1	497	3	16	..	...	..	.	.	...		...	...	...
Walgett	.	..		...	3	1280	.	...	...	...	1	216	...	...	..	...	.	.		...	..	...	.	.	..	...	...	...
Warialda	1	64	.	...	11	5461	...	...	.	...	..	...	...		..	. .	1	1	.	...	..	...		...	.	...	...	...
Orange—																												
Bathurst	.	...	1	6	6	267	..	...		...	.	...	..	...	..	.	5	6	.	...	1	1		...	2	4	.	...
Carcoar		..	1	1		...	...	...	.	...	.	...	...	...	...	...	8	49	..	...	2	18	.	..	2	2	...	...
Cowra	..	..	2	100		...	...	...	..	...	.	...	.	...	...	...	5	19	.	...		..	.	..	1	1	...	. .
Lithgow	..	...	..	...	5	1765	...	...	.	...	.	...	..	..	..	. .	.	..	.	...	.	.		...	..	...	1	612
Molong	.	..	...	.		.	...	...	...	...	.	.	1	665	1	120	.	...	4	44238	1	11	..	...	1	1	...	...
Mudgee	..	...	.	...	...	.	..	...	...	.	...	...	..	...	..	...	1	1	...	...	5	9	.	...	..	...	.	...
Orange	...	..	.	...	...	...	...	...	..	..	...	...	.	...	...	...	.	..	..	...	1	1	...	...	...	...	..	...
Rylstone	..	...		...		...	...	...	..	...	...	.	.	...	..	...	...	...		...	..	...	...	.	...	...	...	...
Wellington		...	3	3			..	...	...	..	.	...	1	960	...	...	4	5		...	3	16	1	12	..	...	...	...
Sydney—																												
Campbelltown	..	...	1	1	...	...	..	...	..	...	..	..	...	...	.	...	1	4	3	173		...	.	...	...	...	..	...
Camden	.	...		.	...	...	...	...	...	...	..	. .	..	...	..	...	1	3	..	...	.	...	.	...	...	...	...	...
Kiama	.	...	..	...	.	. .	...	...	...	...	...	...	...	...	...	...	...	.	..	...	...	...	...	...	1	1	...	...
Liverpool	.	...	...	...	.	...	...	...	...	...	..	...	...	. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parramatta	...	.		.	.	...	...	...	...	...	..	...	...		..	...	...	...	...	...	...	...	...	...	...	...	1	6
Penrith		...	...		...	...	..	...	.	...	...	. .	..	.	...	...	...	.	...	...	.	...	...	...	...	. .	...	...
Picton	1	50	.	...	2	290	.	...	...	...	.	...	...	...	...	.	1	2	1	11620	...	...	...	...	.	...	...	...
Windsor	. .	...	1	2	..	...	.	...	.	...	..	...	...	...	..	...	.	...	...	...	..	...	.	...	..	...	...	...
Wollongong	.	.	.	...	.		..	...	.	...	.	...	..	.	...		1	2	:	...	...	...	...	.	...	...	...	...
Tamworth—																												
Coonabarabran	...	..	13	55	...	...	.	...	...	...	.	.	...	.	...	...	2	3		...	1	1	2	2	1	1	4	181
Gunnedah	..	...	.	...	.	...	..	...	.		1	184	...	...	...	...		...	2	3276	1	6	...	...	...	.	.	...
Murrurundi	..	...	1	5	..	...	..	...	...	...	.	...	...	...	...	...	...	...		...	.	...	...	.	...	..	1	2
Narrabri	..	...	3	1925	1	60	..	...	1	12	. .	...	...	.	...	...	3	3		.	1	41	.	...	...	...	2	119
Tamworth		.	2	115	.	...	...	...	1	15	.	...	..	. .	1	388	.	...	3	5094	2	4	2	5	...	...	1	12
Wagga Wagga—																												
Albury		...	2	597	2	389	8	47688	.	. .	..	.	..	...	4	1723	..	...	1	5000	...	...	...	...	...	...	.	...
Cootamundra	..	..	...	...	1	30	..	...	..	...	..				.	.	2	41	1	249	.	. .	5	33	.	...	2	119
Corowa	...	...	3	861	2	114	..	...	.	...	.	...	.	...	...	...	.	...	2	220	..	...	1	13	1	2	...	...
Gundagai	...	...	1	18		...	...	...	...	...	..	...	...	.	..	...	..	...	..	. .	.	...	...	...	...	...	...	...
Narrandera	...	...	..	...	.	...	..	...	..	...	..	...	..	...	...	...	. .	...	11	16086	...	...	...	...	...	...	1	4
Tumut	..	...	...	.	1	147	...	...	...	...	...	...	...	...	...	...	1	9		...	...	...	...	...	...	...	...	...
Urana	..	..	1	142	1	150	..	...	.	...	..	...	...	...	..	...	.	...	..	...	...	...	...	...	...	...	...	...
Wagga Wagga	...	...	1	10	.	.	...	...	..		...	...	.	...	..	...	.	...	4	9514	1	5	...	...	1	2	...	...
	10	1240	72	6463	82	19369	10	48928	11	80	2	400	5	3590	13	4741	85	317	83	327264	43	1456	32	195	16	30	31	2429

LVII—*continued.*

Railway.		Recreation.		Refuge in time of Flood.		School.		Subdivision.		Temporary Common.		Travelling Stock.		Traffic.		Trigonometrical.		Village.		Water.		Sundries.			Total.	
No	Area.	No.	Area	No.	Area	No	Area.	No.	Area	No	Area.	No	Area	No	Area	No	Area.	No	Area	No	Area.	Purpose	No	Area.	No.	Area
	ac.		ac.		ac.		ac.		ac.		ac.		ac		ac.		ac.		ac.		ac.			ac.		ac.
	...	...	...		...	1	8		...	.	...	4	241	...	...	.	...		...	2	52	Racecourse	1	80	18	414
..	...	.	..		.	.	.	..	...		...	..	...	..	...	.	...	...	...	1	1	Show-ground	1	8	3	27
2	2	4	78			.	...		.		. .	..	...	..	...	.				8	1111	Military	1	14	25	7544
...	.	...	...	.			...		...		. .		...	.	..	.		.	...	1	16	(Hospital	1	3	5	25
..	...	1	160		...		...	.	...	.	...	..	...	1	2	1	10	..	...	.	...	(Market	1	2		
																						....	.	...	4	322
1	2	.	...				...	...	...			...	.				..		...		...	(Racecourse	1	69	11	116
																						(Post Office	1	1		
																						(Drainage	2	1		
...	..		...		...		. .		...		...	2	1033	...	...	.	...	.	.	.	...	.....	..	...	3	1038
.	. .		..		..		...	.	...	...	.	.	.		...		...	...	...	..	...	.....	.	...	2	67
2	2	...	...	.		1	1	.	...		.	1	64		...	1	2		...	1	67	.....	..	...	12	940
.	...	...	...		...		...		.	.	...	.	...		...	..	...	.	...	..	. .	....		...	1	3730
																						(Wharf	10	309		
16	10269	3	27		...	1	8				...	3	606	.	...	...	...	1	149	15	342	(Drainage	5	22	85	15016
																						(Military	1	85		
																						(Racecourse	1	58		
...	...	.	...	..	...	.	...	1	120	...	...	...	...	..	...	.	. .	.	...	...	...	.....	..	.	1	120
...	...	1	6	..	...	..	...	..	...		. .	2	2065	.	...		...		...	2	220	.....	...	..	8	2299
...	...	1	700	.		..	.	.	...	.	...	...	...	.	..		.	...	..		. .	.....		.	3	2540
2	2848	1	5	3	7100	.	. .	1	900	..	...	9	16985	..	...	.	.	..	.	5	2839	Irrigation	2	6520	35	40865
..	...	...	...	3	20810		...	1	2300		...	9	27615	.	.			...		1	216	.....		...	18	52437
...	...		...	...	...	.	. .	1	480		...	6	12660	..	...	1	15	2	7350	6	1806	Cricket	1	10	30	27847
																						(Military	1	6		
...	...	.	. .	.	...		...	...	...	1	430	3	480	..	...		...	.	...	6	281	(Ballast	1	120	28	1606
																						(Drainage	1	.5		
..	...	1	5		...	.	...	..	. .		...	2	1240		...	4	19	..	...	7	73	(Drainage	1	1	30	3244
																						(Conditional purchase	2	1836		
2	6	1	11	..	...	..	...	...	...	...	...	3	449		...	...	...	.	...	2	10	.....	.	...	16	596
2	2	2	3875	.	...	1	8	.	...	...	...	1	2000	...	...	...	...	...	...	6	4052	Special lease	1	2	19	12316
																						(Racecourse	1	70		
1	5170	...	...	...	...	...	...		...	2	307	6	2245	.	...	1	15	...	...	9	2685	(Show-ground ..	1	12	30	57162
																						(Conditional purchase	1	1623		
...	...	...	...	.	.		..	1	40	...	...	1	40	..	...	...	...	...	..	1	200	(Conditional purchase	1	500	11	791
																						(Mechanics' Institute..	1	1		
	.	.	. .	..	...	..	..	..	.	.	...	1	76	. .	. .		.	...	...	...		Conditional purchase..	1	1620	3	1697
..	...	..	...		...		...	...	.	.	...	..	...	..	...	...	...	.	.	2	104	.....		.	2	104
...	...	4	20		...	..	..	..	...	2	7000	..	...	.	...	1	6	...	...	1	201	... .		...	20	8226
..	...	...	...	.	...	..	...	.	...	.	. .	..	..	...	...	1	1	.	...	.	.	....		...	6	179
...	...	.	...	.	...	..	.	..	...	..	...	.	...	..	. .		...		...	..	...	....	..	...	1	3
...	...	1	40	...	...	...	...	..	...	.	...	...	...	..	...	..	...		...	1	1	. ...	.	...	3	42
...	...	1	490	..	...	...	...	.	. .		...	..	...	..	...	...	.	...	..	..	...	....		...	1	490
...	...	1	4	...	...	.	...	1	8500	..	...		...	...	...	1	3	..	...		. .	Drainage.....	1	1	5	8514
4	11	1	320	..	...	...	...	.	...	1	1150	..	...		...		...	.	...	..	...	... .	...	...	6	1481
..	...	1	21	...	...	...	...	..	...	.	...	1	472		.	2	15	..		4	271	.....	...	...	13	12741
..	...	2	890	...	...	1	11	..	...	...	...	..	...	...	.	2	5		...	...	...	.....	.	...	6	908
...	...	...	...	...	...	...	...	.	...	...	...	..	...	...	.	...	.	...	...	...	.	....	..	...	1	2
1	637	4	18	.	..	...	..	.	...		...	...	...	..	...	..	...	.	...	2	819	. ...		. .	30	1717
..	...	..	...	...	...		...	..	...		...	1	440	.	...	...	.	..	...	2	512	:	..	...	7	4418
...	...	1	20	..	...		...	...	...	.	...	1	1	.	...	..	..	..	...		...	Show-ground	1	5	5	33
...	...	.	...	..	...	1	3		...	1	18	1	20		...	...	...	.		2	1298	Military	2	44	18	3543
..	...	3	17	.	..	1	1		...	1	540	..	..		.	...	...	1	950	8	251	Conditional purchase...	3	15840	29	23232
..	...	..	...	...	...	...	...		...	...	...	6	1921	...	.	1	5	1	437	1	154	....	.	...	26	57914
...	...	...	...	.	...	..	...	..	...	.	...	1	80	..	...		. .	..	. .	..	...	Rubbish	2	20	14	572
2	107	...	...	...	...		..	..	...	.	...	2	6593	1	1	..	...	..	...	..	...	(Canal	1	320	16	8233
																						(Wharf	1	2		
..	...	...	...	...	...	...	. .	...	..	.	...	3	247	..	...	1	42	..	.	1	5	Conditional purchase...	1	640	7	952
.	...	...	...	..	...	..	.	.	...			6	2768	...	...	..	...	.	. .	1	64	....		...	19	18922
..	...	4	6036	..	...	.	.		...	1	640	2	1485	...	...	..	. .	..	...	...	...	Settlement, suburban...	1	1280	10	9597
...	...	...	...	.	...	2	18	.	...	.	...	3	11096	..	.	.	...	.	.	..	.	... .	:	...	7	11406
...	...	1	10	...	...	...	...	.	...		...	5	1263	...	...	..	...	..	...	2	60	....	...	...	15	10864
46	124299	61	15716	9	28243	16	84	12	111980	21	33245	187	160800	6	25586	44	2042	14	15811	183	37158		94	273774	1188	1245240

SCHEDULE

RETURN of Reserves from

Purpose :—	Aborigines.		Access.		Camping.		Cemetery.		Conditional Sale.		Conditional Purchase within Gold-field		Travelling Stock.		Exchange of Land.		Mining.		Other than auction sale only.		Public Buildings.		Public Purposes.		Plantation		Pending Subdivision.	
Land Board and Land District.	No	Area.	No.	Area.	No	Area	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area	No	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale—																												
Armidale		...		...	1	368		...	1	2	2	2	..	.	1	165		...	.		1	1				..	35	60189
Glen Innes	..	...	..	...	1	64	...	...		...	.	.	.	.	.	...	.	.	.			...		...		...	1	110
Inverell	.	...	.		..	..	.	...	..	...	.		2	268		...	...	.	...	.	..		...	..	...	3	4418
Tenterfield	.	.	...	...		..	...	. .	...	. .	.		2	102	..	. .		...	.		.	.	.	.	..	.
Walcha	..	.	...	. .	1	110	...	...	2	18225	...	...	...	. .		...	.	..	.	...	.		1	90	..	...	1	3862
Bourke—																												
Bourke		...	1	1120	..	...		.	..		.	..		...	.		.	.	.		...	.	...		.	..	. .
Brewarrina		..	..	..	..	...	..	.		...	.	..	.	...	.	..	.	.	.			...	..	.	..	...	..	...
Cobar	..	..	.	...		...	...	...	...	.		...		.	.	...	.	.	...	...	.	...		...		...		.
Wilcannia	.	...	...		..	...		...		...		...	6	2084	..		.	..	.	. .	..	..		...		...	..	...
Willyama		...	..	...		...	1	12		...	..	.	4	1968		...		...			1	1		...	...	...	.	...
Cooma—																												
Bega		...	1	120	..	...	.	...	..	. .	..	...	.	...	.		.	.		..	1	1	.		..	...	.	...
Bombala	.		.	...	...	...	...	...		...	..	...	...	...	...		.	...			...	..	..	.		...	..	...
Cooma		..	.	. .	..	...	..	...	..	...		...		...	. .			...	.	...	.	...		. .		...	4	4908
Milton		...	.	...	..	...	.	...	.	...	.	..	..	...		...		...	..	...	...	..		...	...	. .	.	...
Moruya	..	...	.	...	.	...	..	...	...	...	..	...		...	.	...		...	..	...	.	...	...	...	.	...	...	...
Queanbeyan	.	...	.	.	...	...	..	...		...	.	..	4	1515	.	...	...	...		.	.	...	.	...	...	...	.	...
Dubbo—																												
Coonamble	..	...	.	...	1	2400	1	60	...	...		...	4	1993		...		. .	.	...	...	..	..	...	.	...	1	17500
Dubbo	...	..		...	1	1280	..	.	...	...	4	23400	1	608	.	...		...	1	191	.	.	.	...	.	...	...	...
Forbes—																												
Condobolin	.	...	...	...	.	...	.	...	1	640	1	240	...	..		...		..	..	. .		.		.	...	...		...
Forbes		...	.	...		.	.	..	.	. .	3	8190	3	220		...	.	.	.	.	..	...	.	...	...	...	1	2
Grenfell	.	...	...	...		...		...		...	.	.	.	...	.	..		...	...	...	.	...	...			..	..	...
Parkes		...		...	5	1386	..	...	...	...	3	20966	6	597	.		.	...		...	.	...		.	..	...	..	...
Goulburn—																												
Boorowa	.	...	.	.	1	250	.	...		...		. .				...	...	...	.	...		...		...		...	...	...
Goulburn	..	...	..	.	.		.	.		...		...	.	...		...	..	.		...		...		...		..		.
Gunning	...	..		...	1	54	.	...	.		.		...				...		...	.	.		...			..	.	...	.
Moss Vale	..	..	.	.	.	.	...	...	. .	.	.	...	1	56		...	2	1993	.	...	.	.	.			.	...	..	...
Yass		...		...	..		.	...	..			...	1	280			.	. .	.	...	.			...		...	..	. .
Young		...	7	7370		.		...	...			...				...		...	.			...	1	1800		...	..	...
Grafton—																												
Bellingen	.	...	..	...	.	...	.	...		. .	.	...					.	...		...	.	.	.				2	34000
Casino	1	3000		.		...	...	...	..	...	.	.		...	2	1125	.	. .		...	..	...		...		...	1	3000
Grafton	.	...	...		1	40	.	...	.	...	.	.		...	.			...	...	...		...			..	...	..	...
Kempsey	1	20	.	.	1	17	.			. .		.	1	6	.	...	.	.		...	.	..		...	.	.	1	200
Lismore	...		..	.	.	...	2	29	..	...		...	..	..			...			...	.	..		.		. .	12	24692
Murwillumbah	.		..	...	.	...	.		..	...		..	.	...	.	...				...		...		...		.	...	...
Port Macquarie	.	...	.	. .	..	...		...		...	...	..		.	..	.	...	...	.	.	.	..		...	...	...	...	...
Hay—																												
Balranald	..	.	..	...	...	...	...	...		...	. .	...	4	1320	.	.	.	...		.		...		.	..	...	...	...
Deniliquin	.	..	1	179	.	...	..	...	...	...	.	...	1	70	.	...	..	. .	.	..	..	...		...	.	..	2	1156
Hay	...	...	1	26		. .	.	...	..	...	..	. .	.	...	..	..	..				.	...	1	320	.	...	..	...
Hillston		...		...	.	...	..	...	...	...		..	5	12820		..	.	...		. .		.		...	.	...	1	1753
Wentworth	.	...		...		.	..	...	...	...		..	1	120	.	.	..	...		...		...	.	...	...	...	..	...
Maitland—																												
Cassilis	..	.	1	32		.	..	..	...	...	...	. .	2	11		...		...	.	...		...	1	120		...		. .
Dungog		...		...		. .	...	..		...		...	1	950	.			...		.		..	..	...	.	...	..	...
Gosford	.	...		...		.		...	..	...	..	...				...	.	..		...	.	...		...	..		..	...
Maitland	.	...	.	...	...	...	.	...	.	...	.	...						...	.	...	..			...	..	...	...	...
Muswellbrook	.	...	..	..		.	..	...	.	. .	.	.	.	.	.	. .		..		...				...	...	. .	1	805
Newcastle	.	...	..	...	...	.	...	..		.	.	...	.	.	.	.	1	98	..	..	...	.		...	.	...	..	...
Paterson		...		...	.		..	...	.	...	.	..	1	950	..	...	.	...	..			...		...	.	...	..	. .
Raymond Terrace	.	...	.	.	. .			...		...	..	.	...	. .		...	.	..	.	...		...	.	...	.		...	.
Scone			...	...	...	...	.	...	.	...		..	.	...	.	.	..	...		...		...	.	.		...	1	210
Singleton	.	..	.	...	...	...	..	...	.			. .	.	. .	.		..	.	.			...	..	.		...	...	.
Stroud	..	.	...	...	..	...		...		. .	..	..	.	...	.	...		.	.			.	..		...	...	...	..
Taree	.	...	.	.	1	2	...	...	.	...	.	...	1	165		...	...	...	.	..				...	...	...	3	11015
Wollombi	..		.	...		...	.	...	.	...	...	...	..	...	.		.	...	.	...	...	.	.		...	.	...	...	...

LVIII.

Sale revoked during 1891.

Police.		Preservation and Growth of Timber.		Recreation.		Railway.		Refuge in time of Flood.		Roadway.		Suburban Settlement.		School.		Temporary Common.		Water Supply		Pending Legislation.		Sundries.			Total.	
No	Area	No.	Area.	No.	Area	No.	Area	No.	Area.	No.	Area.	No.	Area	No.	Area	No	Area.	No.	Area	No.	Area.	Purpose.	No.	Area.	No.	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.			ac.		ac.
..	...	2	1470	...	...	1	275	...	...	..	..	...	...	...	...		...	25	110955	1	1920	Village	4	175	74	175462
	...	1	3890	.	...	...	...	...	...	.	...	.	...	.	..	..	.	4	1220				..	...	7	5284
...	...		...	...		3	247		...	...	...		...	.	...	.	...	6	1629				...	. .	14	6562
...	...	...	...	..	...	..	...	..	...	.		.	..	..	...	.	...	2	181	...	...			. .	4	283
...	...		...	...	...		...	.	...	.	...		...	..	...	.	.	6	3660	...	. .			...	11	25947
	...	...	..	...	...		...	.	...	.	...		...		..			...	..	. .	...	Special lease	2	325	3	1445
...	...	.	...	...	...				...	.	.		...		...	1	320	...	. .	..	.		...	...	1	320
...	...		..		...	2	299	..	.		...	...	...	.	...	2	2065	2	505	.	...		.	...	6	2869
..	...	...	...		...		.	..	...	.	...		...	..	...		...	8	57540	.	. .		..	.	14	59624
...	...	...	...	...	...		..		.	.	...	1	80	...	...	20	6964	...	...	..	...	Health	1	6	29	21831
																						Village	1	12800		
...	...	.	...	.		...	. .	.		..	...	..	...	..	...	.	...		. .	...	. .			...	2	121
..	...		...	..	...	.	. .		..	.	...	.	...		...	.	...	1	40		...		.	...	1	40
.	...	...	..	..	...	..	.	...	...			.	.	..	...	...	...	5	1655		.			. .	9	6563
.	...	2	307	1	3	..	. .	..	..		...		...	...	...		...	...	...	.	...		.	.	3	310
...	...	2	375	.	...	..	...	.	...	.	...	.	...	...	...	...	...	...	...	.	...		...	..	2	375
...	...	1	3200	...	...		...	...		.	...	...	.	...	...	...	...	2	121		...		...	...	7	4836
..	...	...	...	..	...	.	...	.	...		...	..	...	.	. .	...	...	4	3680		..			...	11	25633
																						Population	1	30720		
...	...	.	...		...			..	...	.	...		.	...	...		...	4	2961	1	527	Pound	1	4	16	59736
																						Special lease	1	5		
																						Tramway	1	40		
...	...	...		...			.				...	..		.	...	.	. .	...	...	...	...			...	2	880
...	...	1	20	...	...		. .	.					.		...	1	3	1	800	.	...			...	10	9235
...	...	..	...	..	. .	1	140	.	...	...	.	.	...		...		...	2	1128	..	...		.	...	10	9235
..	...	1	2775	..	...	2	152	.	...		...	..	...		...	3	23	3	736	.	...		..	. .	3	1268
																								...	23	26635
..	...	1	375	2	6		...		...	..	...		...		.	...	...	6	1964	...	...		.	. .	10	2595
	..	1	360				...	.	.	.	...	.	..		...	...	. .	4	1220	...	...	Village	1	15	6	1595
...	...	..	...		...	..	...		...	..	...			.	...			1	54	. .	..		...	...	2	108
...	...	...	...		...	.	. .		.	.	.		..	.	...	.	.	...	...		...		..	...	3	2049
...	...	..	...	...	.	.	...	...	.	.	.	..	.	..		..	...		...	...			.	...	1	280
...	...	1	375		...	..	...	. .	.	.	...				...	3	14	3	2182	.	...		.	...	15	11741
1	3		...	...	...	1	25600	.	...		...	.	...	..			.	.	...	..	...		.	.	4	59603
...	...	1	80	...	...		.	.	.		...		...		...	.		4	560	.	...	Crossing	1	66	10	7831
	...	...		..	...	1	19000	.	...		...	.	...	1	2			2	242	...	...			...	5	19284
	..	1	320	.	...	..	...		...		...		.		...	.	...	1	158	.	...	Village	1	17	7	738
...	...	.	...		...	..	...		...	...	...	.	...	...	...		...	3	129		. .		.	...	17	24850
...	...		. .	..	.	...	...	.	. .	.	...		...		...	1	10	..	...		...			. .	1	10
.	...	1	540	...	...	..	..	...	...	...	...	..	...		...	.	...	1	65		. .	Quarry	1	6	3	611
.	...	..	...	..	.		. .		. .	.	...	.	.	...	...		.	1	450	..	...			. .	5	1776
...	...	5	11564	..	...	.	. .	1	34	..	...	.	...		...	.	..	5	5654	...	..		.		15	18657
																						Canal	1	640		
...	...	2	283	..	...	.	...	1	640	.		.	...	.	. .	..	...	2	402	.	...	Village	1	20	9	2331
..	...	..	...	...	..	...	...	...	...	.	...		...	1	2		...	3	2380		...	Municipal	2	10	12	16965
..	...	..	...	...	...		...	...	...		...	..	...	.	...	1	2400		.	..	...			..	2	2520
...	...	.	...	...	...	..	...	.	...	...	...		..		...	.	. .	3	285		.	Village	1	1	8	449
...	...		. .	.	...		...		...	.	...	.	. .		...	.	...		...				.	.	1	950
																						Quarry	1	14		
...	...	..	...		...		...	...	. .	...	..	1	250	..		..	...	..	.	..	...	Village	1	2200	3	2464
..	...	...	...	..	...	.	. .	...	...	.	...		...			..	...	1	16		...			...	1	16
..	...	...	...	.	...		. .	.	.		...		...	.	...	.	. .		.	.			...	...	1	805
	. .	..	.		...	.	...		...	..	.		...	.	...	.	...	2	102	...	.		.	.	3	200
...	...	.		..	.	.	...		...		. .	...	...	.	...	.	.	1	35	.	...	Village	1	500	3	1495
...	...	1	2240	...	...	.			...		...	..	...	.	...	.	...		...	...	...		...	...	1	2240
..	...	2	386	...	...	.	...		...	...	.	...	.	..	.		...			...	...	Prickly-pear	1	40	4	636
..	...	1	1628	.	...	.	...	..	. .		...		...		...		...	3	2202	...	...		.	...	4	3830
...	...	...	...	...	...	...	.	...	...	.	...				...	..	...	1	1		...			...	1	1
...	...	1	3000	...	...	1	1100	...	.		.	.	. .	2	12		...	2	120	...	.	Quarry	2	42	15	16008
																						Village	2	552		
	..	...	...	.	...		...	.	...	.	...	.	...	...	...	...	...	1	130	..	...		..	...	1	130

SCHEDULE

Purpose :—	Aborigines.		Access.		Camping.		Cemetery.		Conditional Sale.		Conditional Purchase within Gold-field		Travelling Stock.		Exchange of Land.		Mining.		Other than Auction Sale only.		Public Buildings.		Public Purposes		Plantation.		Pending Subdivision.	
Land Board and Land District.	No.	Area	No	Area.	No.	Area	No	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area	No.	Area	No.	Area	No.	Area.	No	Area.	No.	Area.
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Moree—																												
Bingara	.	...	.		.		.	...	.	...	.	...		...	..	...	1	101	..	...	..	..	..	..	..	...	...	...
Moree	...	...	1	640	1	205		...	.	...	..	...	6	6235	.	...	..	...	..	...	..	..	..	...	..	...	6	23780
Walgett	...	...	1	4900	2	699	..	...	..	...	..	...	7	21952	..	...	..	.	...	...	.	...	.	...	..	...	1	19000
Warialda	...	...	4	603	1	1	..	...	.	...	...	...	2	661	.	...	..	...	..	...	.	...		..	...	...	...	...
Orange—																												
Bathurst	.	.	...	...	1	64	.	..		..	2	392	.	..	..	..		..	.	.		...	..	...	1	5		...
Carcoar	.	...	...	...	..	...	..	...	1	4	3	1096	1	160	.	...	..	..	.	...	...	...	..	...		...	..	...
Cowra	...	...	1	707	...	...	.	.	...	...		...	...	...		.	2	6051		...	.	.		...		...	12	6288
Lithgow	...	.	..	...	1	80	...	..		...	..	...	1	320		.	..	..	..	...	.	...	.	.		..	...	.
Molong	.	.		...	2	449	.	...	1	8	...	..	2	1008		..		...			...	...	...	...	..	...	12	16130
Mudgee	...	...	.	.	..	...	...		..	...	1	330	..	...	.	...	1	3	..	.	1	1	...	...	.	...	...	...
Rylstone	...	.	.	...	..	...	..	...	..	...	...	.	...	...	.	...		...	..	...	...	...		...	...	...	...	...
Wellington	.	.	..	...	..	...	..	.		.	..	...	...	...	.	.	..	..	.	.		...	..	...	...	...	2	6500
Sydney—																												
Campbelltown	...	...	1	198	.	...	.	..		...	..	...		...		...	..	...	..	..	..	...	.	...	..	...	...	...
Kiama		...	...	...		..	.	. .	.	...	.	...		...	..	...	...	...	..	...	1	1	...	...	...	...	...	...
Parramatta	...	...	.	.		..	..	..	..	...		...	..	...	..	.	..	..	.	...	...	...	...	...	...	...	...	...
Penrith	...	.	..	...	..	..	..	...	..	..	..	...	.	...	..	...	...	...	..	...	...	...	...	...		.		...
Picton	1	100	..	...	1	470	..	...		. .	..	.	.	.	..	...	...	..	...	...	..	.	...	. .	1	10	...	...
Windsor	..	..	...	. .	...	. .	..	...	..	...	.	...	..	...	.	...	.	..		...		...	...	...	...	...	...	...
Tamworth—																												
Coonabarrabran	.	...	.		...	...	..	...	.	...		...	.	...	..	...	.	..	..	..		...	1	8000	. .	..	...	...
Gunnedah		...	1	118		...		...	.	...	.	...		...	..	...	.	..	.	.	.	..	...	...	...	...		. .
Murrurundi		...	..		..	...	...	...	.	...	..	. .	..	...	..	...	...	...	.	...	...	..		...	...	...	1	125
Narrabri	...	..	1	42	...	...	..	...		...	..	...	2	17	..	...	..	.	.	...	...	..	...	...	.	...	1	2560
Tamworth		...		. .		...	...	.	1	25000		.	..	...	..	...	.	...	.	...	...	...	...	...	..	...	6	3653
Wagga Wagga—																												
Albury	.	...	..	...	1	350	...	.	.	...		. .	2	447	...	..	..	...		...	.	..		...	.	...	16	5932
Cootamundra	.	...	.	...	..	..	.	...	..	...	1	54	1	115	..	...	...	..		...	1	3	..	...	...	...	9	7399
Corowa	..	..	..	..	...	...	...	...		...	..	...	...	...	..	..	.	...	..	...	...	..	...	...		...	..	...
Gundagai	...	...	...	. .	.	. .	..	...	.	...	1	248	1	5	..	..	...	...	..	...	...	...	1	42	...	...	3	722
Narrandera	...	...	...	...	1	160	.	...	...	...	...	..	9	8155		...		.	..	...	..	...	2	1192	..	...	1	94
Tumut	...	...	...	...	..	...		...		...	...	...		...	..	...	...	...	..	...	...	...		...	...	. .	2	475
Urana	.	...	.	...		...	..	...	..	...	...	...	3	914	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Wagga Wagga	..	...	1	1100	1	129	...	...	..	...		. .	3	1349	..	. .	.	...	.	...		...	...	...	...	...	4	607
	3	3120	23	17155	27	8518	4	101	7	43879	21	54918	91	67447	3	1290	7	8246	1	191	6	8	8	11564	2	15	146	261085

SCHEDULE

RETURN of Reserves from Lease

Purpose :—	Access.		Annual Lease.		Boring for Water.		Camping		Cemetery		Conditional Lease.		C P. and Annual Lease.		Crossing.		Mining Purposes		Plantation.		Police Purposes.		Preservation and Growth of Timber.	
Land Board and Land District.	No	Area.	No.	Area.	No.	Area.	No	Area.	No	Area.	No	Area.	No	Area.	No.	Area.	No	Area.	No.	Area.	No.	Area.	No	Area.
		ac.		ac.		ac.		ac		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale—																								
Armidale	...	...	..	.		...	..	...	1	4		...		...	1	20	..	. .	2	6	.	...		...
Glen Innes	...	...	..	...		...	.	...	..	. .	.	.	.	.	.	...	..			...		...	..	...
Inverell	...	...	...	...		.	...	...	1	9		.		...	..	...		...	...	...	..	...	..	...
Walcha	.	.	..	...	..	.		.		...		.	...	...	..	...	.	...	...	..		...	.	...
Bourke—																								
Bourke		...	..	...	4	7,970	..	...	.	...		..		...	.	. .		...	..	...	3	560	...	...
Brewarrina	.	...	..	...		.		. .		...	..	...		...		...		...	...	...	.	...	.	...
Cobar	...	...	.	...		...	..	...	.	...	..	..	.	...	..	..	.	..		...	1	244	.	...
Wilcannia	..	...	.	...	1	1,280	..	...		...		...	.	...	..	...	...	...	.	...	.	. .	..	...
Willyama	.	...	.	...	.	...	..	..	1	12		...		...	.	...	..	...	...	...	1	320		...

On the 15th September all the Temporary Commons were reserved from each

LVIII—*continued.*

Police.		Preservation and Growth of Timber.		Recreation.		Railway.		Refuge in time of Flood.		Roadway		Suburban Settlement.		School.		Temporary Common.		Water Supply.		Pending Legislation.		Sundries.			Total.	
No.	Area.	No	Area.	No	Area	No	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area	No.	Area	No.	Area	Purposes.	No	Area.	No	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.			ac.		ac.
..	...	.	...	..	...	..	...		.	..	...		.	.	...	..	...	..	...		..	....	...	...	1	101
.	...	1	29	..	...	..	...	2	1120	..	...	.	.	.	...	.	. .	15	13490	..	...	.....		. .	32	45499
..	...	..	...	.	.	...	...	..	...	...	...		...	.	...	.	...	1	1700	.	...	Crossing	1	654		
																						Driftway	1	4800	14	53701
..	...	..	...	...	...	...	...	.	.	...	...	.	..	..	.	...	...	26	14683	...	...	....	...	...	33	15948
...	...	...	...	...	..	...	. .	...	...	...	...	.	...		...	2	3		...		.	.....	.	...	6	464
..	...	..	. .	...	.	1	33		...	...	.		...	.	.	...	.	.	...		...	Pound	1	1	7	1294
...	...	..	...		...	.	...	..	.	...	...		...		.		.		...		.	.....	...	...	15	13046
..	...	..	....	..	...	..	...		.	.	...	...	. .		...		. .	1	40		..	Village	1	640	4	1080
...	...	2	875	..	...	..	...	.	. .	..	...	1	12	.	.	1	382	7	4650	..	...	Race course	1	70	29	23584
	...	...	...		...		...	..	...	.	...	.	. .	.	.		...	.	.		..	... .	.	...	3	334
..	...	.	...	...	...	...	. .	..	. .	..	.		...		...		.	1	640		...	....		...	1	640
.	...	...	. .		..	.	...	..	.		..		...	.		1	40		. .	1	207	....	..	...	4	6747
..	...	...	...	...	...	..	...	.		...	...		..		...	.	. .		...		..	.....		...	1	198
...	...	...	...		...	..	.	..	...	...	.		. .	.	.		...		.	...	...	.....	.		1	1
.	...		...	...	...	1	10790	..	...	...	.		. .	.	.	...	...	..	...		...	Village	1	40	2	10830
..	...	.	.	...	...	..	. .	...	.	..	. .	.	...	..	...	..	. .	2	9	...	...	..... .	..	...	2	9
...	...	..	.		...		. .	.	.				...		...		...		.	...	..	....	...	...	3	580
..	...		...	1	1500	1	905				...	.		1	12		...	.	...		. .	.. ..		...	3	2417
...	...	..	...		. .		...	..			...	...	..		...		...	3	4780	2	1277	Crossing	1	2	7	14059
	...	...	...	.	...	..	...	.	...	...	...	..		.	.	.	...	1	280	...	.	.....		...	2	398
.	...	...	. .	..	...	.	...	..	...		...	.	...		...	..	...	3	346	.	. .	....		. . .	4	471
	. .		...	.	.	..	...	..	..	..	.		.	..	.	1	5	7	6560	..	..	Military	1	18	13	9202
	...	1	45	.	. .	...	. .		...	.	...	.	.	..	...		...	9	102310	..	...	Village	14	42	31	131050
..	...		. .		..	...	...		.		...	..	..	.	...	.	. .	3	2690	.	. .	Canal	4	421	26	9840
...	...	...	..		...	1	6	.	...	1	88	...	...	...	...	...	. .	2	1176	..	...	....	...	.	16	8841
..	...		...		...		...	.	...		...	.	...	.	...	.	...	4	1017	...	...	Canal	2	80	7	1099
																						Pound	1	2		
	...	.	. .	...	...	..	...	..	...	...	...	..	...	...	. .	..	...	2	220	.	...	....	...	..	8	1237
...	...	.	...	.	...	..	...	..	...	.	...	..	...		.	...	...	9	9568	...	...	Canal	3	804	25	19973
...	...	1	5047	1	640		...	.	...	...	...		...	...	. .	1	2	4	1227	.	...	....	.	. .	9	7391
	...	.	. .	...	...	...	...	..	...	..	...	1	10		...	..	...	1	2	..	..	Canal	1	108	6	1034
..	...	2	2370	...	. .	.	. .		...	.	..		. .		...		...	6	1366	..	...	....	.	...	17	6921
1	3	35	41554	5	2149	16	58547	4	1794	1	88	4	352	5	28	38	12231	232	371916	5	3931		62	55876	757	1026006

LIX.

and License notified during 1891.

Public Recreation		Public Buildings.		Pastoral Lease.		Refuge in time of Flood.		Roads and Traffic.		School Purposes.		Temporary Common.		Travelling Stock.		Village Purposes.		Water Supply.		From all Forms of Lease.		Other than Inferior Lease.		Pounds.		Totals.	
No	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area.
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
...	...	...	...	..	...	...	...				...	.	...	2	145	...	...	.	...	...	...	..	...	..	...	6	175
...	...	...	...	..	...	..	...	...	...	1	2	...	...	...	...	...	...	...	20	..	...	.	...	..	...	2	22
...	...	..	...	..	...	..	...		. .	.	.	..	...	...	. .	...	...	...	...	...	...	...	...	..	...	1	9
.	...	...	...		. .	..	...	..	...		...	...	...	.	...	1	950	.	...	...	...	.	. .	..	...	1	950
...	...	...	...		. .		. .	1	368	.	...	.	...	1	640	.	...	.	...	1	1,600	..	...	.	...	10	11,138
...	...	.	...	..	...	..	...	1	937		. .	..	...	..	...	.	...	1	5,744	...	...	...	...	...	...	2	6,681
.	...	...	...		...		...	..	...	.	.	.	...	.	...	...	...		...	..	...	..	...	.	...	1	244
...	...	...	...	..	...	.	...	1	50	.	...	.	...	7	3,511	...	..	..	...	...	...	.	...	..	...	9	4,841
...	...	.	...	...	...	..	...	1	20		...	..	...	3	1,360	..	...	..	...	.	...	.	...	..	...	6	1,712

and every form of Lease and License by notice in *Government Gazette.*

SCHEDULE

Purpose :—	Access.		Annual Lease.		Boring for Water.		Camping.		Cemetery		Conditional Lease.		C.P. and Annual Lease.		Crossing.		Mining Purposes.		Plantation.		Police Purposes.		Preservation and Growth of Timber	
Land Board and Land District.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Cooma—																								
Bega	1	164	.	...		...	..	...	.	...		..	.	.			..	...	...		..	...		...
Bombala	...	...	...	..			.	...		.	.	..	.	.	.	...	.	...	.	...		.		...
Cooma	...	...		.	.	...		...	1	1	.	...	...	..	.			.	1	4	...	...		...
Milton	.	.	..	...				.	.	...		...	.	..		...		...	.	...	.	...		...
Moruya	1	34	.	...	.	...		.		...	.	...	...	...	.			...	.	...	.	...		...
Queanbeyan	...	...	..	...		...	.	...		.		..		...		...	.	..		.		...	..	...
Dubbo—																								
Coonamble	3	220	...	...	.	...	.	...	.	...	..	..	.	..		..		...	.	.	.	...		...
Dubbo	..	.	..	...		...	.	...	1	2	.	...		...		...	1	436	1	14	...	...	..	...
Forbes—																								
Condobolin	10	4,175	.	...	.	..	.	...	1	5	...	...		.	.	..		...	1	3	..	...	..	...
Forbes	4	1,542	9	2,398	..		..	...		...	.	.	..	...	..	.	..	...	.	...		...	.	...
Grenfell	1	310		...		...		...	.	..		...	...	.	.	...	.	...		.		...		...
Parkes	..	...		...		...	.	..	1	9		...	..	...	.	..	..	.		...	1	7	...	...
Goulburn—																								
Boorowa	.	...	.	...		...	.	..		.		...	..	...	..	..				..	..	...	...	...
Goulburn	...	...	.	...		.	..	...	.	...	.	...		...		...	..	..		..	.	...	..	...
Nowra	...	...	..	...		...			...		..	...	..	...	.	...	.	...		...	..	...		...
Young		...	.	...		...		.	1	10	..	...	.	...		.		...	..	...	.	...	.	...
Grafton—																								
Grafton	...	...	..	. .	.	...	.	...		...	...	...		.	..	...	.	...		...	.	...		. .
Kempsey	..	...	..	...	.	...	.	.	.	...	...	...	.	...	...	...	..	.	...	...	1	17	1	40,000
Murwillumbah	...	...		...	...	. .	.	...	.	...	.	...	...	.			...	...	.	...	.	...	..	...
Lismore	..	..		...		...	.	...		...	...	..	.	..		...	..	...		...	.	...	.	...
Hay—																								
Balranald	.	...	...	. .	.	...		...		...	.	.		...		...	..	...	.	. .	..	.	...	...
Deniliquin	1	23		. .		...		...		.	..	...		...	..	...	..	...	..	. .	...	...	..	...
Hay	2	665	1	385	.	...	.	.	1	20		...		...	.	...	..	. .	2	11	..	...	1	150
Hillston	...	...	..		...	...	..	...		...	.	...	...	. .	...	.	...	. .	...	...	..	...	.	...
Wentworth	1	5,500	...	...	...	...	..	...	.	. .	...	...	.	...	...	...		.		...	..	...	...	...
Maitland—																								
Cassilis	...	. .	...	...		...	.	...	.	..	...	. .		..	..	...	..	...	.	...	.	.		...
Gosford	..	...	...	. .	..	. .	.	...		...	1	100		.		...	.	.	..	. .	.	.		...
Musclebrook	..	...		...		...	1	150		...	..	...	.	..		...	...	. .	..	. .	...	. .	...	...
Taree	..	...	...	...		...	1	42	...	...	..	. .		...		..	..	...	1	7	.	...	.	...
Moree—																								
Moree	1	640	...	...	...	.	...	...	.	. .		...		...	..	...		. .	.	...	...	...	...	...
Walgett	..	...	..	. .	...	. .	..	.		...		. .	.	...	...	...	. .	.	...	...	...	...	.	...
Warialda	1	39	..	...	...	...	..	. .		...	.	...	.	.	...	. .	.	.	..	...	..	...	.	...
Orange—																								
Bathurst	..	...	...	...	.	. .	1	74		...		...		...	.	...	..	...	.	...		...	..	...
Carcoar	1	40			.	...	..	..		.		...	.	...	.	.	.	...	.	. .		..	..	...
Lithgow	.	...	..	...		...	.	.	..	.		..	.	...	..	.	.	...		...	..	...		...
Molong	.	...	...	.		...		...		.		.		...	.	. .		...	..	. .	...	...	..	...
Orange	.			...	.	...	1	27		. .		.		...	.		.	...	.	. .		...	.	...
Wellington	1	180		...	.	. .		...		...		...	.	.		...		...	...	. .	...	...	..	...
Sydney—																								
Metropolitan		...	.	...		...	.	.				. .	.	.	.	. .	...	...		...	...	...	..	...
Penrith	..	...		...	.	.			.	..		.				. .				...	.	. .	...	. .
Picton		.		...			...			...						. .	.	.		...		.		...
Windsor	..	.	3	22,851	.			...	...	..		. .		...	.	...	.	.	.	.	.	. .		...
Tamworth—																								
Coonabarrabran	13	6,025	7	3,543		.		.	.	...	.	...	.	...	..	...		...		.	.	...	...	...
Gunnedah	2	640	1	530	. .		.	...				...	..	...	.			...	..				...	...
Narrabri	...	. .		...	...	.	1	60	.	...	...	.		. .	.	...		...	..	...	..	...	...	...
Tamworth	..	.	...	. .	...	...		...		...		. .		...	..	...		...	...	...	...	..	.	...
Wagga Wagga—																								
Albury	...	...	1	2,700	...	...		..		...		.		...	...	...	..	...	.		..	.		. .
Corowa	1	858	...	. .	.	. .	..	...		.	1	281	.	. .	..	...		...	1	12	.	.		...
Gundagai	...	. .	.	...	.	...	...	.		...		.			..	...		...				..		...
Narrandera	2	1,049	..	...		...		.	..	...	.	...				...	.	...	..	...	.	...		...
Urana	1	322		...	..	. .	..	...		...		. .		...		...	.	...		...	.	.		...
Wagga Wagga	..	...	.	.		...	1	365	.	...	.	. .	..	...	..	...	...	...	...	. .	.	...	.	. .
	47	22,426	22	32,407	5	9,250	6	718	9	72	2	381	...	...	1	20	1	436	9	57	7	1,148	2	40,150

On the 15th September all the Temporary Commons were reserved from each

LIX—*continued.*

Public Recreation.		Public Buildings.		Pastoral Lease.		Refuge in time of Flood.		Roads and Traffic.		School Purposes.		Temporary Common.		Travelling Stock		Village Purposes.		Water Supply.		From all forms of Lease.		Other than Inferior Lease.		Pounds		Total.	
No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area.	No.	Area	No.	Area.	No.	Area
	ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
...	...	..	...	.	...		...		...	.	...	1	720	..	...	...	...	...	. .	.	...	..	...	..	...	2	884
..	..	.	...	..	...	..	..	.	..	.	...	...	...	..		..	...	1	435	...	...	..	...	...	...	1	435
..	...		...	..	.	..	...	.				...	...	..	...	..	...	..	...	..	...	..	...	...	...	2	5
...	. .	..	...	.	...	..	.	..	...	1	5	..	...	..	...	..	...	...	...	..	...	..	...	...	...	1	5
.	...	.	..	.	...	..	.	.	. .	..	.	...	...	..	...	..	...	.	...	...	...	...	...	...	...	1	34
..	...	..	...	..	.	..	. .		.	..	. .	...	...	1	42	...	...	..	...	..	...	..	..	...	...	1	42
...	. .	.	...	.	...	...	...	5	638		...	...	...	.	...	...	...	..	...	..	...	.	...	...	...	8	858
..	...	.	...		...	..	...	1	167	..	...	..	...	...	...	..	...	.	...	...	...	..	...	..	...	4	619
..	...	.	...	.	...	..	...	2	78	..	...	..	...	.	...	.	..	...	..	...	...	...	...	...	...	14	4,261
..	...	1	100	..	..	...	..		. .	..	.	3	6,410	1	320		...	...	...	1	1,265	...	...	...	...	19	12,035
1	125	..	...	..	. .	.	..	..	...		...	...	. .	...	...	..	...	..	...	...	...	...	...	.	..	2	435
1	160	.	...		...	.		1	2		...	1	850	..	...	..	...	1	70	..	...	..	...	...	...	6	1,098
1	9	.	.	...	...	..	...	..	...	..	...	..	...		...		...	...	...	...	...	...	...	.	...	1	9
..	...	..		..	...		.	..	.		...	...	...		...	.	...	2	1,002	...	...	..	...	...	...	2	1,002
..	...	..	...	..	.	..	...	..	.	..	..	..	...	.	...	.	...	..	...	..	...	1	4,000	..	...	1	4,000
..	..	...	.	..	.	...	...		.	..	.	.	...	.	...	..	...	...	...	..	...	..	...	.	...	1	10
...	...	.	...		...	2	4,801		...	1	2	.	...		...	..	...	..	...	..	...	..	...	..	...	3	4,803
...	.	..	...		...		...	..	.		.	..	...	..	...	.	...	.	...	..	...	...	...	...	...	2	40,017
...	...		.	.	...	.	..	...	...		.	...	...		...	..	...	..	...	1	300	.	...	. .	...	1	300
...	...		. .		...	..	...	...	...	1	8	..	...	.	...	...	...	...	...	...	...	...	...	...	...	1	8
...	...	.	...	1	2	..	...	...	...	..	...	...	...	4	2,371	...	...	.	...	...	...	...	...	...	...	5	2,373
..	...	...	...	..		..	...	1	50	..	...	...	...	..	...		...	.	...	..	...	...	...	...	...	2	73
...	...	..	...		...	..	...	1	313	.	...	..	...	..	...	..	...	.	...	..	...	...	...	...	...	8	1,544
..	...		...	..	...	..	...	1	183	..	.	..	...	...	...		...	.	...	.	...	...	...	...	...	1	183
..	...		.		...	...	..	..	...		.	...	...		...	..	...	...	...	1	3,484	...	...	.	...	2	8,984
1	12		...	...	...	...	...	...	...	1	8	...	...	1	25	..	...	..	...	..	...	...	...	...	...	3	45
..	...		...	..	.	...	. .	..	...	...	..	..	...	...	...	..	...	..	...	...	...	..	...	...	...	1	100
...	...	...	. .	..	...	..	.	1	2	...	. .	.	...	..	...	...	...	...	...	...	...	...	...	...	...	2	152
.	...	.	...	..	...	.	...		...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...	2	49
...	...	.	...	.	...	...	...	...	.	.	.	...	...	..	...	...	...	...	...	1	5,310	...	...	...	...	1	640
...	...	.	...	..	...	.	...		. .	.	...	..	...	2	840	..	...	...	...	1	5,310	...	...	...	...	3	6,150
...	...	..	...	.	...	...	...		..	..	...	...	...	...	...	...	...	...	...	..	...	..	...	.	...	1	39
..	...	.	..	..	...	..	...	..	...	...	.	..	...	..	...	..	...	2	92	...	...	...	...	...	...	3	166
..	...	.	...	...	. .	.	...	..	...		...	...	...	..	...	1	630	...	...	..	...	...	...	..	...	2	670
..	...	...	. .	.	...	.	...	..	..	1	8	...	...		...	.	...	..	...	...	...	...	...	...	...	1	8
...	...	.	...	..	...	..	...	..	.	...	..	...	...	...	...	...	...	3	966		...	...	...	. .	...	3	966
...	...	.	...	..	...	..	...	..	...	.	...	...	...	.	...	..	...	...	...	.	...	..	..	..	...	1	27
...	. .	.	...	.	...	.	...	..	...	.	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1	180
1	2	..	...	..	...	.	...	.	...	..	...	.	...	..	...	...	...	.	...	.	...	...	...	...	...	1	2
2	591	..	...	..	...	..	...	..	...	...	...	...	...	..	...	...	...	..	...	1	1,150	.	...	...	...	3	1,741
...	...	..	...	..	. .	..	. .	..	...	...	...	...	...	..	...	...	...	3	191	...	. .	...	...	...	...	3	191
...	...	.	...		...	...	...	...	...	...	...	..	...	.	.	..	..	...	...	...	...	...	...	...	...	3	22,851
...	...	..	...	..	.	...	...	..	...	1	2	..	...		...	.	...	..	...	...	...	...	...	...	...	21	9,570
...	...	...	.	.	. .	.	...	.	...	...	...	...	...	..	...	.	. .	...	...	...	...	.	...	..	...	3	1,170
...	...	.	...	...	...		...	...	...	1	3	...	...	1	10	...	...	...	...		...	...	...	..	...	3	73
...	...		...		...	..	...	..	...		...	...	...	...	...	1	950	.	...	...	...	..	...	...	...	1	950
...	...	...	...	..	...	...	...	..	...	.	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	2,700
1	15	...	...	...	...	...	...	..	...	.	...	...	. .	...	...	...	..	.	...	.	...	...	...	1	2	5	1,168
...	...	..	...		...	..	...	...	...	...	...	...	...	...	...	..	...	1	5	.	...	...	...	...	...	1	5
...	...	..	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1,049
...	...	..	...	...	...	.	...	1	150	1	10	...	...	...	...	...	...	...	...	.	...	.	...	...	...	3	482
...	...		...		...	...	...	..	...	..	...	..	...	2	407	...	...	..	...	...	...	...	...	1	2	4	774
8	914	1	100	1	2	2	4,801	18	2,958	9	48	5	7,980	25	9,671	3	2,530	15	8,525	6	13,109	1	4,000	2	4	207	161,707

and every form of Lease and License by notice in *Government Gazette.*

Schedule LX.

Return of Reserves from Lease and License cancelled during 1891.

Purpose: -		Access.		Annual Lease.		Boring for Water.		Camping.		Crossing		C P. Gold fields.		From all Forms of Lease.		Public Purpose.		Public Health.		Roads and Traffic.		Suburban Settlement		School Purposes.		Temporary Common		Travelling Stock.		Village.		Water Supply		Special Lease.		Totals.	
Land Board.	Land District.	No.	Area	No	Area.	No.	Area.	No	Area.	No.	Area.	No	Area	No.	Area	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No	Area.	No	Area.	No.	Area	No	Area.	No	Area.	No.	Area.	No.	Area.
			ac		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.		ac.
Armidale	Armidale	...	..	.	...	.	.	2	790	.	..	1	24,000	.	...	1	40	.	...	..	...		...		...		...	1	95	1	2	.	...	.	..	6	24,927
	Inverell				...		...	1	460	.	...	...	...	.	.	..	...	.	..		...		...	.	..		...	.	...	.	...	.	...		...	1	460
	Tenterfield	...	..		...	...	...	.	...	.	...	..	...	...	...	.	...	.	...		...		...	.	...	1	79	.	.	..	...	.	...		...	1	179
	Walcha	..	..		...		...		...	.	...	.	..	.	.	..	...	...	...		...		...	.	...		...	.	...	.	1	640		...	1	640
Bourke	Bourke	.	...	...	.	3	23,040	1	711	...	...	.	..		.	.	.	.	.		...	.	...	.	...	.	..	.	...		..	1	320	5	24,071
	Brewarrina	.	...	...	.		...		...		...	.	..	.	...	..	...	.	.	...	..		...	.	...	.	..	.	...	1	5,760		..	1	5,760
	Cobar	.	...		...	.	...		...	.	.	.	...	...	...		...	.	..		...	1	8	.	...		...	..	...	.	...		...	1	8
	Wilcannia		...		.		.		...	.	...	.	...	1	3,200		.	2	80		...		...	.	...	2	1,280	.	..		...	.		5	4,560
	Willyama		...		...		...		...		..		...		...	1	10	...	...	1	50		...	2	8,068		.	.	...	.	...	.	...	4	8,128
Cooma	Bega	.	.	.	...	.	...		...	.	.	.	...	.	...	1	640		...	.	...	.	...		..	...	...	.	.		...	.	...	.	...	1	640
	Cooma	.	.	.	...	...	...		..		...	..	...	.	.	2	1,140	.	...		...	..	...		..		.		...	.	...	.	.	.	.	2	1,140
	Queanbeyan	.	.		..	.	.	.	..	...	.	.	..	.	...		...		...		...	..	...	.	.		..	3	180		...	...	...		...	1	180
Dubbo	Coonamble	.	..	.	.	.	.	.	...	..	...		...	...		1	180		...		...		...		...	.	.		.	1	1,600			.	...	2	1,780
Forbes	Condobolin	8	4,125	1	640		...		...		...	.	...		...	1	208	.	...	.	...		...		...	.	...		.		...	.	..		..	10	4,973
	Forbes	3	1,520	9	2,398		...		...	...	...		...	.	...		.		..		...		.		..	.	...		...		...	.	..	.		12	3,918
	Grenfell	1	310		.		...	1	760	..	...		..		...	2	968	.	...		...	.	...	...	...		.	.	...	..	...	2	1,446	.		(	3,484
	Parkes	...	..	..	.	..	...		...	.	...		...		...	1	960	.	..	..	.		..		...	.	..	.	...		...		...		...	1	960
Goulburn	Burrowa	.	...	...	..		..		...	.	...	.	..		...	2	5,180	.	...		...	..	...	.			..	.	.	1	17		...	.	...	2	5,180
Grafton	Kempsey	.	...	.	...	..	...	.	..	.	...		...		...	..	...		...	.	...		..		..	.	.		...		...	1	450		...	1	17
Hay	Balranald	.	...	..	...	..	.		...	.	..		...		...		...	.	.		...	.	..	.	...	.	...		...		...	1	54		...	1	450
	Deniliquin		...		...	.	...	.		.	...	.	...		...	4	721		...	1	21		...	.	.	.	..		...		...	1	54	.	...	6	796
	Hay	1	26	.	...	..	...	.	.	...	.	...	.		...	2	639	.	...	.	.		...		...	.	..		...	.	...	.	.	.	...	3	665
	Hilston	.	..	.		..	...	..	...	.	...	.	..		...	.	...	.	.	1	208	.	...		...	.	...		...	.	...	.	..		...	1	208
	Wentworth	..	...	.	..	.	...		...		...	1	2,400	1	600	.	...	.	..	.	...	..	...	.	...		...	...	...		.	.	..	.	...	2	3,000
Maitland	Singleton	.	...	..	...		..	.	...		...	.	..	.	.	.	.	.	.		.	.	.	.	..	.	.	1	130		.		...		.	1	130
	Wollombi	.	.		...		...		...	..	...	..	...		...	1	640	...	...	...	...	.	...	.	...	.	.		.	.	...	.	...	.	...	1	640
Moree	Bingara		.	..	..	..	...	.	...	..	...		...	1	720	.	...	.	..	.	...	.	...		...	.	..	...	...	.	...		...		...	6	3,040
	Moree	5	2,320		.		.	..		.	...	.	..		...	2	1,280	.	..		.		...	.	...	.	...		...	.	...	2	481	.	..	4	1,764
	Warialda				..		..	.	. .		.		.		...		...		.		...		...	.	...	.	...		...		...		...		...	1	64
Orange	Bathurst		...	..			...	1	64		...		...	.	..	1	960		...	..	...	.	...		...	1	155	...	...		...	3	2,350			5	3,465
	Mo'ong		..	.		.	...		.				.																							13	6,125
Tamworth	Coonabarrabran	13	6,125	.	...		...		...		...	.	...																							1	640
	Gunnedah	1	610	.	...	.	...		...		...	.	..	.	...		...		...		...		...		...		...		...		...		...		...	3	135
	Narrabri		...				..		. .	1	128		..		...	1	5		..		.		...	1	2	...	...		.		...		...		...	13	14,033
	Tamworth		...			5	2,586		...		...					4	9,007		...	.	...				...							4	2,440			1	41
Wagga Wagga	Albury		...		...		...	.	.		...						.		...		...					1	41	.	...		...	...	...	1	75
	Cootamundra		.		.		.	..	...		..	.	...	.	...	.	...	...	.		.			1	58	.	..		..	1	75	.	...	1	58
	Corowa		.	..	...	.	...	.	...		...		...	.	...	.	...	.	...		...		...		...	1	5	.	.	.	...		...	3	35
	Gundagai		.	.	...		..		...		...		..		..	2	30	.	.		...		...		...		...		...		...		...	2	1,049
	Narrandera	2	1,049		.		...		...		..	.	.	....	.		.		.		...	.	...		...		..		...	.	...	...	...	10	17,834
	Tumut	7	1,144		.		...	..	...		...		.		..	2	16 530	.	...		...	..	.		...		...		...	1	160	.	...	1	322
	Urana	1	322		...	...	...	.	...		..	.			...		...		...		.		.		.		...		..		..		...	5	972
	Wagga Wagga	.			...	.	...	...	...	.	...		...	.	...		...		.	1	10	.	.	.	. .		.	2	420		..	2	542	...	...		
		42	17,581	10	3,038	3	23,040	11	5,371	1	128	1	24,000	1	2,400	33	43,648	1	10	5	319	2	58	2	60	4	8,402	9	2,151	3	1,619	19	14,401	1	320	148	146546

Schedule LXI.

Return of Special Areas proclaimed during 1891.

Land Board and Land District.	Number.	Area.	Land Board and Land District.	Number.	Area.
		Acres.			Acres.
Armidale—			Maitland—		
Armidale	5	4,153	Cassilis	1	130
Glen Innes	6	2,260	Gosford	1	162
Tenterfield	3	1,056	Muswellbrook	2	1,464
Walcha	7	3,256	Newcastle	1	40
Bourke—			Paterson	1	618
Bourke	1	350	Raymond Terrace	1	2,062
Brewarrina	2	1,967	Scone	1	252
Cobar	2	4,368	Taree	7	5,764
Cooma—			Wollombi	1	126
Bega	1	1,551	Moree—		
Cooma	4	1,224	Moree	4	1,505
Mooruya	3	274	Warialda	6	2,512
Queanbeyan	2	440	Orange—		
Dubbo—			Cowra	6	5,737
Coonamble	2	1,135	Molong	6	6,039
Dubbo	10	13,883	Mudgee	3	1,602
Forbes—			Orange	1	145
Condobolin	1	255	Sydney—		
Forbes	4	6,929	Picton	1	80
Grenfell	4	3,978	Tamworth—		
Parkes	2	21,694	Gunnedah	4	735
Goulburn—			Murrurundi	8	2,041
Boorowa	6	2,302	Narrabri	11	10,592
Goulburn	1	622	Tamworth	29	13,445
Nowra	1	272	Wagga Wagga—		
Yass	1	287	Albury	23	8,224
Young	7	3,889	Cootamundra	18	22,672
Grafton—			Corowa	5	1,513
Casino	3	3,329	Gundagai	6	2,602
Grafton	2	319	Narrandera	6	4,308
Kempsey	2	462	Tumut	10	5,643
Lismore	11	22,383	Urana	1	140
Murwillumbah	2	1,920	Wagga Wagga	24	23,675
Hay—					
Deniliquin	23	27,753	Totals	310	265,553
Hay	1	4 077			
Hillston	3	5,337			

Schedule LXII.

Return of Dedications for Religious and Public Purposes during the year 1891.

Purpose of Dedication.	No. of Grants	Area Granted	Religious Purposes.	No. of Grants	Area Granted.
		a. r. p.			a. r. p.
Racecourses	1	268 0 0	Roman Catholic Church Purposes	1	1 1 22
General Cemeteries	24	250 0 31	Primitive Methodist Church Site	1	0 2 39¾
Public Recreation	13	238 0 37½	Wesleyan Church Site	1	0 2 21¾
Public School Sites	41	73 4 8 11/20			
Show Grounds	4	47 3 13			
Cattle Sale Yards	1	10 3 29			
Benevolent Asylum Site	1	5 2 29½			
Hospital Sites	1	5 2 0			
Mechanics Institute Sites	11	5 1 32			
Gasworks Site	1	3 0 11¼			
Town Hall Sites	7	2 1 33½			
Gaol Sites	1	1 0 30			
Town Hall and Fire Brigade Station Sites	1	0 2 25¾	Total for Religious Purposes	3	2 3 3½
Municipal Building Sites	1	0 0 24	Total for General Purposes	108	913 1 25 11/20
	108	913 1 25 11/20	General Totals	111	916 0 29 1/20

Schedule LXIII.

Return showing the Number of Refunds granted during the year 1891 on account of land withdrawn from Pastoral Lease and Occupation License in the several Divisions of the Colony together with the area withdrawn and amount authorised to be refunded.

Pastoral Leases.				Occupation Licenses.			
Division.	Number of Pastoral Leases.	Area withdrawn.	Amount of refund granted.	Division.	Number of Occupation Licenses.	Area withdrawn.	Amount of refund granted
		Acres.	£ s. d.			Acres.	£ s. d.
Eastern	31	47,535	1,527 6 8	Eastern	207	306,301	2,809 11 7
Western	39	24,963	456 1 10	Western	113	2,108,211	9,608 0 0
Central	98	117,078	3,125 0 10	Central	484	1,676,502	14,993 18 10
Totals	168	189,576	5,108 9 4	Totals	804	4,091,014	27,411 10 5

Grand Totals.

Cases	972
Area withdrawn	4,280,590 acres.
Amount refunded	£32.519 19s. 9d.

Schedule

SCHEDULE LXIV.

SHOWING Pastoral Leases current during 1891:—

No. of Leases.	Division of Colony.	Area.	Annual Rent.
		Acres.	£ s. d.
12	Eastern	240,987	1,049 2 11
721	Central	18,641,876	196,212 12 6
316	Western	39,533,931	172,465 6 2
		58,416,794	369,727 1 7

SCHEDULE LXV.

RETURN showing the number of Pastoral Leases in Eastern Division existing on 1st January, 1892; area and rent represented.

Leases.	Area.	Rent.
5	99,737	£382 17s. 8d.

SCHEDULE LXVI.

NUMBER of Pastoral Leases in Eastern Division which expired during 1891, and area and rent represented by them.

No. of Leases.	Area.	Rent.
7	141,250 acres	£666 5s. 3d.

SCHEDULE LXVII.

RETURN showing Occupation Licenses current during 1891.

No. of Licenses.	Division of Colony.	Area.	Annual License Fee.
		Acres.	£ s. d.
333	Eastern	4,070,090	16,877 10 0
627	Central	10,094,174	54,635 13 0
242	Western	29,004,638	63,675 10 0
	Total	43,168,902	135,188 13 0

SCHEDULE LXVIII.

RETURN showing Preferential Occupation Licenses current during 1891.

Eastern Division.

Number.	Area.	Annual License Fee.
424	6,469,847 acres	£13,259 2s. 0d.

SCHEDULE LXIX.

RETURN showing the number of transfers of Pastoral Leases, Preferential Occupation Licenses, Occupation Licenses, completed from the 1st January, 1891, to the 31st December, 1891, under the Crown Lands Acts of 1884 and 1889.

Division.	Pastoral Leases.	Preferential Occupation Licenses.	Occupation Licenses.
Eastern	3	48	36
Central	94	.....	84
Western	24	.....	19

SCHEDULE LXX.

RETURN showing the number of applications tendered (during the year 1891), under section 33, and refused and withdrawn, for Preferential Occupation Licenses of the Eastern Division, the area and amount represented.

REFUSED.			WITHDRAWN.		
No. of Applications.	Area.	Estimated Annual Rent.	No. of Applications.	Area.	Estimated Annual Rent.
	Acres.	£ s. d.		Acres.	£ s. d.
Nil.	Nil.	Nil.	1	7,260	22 13 9

	No.	Area.	Rent.
Refused	Nil.	Nil.	Nil.
Withdrawn	1	7,260	£22 13s. 9d.

SCHEDULE

Schedule LXXI.

Return showing the number of applications tendered (during the year 1891), under section 33, and accepted, for Preferential Occupation License of the former Leasehold Areas in the Eastern Division, the area and amount represented.

No of Applications	Area	Estimated amount of Annual Rental
1	5,893 acres.	£49 2s. 2d.

Schedule LXXII.

Return showing the number of applications for the subdivisions of Pastoral Leases received during the year ending December, 1891.

Number received	Number and Name of Holding	Division.	Action taken
1	564, Cunderang	Eastern	Completed.
1	465, Demiliquin	Central	Refused.

Schedule LXXIII.

Return showing the number of Pastoral Leases, Preferential Occupation Licenses and Occupation Licenses declared forfeited during the year 1891.

Pastoral Leases		Preferential Occupation Licenses		Occupation Licenses	
Central	11	Eastern	1	Eastern	183
Western	3			Central	79
				Western	20

Schedule LXXIV.

Return showing the number of Pastoral Leases and Occupation Licenses, the forfeitures of which were reversed during the year 1891.

Pastoral Leases		Occupation Licenses.	
Central Division	1	Eastern Division	7
		Western Division	1

Schedule LXXV.

Return showing the number of Preferential Occupation Licenses and Occupation Licenses surrendered during the year 1891.

Preferential Occupation Licenses		Occupation Licenses	
Eastern Division	2	Eastern Division	3
		Central Division	8
		Western Division	2

Schedule LXXVI

Number of Pastoral Leases and Occupation Licenses sold by Auction during the year ending 31 December, 1891.

Pastoral Leases		Occupation Licenses	
Western Division	6	Eastern Division	16
		Western Division	6
		New Occupation Licenses sold	7
		Preferential Occupation Licenses sold	6

Schedule LXXVII.

Return showing the number of Occupation Licenses, the reversal of forfeitures of which was cancelled.

106, Tapalin, Western Division.

Schedule LXXVIIa.

Statement showing cases dealt with by the Land Court under the Crown Rents Act of 1890

Division.	Increases.	Decreases	Concurrences	Totals in Divisions	Grand Totals
Occupation Licenses—					
Eastern	5	72	19	96	316
Central	42	87	49	178	
Western		28	14	42	
Pastoral Leases—					
Eastern	14	112	19	145	381
Central	39	85	65	189	
Western	4	28	15	47	
Total	104	412	181		697
Cases not gone to Land Court					5
Cases not yet dealt with by Land Court					5
					707
Homestead Leases—Decrease					1
Grand total of cases					708

Schedule

SCHEDULE LXXVIIa—*continued.*

No.	Name of Area.	Rate per acre recommended by Board.	Rate per acre fixed by Minister	Name of Minister.	Rate determined by Land Court under Crown Rents Act.	No	Name of Area	Rate per acre recommended by Board	Rate per acre fixed by Minister	Name of Minister.	Rate determined by Land Court under Crown Rents Act.
					EASTERN DIVISION—Leasehold Areas.						
		Pence	Pence.		Pence			Pence.	Pence		Pence
1	Kangaroo Hills	1·	2	Mr. Garrett	1 750	262	Crowther . .	1 143	2 143	Mr. Garrett .	1·500, plus £8 for forfeited improvements.
3	Balala ..	1·125	2	,,	1 500						
10	Waterloo	2·	3 250	,,	3·	271	Wallabadah . ..	1·125	2·	,,	1·750
11	Barraba ...	1 250	1·750	,,	1 750	272	Underciffe and Riverstree West	1·	1 500	,, .	1 500
12	North Talbingo	1·	1 250	,,	1						
17	Wantabadgery	6·	9	,,	8	274	Bondo ..	1·500	2·	,, .	1·500
22	Ellerslie .	2 750	3·	,,	2 750	275	Tumut Plains .	1·500	2 500	,, .	1 500
25	Kyogle	1 250	1 750	,,	1·800	278	New Koreelah	1·250	1 750	,,	1 400
26	Tantangara	2 100	4	,,	3 250	280	Auburn Vale	1 250	1 500	,,	1·250
28	Etterick Forest	1 125	1·500	,,	1 700	292	Wooroowoolgan	1·	1 500	,,	1·440
29	Yarrangobilly ..	1·	1 250	,,	0 750	293	Ironmongy Minor	1·600	2·500	,, .	2 250
32	Carrot .	2	3·	,,	2 750	298	Davy's Plains	1 750	2 500	,, .	2·500
35	Sandilands	1·250	1 750	,,	1 700	306	Ramorme	1·500	2·	,,	1 750
36	Nanima	2 500	3	,,	2·750	308	Newbold Grange and Cangai.	1 062	1·500	,,	1 100
40	Lyndhurst .	1 125	2 500	,,	2 250						
43	Neila .	2 500	3	,,	2 750	314	Stony Batter	1·125	2·	,,	1·900
44	Swamp Oak Creek	1·	1·500	,,	0 750	321	Wiangerie	1·250	1·750	,,	1 800
46	Orrorial	1·	1 750	,,	1 120	322	Kalkite	1·	2·	,,	1·250
47	Yulgilbar	1 250	1 750	,,	1·750	325	Newstead . .	2·	2 500	,,	2
48	Bimben West	1	2	,,	1 250	328	Lanark Lodge	1·	1 500	,,	1 250
50	The Middle Cotter North	1·	1·125	,,	0 900	331	Cubmurra .	1·200	2 750	,,	2·
						333	Annandale	1 250	1 750	,,	1·500
52	Warren's Corner	1·	1 125	,,	0 750	341	Mount Mitchell West	1·500	2·	,,	2 250
54	Moles .	2·333	3	,,	2 750	342	Geegullalong	2 600	4·100	,,	3 750, plus £10 per an. for improvements
59	Maffra .	2	4·	,,	3 250						
62	Berthong	8·	9·	,,	9·	348	Currangorambla West	2 200	4·	,,	2 750
67	Clifton	1	1 500	,,	1 250						
68	Bolivia .	1 750	2	,,	1 500	349	Bergen-op Zoom	2·	3·500	,,	2 500
79	Myalla .	5·	7·	,,	6·	352	Rocky River	1·	1·062	,,	0 750
86	Yabtree .	1·	1 250	,,	0 500	363	Currangorambla	2 600	4 500	,,	4·
87	Yerra Yerra	1 500	2	,,	2 500	367	Billyingera	2 100	3·	,,	3·
89	Mingoola	1 500	1 750	,,	1·500	368	Gyra or Gara	1 500	2 250	,,	2·
95	Long Plain .. .	2 100	4·	,,	3 250	371	Breakfast Creek	2 167	3 167	,, .	2 750, plus £4 per an. for improvements
96	Mowenbah	2·100	3·	,,	3·						
99	Dungowan	1·	1 250	,,	1·	381	Bullanamang	1·	1·750	,,	1 500
100	Europambela	2	3 500	,,	3·250	383	Congwarrah	1 700	2 600	,,	2 500, plus £7 6s. per an. for improvements
104	Biggam and Lucumbene.	2 100	4·	,,	3·						
						390	Deepwater	1 300	1 500	,,	1·500
108	Stonehenge	1 750	3 250	,,	2 750	392	Woomargama .	2·	4	,,	3 250
114	Aberbaldie	2·	3·	,,	3	393	Boualong .	1 500	2 500	,,	2
117	Congi	1 750	3	,,	2 500	401	Barney Downs .	1·125	1 500	,, .	1 500
121	Glen Fernaigh	1·125	1·750	,,	1 900	406	Summer Hill .	1·900	2 600	,,	2·200, plus £8 11s 4d. per an. for improvements.
128	Qwyarigo	1·	1·500	,,	1·300						
136	Glen Elgin and Morven.	1·	2·	,,	2·						
						407	Dutzon	3·	4·	,,	3 500
141	Dyraaba .	1·	1 500	,,	1 420	409	Winscombe ...	1 250	2	,,	2 250
142	Caddigat Creek	3 100	4·	,,	4 250	412	Camira . .	1·	1 750	,,	1 500
146	Geergarow .	1·	1 500	,,	1 600	415	Coutadigbee	1 500	1 750	,, ..	1 600
148	Aberfoyle .	2	3	,,	2 750	421	Mount Mitchell	1·	1 500	,,	1 120
157	Argalong	1 250	1 750	,,	1 250	422	Rosebery	1 250	1·500	,, .	1·750
159	Hillgrove .	1·	2·	,,	1 120	426	Jeremiah and Bongongo	2 500	3·	,, .	2·500
168	Chidowla	2 400	3 400	,,	2·750						
169	Bredbo North	1 600	2·500	,, .	2·250	435	Jingellic ...	2 250	2 500	,, .	2·250
171	Booroombi ...	1 250	2·	,,	1 750	437	Temora	1·	1 000	,,	1 250
172	Dangelong ...	2·500	3·	,,	3·	439	Gunnee or Reedy Creek	1 750	2	,, ..	1 750
173	Peak Back	1 500	3·	,,	2·						
175	Coolringdon .	3 100	5·	,,	4 250	444	Wattamadara	2·250	2 500	,, .	2 500
176	Manus	2	2 500	,,	2·250	450	Jeogla . .	1·	1 375	,,	1 250
177	Stoney Creek .	1 500	3·	,,	2·500	452	Coaldale	1·	1 250	,, .	1 100
184	Bumbowlee	2·250	3	,,	2 500	457	Branga Park .	2	3 500	,,	3
185	Buckargingah	2 750	3 500	,,	3 250	461	Ward's Mistake	1·625	2·500	,,	2·
189	Enmore	1	2·	,,	1·500	465	Jugiong	6·	9·	,,	8·
191	Toomoolooma .	1·500	2·	,,	1·500	473	Cotter Falls	1·	1·125	,,	0 600
206	Talbingo	1·	1 250	,,	0 700	474	Cheviot Hills South & Fairfield South	1	1·500	,, ..	1 250
207	Micalago .	1·	1 500	,,	1·, plus £1 2s 6d. per an. for improvements	483	The Bramma	1·	1 250	,,	0 900
						488	Strathbogie and Rocky Creek	0 625	0 750	,,	0 500
210	Coolamatong	1 028	2·278	,,	1 750, plus 17s. 6d per an for improvements	491	Peedee Creek	1·	1 125	,, .	1 125
						493	Yarrow Creek and Kingsgate.	1·	2·	,,	1 750
213	Narrallen	2 500	4·	,,	3·						
217	Addicumbene	1	1 500	,,	1 250	500	Gabramatta ..	1 100	2	,, ..	1·500
218	Moonbucca	1 650	3 200	,,	2 600	503	Tomalla	1	1 375	,,	1·
224	Marengo .	1 400	3	,,	2 750, plus £1 5s per an for improvements	505	Gordon Brook	1 625	2·	,, .	1 870
						509	Moura ..	1 750	2·	,, ..	2·
227	Cumbermuria .	6·	9·	,,	8 250	522	Abington .	1 250	2 500	,, .	2·
231	Shannon Vale	1·	2·	,,	2·	526	Orraba	1	1 250	,,	1·
235	Ganowra ...	1 900	2·	,,	2·	544	Tenterfield and Boura Boura Creek	1·	1 062	,, .	0 890
236	West Pimbeyan	1·	1·250	,,	1·						
239	Muttama	2 500	3·	,,	3·						
241	Urayarra ..	1 500	2 500	,,	2·250						
242	Eversleigh	1 500	2	,,	2·	547	Bendaibo	7 500	9	, .	8·
245	Beverley	1 125	2·	,,	1·500	552	Cheviott Hills North and Callanyn.	1	1·375	,, .	1·
247	Marianumbla	2 100	3 500	,,	3·						
252	Koreclah	1 375	2·	,, ..	1 500	562	Barraba Detached .	1	1 125	,,	1·125, plus £1 4s. per an. for improvements
261	Jumenbuen	1	1 750	,,	1·500						
					CENTRAL DIVISION—Leasehold Areas.						
6	Gurley	2 750	4·	Mr. Garrett	3 500	53	Yarragrin . .	1 571	2·071	Mr. Garrett.	1 750
7	Combadello and Nepcuthna.	2·400	3·	,,	3 250, plus £3 10s per an. for improvements.	54	West Mandamah	2	3·	,,	2 500
						59	Gralgumbone	2 625	3 500	,,	3·500
						61	Billabong	1 500	1 750	,,	1 860
9	Gournama	2 375	3·	,,	2 750	64	Native Dog	1 500	1·750	,,	1 750
14	Mulwala and Saversnake.	3·	6·	,,	4 500	66	Blue Nobby	2 600	3	,,	3 250
						67	Belubula	3 250	4 500	,,	4 500
16	Marrai .	3·750	4 500	,,	4 500	69	Spicer's Creek .	2 375	3·	,,	3·, plus 15s. per an. for improvements.
17	Womboin	1 667	2·	,,	2·						
21	Wandary	2 500	4·350	,,	3 220, plus 1 350 for improvements	71	Berida	3 500	3·500	,,	3 500
						72	Pevensey	2 800	3·	,, .	3·
					2	79	Ghimambri	0 875	1·	,, .	1·
30	Oregon	2·	2 500	,,	2·100, plus £5 16s 9½d per an. for improvements.	84	Brogan Plains	1 500	2·	,,	2·
33	Kiacatoo	1 500	2 125	,,		88	Goonal	2 600	3·	,, .	3·
						92	Gillendoon	2 625	3 250	,, ..	3 250
					2 100	94	Weelah or Gradgery	2 375	3·	,,	2 750
34	Bogamildi	1 875	2 250	,,	1 500	95	Garrawilla	2	3·	,, .	3·
36	Caigan	1 500	1 750	,,	4	100	Esperance	1 750	2·	,,	2·
39	Puckawidgee	3 400	4·	,,	3	101	Kildary	2·	2 500	,,	2
40	Telleraga	2·375	3·	,	3 250	106	Bugilbone	2 625	3 500	,, .	3 500
44	Gorian	2 500	3 125	,,	2	116	Tonderburine .	2 375	2 625	,, ..	2 700
47	Ballaree	1 750	2·	,,	3·500	119	Warry . . .	3·	4·	,, ..	3 250
52	Tyrcel .	2·700	3·250	,,							

SCHEDULE LXXVIIa—*continued.*

No	Name of Area	Rate per acre recommended by Board	Rate per acre fixed by Minister	Name of Minister	Rate determined by Land Court under Crown Rents Act	No	Name of Area	Rate per acre recommended by Board	Rate per acre fixed by Minister	Name of Minister	Rate determined by Land Court under Crown Rents Act
				CENTRAL DIVISION—Leasehold Areas—*continued*							
		Pence	Pence		Pence			Pence	Pence		Pence
121	Willewa	2 625	2	Mr Garnett	2	435	West Bogan, Nos 2 and 3	1 500	2	Mr Garrett	1 750
125	Barmedman	1 637	2	,,	1 750						
126	Bolagamy	1 500	1 750	,,	1 860	436	Lower Ningear	2 500	3 125	,,	3 125
127	Bulgandramine	1 500	2 250	,,	1 750	437	Canonbar	1 500	2	,,	1 800
130	Flagstone Creek	1 500	?	,,	1 500	449	Youlbung	1 250	1 250	,,	1 250
136	Upper Merry Merry	2 375	3	,,	3 120	458	Midkin	2 625	3 500	,,	3 500
139	Haddon Rigg	2 375	3 500	,,	3 750	459	Nangerybone	1 500	2	,,	2
140	Gineroi	1 500	2 500	,,	2 250	463	Gunambil	2 500	3	,,	3 250
143	Back Esperance	1 750	2 250	,,	2 250	467	Burburgate	1 500	1 800	,,	1 600, plus £20 per an. for improvements
144	Liewah	2 400	3	,,	3						
147	Junee	4 500	6	,,	4 500						
161	Quambone	2 375	3 125	,,	3 250	470	Bundyulumblah	3	4	,,	3 500
164	Turramna	6	9	,,	7	472	Pilliga	1 500	2	,,	2 250
166	Cremorne	2 750	3 750	,,	3 750	473	Brookong	4 750	5 500	,,	5 500
172	Drildool	2 625	3	,,	3 500	477	Callubin	1 500	1 750	,,	1 750
176	Pomingalarna	6	8	,,	7	478	Derribong	3	3 500	,,	3
177	Nelgowrie	2 500	3 125	,,	3 125	483	Meabel	1 500	2 500	,,	2 100
183	Yallaroi	3 300	3 500	,,	3 750	484	Success	1 875	2	,,	2 250
184	Baroona	1 700	2	,,	2	485	Barellan	2	2 250	,,	2
186	Booloorioo	2 750	3 375	,,	3 plus £10 per an for improvements	496	Burrandoon	1 750	2 250	,,	2
						497	West Bogar No 1	1 500	2	,,	1 750
188	Centre Block No 3	2 250	3	,,	3	499	Palisthon	1 500	2	,,	1 860
201	Caidmuira	2	2 250	,,	2 250	502	Mimosa	1 500	1 750	,,	1 250
204	Berrembed	2 750	6	,,	3 250	505	Bogo Bogolong ..	1 750	1 750	,,	1 750
210	Jerilderie	4	5	,,	5	507	Coreen	6 500	8	,,	6 750
217	Oxley	2 300	3	,,	2 500	511	Gunnegaldra	1 500	3	,,	2 600
218	The Troffs	1 500	2	,,	1 900	513	Genanagie	1 500	1 750	,,	1 750
237	Armatree	2 750	3 500	,,	3	516	Mungiebundie	2	3	,,	2 250
242	Barooga	4 750	8	,,	7	532	More Devil	2 750	3 500	,,	3 125
243	Coolatai	2 875	3	,,	3 500	537	Carroll	1 500	2 50	,,	2 250
244	Nowley	2 866	3 700	,,	3 800	540	Gunyerwarildi	2 125	3	,,	3
247	Melrose Block D	1 500	2	,,	1 750	543	Youngarn Creek	1 600	2	,,	1 900
254	Coonimbia	2 500	3 125	,,	3 150	544	Tarriaro	1 500	1 750	,,	1 250
255	Mungyer	2	2 625	,,	3	546	Burra Burra	1 500	1 750	,,	1 750
256	Canoon Point	2 600	3	,,	3	549	Bocabigal	1 500	3	,,	2 500
260	Tabratong	2 750	4	,,	3 500	553	Rocky Creek	0 100	0 250	,,	0 250
262	Tucklan and Yarrow Creek	1 500	2	,,	2	562	Whalan	2 400	3	,,	2 700
						578	Canonbar	2 750	5 500	,,	4
267	Yaddia	2 143	3	,,	3, plus £8 9s 8d per an for improvements	581	Millie	2 625	6	,,	3 500
						587	Buddigower	1 500	2	,,	1 750
269	Wardry	1 500	2 500	,,	1 870 plus £5 0s 8d per an for improvements.	594	Burroway	2 250	3	,,	2 630
						599	Wonbobbie	2 500	3	,,	3 250, plus £1 per an for improvements
277	Cobbadah	1 500	2	,,	2	600	Wambangalang	1 500	2 500	,,	2
280	Moulmun	1 500	2	,,	1 250	609	Boolcarrol	2 750	4	,,	4
281	Derra Derra	1 500	2 250	,,	2 500	610	Embie	2 750	2 750	,,	2 750
285	Trialgara	1 500	2 250	,,	2 250	611	Tenandra	2 500	3 250	,,	3 500
298	Ballandry	1 500	2	,,	1 500	615	Mellool	3 400	4	,,	3 900
301	Wirrah	1 625	2 250	,,	2 250	616	Boonal	2 700	3	,,	3
308	Coppymurrumbil	2 750	3	,,	2 600	619	Mona	3 400	3 750	,,	3 750
313	Boona West	1 500	1 750	,,	1 900, plus £1 0s 7 d per an for improvements	620	Tubbo	5 250	6	,,	6
						621	Wathagar	2 500	3	,,	3
						625	Kenaweena	2 750	3	,,	3 100
317	Welbon	2 625	3	,,	3	627	Arrah	3 500	4	,,	3 750
321	Upper Boomley	1 500	1 750	,,	1 900	633	Milton Vale	2 625	3 250	,,	3 500
325	Sandholes	2 250	2 500	,,	2 750	637	Ghoolendaadi	1 500	2 250	,,	2 250 plus £10 per an for improvements
331	Yarrowah	2 040	2 500	,,	2 500						
336	Terry Hie Hie	1 500	2	,,	1 600	640	Breeza	2	3 250	,,	3
341	Maithaguy Creek	2 500	3	,,	2 750	645	Illumunigaha East	2 125	3 125	,,	2 500
343	Perricoota	3 800	7 500	,,	7 500	646	Bengulla	1 500	1 750	,,	0 800
344	Collymongool	2 125	2 250	,,	2 250	648	Condoholin	1 500	1 750	,,	1 800
345	Brewon	1 500	2	,,	1 750	651	Burham	3 800	4 250	,,	4
350	Ariatula	3 700	4	,,	4	653	Tomanbil	3	4 028	,,	4, plus 028 per acre for improvements
351	Murray	5 500	8	,,	6 250						
352	Pier Pier	2 500	3 125	,,	3 125	654	Wooroo	1 500	1 750	,,	1 540
353	Beanbah	2 750	3 250	,,	3 400	655	Murrumbidgerie	1 500	2 500	,,	2 250
360	Malonga	2	2 250	,,	1 750	658	Pullitop	1 500	2	,,	1 750
365	Euglo	1 667	2 062	,,	2 250	663	Tulcumbah	1 500	2	,,	1 360
366	Quabothoo	2 375	3	,,	2 750	669	New Gradgery	1 500	1 750	,,	1 750
367	Bundy	2 500	3 125	,,	3 250	672	Cobran	4 500	4 750	,,	4 600
376	Coree	6	7 500	,,	7	679	Frigamon	1 500	2 500	,,	1 700
377	Half Moon Plain	2 875	4	,,	3 750	680	Murrungundy	1 500	2 250	,,	2 250
381	Burga	6 250	9	,,	8	681	Gragen and Gramen	2 600	3	,,	2 750
387	Pallal	1 500	2 250	,,	2 250	689	Melrose	1 714	2	,,	2 000
392	Wee Waa South	1 500	2	,,	1 750	690	Willeroon	1 500	2	,,	1 900
395	Bangheet	1 500	2 500	,,	2	691	Wallangra	2 400	3	,,	3
401	Cornalla	3 200	3 500	,,	3 500	693	Goolhi	1 500	2	,,	1 540
404	Tareelari	2 500	3 250	,,	3	700	Willie	2 375	2 750	,,	3
406	Bairatta	3 200	3 500	,,	3 500	701	Lake Cowal	1 600	1 800	,,	1 950
411	Grahweed	1 500	2	,,	2	709	Obella	1 500	2	,,	2
412	Murrill Creek	3	3 750	,,	3 250	722	Piedmont	1 500	2	,,	2
414	Tulloona	2 500	3	,,	2 750	728	Gonn	3 700	4	,,	4
						737	Culmer	2 375	3	,,	3 250
				WESTERN DIVISION—Leasehold Areas							
1	Wangaroa	1	1 100	Mr Garrett	0 750	208	Gingie	1 375	1 00	Mr Copeland	1 650
8	Fort Grey	0 500	0 500	,,	0 500	212	Conoble	1 100	1 00	Mr Garnett	1 250
13	Nelyambo	1 250	1 375	Mr Copeland	1 375	214	Cuthio	1	1 016	,,	0 750
14	Turlee	0 250	0 250	Mr Garrett	0 250	222	Frenerian	1	1 125	,,	1 250
20	Mount Gipps	0 750	0 750	,,	0 750	234	Jandra	1 750	2	,,	1 900
24	Corn Downs	1	1 125	,,	0 900	236	Charlton	1 750	2	,,	2 250
38	Gurrera	1	1 125	,,	1 125	245	Willandra	1 600	2	,,	1 750
39	Til Til	1	1 500	,,	1 250	246	Mossgiel	1 600	2	,,	1 750
52	Tarcoon	1 125	1 375	Mr Copeland	1 375	253	Murrawombie	2 133	2 250	,,	2 250
55	Momba	1 057	1 250	Mr Garrett	1 250	255	Mouriabilla	1 667	2	,,	2
23	Mallara	0 500	0 500	,,	0 500	256	Tara	1	1 125	,,	1
78	Moothumbil	1	1 500	,,	1 250	263	Tambua	0 800	0 800	,,	0 800
99	Wallandra	1 600	2	,,	1 750	269	Frimbendery	1 200	2	,,	1 800
100	Wyadra	1 700	2	,,	1 850	270	Toms Lake	1 400	2	,,	1 750
112	Boondaria	1 600	2	,,	1 750	274	Kayrunnera	1	1 010	Mr Copeland	0 900
124	Bunneringee	1	1 032	,,	0 950	283	Mount Stuart	0 510	0 750	Mr Garrett	0 510
140	Wirchilleba	1	1 125	,,	1	286	Huaba	1	1 400	,,	1 100
148	Golgol	1	1 100	,,	0 750	300	Waverley No 1	0 950	1	,,	0 950
154	Mayfield	0 800	1	,,	0 800	309	Mount Stuart		0 500	,,	0 400
156	Yancannia	0 700	1	,,	0 750	194	Moorara	0 250	0 250	,,	0 250
162	Dine Dine	1	1 125	,,	1 125	195	Corona	0 600	0 750	,,	0 650
174	Avoca	1	1 031	,,	0 900	203	Netley	0 750	0 750	,,	0 750
179	Booberoi	1	1 250	,,	1 500	244	Kinchega	1	1	,,	1
180	Dungalear	1 375	1 500	Mr Copeland	1 500						

SCHEDULE LXXVIIa—*continued*

EASTERN DIVISION—Resumed Areas

No	Name of Area	Rate per Section recommended by Board	Rate per Section fixed by Minister	Name of Minister	Rate determined by Land Court under Crown Rents Act
		£ s d	£ s d		£ s d
1	Kangaroo Hills	2 0 0	2 13 4	Mr Garrett	1 15 0
3	Balala	2 0 0	2 13 4	,,	2 0 0
10	Waterloo	5 6 8	5 13 4	,,	5 15 0
11	Barraba	2 13 4	4 0 0	,,	4 0 0
12	North Talbingo	2 0 0	2 13 4	,,	2 0 0
15	Toolong	2 2 6	2 13 4	,,	2 13 4
17	Wantabadgery	12 13 4	16 0 0	,,	15 0 0
22	Ellerslie	2 0 0	2 13 4	,,	2 13 4
26	Tantangara	3 10 0	7 0 0	,,	5 6 8
29	Yarrangobilly	2 0 0	2 13 4	,,	1 15 0
32	Carrot	2 0 0	2 13 4	,,	2 0 0
36	Nanima	2 0 0	2 13 4	,,	2 13 4
40	Lyndhurst	2 13 4	5 6 8	,,	4 10 0
43	Neila	4 13 4	5 6 8	,,	5 0 0
47	Yulgilbar	2 7 6	2 13 4	,,	3 0 0
48	Bimben West	2 0 0	3 0 0	,,	2 0 0
62	Berthong	10 13 4	16 0 0	,,	15 0 0
67	Clifton	2 6 8	2 13 4	,,	2 13 4
68	Bolivia	3 0 0	3 6 8	,,	2 15 0
79	Myalla	3 0 0	5 6 8	,,	4 0 0
86	Yabtree	5 14 3	9 6 8	,,	7 10 0
87	Yarra Yarra	3 5 0	4 0 0	,,	5 0 0
89	Mingoola	3 0 0	3 0 0	,,	3 0 0
95	Long Plain	4 0 0	7 0 0	,,	5 17 6
96	Mowenbah	5 1 4	5 6 8	,,	6 0 0
100	Europambala	2 0 0	2 13 4	,,	2 0 0
104	Biggan and Eucumbene	4 10 6	6 0 0	,,	5 15 0
114	Aberbaldie	4 0 0	4 13 4	,,	4 13 4
117	Congi	2 13 4	6 0 0	,,	4 10 0
141	Dyraaba	2 0 0	2 13 4	,,	2 13 4
142	Caddigat Creek	5 1 4	6 10 0	,,	6 10 0
148	Aberfoyle	5 6 8	6 13 4	,,	5 6 8
155	Cave Flat and Coua radigby	2 13 4	3 0 0	,,	3 0 0
157	Argalong	2 0 0	3 0 0	,,	2 0 0
159	Hillgrove	2 0 0	2 13 4	,,	1 15 0
169	Bredbo North	2 18 8	3 6 8	,,	3 0 0
173	Peak Back	3 6 8	5 6 8	,,	3 15 0
177	Stoney Creek	2 13 4	5 6 8	,,	4 5 0
185	Buckaringingah	6 0 0	8 0 0	,,	7 0 0
188	Neurenmerremang	2 7 6	2 13 4	,,	2 0 0
189	Enmore	2 0 0	3 6 8	,,	1 0 0
191	Toomoorooma	3 6 8	4 0 0	,,	3 6 8
206	Talbingo	2 0 0	2 13 4	,,	1 6 8
210	Coolamatong	3 10 8	5 0 0	,,	3 17 6
213	Narallen	4 3 4	4 16 8	,,	£4 13s 4d, plus £1 10s for forfeited improvements
218	Moonbucca	4 0 0	4 13 4	,,	4 0 0
231	Shannon Vale	2 13 4	3 0 0	,,	3 0 0
236	West Pinbeyan	2 0 0	2 13 4	,,	1 15 0
239	Muttama	5 6 8	6 13 4	,,	5 10 0
242	Eversleigh	4 5 0	4 13 4	,,	4 13 4
245	Beverley	2 13 4	3 0 0	Mr Garrett	2 13 4
247	Marranumbla	10 8 0	12 0 0	,,	12 0 0
252	Koreelah	2 0 0	2 13 4	,,	2 13 4
261	Jumenbuen	2 0 0	2 13 4	,,	1 15 0
262	Crowther	2 0 0	2 13 4	,,	2 0 0
271	Wallabadah	2 13 4	4 0 0	,,	3 10 0
272	Undercliffe and Rivertree West	2 0 0	2 13 4	,,	2 13 4
274	Bando	2 13 4	3 6 8	,,	2 13 4
278	New Koreelah	2 6 8	3 0 0	,,	2 10 0
280	Auburn Vale	2 13 4	3 0 0	,,	2 15 0
293	Ironmungy Minor	2 8 0	3 6 8	,,	3 0 0
308	Newbold Grange, and Cangai	2 1 3	3 0 0	,,	2 17 6
314	Stony Batter	2 0 0	3 6 8	,,	2 5 0
321	Wrangerie	2 5 0	2 13 4	,,	2 13 4
324	Towal Creek	0 15 0	1 0 0	Mr Brunker	1 0 0
329	Newstead	4 0 0	5 0 0	Mr Garrett	4 0 0
333	Annandale	2 0 0	2 13 4	,,	1 15 0
340	Head of the River	2 0 0	3 0 0	,,	2 0 0
341	Mount Mitchell West	2 0 0	2 13 4	,,	1 15 0
342	Geegullagong	5 6 8	6 0 0	,,	5 15 0
343	Currangorambla West	4 0 0	7 0 0	,,	4 15 0
349	Bergen op Zoom	4 0 0	6 13 4	,,	5 0 0
367	Billylingera	5 1 4	6 10 0	,,	6 0 0
368	Gyra or Gara	2 13 4	4 0 0	,,	3 0 0
382	Woomargama	4 0 0	6 0 0	,,	5 10 0
401	Barney Downs	2 0 0	2 13 4	,,	1 15 0
407	Dutzon	4 13 4	5 6 8	,,	4 13 4
409	Winscombe	2 13 4	3 6 8	,,	3 6 8
412	Camira	2 0 0	2 6 8	,,	2 4 9
422	Roseberry	2 0 0	2 13 4	,,	2 6 8
424	Canomodine	4 0 0	5 6 8	,,	4 0 0
435	Jingellic	3 6 8	4 0 0	,,	3 0 0
437	Pemora	2 0 0	2 13 4	,,	2 0 0
444	Wattamadara	3 6 8	4 0 0	,,	5 0 0
461	Ward's Mistake	2 13 4	3 6 8	,,	3 6 8
468	Atkins Flat and Maidenhead	2 13 4	3 0 0	,,	2 2 0
474	Cnevriot Hill South & Fairfield South	2 0 0	2 13 4	,,	1 17 6
483	The Bramina	2 0 0	2 13 4	,,	2 0 0
488	Strathbogie and Rocky Creek	2 0 0	2 13 4	,,	1 0 0
491	Peedee Creek	2 0 0	3 0 0	,,	2 13 4
500	Gabramatta	2 18 8	3 6 8	,,	3 0 0
503	Tomalla	2 0 0	2 13 4	,,	1 5 0
512	Keera	2 0 0	2 13 4	,,	1 6 8
522	Abington	3 0 0	4 0 0	,,	3 10 0
523	Southgate & Blakes Creek	2 0 0	2 13 4	,,	2 5 0
544	Tenterfield & Boura Boura Creek	2 0 0	2 6 8	,,	1 2 6

CENTRAL DIVISION—Resumed Areas.

No	Name of Area	Rate per Section recommended by Board	Rate per Section fixed by Minister	Name of Minister	Rate determined by Land Court under Crown Rents Act
		£ s d	£ s d		£ s d
6	Gurley	4 0 0	6 13 4	Mr Garrett	5 15 0
7	Combadello & Nepickalina	4 13 4	5 0 0	,,	4 10 0
14	Mulwala & Saversnake	6 13 4	9 6 8	,,	10 0 0
17	Womboin	3 1 8	4 0 0	,,	3 15 0
21	Wandary	2 0 0	4 0 0	,,	4 0 0
25	Campbell's Island	7 14 8	8 0 0	,,	7 0 0
30	Oregon	2 0 0	3 6 8	,,	2 5 0
32	Bullenbong	8 13 4	9 6 8	,,	10 0 0
34	Bogamildi	2 13 4	3 6 8	,,	2 13 4
36	Caigan	2 0 0	2 13 4	,,	2 13 4
37	Upper Wyalong No 3	2 0 0	2 13 4	,,	2 10 0
39	Puckawidgee	7 4 0	9 6 8	,,	9 0 0
40	Telleraga	4 0 0	5 0 0	,,	6 0 0
44	Gorian	4 0 0	5 6 8	,,	5 12 6
47	Ballaree	2 13 4	4 0 0	,,	3 15 0
52	Tyreel	4 13 4	5 6 8	,,	6 10 0
54	West Mandamah	4 0 0	4 13 4	,,	4 10 0
59	Gralgumbone	3 0 0	5 6 8	,,	5 6 8
61	Billabong	2 0 0	2 13 4	,,	2 11 7
64	Native Dog	2 0 0	2 13 4	,,	2 16 8
67	Belubula	6 8 4	8 0 0	,,	7 0 0
71	Berida	2 0 0	2 13 4	,,	2 13 4
84	Brogan Plains	2 6 8	4 0 0	,,	3 10 0
88	Goonal	4 0 0	4 13 4	,,	4 13 4
94	Weelah or Gradgery	3 0 0	6 0 0	,,	5 0 0
95	Garrawilla	4 0 0	5 6 8	,,	4 5 0
100	Esperance	3 6 8	4 0 0	,,	4 5 0
103	Merri Merrigal	2 0 0	2 13 4	,,	1 10 0
106	Bugilbone	4 0 0	5 6 8	,,	5 6 8
116	Tenderburine	3 13 4	4 0 0	,,	4 0 0
119	Warry	6 13 4	8 0 0	,,	6 13 4
121	Willewa	2 13 4	3 6 8	,,	4 0 0
125	Barmedman	2 0 0	2 13 4	,,	2 10 0
126	Bolagamy	2 0 0	2 13 4	,,	3 0 0
127	Bulgandramine	2 0 0	2 13 4	,,	1 15 0
130	Flagstone Creek	2 0 0	4 0 0	,,	£3, plus 12s 9½d per annum for improvements
133	Ungaree	2 0 0	2 13 4	,,	2 8 9
136	Upper Merry Merry	3 6 8	5 0 0	,,	5 0 0
139	Haddon Rigg	4 0 0	5 6 8	,,	5 15 0
140	Gineroi	2 0 0	3 6 8	,,	3 0 0
143	Back Esperance	2 13 4	4 0 0	,,	3 15 0
144	Liewah	7 4 0	8 0 0	,,	7 0 0
147	Junee	14 13 4	16 0 0	,,	12 0 0
161	Quambone	3 6 8	5 0 0	,,	5 0 0
164	Tarramia	12 0 0	16 0 0	,,	15 0 0
165	Cocketgedong	6 13 4	10 13 4	,,	9 6 8
166	Cremorne	3 0 0	5 6 8	,,	5 6 8
172	Drildool	4 0 0	5 6 8	Mr Garrett	6 0 0
176	Pommingalarna	12 0 0	16 0 0	,,	14 0 0
177	Nelgowrie	3 16 8	5 6 8	,,	5 17 6
184	Boronga	3 6 8	4 13 4	,,	4 0 0
187	The Overflow	2 0 0	2 16 8	,,	2 15 0
188	Centre Block No 3	2 13 4	4 0 0	,,	4 15 0
201	Caidmurra	3 6 8	4 0 0	,,	4 0 0
202	Tyrie	3 0 0	4 0 0	,,	4 0 0
204	Berrembed	24 0 0	16 0 0	,,	12 0 0
210	Jerilderie	3 11 0	6 13 4	,,	5 5 0
217	Oxley	4 10 8	6 8 0	,,	4 10 8
218	The Troffs	2 0 0	2 13 4	,,	2 18 5
237	Armatree	4 0 0	5 6 8	,,	5 6 8
242	Barooga	8 13 4	12 0 0	,,	11 0 0
243	Coolatai	2 0 0	2 13 4	,,	2 13 4
244	Nowley	4 5 0	5 6 8	,,	5 17 6
247	Melrose Block D	2 0 0	2 13 4	,,	2 13 4
254	Coonimbia	3 16 8	5 0 0	,,	5 12 6
255	Mungver	3 6 8	4 0 0	,,	4 0 0
256	Canoon Point	5 12 0	6 8 0	,,	5 17 6
260	Tabratong	4 0 0	6 0 0	,,	6 5 0
262	Tucklan and Yarrow Creek	2 0 0	2 13 4	,,	2 5 0
267	Yaddra	2 0 0	3 0 0	,,	3 10 0
269	Wardry	2 0 0	2 13 4	,,	3 6 8
277	Cobbadah	2 0 0	2 13 4	,,	2 13 4
280	Moulmain	2 0 0	2 13 4	,,	2 0 0
289	Trialgara	2 13 4	4 0 0	,,	3 15 0
301	Wirrah	3 6 8	4 0 0	,,	4 0 0
304	Bolaro	2 0 0	2 13 4	,,	2 5 0
308	Coppymurrumbil	2 13 4	5 6 8	,,	1 6 8
313	Boona West	2 0 0	2 13 4	,,	£2 15s plus £2 9s 1½d per an for ford improvements
317	Welbon	4 0 0	4 13 4	,,	4 10 0
321	Upper Boomley	2 0 0	2 13 4	,,	2 5 0
331	Yarrowah	3 6 8	4 0 0	,,	3 0 0
336	Terry Hie Hie	2 0 0	3 6 8	,,	3 0 0
341	Marthaguy Creek	3 0 0	4 0 0	,,	4 10 0
343	Perricoota	5 6 8	10 13 4	,,	6 0 0
344	Collymongool	3 6 8	4 0 0	,,	4 0 0
345	Brewon	2 13 4	3 6 8	,,	3 0 0
350	Aratula	8 16 0	9 0 0	,,	9 0 0
351	Murray	6 5 0	12 0 0	,,	8 10 0
352	Pier Pier	4 0 0	5 0 0	,,	5 17 6
353	Beanbah	4 0 0	5 6 8	,,	6 5 0
356	Cobra	2 0 0	2 13 4	,,	2 0 0
360	Malongo	2 0 0	2 13 4	,,	1 6 8
365	Euglo	2 0 0	3 0 0	,,	3 6 8
366	Quabothoo	3 6 8	4 13 4	,,	4 13 4
367	Bundy	3 16 8	5 6 8	,,	5 17 6

SCHEDULE LXXVIIa—*continued.*

CENTRAL DIVISION—Resumed Areas—*continued.*

No.	Name of Area.	Rate per Section recommended by Board.	Rate per Section fixed by Minister.	Name of Minister.	Rate determined by Land Court under Crown Rents Act.
		£ s. d.	£ s. d.		£ s d
376	Coree	6 13 4	8 13 4	Mr. Garrett	9 0 0
377	Halfmoon Plain	4 10 0	6 13 4	,,	7 0 0
378	Medway & Gamber, Gamber West.	2 0 0	4 0 0	,,	3 0 0
381	Buraga	10 13 8	16 0 0	,,	14 0 0
387	Pallal	2 0 0	2 13 4	,,	2 13 4
392	Wee Waa South	2 13 4	3 0 0	,,	3 0 0
395	Bangheet	2 0 0	3 0 0	,,	2 15 0
401	Cornalla	4 5 4	5 6 8	,,	5 6 8
405	Huntawang	2 0 0	2 13 4	,,	1 10 0
406	Barrata	4 5 4	5 0 0	,,	5 0 0
411	Grahweed	2 13 4	3 6 8	,,	3 6 8
412	Murrill Creek	2 0 0	3 6 8	,,	2 13 4
414	Tulloona	4 0 0	4 13 4	,,	4 13 4
435	West Bogan Nos. 2 and 3.	2 13 4	3 6 8	,,	3 6 8
436	Lower Ningear	3 16 8	5 0 0	,,	5 10 0
437	Canonbar	2 0 0	2 13 4	,,	2 15 0
449	Youlbung	2 0 0	2 13 4	,,	1 10 0
458	Midkin	4 13 4	5 6 8	,,	6 10 0
459	Nangerybone	2 0 0	3 0 0	,,	2 16 8
463	Gunambil	5 6 8	6 13 4	,,	6 0 0
469	Albert Waterhole	2 0 0	2 13 4	,,	2 0 0
470	Bundyulumblah	5 6 8	6 13 4	,,	6 0 0
472	Pilliga	2 0 0	2 13 4	,,	2 0 0
473	Brookong	3 16 2	9 6 8	,,	7 0 0
477	Callubri	2 0 0	2 13 4	,,	2 13 4
478	Derribong	3 0 0	4 0 0	,,	3 5 0
483	Micabel	2 4 5½	3 6 8	,,	4 2 6
484	Success	2 0 0	2 13 4	,,	2 13 4
485	Barellan	2 0 0	2 13 4	,,	1 15 0
496	Burrandoon	3 6 8	4 0 0	,,	3 10 0
497	West Bogan No. 1	3 6 8	4 0 0	,,	3 10 0
499	Palisthon	2 0 0	3 0 0	,,	2 13 4
507	Coreen	8 13 4	13 13 4	,,	10 0 0
511	Gunnegaldra	2 0 0	6 0 0	,,	4 0 0
513	Genanagie	2 0 0	2 13 4	,,	2 13 4
531	New Wyregall	2 0 0	2 13 4	,,	1 16 0
539	Naradham	2 0 0	2 13 4	,,	1 15 0
540	Gunyar Warildi	3 0 0	4 0 0	,,	4 10 0
543	Youngara Creek	2 0 0	2 13 4	,,	2 17 6
546	Burra Burra	2 0 0	2 13 4	,,	2 13 4
553	Rocky Creek	0 5 0	0 10 0	,,	0 10 0
559	Brundah	2 0 0	2 13 4	,,	2 13 4
562	Whalan	4 0 0	4 13 4	,,	4 13 4
578	Canonbar	3 15 0	8 0 0	,,	7 10 0
581	Millie	4 0 0	6 13 4	Mr. Garrett	5 15 0
587	Buddigower	2 0 0	2 5 0	,,	2 0 0
594	Burroway	2 0 0	2 13 4	,,	2 13 4
597	Bygaloree	2 0 0	2 13 4	,,	2 13 4
599	Wonbobbie	2 0 0	4 13 4	,,	5 5 0
600	Wambangalang	2 0 0	3 6 8	,,	2 17 6
609	Boolcarrol	4 10 0	6 0 0	,,	6 0 0
611	Tenandra	3 16 8	5 6 8	,,	5 15 0
615	Mellool	8 0 0	9 6 8	,,	9 6 8
616	Boonal	4 13 4	5 6 8	,,	5 6 8
619	Moira	5 13 6	6 13 4	,,	6 0 0
620	Tubbo	9 6 8	10 13 4	,,	9 6 8
621	Wathagar	4 0 0	5 6 8	,,	5 6 8
625	Lenaweena	3 6 8	4 13 4	,,	5 0 0
627	Ariah	4 9 7	5 6 8	,,	5 6 8
629	Myall Downs	2 0 0	2 13 4	,,	1 15 0
633	Milton Vale	4 0 0	5 6 8	,,	5 6 8
640	Breeza	5 13 4	6 6 8	,,	6 6 8
645	Illumurgalia East	3 16 8	5 6 8	,,	5 6 8
646	Bengalla	2 0 0	2 13 4	,,	2 0 0
648	Condobolin	2 0 0	2 13 4	,,	2 14 0
651	Barham	8 2 1	9 6 8	,,	8 5 0
653	Tomanbil	2 0 0	5 6 8	,,	4 14 0
654	Wooyeo	2 4 10	2 18 2	,,	£2 16s. 8d., plus £57 10s. 1d. per an. rent on improvements.
658	Pullitop	2 0 0	2 13 4	,,	2 5 0
669	New Gradgery	4 0 0	5 6 8	,,	5 0 0
672	Cobran	7 9 4	8 0 0	,,	7 0 0
679	Trigamon	2 13 4	3 6 8	,,	3 6 8
680	Murrungundy	2 0 0	3 0 0	,,	3 0 0
681	Gragen and Gramen	3 5 0	3 6 8	,,	4 0 0
689	Melrose	2 0 5	2 13 9	,,	£2 17s. 6d., plus £8 0s. 1d. per an. rent on improvements.
690	Willeroon	2 13 4	3 6 8	,,	3 0 0
700	Willie	3 16 8	4 0 0	,,	5 0 0
701	Lake Cowal	2 0 0	2 13 4	,,	3 9 0
705	Moura	3 6 8	4 0 0	,,	3 12 6
722	Piedmont	2 0 0	2 13 4	,,	2 13 4
724	Boiambola	5 6 8	6 13 4	,,	6 13 4
728	Gonn	7 0 0	8 0 0	,,	7 0 0
732	Barnaba Detached	2 0 0	2 13 4	,,	2 0 0

WESTERN DIVISION—Resumed Areas.

No.	Name of Area.	Rate per Section recommended by Board.	Rate per Section fixed by Minister.	Name of Minister.	Rate determined by Land Court under Crown Rents Act.
		£ s. d.	£ s. d.		£ s d
8	Fort Grey	0 19 10 2/25	1 3 4	Mr. Garrett	1 0 0
14	Turlee	0 5 4	0 10 0	,,	0 10 0
23	Mallara	0 16 6	1 0 0	,,	1 0 0
29	Teryawynia	2 0 0	2 0 6 2/5	Mr. Copeland	1 15 0
38	Gurrera	2 0 0	2 13 4	Mr. Garrett	2 13 4
39	Til Til	2 0 0	2 13 4	,,	1 7 6
54	Trida	2 0 0	2 13 4	,,	1 2 6
55	Momba	2 0 0	2 4 9 1/2	,,	2 0 0
99	Wallandra	4 4 3	5 0 0	,,	4 4 3
100	Wyadra	3 14 8	5 0 0	,,	4 0 0
102	Tapio	0 9 0	0 13 4	,,	0 13 4
108	Marooba	2 0 0	2 3 4	,,	1 7 6
124	Bunneringee	2 0 0	2 1 8	,,	1 0 0
125	Milroy	2 0 0	2 13 4	,,	2 10 0
140	Wirchilleba	2 0 0	2 13 4	,,	1 15 0
141	Sturt's Meadows	1 12 0	1 13 4	,,	1 10 0
145	Yallock	2 0 0	2 3 4	,,	0 15 0
154	Marfield	0 14 4 2/3	1 6 8	,,	0 17 6
156	Yancannia	1 9 4	1 12 0	,,	1 12 0
162	Dine Dine	2 0 0	2 13 4	,,	2 0 0
169	Kajuligah	2 0 0	2 13 4	,,	1 2 6
174	Avoca	2 0 0	2 1 8	Mr. Garrett	1 0 0
178	Cultowa	1 17 4	2 0 0	,,	1 17 6
179	Booberoi	2 0 0	2 3 4	,,	1 15 0
180	Dungalear	2 0 0	2 13 4	Mr. Copeland	2 13 4
194	Moorara	0 3 8	0 6 8	Mr. Garrett	0 6 8
195	Corona	1 2 6	1 2 6	,,	1 2 6
196	Murtee	2 0 0	2 13 4	,,	2 5 0
202	Moorna	1 12 0	1 18 4	,,	1 13 4
203	Netley	1 14 6	1 15 0	,,	1 15 0
208	Gingie	2 0 0	2 13 4	Mr. Copeland	2 13 4
212	Conoble	2 0 0	2 13 4	Mr. Garrett	1 15 0
214	Cuthro	2 0 0	2 0 10	,,	1 6 4
222	Eremeran	2 0 0	2 13 4	,,	1 17 6
233	Yathong	2 0 0	2 3 4	,,	1 10 0
234	Jandra	2 18 0	3 6 8	,,	3 6 8
239	Mount Poole	0 19 13 3/5	1 0 0	,,	1 0 0
244	Kinchega	1 12 0	2 0 0	,,	1 15 0
246	Mossgiel	2 1 0	2 13 4	,,	2 5 0
253	Murrawombie	2 13 4	3 6 8	,,	3 6 8
256	Tara	2 0 0	2 13 4	Mr. Copeland	1 15 0
309	Mount Sturt	0 16 0	1 0 0	Mr. Garrett	0 15 0

SCHEDULE LXXVIIb.

STATEMENT showing Amounts of Overpaid Rents and License Fees under the provisions of the Crown Rents Act of 1890.

	Number of Cases.	Amount of Overpaid Rent.	Interest at 5 per cent.	Total.
		£ s. d.	£ s. d.	£ s. d.
EASTERN DIVISION—				
Leasehold areas	98	14,804 12 10	2,430 7 5	17,235 0 3
Resumed areas	70	10,403 17 1	1,769 15 6	12,173 12 7
CENTRAL DIVISION—				
Leasehold areas	82	23,009 11 10	3,935 3 5	26,944 15 3
Resumed areas	92	15,489 17 1	2,932 1 4	18,421 18 5
WESTERN DIVISION—				
Leasehold areas	28	20,647 17 11	3,807 9 1	24,455 7 0
Resumed areas	29	21,475 18 0	4,785 14 5	26,261 12 5
Homestead lease	1	7 4 0	1 5 6	8 9 6
	400	105,838 18 9	19,661 16 8	125,500 15 5

Schedule LXXVIIc.

Statement showing amounts due to Crown under the Crown Rents Act of 1890, in consequence of underpayments of rents.

	Division.	Number of Cases	Amount of Underpaid Rent.
			£ s d.
Leasehold areas	Eastern	27	5,595 1 2
Resumed areas	do	13	1,343 11 4
Leasehold areas	Central	47	6,890 11 6
Resumed areas	do	45	6,163 0 5
Leasehold areas	Western	4	1,490 1 1
Resumed areas	do	1	15 16 4
		137	21,498 2 1

Statement of cases in which no adjustment was necessary, the rate fixed by Land Court under Crown Rents Act of 1890 being identical with that determined by the Minister under Act of 1884.

	Division	Number of Cases.
Leasehold areas	Eastern	13
Resumed areas	do	13
Leasehold areas	Central	60
Resumed areas	do	41
Leasehold areas	Western	15
Resumed areas	do	12
	Total	154

Schedule LXXVIId.

Statement showing the rents of Conditional Leases, as determined by the Land Court, under the provisions of the Crown Rents Act of 1890

District	Conditional Lease Number.	Rate per acre as appraised by the Land Board, under the Act of 1884	Rate per acre as determined by the Minister, under the Crown Lands Act of 1884.	Rate per acre as determined by the Land Court, under the Crown Rents Act of 1890.	District	Conditional Lease Number	Rate per acre as appraised by the Land Board, under the Act of 1884	Rate per acre as determined by the Minister, under the Crown Lands Act of 1884.	Rate per acre as determined by the Land Court under the Crown Rents Act of 1890.
		d.	d.	d.			d.	d.	d.
Armidale	2,080	3	6	4	Narrabri	2,219	3	3½	3
Bingara	146	2¾	3	2¾	Do	2,223	2½	3½	2⅞
Casino	7,302	5	6½	6½	Do	3,658	2¾	4	2¾
Cooma	44	3	4½	3 75	Do	4,136	2¾	2¼	2¼
Do	4,492	3	3	3 50	Do	6,254	3	4	3½
Dubbo	3,861	2	4	3¼	Do	6,255	3	4	3½
Forbes	901	2	3	2⅜	Do	6,256	3	4	3⅝
Glen Innes	3,938	3	5	4	Do	8,392	3	4	3¾
Do	5,776	4	6	5	Do	8,456	3	4	3⅝
Grenfell	647	3	4	3½	Tamworth	7,184	3	4	3·75
Gunnedah	2,034	2	3	2¾	Do	7,196	3	5½	5
Do	7,527	2	3	2¾	Tenterfield	3,544	3	4	2 75
Do	8,444	2½	4	3¼	Do	5,018	3	4	2 75
Hay	3,949	2¾	3	2 60	Wagga Wagga	3,186	3½	4	4
Do	3,900	2	2½	1½	Do	3,191	3	4	3 75
Do	6,948	3 7/10	4	4	Do	3,212	3¼	4	3 75
Inverell	5,034	2½	3	2·50	Do	7,379	3	4½	4½
Narrabri	1,936	2	2½	2½	Do	7,380	3	4½	4⅜
Do	1,940	2	2½	2½	Walcha	3,833	3	8	4½

Schedule LXXVIIc.

Rents determined under the Crown Lands Act of 1889 and gazetted.

Pastoral Leases—Central Division.

Leasehold Areas.		Original rate as determined by Minister, or as altered by Land Court		Original rate, with the increase of 25% provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889	Leasehold Areas		Original rate as determined by Minister, or as altered by Land Court		Original rate, with the increase of 25% provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889
No	Name	Minister	Land Court			No	Name	Minister	Land Court		
		Pence	Pence.	Pence	Pence.			Pence.	Pence.	Pence.	Pence.
3	Wagingoberemby ...	4 500	.	5 625	6 250	125	Barmedman	2·000	1·750	2·188	1·800
6	Gurley	4 000	3 500	4 375	4 000	128	Wolla Wolla	2·750	...	3 440	4 000
7	Cambadello and Nepickalina.	3 000	3 500	4 375 plus £3 10 0	4 000	129	Quambone	2 000	. . ..	2·500	2·200
						132	Egan Creek ...	5 250	.	6·600	6 000
10	Calga .	3 125	.	3 910	4 000	135	Belgoreen	3 500	.. ..	4 375	4·250
11	Eurie Eurie	1 625		2 031	2 800	136	Upper Merry Merry	3·000	3 120	3 900	4 250
12	Kunopia	2 000		2 500	2 400	138	Warragan	2 500	...	3 125	3 000
13	Benerembah	3 700	..	4 625	3 100	140	Gineroi . .	2 500	2 250	2 812	2 500
14	Mulwala and Savernaka	6 000	4 500	5 625	3 750	141	Bogewong	2 000	... ..	2 500	2 500
						142	North Yanco	4 000	.	5 000	5 000
15	Caragabal... .	1 750	.	2 187	2 000	145	Nyngan East ...	3 000	.....	3 750	3 250
16	Marrar	4 500	4 500	5 625	3 500	146	Minna Minans	3 000		3 750	4 000
20	Euratha .	1 000	.. .	1 250	1 500	147	Junee	6 000	4 500	5 625	3 000
22	Peter Duffity ..	3 250	... .	4 063	3 750	148	Gunningbland	1 500	.. ...	1 875	1 500
23	Bendnek . .	3 000	. ...	3 750	2 600	150	Ellingerah .. .	3 250	... ..	4 063	4 500
26	Narrandera	2 500	.....	3 125	2 750	152	Bull Plain	8 250	... .	10 312	9 000
29	Keri Keri	2 500	.	3 125	3 000	153	Colane	2 750	..	3·440	3 750
31	Boomanoomana	9 000		11 250	8 750	155	Merkadool	1·625	.	2 031	2 600
34	Bogamildi . .	2 250	2 100	2 625	2 500	156	Murrulebale	5 000	...	6·250	3 750
37	Upper Wyalong, No 3	·625	...	781	1 000	161	Quambone	3 125	3 250	4 063	3 875
38	Kidlgara .	3 000	...	3 750	3 750	164	Farramia ..	9 000	7 000	8 750	8 750
40	Telleraga	3 000	3 000	3 750	3 600	166	Cremorne	3 750	3 750	4 687	4 000
43	Nyngay	3 000		3 750	2 500	168	Warrowrie	2 500	.....	3 125	2 500
44	Gonan	3 125	3 250	4 063	3 600	171	Toganmam . . .	4·300	.	5·375	4 500
46	Eli Elwah .	3 000	..	3 750	2 800	173	Carwell	3 125	...	3 900	4 000
48	Bland	2 125	.	2 656	2 410	174	Wingadee	2 750	.....	3 440	3 750
49	Gummin	2 000	.	2 500	2 875	175	Pangee	1 000	...	1 250	1 500
51	Coradgery . .	1 750	... ..	2 188	2 100	176	Pomingalarna	8 000	7 000	8 750	8 250
54	West Mandamah	3 000	2 500	3 125	3 000	177	Nelgourie	3 125	3 150	3 940	3 750
56	South Balladoran .	1 250		1 563	750	178	Yanko, Block A ...	2 500	.....	3 125	2 800
57	Polly Brewan	1 500	... ..	1 875	2 250	179	Merebone . ..	3 250	... ..	4 063	4 750
58	Dobikin	3 000		3 750	4 70)	182	Ford's Creek .	1 500	.	1 875	1 500
59	Gralgumbone	3 500	3 500	4 375	3 250	184	Boronga	2 000	2 000	2 500	2 900
61	Billabong	1 750	1 860	2 325	1·750	185	Bomera . . .	1 500		1 875	1 500
62	Yarringerry	1 500	..	1 875	2 000	186	Boolooroo...	3 375	3 000 plus £10 for impts.	3 750 plus £10 for impts	3 750
64	Native Dog ...	1 750	1 750	2 187	1 710						
67	Belubula	4 500	4 500	5 625	7 250	188	Centre Block No. 3	3 000	3 000	3 750	3 100
68	Nap Nap	2 000		2 500	1 600	189	Book Book	4 500	.	5 625	4 500
69	Spicer's Creek	3 000	3 000	3 750	3 000	190	Burran	3 000	..	3 750	4 000
70	North Malonga ...	1 600	...	2 000	1 300	192	Barbigal	2 500		3 125	2 500
71	Berida	3 500	3 500	4 375	4 250	193	Derri Derri ...	3 000	. ...	3 750	3 250
72	Pevensey	3 000	3 000	3 750	3 250	195	Urawilkey	2 500		3 125	3 250
74	Boyd	1 500		1 875	2 000	196	Conapaira	1 500		1 875	1 500
79	Ulimambri .. .	1 000	1 000	1 250	1 000	197	Werrina	2·000	.	2 500	2 900
80	Weebollabolla ..	3 000	.	3 750	3 750	198	Carrabost	2 000	.	2 500	1 750
82	Inverell Creek	1 000		1 250	600	199	Wallamgambone .	3·000	.... .	3 750	3·750
84	Brogan Plains	2 000	2 000	2 500	2 400	202	Tyrie .	3 000		3 750	3 750
85	Mumblebane .	3 000	.	3 750	4 250	204	Berrembed	6 000	3 250	4 063	4 250
86	West Gungalman ..	1 500	.	1 875	2 500	205	Woodlands	1 750	.... .	2 187	1·830
87	Tugland	1 000	... ..	1 250	1 250	206	Kucargo, or Tory Wee Wan.	2·500	... .	3 125	2 800
88	Goonal	3 000	3 000	3 750	3 300						
90	Waigam	2 700	.	3 375	3 200	207	Bomely ...	2·000		2 500	2 250
92	Gillendoon ...	3 250	3 250	4 063	4 250	208	Goornanawra .	2 250	...	2 812	2 200
93	Nebea	3 000	. ...	3 750	3 500	211	Meroe	2 125	.....	2 656	2 700
94	Weelah or Gradgery.	3 000	2 750	3 440	3 750	213	Geurie	3 000	...	3 750	3 500
96	Ganmain	3 000	...	3 750	3 250	217	Oxley .. .	3 000	2 500	3 125	1 800
98	Buddabadah ...	1 750	.	2 188	1·750	218	The Troffs	2 000	1 900	2·375	2 310
101	Kildary	2 500	2 000	2 500	3 000	219	Goangra	1 562	. .	1 950	2 200
102	Tootal	6 750	..	8 438	9 750	220	Bygoo	2 000	.. ..	2 500	2 000
104	Wangamong Plains	8 000	.	10 000	8 250	222	Cowbail	3 000	.....	3 750	4 200
105	Cocopara East.	1 500	...	1 875	1 250	223	New Myregall . .	3 500	.	4 375	4 250
106	Bugilbone	3 500	..	4 375	3 900	225	Balagula	2·500	..	3·125	3 125
107	Welbendungah	3·000	...	3 750	4 200	226	Orange Plains	1 750	.. ..	2·188	1 830
109	Boonook	3 200		4 000	4·000	228	Gelam	3 000	.....	3·750	2 000
110	North Gogelderie	2 250	..	2 812	2 500	230	Gillenbine & Gobondry.	1 500	...	1 875	1 440
112	Coolnburl ...	2·000	... .	2 500	2·750						
113	Yarraldool	1 750	.....	2 188	3 000	231	Sinjoramba, Block A..	4 300	.. ...	5 375	3 500
114	Bundilla .	3 500	.	4 375	4 250	232	Cailginda	2·000		2 500	1 750
117	Toogimbie	2 000	.	2 500	2 100	233	Berrembed North	2 250	.	2 812	6 000
119	Warry	4 000	3 250	4 063	? 750	236	Nemby (Upper)	2 500		3 125	3 750
120	Illilfwa	3 200	..	4 000	3 000	237	Aramtree . .	3 500	3 000	3 750	4 250
121	Willewa	2 000	2 000	2 500	2 200	240	Warraberry and St Giles	·000	.	0 750	1·200
122	Winginbah	1·500	..	1 875	2 500						

SCHEDULE LXXVIIe—*continued.*

Pastoral Leases—CENTRAL DIVISION—*continued.*

Leasehold Areas.		Original rate as determined by Minister, or as altered by Land Court.		Original rate with the increase of 25% provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889.	Leasehold Areas.		Original rate as determined by Minister, or as altered by Land Court.		Original rate with the increase of 25% provided by section 78, Crown Lands Act of 1884.	Rate as determined under Crown Lands Act of 1889.
No.	Name.	Minister.	Land Court			No	Name.	Minister.	Land Court		
		Pence.	Pence.	Pence.	Pence.			Pence.	Pence.	Pence.	Pence.
241	Sandy Creek and Wagga Wagga.	8·000	.....	10 000	10·500	372	Molly	1·125	. ....	1·406	2 000
						373	Sandridge	3·500	.. ...	4·375	3·500
242	Barooga	8 000	7·000	8 750	10·000	374	The Boebung Swamp	3·125	.....	3·910	4·250
244	Nowley.....	3·700	3 800	4·750	4 200	375	Howlong	10 000	. ..	12·500	3 500
246	Bokemer	3·250	... ..	4 063	4·000	377	Half-moon Plain .	4·000	3 750	4·687	4·250
248	Weemabah	3·500	.....	4·375	4·250	378	Medway and Gamber Gamber West.	2 500	.....	3·125	2·500
249	Spring Creek	3·000	.....	3·750	3·000						
250	Terramungamine ...	2·000	... ..	2·500	2 500	379	Cowel Murryan ..	2·800	.....	3·500	4 250
251	Oreel	2·500	...	3·125	3·250	380	Murrumbogie	1·000	.. ...	1 250	1 870
252	Buttabone	3·500	.....	4·375	4·250	381	Buraja	9·000	8 000	10 000	8 500
253	Warran Downs	1·625	.....	2 031	2·100	382	Eugeldry	4 000	.....	5 000	4·000
254	Coonimbia	3·125	3·150	3 940	3·750	384	Back Tenandra	3 500	.....	4·375	4·250
255	Mungyer	2·625	3·000	3·750	3·250	385	Thorndale.....	1·000	.....	1·250	1·750
256	Canoon Point	3·000	3·000	3·750	2·250	386	Merryanbone	3 000	... .	3·750	4·250
258	Buckyinguy.....	2·750	... ..	3·440	4·000	387	Pallal	2 250	2·250	2·812	2·400
259	Cryon	1·750	. ....	2·188	2 800	388	Buckingbong	3 000	.....	3·750	3·500
261	Waterloo	3·500	.. .	4·375	4 000	389	New Breelong	·875	....	1·093	1·000
262	Tucklan and Yarrow Creek.	2·000	2·000	2·500	2·500	390	Youendah	1 625	. ....	2 031	2 000
						391	Cullengally	3·250	.....	4·063	4·500
263	Momalong	6·500	.. ..	8·125	7 250	392	Wee Waa South	2 000	1 750	2·188	2 300
265	Blowclear West	1 000	... .	1·250	1·290	394	Bodangora	3·000	. ....	3·750	3·000
271	Gennaren	2·500	.....	3·125	2·460	395	Bangheet	2·500	2·000	2·500	2·250
272	Tharambone	3·000	.....	3 750	3·250	399	Parmidman . .	3 000	... .	3 750	3·875
273	Merrigal Back	3·000	. ...	3·750	4·000	400	Old Harbour	·750	.....	·937	·750
274	Mount Harris	3·250	.....	4·063	4·000	402	Ganber Ganber East..	·875	....	1·093	1·000
276	Carinda	2·250	.....	2·812	2·200	403	Moonbria	3 800	..	4·750	3·600
278	Toorawandi	1·000	.....	1·250	1·300	404	Tareelari	3·250	3 000	3·750	3 000
279	Merrybone	3·500	.....	4·375	3·500	408	Toole's Creek . ..	5·750	..	7 187	4·500
281	Derra Derra.....	2·250	2·500	3·125	2·000	410	Upper Wyalong ...	1·000	.. ...	1·250	1·220
283	Burren	3·500	... .	4·375	3·800	411	Grahweed.....	2·000	2·000	2·500	2·000
284	Thellangering East .	3·000	.....	3·750	1·600	412	Murrill Creek	3·750	3·250	4·063	5·500
289	Wentworth Gully ..	1·750	... ..	2·188	1·870	413	Curraburrama	2·500	. ...	3·125	2 750
291	Mimosa West	2·125	.....	2 656	3·250	415	Moonagee	3·500	....	4·375	4 500
295	Ullumbarella	2·000	.....	2·500	1·200	416	Bulbodney	1·750	.....	2·188	1·570
296	Yagaba.....	2·000	...	2·500	2·500	417	Cocopara	·750	... .	·937	·500
297	Come-by-chance and Jimalong Josey.	2 250	.....	2 812	2·000	419	Houlaghan's Creek North.	3·000	.. ..	3 750	3·750
300	Wooloondool	3 000	.....	3·750	2 600	422	Berry Jerry & Arajoel	4·500	...	5·625	4·000
303	Mourabie	1·625	.	2 031	1 875	423	Cumbooglecumbong ..	2·000	. ...	2 500	2·500
304	Bolaro	1·000	.. ..	1·250	2·000	424	South Thononga	3·000	... .	3 750	2·250
305	Bunarba	2·125	.....	2·656	2 800	425	Tooloon	3·000	.	3·750	3·750
306	Billeroy	2·750	.....	3·440	3·250	426	Opposite Coonamble or Euramie.	3·000	.....	3 750	3·750
308	Coppymurrumbil ...	3·000	2·600	3·250	3·300						
309	Tourable	2·750	.....	3·440	3 750	428	Quonmoona or Geanmoney.	2·250	. . ...	2·812	3·250
315	Uardry	3·600	... .	4·250	3 000						
316	New Babinda	1·000	. ..	1·250	1 200	429	Lalaltee South . . .	7·000	... .	8 750	4·500
318	Pullingawarina	3 000	... .	3·750	3·250	432	Willan	3·000	... .	3·750	3·250
319	Gillinghall	3·000	... .	3·750	3 000	433	Middle Field	2·000	....	2·500	3·390
320	New Kirban	3·500	... .	4·375	3 000	434	Cathundril, No. 2 ..	2·250	... ..	2·812	4·000
221	Upper Bromley	1 750	1·500	1·875	1·500	435	West Bogan, Nos. 2 and 3.	2 000	1 750	2·188	2 000
322	Eriganering	1,500	.....	1·875	1·250						
323	Armitree	3·000	...	3·750	3·500	436	Lower Ningear ..	3 125	3·125	3·910	3·750
324	Sandy Camp	2·000	... ..	2·500	3 000	438	Umutbee and Toonga	2·750	..	3 440	2·750
325	Sandholes.	2·500	2·750	3·440	3·200	440	Quandary North	1·500	..	1 875	1 500
327	Glen Quin	1·500	... ..	1·875	1·600	441	Bullerawa	1 000	... ..	1·250	1·200
329	Brewarrina	6 000	.....	7·500	5·750	444	Geweroo	1·000	.	1·250	1·450
330	Biniguy	1·750	. ....	2·188	1·250	445	Minore	·875	.....	1·930	1 000
333	Gidgenboyne	1 000	. ...	1·250	·750	447	Nevertire	3·250	.....	4 063	4 500
336	Terry-Hie-Hie	2 000	1·600	2 000	1 000	448	Carrugundi	2·500	.. ..	3·125	2·800
337	Gunnibong	3 000	. .	3 750	4 000	449	Youlbung	1·250	1·250	1·562	2·000
339	Gogeldrie	6 000	. ....	7·500	5·250	450	Cambara	3 000	.	3 750	3 750
341	Marthaguy Creek ...	3 000	2·750	3 440	3 750	451	Warriegal	1·000	...	1·250	2·000
345	Brewon	2·000	1·750	2·188	1 875	452	Kentucky.....	9·000	... .	11·250	8·250
346	O'Brien's Creek ...	1·750	..	2·188	2·500	453	North-east Mangoplah.	3·000	.....	3·750	2·000
347	Burrabogie	3 500		4 375	3 250						
351	Murray.....	8·000	6 250	7 812	11·000	455	Willuiah	3·100	. ..	3 875	3·300
352	Pier Pier	3·125	3 125	3 910	3 875	457	Tin-pot Alley	1·750	.....	2 188	2·160
353	Beanbah	3·250	3·400	4·250	4 000	460	Back Gilgandra	1·500	.....	1 875	1·250
356	Cobra	1 000	.....	1 250	1 000	461	Honeybugle . .	1·062	. ...	1·328	1·500
357	Collindina...	9 000	.	11 250	6 000	462	Mangoplah .	6·000	... .	7 500	3·250
359	Bimble	3 125	.....	3·910	4 000	464	Gundymungydel.....	2·500	.....	3·125	3 500
361	Geramy	3·000	... ..	3·750	2·000	466	Eunonyharrenyha ..	5 000	.....	6·250	6 500
362	Merrigal	3 500	.....	4 375	4 250	468	Merrigal Marthaguy..	3·125	.....	3·910	4·000
634	Grawhey	3·125	... .	3 910	3 500	471	West Bogan, No. 7 .	2 000	.....	2 500	2·000
367	Bundy	3·125	3 250	4 063	3·750	472	Pilliga	2·000	2·250	2·812	3·200
368	Kerriwah	1 625	... ..	2 031	2 200	475	Bourbah	2·750	... ..	3·440	3 750
370	Wangen	·600	.....	·750	·900	477	Callubri	1·750	1·750	2·188	2·250

SCHEDULE LXXVIIe—*continued.*

Pastoral Leases—CENTRAL DIVISION—*continued.*

Leasehold Areas		Original rate as determined by Minister, or as altered by Land Court		Original rate with the increase of 25% provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889	Leasehold Areas		Original rate as determined by Minister, or as altered by Land Court		Original rate with the increase of 25% provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889.
No	Name.	Minister	Land Court			No	Name.	Minister.	Land Court		
		Pence.	Pence.	Pence	Pence.			Pence.	Pence.	Pence.	Pence.
478	Derribong	3 500	3 000	3·750	3 750	618	Curra & Currawinnia	·800	. .	1·000	1·300
479	Mittagong	3 500	... ..	4 375	4 500	621	Wathagar...	3 000	3·000	3·750	4 000
481	Youie	3 125	.....	3.910	3 750	622	Grong Grong	12 000	. . .	15·000	12 000
482	Bundidgery	4 000	. .	5·000	6 000	623	Merringreen . .	2 500	. ..	3 125	2·500
484	Success	2 000	2 250	2 812	2 500	624	Humula	2 000	.....	2 500	2 000
488	Brue Plains	·800		1 000	1 200	626	Woorooma	3 900	... ..	4 875	3 600
492	Warree	3·250	...	4 063	3 750	627	Ariah	4·000	3 750	4 687	3·500
497	West Bogan, No. 1	2 000	1 750	2 188	1 500	628	Baan Baa South	1 500	... ..	1·875	2 500
500	Colli	3·250	.....	4 063	4 000	630	Yarrabee	4 000	.....	5 000	8 500
501	Bungle Gully . ..	2 000		2 500	2 500	631	Euroka	1 500	.. ..	1 875	2 250
502	Mimosa	1·750	1 250	1 562	1 250	634	Kooba	3 750	. ....	4 687	4 000
503	Sandy Creek . . .	1 250	..	1 562	1·830	635	Nangunnia and Warmatta.	9 000	.....	11 250	6 250
504	Terembone	2 500	. .	3 125	2 750						
506	Slaughter house Plains	2 000	... ..	2 500	750	636	Bumbaldry	1 500	.....	1 875	1 160
507	Coreen	8·000	6 750	8 437	6 250	638	Bourke's Creek	3 500	. ....	4 375	3 500
509	Arramagong, West ..	2 500	.. ..	3 125	2 400	639	Bunarbra	2 750	... .	3 440	3 800
510	New Geralgambone .	2 750		3 044	3 250	641	Triangular Plain . .	8 000	.....	10 000	8 500
511	Gunnegaldra	3 000	2 600	3 250	3 625	642	West Breelong	1 500	. ..	1 875	1 500
512	Monument Flats .	1 750	.. ..	2·188	2 000	644	Houlaghan's Creek South.	2 000	.. ..	2 500	1 500
515	Mungary, West .	3·250	... ..	4 063	4 000						
516	Mungiebundie ...	3 000	2 250	2·812	3 plus £3 per ann for improvemts	645	Illurmurgalia East .	3 125	2 500	3 125	3 250
						649	Morangarell and Narraburra Creek.	2 000	. ..	2 500	2 350
517	Lower Mithul Creek..	3·500	.....	4 375	3 000						
518	Moombooldool . ..	2 000	. .	2 500	2 000	650	Cubbo and Dunwerian	750	... ..	937	800
519	Mulga or Glenariff, Block B	1·500	..	1 875	1 070	652	Mungerbumbone ...	2 250	. ..	2 812	3 250
520	Hermitage Plains, Block M	1·500	... ..	1 875	1·250	655	Murrumbidgerie . .	2 500	2 250	2 812	2 500
529	Yalgogrin South	1 000	.	1 250	1 000	657	Lindsay	1 000	..	1 250	900
530	Narraway	2 000	..	2 500	3 000	658	Pullitop	2 000	1 750	2 188	1 750
531	New Wyregall	1 000	.. .	1 250	750	659	Howlong	3 600	. ....	4 500	3 500
533	Wangrewally	1 625	.. ...	2·031	2 500	660	Narran	2 000	... .	2 500	2 250
534	Merri Merri ...	3 000	... .	3 750	4 000	661	Mullah	3 600	..	4 500	4 500
535	Gobbagombalin and Tooyal.	2 500	...	3·125	3 750	662	North Junee . .	4 000	.....	5 000	3 750
						664	Ulonga	2 500	...	3 125	1 900
536	Yalcogrin	3 500	.....	4 375	3 750	667	Mcrool Baale Creek.	1·750	.....	2 188	1 510
541	Mandamah ..	1 750	... ..	2 188	1·839	668	Billabong West . . .	2 000	..	2 500	2 000
545	Trowell Creek Station	1 500	.....	1 875	1 250	669	New Gradgery ..	1 750	1 750	2 188	3 750
546	Burra Burra... ...	1 750	1·7.0	2 188	1 830	674	Tongamba	3 000	...	3 750	4 000
547	Boleta Block A, North	1 500	....	1 875	1 500	675	Gunbar...	2 400	... ..	3 000	2 250
551	Dundaloo	3 250	.. ..	4 063	3 750	676	Bumbaldry (Upper)	1 500	.....	1 875	1 750
553	Rocky Creek .	250	·250	313	500	677	Hermitage Plains, Block A 2.	1 000	.....	1 250	1 440
555	Lower Balabla .	1 750		2·188	2 025						
556	Balladoran .	2 000		2 500	2 000	680	Murrungundy	2 250	2 250	2 812	2 500
557	Oura	4·000	... .	5 000	3 750	682	South Mahonga Forest.	9 500	... .	11 875	8 250
561	Mungadal . . .	3·100	. .	3·875	3 250						
562	Whalan	3 000	2·700	3 375	3 800 plus £3 10s per ann for improvmts	685	Kalkibertoo North ..	2 250	... .	2 812	2 100
						688	Warwillah	3 000	.....	3 750	3 800
						690	Willeroon	2 000	1 900	2 375	2 250
564	Binda	1 000	... ..	1·250	1 200	694	Bald Hills and Warraberry.	1 800		2 250	1 500
566	Tchelery .	3 100	... ..	3 875	2 500						
567	Carbucky	3 000	... .	3·750	5·500	698	Budgery	1 000	....	1 250	1 500
571	Galaragambone .	3 125	. . .	3 910	4 000	700	Willie	2 750	3 000	3 750	3 250
572	Egelabra	3 250	..	4 063	4 000	701	Lake Cowal	1 800	1 950	2 437	1 960
574	Bongeabong .	2 500		3 125	2 750	702	Wilgar Downs	1 125	..	1 406	1 500
575	Cowabee	2 500	.. ..	3·125	3 500	707	Oberne	2 500	.	3 125	2 000
576	Timberrybungan ...	3 500		4 375	3 625	708	Keera	750	.....	937	500
577	Grubben Plains	2 500	... .	3·125	6 500	710	Wandao Wondong .	2 000	... ..	2 500	2 000
578	Canonba	5 500	4 000	5 000	4 250	712	Upper Wyalong, No 2	1 000	... .	1 250	1 200
579	Boranda	1 000	. . ..	1 250	1·250	714	Eurombedah	2 000	...	2 500	2 500
581	Millie	6 000	3 500	4 375	3 600	715	Elong Elong	2 000	... .	2 500	2 500
582	Kerarbury	8 000	.	10 000	8 000	718	Back Creek and Nobby's Lagoon.	1 750	. ..	2 188	2 000
583	Quat Quatta	9 000	. .	11 250	2·750						
585	Jandra	2 000	.....	2·500	2 400	719	Cobrauraguy . .	1 750	. .	2 188	1 750
587	Buddigower	2 000	1·750	2 188	2 125	723	West Bogan, No. 6 .	2 000	. ..	2 500	2 000
588	Coghill	·750	...	·937	800	724	Borambola	4 500	...	5·125	4 500
589	Merriwa . . .	3·200	..	4 000	3 000	726	Nelungaloo	2 000	... ..	2 500	2 100
590	Quandary South ...	1 500	.....	1·875	1 500	727	Pinnacle	1 500	.....	1 875	1 850
592	Budgeon	3 000	...	3 750	3 500	734	Bundybundally	1 000	.....	1 250	1 250
596	Terrangan	4 000	.....	5 000	4 250	735	Wallanbillan East .	3 000	... .	3 750	3 000
598	Bundemar	3 000	. . ..	3 750	4 250	736	Wallanbillan .	3 000	.....	3 250	2 750
601	Mundawaddera	4 000	.....	5 000	9 500	737	Euroka North .. .	1 800	.....	2 250	2 000
602	Cooma	1·500	.....	1 875	1 400	739	Euroka South	1 800	.....	2 250	2 000
605	Warrana	2·750	.....	3 440	3 750 plus £17 10s. per ann for improvemts	740	Wheoga	1 750	... .	2 188	2 010
						741	Bogo Bogolong ...	1 750	.....	2 188	2 400
607	Wallenanine	1 000	. . ..	1·250	1·250	742	Mogong	1 000	... ..	1 250	1 400
611	Tenandra	3 250	3·500	4·375	4 250	743	Coombagolong	3 000	... ..	3 750	3 750
613	Opposite Derribong...	2 750	.....	3·440	2·830	744	Culmier	3 000	3 250	4·063	2·700
617	Tycannah	4 000	.....	5·000	4·000	745	Brundah North	1 500	.....	1·875	1·400

SCHEDULE LXXVIIf.

RENTS determined under the Crown Lands Act of 1889 and gazetted.

Pastoral Leases—WESTERN DIVISION.

No	Name of Leasehold Area	Original rate, as determined by Minister, or as altered by Land Court		Original rate, with the increase of 25 % provided by section 78, Crown Lands Act of 1884	Rate as determined under Crown Lands Act of 1889
		Minister	Land Court		
		Pence	Pence	Pence.	Pence
2	Tarella ...	750	750	937	880
7	Wilga	1 031		1 290	1 100
9	Buckanbee	1 273		1 390	1 320
13	Nelyambo ..	1 375	1 375	1 718	1 300
14	Turlee	250	250	313	200
15	Noonthorungee ...	750		937	820
16	Coulpataro	1 100		1 375	1 800
18	Buckwaroon	1 000		1 250	1 444
19	Tiltagara ..	750		937	790
25	Kilfera ...	500	...	625	450
26	Tarcoola	500	. .	625	520
28	Panban ..	625	...	781	700
31	Moquilamba... . ..	1 000		1 250	1 625
36	Culpaulin	1 500		1 875	1 500
39	Til Til ...	1 500	1 250	1 563	1 080
41	Wyuna Downs	1 000		1 250	1 560
42	Magenta ...	500		625	300
43	Elsinora .. .	500	.	625	750
47	Lachlan Downs ...	750	..	937	600
48	Delalah Downs .	400		500	300
49	Cuthowarra	800	.	1 000	800
51	Clare	1 000		1 250	1 040
56	Coronga Downs ...	1 000		1 250	1 444
57	Pulpulla	750		937	1 000
58	Tolarno	1 000		1 250	1 700
59	Gunmiguldrie .	250	.	313	400
60	Boomiaricool . .	500		625	667
61	Marma	500		625	510
62	Maranoa	1 000	. .	1 250	1 400
64	Tinapagee	900		1 125	930
65	Connulpie Downs	667		833	600
71	Moira Plains	1 000		1 250	900
72	Willara	1 000		1 250	1 030
77	Budda	2 000		2 500	2 250
78	Moothumbil	1 500	1 250	1 563	1 250
80	Brindingabba .	1 000		1 250	1 000
84	Baden Park ...	1 000		1 250	900
86	Bulgoo . .	800		1 000	1 130
88	Talyeale . .	1 000		1 250	1 010
92	Salisbury Downs	600	.	750	610
94	Kenilworth	1 000		1 250	1 500
95	Mundi Mundi	333	. .	1 833	820
98	Mullingawarrina	1 250	..	1 563	1 830
103	Marra	1 700		2 125	1 470
104	Yanda	1 273		1 590	2 140
105	Milrea	1 500	. ..	1 875	2 800
107	Wilkie Plains	1 500		1 875	2 600
114	Bootra	750	..	937	750
119	Tupra	2 100		2 625	2 040
123	Balowra .	1 000		1 250	1 111
127	Delalah	400		500	300
131	Grasmere .	750		937	830
132	Nillera or Canyanboon	1 050	.	1 312	1 083
134	Florida	1 020		1 275	1 450
135	Wonominta ...	1 010		1 262	1 000
136	Arumpo	800	.	1 000	860
137	Boorooma	1 500		1 875	1 700
138	Alma	2 000	.. ...	2 500	2 000
139	Waverley Downs .	750	..	937	730
143	Mount Manara	1 000	... .	1 250	3 910
146	Roto North East .	250	.. .	313	300
148	Golgol	1 100	750	937	700
152	Angledool	1 500	. .	1 875	2 500
153	Booroondara Downs .	1 000	. . .	1 250	1 444
155	Goonalgaa	600	. ...	750	710
157	Garnpung ..	500		625	580
158	Central Block C	600	.	750	600
160	Unisino	750		937	750
162	Dine Dine ..	1 125	1 125	1 406	1 000
167	Kaleno ...	800		1 000	800
171	Doradilla	1 000	.....	1 250	1 500
172	Tongo	750	. . ..	937	910
181	Belford .	700		875	667
182	Mount Grenfell No 2	1 000	.. .	1 250	1 083
183	Wanga Mana ..	1 000	... .	1 250	1 000
185	Nocoleche	900	... ..	1 125	970
187	Merungle	2 100	.... .	2 625	2 400
189	Keribiee	1 000		1 250	1 040
194	Moorara . ..	250	250	313	380
196	Muntee .	1 125	... .	1 406	1 250
199	Yeranbah	1 050	. .	1 312	3 300
200	Nundoro ..	750	.	937	820
203	Netley ..	750	750	937	810
201	Monolan, No 5	750	.	937	750
207	Thurloo Downs . .	600		750	750
211	Wiltagoona .	1 000	. ...	1 250	1 182
213	Morden	750		937	860
221	Euston	500	.. .	625	300
222	Eremeran	1 125	1 250	1 563	1 000
225	Berawinnia Downs	600	. ...	750	720
226	Goondublin	1 250	.	1 563	3 200
229	Billilla . .	1 083	....	1 354	1 080
230	Wirlong	750		937	750
232	Bedooba ...	1 050	...	1 312	1 125
233	Yathong	250		313	125
234	Jandia .	2 000	1 900	2 375	2 360
237	Manfred	500		625	420
238	Hartwood	600	. .	750	1 000
242	Llanillo	1 500		1 875	2 500
248	Glenariff	1 000	..	1 250	1 670
251	Mulga, No 1	1 000	...	1 250	1 500
258	Corrong	2 100	..	2 625	2 000
263	Canally	500	...	625	470
264	Coolabah . ..	1 062	...	1 328	1 500
268	Mogil Mogil . . .	500	.. .	625	500
269	Eribendery	2 000	1 800	2 250	1 900
270	Tom's Lake . .	2 000	1 750	2 187	2 000
271	Burrandoon ...	1 000	...	1 250	1 200
275	Arlington Plains	1 000	...	1 250	600
276	Mulga Downs	800	.	1 000	1 000
278	Berawinnia Downs No 3	600		750	680
284	Canyapundy Swamp No 1	500		625	370
285	North Euabalong	333	. ...	417	400
287	Darling, Block D	1 200		1 500	1 100
288	Osaca	750		937	600
291	Tankerook North	2 000		2 500	2 000
295	Pinegobla ...	1 375	..	1 719	2 400
296	Gumanaldry	1 020		1 275	1 500
297	Kew	1 000		1 250	870
298	Turkey Creek	800		1 000	950
302	Lower Nilgie	1 167	.	1 460	3 000
303	Grawin South ..	1 500	... .	1 875	2 125
305	Oberwells ..	200	.	250	050
307	Mount Boorithumble	500	...	625	500
308	Moongulla West	1 020		1 275	1 700
312	North Peak .	600	....	750	600
317	Wanaaring Block A	1 000		1 250	920
318	,, ,, B	1 000	.	1 250	900
319	,, ,, C	1 000	...	1 250	980

Schedule LXXVIIg.

Rents determined under the Crown Lands Act of 1889 and gazetted.

Central Division.

Resumed Area, Pastoral Holding.		Original rate as determined by Minister or altered by Land Court		Rate as determined under Crown Lands Act of 1889.	Resumed Area, Pastoral Holding		Original rate as determined by Minister or altered by Land Court.		Rates as determined under Crown Lands Act of 1889.
No.	Name.	Minister.	Land Court		No	Name	Minister.	Land Court	
		£ s. d.	£ s. d.	£ s. d.			£ s. d	£ s. d.	£ s. d.
9	Gournama	3 6 8		2 13 4	267	Yaddia	3 0 0	3 10 0	2 8 0
10	Calga	5 6 8		4 0 0	269	Wardry	2 13 4	3 6 8	1 19 5
11	Eurie Eurie	3 6 8		5 6 8	272	Tharambone	3 13 4		2 13 4
14	Mulwala and Savernake	9 6 8	10 0 0	17 6 8	277	Cobbadah	2 13 4	2 13 4	3 0 0
18	Belarmgar	5 6 8		5 6 8	278	Toorawandi	1 13 4		1 17 4
20	Euratha	1 0 0		1 0 0	279	Merrybone	6 13 4		5 0 0
23	Benduck	6 2 8		5 1 4	281	Derra Derra	1 0 0		2 13 4
26	Narrandera	3 0 0		2 0 0	283	Burren	5 6 8		4 16 0
31	Boomanoomana	16 0 0		21 6 8	284	Thellangering East	6 8 0		2 18 8
34	Bogamildi	3 6 8	2 13 4	2 0 0	296	Yagaba	2 6 8		2 0 0
37	Upper Wyalong No. 3	2 13 4	2 10 0	1 4 0	297	Come-by-Chance and Jim-along Joey.	2 0 0		0 10 0
38	Kialgara	4 0 0		4 0 0					
40	Telleraga	5 0 0	6 0 0	5 6 8	300	Wooloondool	6 2 8		1 6 8
44	Gorian	5 6 8	5 12 6	4 16 0	301	Wirrah	4 0 0	4 0 0	2 13 4
45	Youngee Plain	2 13 4		1 5 0	304	Bolaro	2 13 4	2 5 0	2 0 0
49	Gumin Gumin	3 6 8		2 0 0	305	Bunarba	4 0 0		5 6 8
51	Coradgery	2 13 4		1 16 9	307	Goobang	2 13 4		4 2 6·17
56	South Balladoran	2 13 4		2 10 0	320	New Kirban	4 6 8		4 6 8
58	Dobikin	2 13 4		2 13 4	321	Upper Boomley	2 13 4	2 5 0	2 13 4
64	Native Dog	2 13 4	2 16 8	1 6 8	322	Eringanerrng	2 0 0		2 0 0
67	Belubula	8 0 0	7 0 0	7 6 8	323	Armitree	5 6 8		5 6 8
68	Nap Nap	4 16 0		3 4 0	325	Sandholes	4 0 0		•4 16 0
71	Berida	2 13 4	2 13 4	2 13 4	328	Pine Ridge	3 0 0		3 0 0
82	Merool Creek	2 13 4		0 10 8	329	Brewarrina	16 0 0		5 6 8
90	Wargam	5 17 4		4 16 0	330	Biniguy	2 13 4		1 6 8
93	Nebea	5 0 0		4 0 0	333	Gidgenboyne	2 13 4		1 10 0
97	Therribri	1 5 0		1 6 8	347	Burrabogie	7 9 4		6 13 4
101	Kildary	4 0 0		2 0 0	351	Murray	12 0 0	8 10 0	16 0 0
102	Tootal	4 0 0		8 0 0	352	Pier Pier	5 0 0	5 17 6	5 0 0
104	Wangamong Plains	13 6 8		20 13 4	355	South Merrowie	2 13 4		2 0 0
106	Bugilbone	5 6 8	5 6 8	5 6 8	360	Malonga	2 13 4	1 6 8	1 12 0
109	Boonook	6 13 4		6 18 8	361	Geramy	6 8 0		4 0 0
110	North Gogelderie	3 0 0		2 13 4	364	Grawhey	6 0 0		6 0 0
111	Wargambegal	1 0 0		0 13 4	366	Quabothoo	4 13 4	4 13 4	4 13 4
116	Tonderburine	4 0 0	4 0 0	2 13 4	367	Bundy	5 6 8	5 17 6	5 0 0
117	Toogimbil	4 16 0		2 18 8	368	Kerrwah	2 16 8		2 8 6
119	Warry	8 0 0	6 13 4	4 0 0	373	Sandridge	6 0 0		6 0 0
125	Barmedman	2 13 4	2 10 0	2 0 0	375	Howlong	16 0 0		5 6 8
127	Bulgandramine	2 13 4	1 15 0	2 13 4	380	Murrumbogie	1 2 0		0 19 2⅔
128	Wolla Wolla	4 13 4		4 13 4	381	Buraja	16 0 0	14 0 0	9 6 8
129	Quambone	3 6 8		4 0 0	383	Narromine	5 6 8		5 6 8
136	Upper Merry Merry	5 0 0	5 0 0	2 13 4	386	Merryanbone	4 13 4		4 13 4
138	Warragan	4 0 0		6 0 0	389	New Breelong	2 13 4		1 10 0
147	Junee	16 0 0	12 0 0	8 13 4	391	Cullengally	5 0 0		5 6 8
148	Gunningbland	2 0 0		1 4 6	392	Wee Waa South	3 0 0	3 0 0	4 5 4
155	Merkadool	3 0 0		4 0 0	400	Old Harbour	2 13 4		2 0 0
161	Quambone	5 0 0	5 0 0	5 0 0	403	Moonbria	8 5 4		6 13 4
164	Tarramia	16 0 0	15 0 0	24 13 4	404	Tareelari	5 6 8		5 6 8
169	Haddon Riggs	2 13 4		2 13 4	410	Upper Wyalong	1 2 0		1 10 0
177	Nelgowrie	5 6 8	5 17 6	5 0 0	411	Grahweed	3 6 8	3 6 8	2 13 4
180	Milboy West	1 3 4		1 0 0	415	Moonagee	6 13 4		6 13 4
182	Ford's Creek	2 13 4		1 0 0	416	Bulbodney	2 13 4		1 12 0
184	Boronga	4 13 4	4 0 0	6 0 0	419	Houlaghan's Creek North.	6 0 0		11 6 8
185	Bomera	2 13 4		2 13 4	424	South Thononga	5 6 8		4 5 4
186	Boolooroo	5 6 8		4 0 0	425	Tooloon	4 6 8		5 6 8
193	Derri Derri	5 6 8		5 6 8	426	Opposite Coonamble or Euramie.	4 0 0		5 6 8
195	Urawilkey	2 13 4		2 13 4					
196	Conapaira	1 0 0		0 13 4	428	Quonmoona or Geanmoney	3 6 8		5 6 8
199	Wallamgambone	4 0 0		5 0 0	435	West Bogan, Nos. 2 and 3	3 6 8	3 6 8	2 13 4
202	Tyrie	4 0 0	4 0 0	2 13 4	437	Canonbar	2 13 4	2 15 0	2 0 0
204	Berrembed	16 0 0	12 0 0	15 6 8	441	Bullerawa	1 6 8		1 6 8
205	Woodlands	2 16 8		2 0 0	450	Cambara	4 0 0		5 6 8
208	Goorianawa	3 6 8		2 2 8	451	Warregal	1 6 8		2 0 0
209	Nariah	2 0 0		1 6 8	458	Midkin	5 6 8	6 10 0	4 13 4
211	Meroe	4 0 0		5 6 8	464	Gandymungydel	4 0 0		4 0 0
217	Oxley	6 8 0	4 10 8	2 13 4	466	Eunonyhareenyha	4 0 0		8 0 0
218	The Troffs	2 13 4	2 18 5	2 1 7	471	West Bogan, No. 7	3 6 8		2 13 4
223	New Myregall	6 0 0		6 0 0	472	Pilliga	2 13 4	2 0 0	2 2 8
230	Gillenbine and Gobondry	2 13 4		1 9 4	478	Derribong	4 0 0	3 5 0	2 13 4
236	Nemby (Upper)	4 0 0		4 0 0	482	Bundidgery	4 0 0		1 13 4
240	Warraberry and St. Giles	0 12 0		1 1 0 33	484	Success	2 13 4	2 13 4	4 0 0
242	Barooga	12 0 0	11 0 0	24 0 0	492	Warree	4 13 4		4 13 4
244	Nowley	5 6 8	5 17 6	4 10 8	497	West Bogan, No. 1	4 0 0	3 10 0	2 13 4
252	Buttabone	6 0 0		6 0 0	500	Colli	5 6 8		5 6 8
254	Coonimbia	5 0 0	5 12 6	5 0 0	501	Bungle Gully	3 6 8		2 13 4
255	Mungyer	4 0 0	4 0 0	4 0 0	502	Mimosa	2 6 8		2 0 0
258	Buckyinguy	4 0 0		4 0 0	504	Terembone	2 13 4		2 13 4

The rate is per section of 640 acres

SCHEDULE LXXVIIg—*continued.*

Resumed Area, Pastoral Holding.		Original rate as determined by Minister or altered by Land Court.		Rate as determined under Crown Lands Act of 1889.	Resumed Area, Pastoral Holding.		Original rate as determined by Minister or altered by Land Court.		Rate as determined under Crown Lands Act of 1889.
No.	Name.	Minister.	Land Court.		No.	Name.	Minister.	Land Court.	

CENTRAL DIVISION—*continued.*

		£ s. d.	£ s. d.	£ s. d.			£ s. d.	£ s. d.	£ s. d.
507	Coreen	13 13 4	10 0 0	6 13 4	583	Quat Quatta	16 0 0	.....	4 0 0
511	Gunnegaldra	6 0 0	4 0 0	6 0 0	589	Merriwa	6 15 0	.....	1 6 8
515	Mungary West	4 0 0	.....	5 6 8	592	Budgeon	4 0 0	.....	5 6 8
516	Mungiebundie	4 13 4	.....	4 0 0	594	Burroway	2 13 4	2 13 4	2 13 4
517	Lower Mithul Creek	8 0 0	.....	2 0 0	600	Wambangalong	3 6 8	2 17 6	2 0 0
520	Hermitage Plains, Block M.	2 0 0	.....	1 15 8	611	Tenandra	5 6 8	5 15 0	3 6 8
					616	Boonal	5 6 8	5 6 8	4 13 4
528	Coombogolong	4 13 4	.....	5 6 8	624	Humula	3 0 0	.....	3 6 8
530	Narraway	5 0 0	.....	5 0 0	626	Woorooma	8 0 0	.....	7 4 0
531	New Wyregall	2 13 4	1 16 0	2 0 0	627	Ariah	5 6 8	5 6 8	8 0 0
534	Merri Merri	4 0 0	.....	4 0 0	629	Myall Downs	2 13 4	1 15 0	2 0 0
539	Naradhan	2 13 4	1 15 0	1 6 8	646	Bengalla	2 13 4	2 0 0	2 16 6
541	Mandamah	2 13 4	.....	1 18 0·8	652	Mungerbumbone	3 13 4	.....	4 13 4
542	Moonbi or Bogandillon	3 6 8	.....	2 0 0	658	Pullitop	2 13 4	2 5 0	4 13 4
545	Trowell Creek Station	2 0 0	.....	1 15 8	660	Narran	2 13 4	.....	2 13 4
547	Bolero, Block A. North	2 0 0	.....	2 13 4	675	Gunbar	3 4 0	.....	1 6 8
549	Bocabigal	4 0 0	.....	3 6 8	676	Bumbaldry (Upper)	2 13 4	.....	2 6 8
553	Rocky Creek	0 10 0	0 10 0	1 0 0	682	South Mahonga Forest	16 0 0	.....	6 13 4
556	Balladoran	2 13 4	.....	2 0 0	684	Yalgogoring North	2 0 0	.....	2 0 0
557	Oura	8 0 0	.....	22 0 0	685	Kolkibertoo North	2 13 4	.....	1 12 0
559	Brundah	2 13 4	2 13 4	1 13 4	690	Willeroon	3 6 8	3 0 0	2 13 4
561	Mungadal	6 13 4	.....	4 0 0	702	Wilgar Downs	2 0 0	.....	2 0 0
566	Tchelery	5 6 8	.....	3 11 $1\frac{1}{3}$	723	West Bogan No. 6	3 6 8	.....	2 13 4
567	Carbucky	5 6 8	.....	5 6 8	724	Borambola	6 13 4	6 13 4	8 13 4
575	Cowabee	5 6 8	.....	9 6 8	726	Nelangaloo	4 0 0	.....	2 7 $5\frac{6}{10}$
576	Timberrybungan	5 6 8	.....	5 6 8	727	Pinnacle	2 0 0	.....	2 13 4
578	Canonba	8 0 0	7 10 0	6 15 0	734	Bundybundally	2 13 4	.....	2 13 4
581	Millie	6 13 4	5 15 0	4 0 0	735	Mogong	2 13 4	.....	1 16 3

WESTERN DIVISION.

7	Wilga	2 0 $6\frac{2}{5}$	.....	1 13 0	136	Arumpo	1 6 0	.....	1 1 4
14	Turlee	0 10 0	0 10 0	0 5 4	137	Boorooma	2 13 4	.....	2 0 0
15	Noonthorungee	1 6 8	.....	1 6 8	152	Angledool	2 13 4	.....	4 0 0
16	Coulpataro	3 14 8		4 0 0	154	Marfield	1 6 8	0 17 6	0 10 8
23	Mallara	1 0 0	1 0 0	1 7 $8\frac{4}{5}$	155	Goonalgaa	1 0 0	.....	1 0 0
25	Kilfera	0 10 0	.....	0 6 $4\frac{4}{5}$	156	Yancannia	1 12 0	1 12 0	1 10 0
28	Panban	0 13 4	.....	0 11 $2\frac{2}{5}$	157	Garnpung	0 13 4	.....	1 3 $5\frac{3}{5}$
30	Nymagee	1 2 6	.....	1 0 0	158	Central Block C	1 10 0	.....	1 6 8
39	Til Til	2 13 4	1 7 6	0 12 $3\frac{1}{5}$	160	Urisino	1 10 0	.....	1 5 0
42	Magenta	0 10 0	.....	0 5 $10\frac{2}{5}$	161	Packsaddle	1 6 8	.....	1 3 0
43	Elsinora	1 12 6	.....	1 6 8	163	Coombie	0 13 4	.....	0 8 $10\frac{2}{5}$
47	Lachlan Downs	0 12 6	.....	0 9 0	167	Kaleno	1 13 4	.....	1 6 8
49	Cuthowarra	1 13 4	.....	1 5 0	168	Outer Netallie	1 15 0	.....	1 8 0
52	Tarcoon	2 13 4	.....	2 13 4	171	Doradilla	2 0 0	.....	2 0 0
56	Coronga Downs	2 0 0	.....	2 7 4	174	Avoca	2 1 8	1 0 0	0 7 $5\frac{3}{5}$
57	Pulpulla	1 10 0	.....	1 10 8	177	Gundabooka	2 0 0	.....	2 7 6
58	Tolarno	1 6 8	.....	1 6 8	181	Belford	1 5 0	.....	1 4 0
60	Boomiaricool	1 0 0	.....	0 10 8	187	Merungle	4 10 8	.....	4 0 0
61	Marma	1 0 0	.....	0 13 4	192	Fulham	1 12 0	.....	1 6 8
62	Maranoa	1 15 0	.....	1 9 5	194	Moorara	0 6 8	0 6 8	0 5 $10\frac{2}{5}$
71	Moira Plains	2 0 0	.....	1 15 0	196	Murtee	2 13 4	2 5 0	2 0 0
77	Budda	4 0 0	.....	4 0 0	199	Yeranbah	2 0 0	.....	5 6 8
84	Baden Park	2 0 0	.....	1 15 0	200	Nundoro	1 6 8	.....	1 6 8
92	Salisbury Downs	1 3 4	.....	0 16 0	202	Moorna	1 13 4	1 13 4	0 15 $5\frac{3}{5}$
99	Wallandra	5 0 0	4 4 3	2 13 4	211	Wiltagoona	2 0 0	.....	2 13 4
100	Wyadra	5 0 0	4 0 0	2 13 4	212	Conoble	2 13 4	1 15 0	1 12 0
102	Tapio	0 13 4	0 13 4	0 8 0	214	Cuthro	2 0 10	1 6 4	1 5 $0\frac{4}{5}$
103	Marrar	2 4 $9\frac{1}{2}$	.....	1 15 0	221	Euston	1 0 0	.....	0 2 8
104	Yanda	2 0 0	.....	2 0 0	224	North Merrowie	2 13 4	.....	2 2 8
111	Sussex	2 0 $6\frac{2}{5}$	.....	1 15 8	230	Wirlong	1 0 0	.....	1 0 0
112	Boondarra	2 13 4	.....	2 2 8	232	Bedooba	1 6 6	.....	1 0 0
114	Bootra	1 3 4	.....	1 0 0	234	Jandra	3 6 8	3 6 8	4 5 4
119	Tupra	4 10 8		0 16 0	237	Manfred	0 10 0	.....	0 14 $4\frac{4}{5}$
123	Balowra	2 0 0	.....	1 0 0	238	Hartwood	1 2 6	.....	1 0 0
124	Bunneringee	2 1 8	1 0 0	0 5 $10\frac{2}{5}$	246	Mossgiel	2 13 4	2 5 0	2 2 8
127	Delalah	0 15 0	.....	0 13 4	258	Corrong	4 10 8	.....	4 0 0
131	Grasmere	1 13 4	.....	1 10 11	261	Para	2 0 0	.....	1 5 $7\frac{1}{5}$
132	Nillera or Canyanboon	1 13 4	.....	1 15 8	263	Canally	0 15 0	.....	0 5 4
134	Florida	2 0 $6\frac{2}{5}$	.....	1 10 8	264	Coolabah	2 2 8	.....	1 15 8
135	Wonominta	2 0 $6\frac{2}{5}$	.....	1 12 0					

The rate is per section of 640 acres.

Schedule LXXVIIh.

Homestead Lease Rents determined under the Crown Lands Act of 1889, and gazetted.

No. of Homestead Lease.	Land District.	Date of commencement of Homestead Lease.	Original rate per acre per annum, as determined by Minister, or as altered by the Land Court.		Original rate, with the increase of 25 % provided by Section 76 of the Crown Lands Act of 1884.	Period which would elapse before such increase took effect.	Rate as determined under the Crown Lands Act of 1889.
			Minister.	Land Court.			
			Pence.		Pence.	Years.	Pence.
49	Balranald	1 May, 1886	1·750	..	2·187	1	1·400
105	,, ...	1 Aug., 1886	1·375	...	1·719	1	0·900
106	,, ...	1 Aug., 1886	1·750	...	2·187	1	1·333
108	,, ...	1 Aug., 1886	1·750	...	2·187	1	2·000
109	,, ...	1 Aug., 1886	1·437	...	1·797	1	1·900
110	,, ...	1 Aug., 1886	1·750	...	2·187	1	1·500
112	,, ...	1 Aug., 1886	1·750	..	2·187	1	2·000
114	,, ...	1 Aug., 1886	1·437	...	1·797	1	1·400
115	,, ...	1 Aug., 1886	1·875	...	2·343	1	2·000
116	,, ...	1 Aug., 1886	1·750	...	2·187	1	2·000
117	,, ...	1 Aug., 1886	1·750	...	2·187	1	1·900
118	,, ...	1 Aug., 1886	1·750	...	2·187	1	1·900
292	,, ...	1 Apr., 1887	2·000	...	2·500	2	2·000
294	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·250
295	,, ...	1 Apr., 1887	1·700	...	2·125	2	0·600
310	,, ...	1 May, 1887	1·900	...	2·375	2	1·100
316	,, ...	1 May, 1887	1·700	...	2·125	2	1·000
342	,, ...	1 Aug., 1887	2·000	...	2·500	2	2 200
375	,, ...	1 Nov., 1887	2·400	...	3·000	2	2·000
376	,, ...	1 Nov., 1887	2·400	...	3·000	2	1·400
377	,, ...	1 Nov., 1887	1·000	...	1·250	2	1·100
379	,, ...	1 Nov., 1887	1·700	...	2·125	2	1·250
380	,, ...	1 Dec., 1887	2·000	...	2·500	2	0·900
388	,, ...	1 Jan., 1888	2·000	...	2·500	3	0·500
397	,, ...	1 Jan., 1888	1·000	...	1·250	3	1·100
398	,, ...	1 Feb., 1888	2·400	...	3·000	3	2·100
411	,, ...	1 Mar., 1888	1·750	...	2·187	3	1·600
423	,, ...	1 Apr., 1888	2·000	...	2·500	3	1·750
498	,, ...	1 Nov., 1888	2·000	...	2·500	3	1·750
522	,, ...	1 Mar., 1889	2·000	...	2·500	4	0·900
524	,, ...	1 Mar., 1889	1·875	...	2·343	4	1·333
525	,, ...	1 Mar., 1889	1·700	...	2·125	4	1·100
534	,, ...	1 May, 1889	2·000	...	2·500	4	2·000
565	,, ...	1 Sept., 1889	1·000	...	1·250	4	1·300
577	,, ...	1 Oct., 1889	2·000	...	2·500	4	1·500
578	,, ...	1 Oct., 1889	2·000	...	2·500	4	1·700
579	,, ...	1 Oct., 1889	1·700	...	2·125	4	1·200
...	Brewarrina	.. ..	.....	...	.....	...	.....
1	Bourke	1 Jan., 1886	1·750	...	2·187	1	2·750
2	,, ...	1 Jan., 1886	1·000	...	1·250	1	1·250
4	,, ...	1 Feb., 1886	1·500	...	1·875	1	2·310
9	,, ...	1 Feb., 1886	2·000	...	2·500	1	2·400
15	,, ...	1 Feb., 1886	1·750	...	2·187	1	2·150
18	,, ...	1 Feb., 1886	2·000	...	2·500	1	2·280
23	,, ...	1 Mar., 1886	1·250	...	1·562	1	2·150
25	,, ...	1 Mar., 1886	2·000	...	2·500	1	2·250
28	,, ...	1 Mar., 1886	2·000	...	2·500	1	2·400
42	,, ...	1 Apr., 1886	1·250	...	1·562	1	1·470
48	,, ...	1 Apr., 1886	2·000	...	2·500	1	2·140
61	,, ...	1 June, 1886	1·750	...	2·187	1	2·000
75	,, ...	1 June, 1886	2·000	...	2·500	1	2·570
77	,, ...	1 June, 1886	2·000	...	2·500	1	2·570
82	,, ...	1 June, 1886	2·000	...	2·500	1	2·570
120	,, ...	1 Aug., 1886	1·250	...	1·562	1	1·870
121	,, ...	1 Aug., 1886	1·500	...	1·875	1	2·130
122	,, ...	1 Aug., 1886	1·125	...	1·406	1	1·870
126	,, ...	1 Sept., 1886	1·250	...	1·562	1	1·500
193	,, ...	1 Nov., 1886	1·250	...	1·562	1	2·250
308	,, ...	1 May, 1887	1·000	...	1·250	2	1·500
324	,, ...	1 May, 1887	1·400	...	1·750	2	2·310
327	,, ...	1 June, 1887	2,000	...	2·500	2	2·250
328	,, ...	1 June, 1887	1·333	...	1·667	2	2·000
337	,, ...	1 Aug., 1887	1·750	...	2·187	2	2·000
344	,, ...	1 Aug., 1887	1·333	...	1·667	2	2·000
363	,, ...	1 Oct., 1887	2·000	...	2·500	2	2·400
417	,, ...	1 Mar., 1888	2·000	...	2·500	3	2·280
418	,, ...	1 Mar., 1888	1·750	...	2·187	3	2·460
419	,, ...	1 Mar., 1888	1·400	...	1·750	3	2·310
421	,, ...	1 Apr., 1888	1·167	...	1·458	3	1·180
430	,, ...	1 May, 1888	1·250	...	1·562	3	2·310
448	,, ...	1 June, 1888	1·000	...	1·250	3	1·400
449	,, ...	1 June, 1888	1·000	...	1·250	3	1·250
456	Bourke	1 June, 1888	2·000	...	2·500	3	2·770
463	,, ...	1 July, 1888	1·000	...	1·250	3	1·500
488	,, ...	1 Oct., 1888	1·000	...	1·250	3	1·630
503	,, ...	1 Nov., 1888	1·000	...	1·250	3	1·630
504	,, ...	1 Nov., 1888	2·000	...	2·500	3	2·280
518	,, ...	1 Feb., 1889	1·250	...	1·562	4	1·500
519	,, ...	1 Feb., 1889	1·000	..	1·250	4	1·000
539	,, ...	1 June, 1889	1·000	...	1·250	4	1·110
542	,, ...	1 June, 1889	1·000	...	1·250	4	1·400
543	,, ...	1 June, 1889	1·000	..	1·250	4	1·400
549	,, ...	1 July, 1889	1·125	...	1·406	4	1·620
552	,, ...	1 July, 1889	1·500	...	1·875	4	1·670
553	,, ...	1 July, 1889	1 000	...	1·250	4	1·360
558	,, ...	1 Aug., 1889	1·500	...	1·875	4	1·500
567	,, ...	1 Sept., 1889	1·500	...	1·875	4	1·500
575	,, ...	1 Sept., 1889	1·750	...	2·187	4	1·500
90	Cobar	1 Aug., 1886	1·000	...	1·250	1	1·182
409	,, ...	1 Feb., 1888	1·000	...	1·250	3	1·083
410	,, ...	1 Feb., 1888	1·000	...	1·250	3	1·500
129	Hay North.....	1 Sept., 1886	1·750	...	2·187	1	2·400
130	,, ...	1 Sept., 1886	2·000	...	2·500	1	2·100
131	,, ...	1 Sept., 1886	2·500	...	3·125	1	2·300
132	,, ...	1 Sept., 1886	2·750	...	3·437	1	2·300
133	,, ...	1 Sept., 1886	2·750	...	3·437	1	2·400
134	,, ...	1 Sept., 1886	3·000	...	3·750	1	2·000
135	,, ...	1 Sept., 1886	1·750	...	2·187	1	1·800
136	,, ...	1 Sept., 1886	1·437	...	1·797	1	2·200
137	,, ...	1 Sept., 1886	1·750	...	2·187	1	1·800
138	,, ...	1 Sept., 1886	1·437	...	1·797	1	1·800
140	,, ...	1 Sept., 1886	2·000	...	2·500	1	2·333
141	,, ...	1 Sept., 1886	1·500	...	1·875	1	2·400
146	,, ...	1 Sept., 1886	1·750	...	2·187	1	1·600
147	,, ...	1 Sept., 1886	1·750	...	2·187	1	2·000
148	,, ...	14 Sept., 1886	1·437	...	1·797	1	1·900
149	,, ...	14 Sept., 1886	1·750	...	2·187	1	1·800
152	,, ...	1 Sept., 1886	1·750	...	2·187	1	1·600
153	,, ...	1 Sept., 1886	1·750	...	2·187	1	2·100
155	,, ...	1 Sept., 1886	1·750	...	2·187	1	2·250
156	,, ...	1 Sept., 1886	1·750	...	2·187	1	2·400
157	,, ...	1 Sept., 1886	1·750	...	2·187	1	2·000
190	,, ...	1 Oct., 1886	2·000	...	2·500	1	2·000
260	,, ...	1 Apr., 1887	3·000	...	3·750	2	2·100
262	,, ...	1 Apr., 1887	2·400	...	3·000	2	2·000
263	,, ...	1 Apr., 1887	2·400	...	3·000	2	2·333
265	,, ...	1 Apr., 1887	2 400	...	3·000	2	2·100
266	,, ...	1 Apr., 1887	2·200	...	2·750	2	1·300
267	,, ...	1 Apr., 1887	1·700	...	2·125	2	1·200
269	,, ...	1 Apr., 1887	2·400	..	3·000	2	1·800
270	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·800
271	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·750
272	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·750
273	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·900
274	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·800
275	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·800
276	,, ...	1 Apr., 1887	2·400	...	3·000	2	1·900
277	,, ...	1 Apr., 1887	2·250	...	2·812	2	2·000
286	,, ...	1 Apr., 1887	2·250	...	2·812	2	1·900
287	,, ...	1 Apr., 1887	2·250	...	2·812	2	2·000
305	,, ...	1 Apr., 1887	2·200	...	2·750	2	2·300
322	,, ...	1 May, 1887	3·000	...	3·750	2	2·400
368	,, ...	1 Oct., 1887	2·500	...	3·125	2	1·600
369	,, ...	1 Oct., 1887	2·400	...	3·000	2	2·000
402	,, ...	1 Feb., 1888	3·000	...	3·750	3	2·400
454	,, ...	1 June, 1888	1·500	...	1·875	3	2·200
455	,, ...	1 June, 1888	2·400	...	3·000	3	1·800
468	,, ...	1 July, 1888	1·500	...	1·875	3	1·600
487	,, ...	1 Sept., 1888	2·953	...	3·691	3	2·000
509	,, ...	1 Jan., 1889	1·500	...	1·875	4	2·333
551	,, ...	1 July, 1889	2·500	...	3·125	4	2·000
...	Hillston North	.....	...	...	...	...	...

SCHEDULE LXXVIIh—*continued.*

No. of Homestead Lease.	Land District.	Date of commencement of Homestead Lease.	Original rate per acre per annum, as determined by Minister, or as altered by the Land Court.		Original rate, with the increase of 25 % provided by Section 76 of the Crown Lands Act of 1884.	Period which would elapse before such increase took effect.	Rate as determined under the Crown Lands Act of 1889.	No. of Homestead Lease.	Land District.	Date of commencement of Homestead Lease.	Original rate per acre per annum, as determined by Minister, or as altered by the Land Court.		Original rate, with the increase of 25 % provided by Section 76 of the Crown Lands Act of 1884.	Period which would elapse before such increase took effect.	Rate as determined under the Crown Lands Act of 1889.
			Minister.	Land Court.							Minister.	Land Court.			
			Pence.		Pence.	Years.	Pence.				Pence.		Pence.	Years.	Pence.
92	Walgett	1 Aug., 1886	1·750	...	2·187	1	2·800	347	Walgett	1 Aug., 1887	1·500	...	1·875	2	2·500
93	,,	1 Aug., 1886	1·750	...	2·187	1	3·100	351	,,	1 Aug., 1887	1·750	...	2·187	2	1·300
104	,,	1 Aug., 1886	1·500	...	1·875	1	2·000	353	,,	1 Sept., 1887	1·500	...	1·875	2	2·250
161	,,	1 Sept., 1886	1·250	...	1·562	1	3·200	362	,,	1 Oct., 1887	2·000	...	2·500	2	2·200
162	,,	1 Sept., 1886	1·500	...	1·875	1	2·600	516	,,	1 Feb., 1889	1·750	...	2·187	4	2·000
163	,,	1 Sept., 1886	1·125	...	1·406	1	2·600	523	,,	1 Mar., 1889	1·500	...	1·875	4	2·500
164	,,	1 Sept., 1886	1·250	...	1·562	1	2·200	546	,,	1 June, 1889	1·250	...	1·562	4	2·500
165	,,	1 Sept., 1886	1·500	...	1·875	1	2·200	557	,,	1 July, 1889	1·375	...	1·718	4	1·500
166	,,	1 Sept., 1886	1·500	...	1·875	1	2·300								
167	,,	1 Sept., 1886	1·500	...	1·875	1	2·500	185	Wentworth	1 Sept., 1886	1·625	...	2·031	1	1·700
168	,,	1 Sept., 1886	1·500	...	1·875	1	2·500	186	,,	1 Sept., 1886	1·625	...	2·031	1	1·700
171	,,	1 Sept., 1886	1·500	...	1·875	1	2·700	443	,,	1 June, 1888	1·500	...	1·875	3	1·400
172	,,	1 Sept., 1886	1·250	...	1·562	1	2·800	563	,,	1 Aug., 1889	1·100	...	1·375	4	0·960
174	,,	1 Sept., 1886	1·500	...	1·875	1	2·500								
192	,,	1 Oct., 1886	1·250	...	1·562	1	2·500	83	Wilcannia	1 June, 1886	1·500	..	1·875	1	1·500
248	,,	1 Jan., 1887	1·750	...	2·187	2	3·300	86	,,	1 July, 1886	1·500	...	1·875	1	1·500
251	,,	1 Jan., 1887	1·250	...	1·562	2	2·500	439	,,	1 May, 1888	1·500	...	1·875	3	1·500
279	,,	1 Apr., 1887	2·000	...	2·500	2	2·750	512	,,	1 Jan., 1889	2·000	...	2·500	4	2·250
280	,,	1 Apr., 1887	1·500	...	1·875	2	3·200	537	,,	1 May, 1889	1·000	...	1·250	4	1·310
302	,,	1 Apr., 1887	1·500	...	1·875	2	2·200								
321	,,	1 May, 1887	1·500	...	1·875	2	2·600	406	Willyama	1 Feb., 1888	1·333	...	1·667	3	1·500
325	,,	1 May, 1887	1·500	...	1·875	2	1·300								

SCHEDULE LXXVIIi.

CONDITIONAL Lease Rents determined under the Crown Lands Act of 1889, and gazetted.

Rent fixed at same as original rent.	Rent raised above the original rent.	Rent reduced below the original rent.	Total number of cases.
Number of cases. 85	Number of cases. 236	Number of cases. 167	488

RENTS of Conditional Leases re-appraised under the provisions of the Crown Lands Act of 1889 and gazetted. (488 cases.)

District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1884.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.	District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1884.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.
		d.	d.	d.		d.			d.	d.	d.		d.
Armidale	2150	2	$2\frac{1}{4}$	$2\frac{3}{4}$	Accepted		Brewarrina (*contd.*)	1131	2	2	$2\frac{1}{4}$	Accepted	
	2523	2	2	3	,,			1589	2	$2\frac{1}{2}$	$3\frac{3}{4}$	,,	
	3376	2	2	$3\frac{1}{4}$	,,			1590	2	$2\frac{1}{2}$	$3\frac{3}{11}$	,,	
	4059	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$	,,			1995	2	2	$3\frac{9}{13}$	,,	
	4112	2	2	3	,,			2173	2	2	$2\frac{4}{7}$	,,	
	4285	2	2	$2\frac{1}{2}$	,,			2873	$2\frac{1}{2}$	3	$4\frac{1}{2}$	,,	
	5044	3	$3\frac{1}{2}$	4	,,			4074	2	2	$3\frac{3}{11}$	,,	
	5053	4	5	$4\frac{3}{4}$	,,			4075	2	2	4	,,	
	5286	2	$2\frac{1}{2}$	3	,,		Casino	6733	6	6	$6\frac{1}{2}$	,,	
	6515	$3\frac{1}{4}$	$3\frac{1}{2}$	4	,,			6870	6	6	6	,,	
	6516	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	,,			6873	5	5	$7\frac{1}{2}$	,,	
	8651	$3\frac{1}{2}$	4	$3\frac{1}{4}$	,,		Condobolin	1732	3	3	3	,,	
	10884	6	6	6	,,			3371	3	3	3	,,	
Balranald	6075	$3\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{10}$	,,			3486	3	3	$2\frac{1}{2}$	,,	
Bingara	144	2	2	$3\frac{3}{4}$	,,			4648	3	3	3	,,	
Bombala	387	2	2	$0\frac{9}{10}$	,,			6462	3	$4\frac{1}{2}$	$2\frac{1}{2}$	,,	
	1116	2	2	$0\frac{9}{10}$	,,			6552	$2\frac{1}{2}$	$2\frac{1}{4}$	$2\frac{3}{4}$	,,	
Bourke	206	2	$2\frac{1}{4}$	2	,,			8385	2	3	$2\frac{1}{2}$	Referred	$2\frac{3}{4}$
	306	2	2	2	,,			8682	2	2	2	Accepted	
Braidwood	5370	4	4	4	,,			10050	$2\frac{1}{2}$	$2\frac{1}{2}$	2	Referred	$2\frac{1}{4}$
	8558	2	3	3	,,			10059	2	2	2	Accepted	
	8877	2	3	3	,,			10060	2	2	2·1	Referred	$2\frac{1}{2}$
	10723	3	3	3	,,			10479	$2\frac{3}{4}$	$2\frac{3}{4}$	$1\frac{3}{4}$	Accepted	
Brewarrina	15	2	2	$3\frac{8}{11}$	,,			10943	2	2	1·84	Referred	$2\frac{3}{8}$
	18	2	2	$4\frac{1}{2}$	,,			10953	2	2	$1\frac{3}{4}$	Accepted	
	22	2	2	$4\frac{1}{2}$	,,			10957	2	2	1·82	,,	

SCHEDULE LXXVIIi—*continued.*

District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1834.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.
		d.	d.	d.		d.
Condobolin (*contd.*)	10959	2	2	$1\frac{3}{4}$	Accepted..	
	11642	2	2	1·82	,, ..	
	11643	2	2	$1\frac{3}{4}$	,, ..	
	11644	2	2	2	,, ..	
	11645	2	2	2	,, ..	
	12269	4	4	$4\frac{1}{2}$	,, ..	
Cooma	55	3	3	$3\frac{1}{4}$	,, ..	
	221	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	227	2	2	$2\frac{7}{10}$	,, ..	
	228	2	3	$2\frac{3}{4}$	,, ..	
	230	2	2	3	,, ..	
	237	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	238	2	2	$2\frac{3}{4}$	,, ..	
	252	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	258	2	2	$3\frac{3}{4}$	,, .	
	328	2	$2\frac{1}{4}$	3	,, ..	
	329	2	2	$3\frac{3}{4}$	,, ..	
	355	2	3	2	,, ..	
	457	3	3	3	,, ..	
	461	2	2	$2\frac{1}{2}$	,, ..	
	477	2	2	$3\frac{1}{4}$	,, ..	
	478	2	2	$3\frac{1}{4}$	,, .	
	479	2	2	$3\frac{3}{4}$	,, ..	
	539	2	3	2	,, ..	
	686	2	2	2	,, ..	
	699	2	$2\frac{1}{2}$	2	,, ..	
	781	2	2	$3\frac{1}{5}$	,, ..	
	1010	2	2	$1\frac{3}{4}$	,, ..	
	1018	2	2	$2\frac{1}{2}$	,, ..	
	1148	2	2	$2\frac{1}{4}$	,, ..	
	2023	2	3	$3\frac{1}{4}$	,, ..	
	4492	3	$4\frac{1}{2}$	3	,, ..	
	4789	2	$2\frac{1}{2}$	$2\frac{1}{4}$	,, ..	
	4944	2	3	$2\frac{1}{2}$	,, .	
	5005	2	3	$2\frac{1}{2}$	,, .	
	5101	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	5411	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	5660	$2\frac{1}{2}$	$3\frac{1}{2}$	$4\frac{7}{10}$	,, .	
	5932	$2\frac{1}{2}$	3	$2\frac{1}{2}$	,, ..	
Coonabarabran	1398	2	$2\frac{1}{2}$	2	,, ..	
	1409	$3\frac{1}{2}$	4	$4\frac{3}{10}$	,, ..	
	1410	$3\frac{1}{2}$	4	4	,, ..	
	1421	3	3	$6\frac{1}{2}$	,, ..	
	1422	2	2	6	,,	
	1430	2	$2\frac{1}{2}$	3	,, ..	
	1431	2	$2\frac{1}{2}$	3	,, ..	
	1435	2	2	$1\frac{1}{2}$	,, ..	
	1730	2	2	$2\frac{1}{2}$	,, ..	
	6240	2	$2\frac{1}{2}$	$1\frac{4}{5}$	,, ..	
	7187	2	$2\frac{1}{2}$	$3\frac{1}{2}$	,, ..	
	9296	2	$2\frac{1}{2}$	$3\frac{1}{2}$	,, .	
	9298	3	3	$3\frac{3}{10}$	,,	
	10371	$2\frac{1}{2}$	$2\frac{1}{2}$	2	,, ..	
	10372	2	2	$5\frac{1}{2}$	,, .	
	10374	2	2	$2\frac{7}{10}$	,, ..	
	10375	2	2	4	,,	
	10376	3	3	$3\frac{1}{2}$	,,	
	11304	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	,, .	
	11306	2	2	$1\frac{4}{5}$	,, .	
	11705	2	2	$1\frac{1}{2}$	,, ..	
	12144	2	2	$5\frac{1}{2}$	,, .	
	12237	2	2	2	,, .	
	12238	2	2	$2\frac{4}{5}$	,, ..	
	13131	2	2	$2\frac{7}{10}$	,, ..	
	13137	2	2	2	,, .	
	13138	2	2	$2\frac{1}{2}$	,, .	
	13139	2	2	2	,, .	
	13140	2	2	$1\frac{3}{10}$	,, ..	
	13146	2	2	$2\frac{1}{2}$	,,	
	13149	2	2	$1\frac{1}{2}$	,, .	
	13154	2	2	$1\frac{1}{2}$	,, ..	
Coonamble	3089	2	4	4	,,	
	3716	2	$3\frac{1}{2}$	4	,, .	
	3879	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,,	
	5675	3	5	$4\frac{1}{2}$	,, .	
	10134	$3\frac{1}{2}$	$3\frac{1}{2}$	4	,, ..	
	11363	$2\frac{4}{5}$	$2\frac{3}{5}$	$3\frac{3}{4}$	,, ..	
	11845	$2\frac{1}{2}$	$2\frac{1}{2}$	2	,, ..	
Deniliquin	2908	$6\frac{4}{5}$	$6\frac{4}{5}$	$4\frac{1}{2}$	,, ..	
	3098	$11\frac{2}{5}$	$11\frac{4}{5}$	7	,, ..	
	3107	$4\frac{1}{2}$	5	$5\frac{1}{2}$	,,	

District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1834	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.
		d.	d.	d.		d.
Deniliquin (*contd.*)	4106	$2\frac{3}{10}$	$2\frac{3}{10}$	5	Accepted...	
	7234	$5\frac{2}{5}$	$5\frac{1}{2}$	$5\frac{1}{2}$	,, ..	
	7665	$5\frac{1}{2}$	$5\frac{3}{5}$	3	,, ...	
	8403	$5\frac{7}{10}$	$5\frac{7}{10}$	$4\frac{1}{2}$	,, ..	
	8404	5	5	6	,, ..	
	8953	$4\frac{1}{2}$	$4\frac{1}{2}$	6	,, ..	
	10565	5	5	6	,, ...	
	10566	$5\frac{1}{2}$	$5\frac{1}{2}$	6	,, ...	
Dubbo	1340	2	2	3	,, ..	
	5603	$3\frac{1}{2}$	4	$3\frac{1}{2}$	,, ...	
	5610	$3\frac{1}{2}$	4	$3\frac{1}{2}$	,, ..	
	6051	3	3	$3\frac{3}{4}$	,, ...	
	7935	3	$3\frac{3}{4}$	$3\frac{3}{4}$	,, ...	
	7936	$2\frac{7}{5}$	$3\frac{1}{4}$	$3\frac{1}{4}$	,, ...	
	9510	3	3	3	,, ...	
	9551	$3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	,, ...	
	11757	2	2	2	,, ..	
	11938	2	2	2	,, ...	
	11951	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	,, ...	
Forbes	901	2	3	2·57	Referred..	$2\frac{5}{8}$
Grafton	6131	4	4	6	Accepted..	
	6132	4	4	6	,, ..	
Gundagai	1283	2	2	5	,, .	
	3186	$3\frac{1}{2}$	4	$4\frac{1}{2}$	,, ..	
	3187	$3\frac{1}{4}$	$3\frac{1}{4}$	$6\frac{1}{2}$	,, ..	
	3188	2	4	$2\frac{1}{4}$	,, ...	
	3191	3	4	6	,, ...	
	3192	$3\frac{3}{4}$	5	$6\frac{1}{4}$	,, ...	
	3193	$2\frac{1}{4}$	3	$3\frac{1}{4}$	,, ...	
	3199	$2\frac{1}{4}$	$3\frac{1}{2}$	4	,, ..	
	3201	$6\frac{1}{4}$	$6\frac{1}{2}$	$6\frac{1}{2}$	,, ..	
	3208	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	3212	$3\frac{1}{4}$	4	$6\frac{1}{4}$	,, ...	
	3227	2	$2\frac{1}{4}$	3	,, ...	
	3228	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	3608	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$	,, ...	
	4200	$3\frac{1}{4}$	$3\frac{1}{4}$	4	,, ..	
	4309	2	$2\frac{1}{2}$	2	,, ...	
	4518	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{1}{4}$	,, ..	
	4519	2	2	8	,, ...	
	4916	6	6	3	,, ...	
	5458	2	$2\frac{1}{4}$	2	,, ...	
	6078	3	3	$3\frac{1}{2}$	,, ...	
Gunnedah.....	2034	2	3	2	,, ...	
	2789	2	2	$3\frac{1}{2}$	,, ...	
	3612	$3\frac{1}{2}$	6	6	,, ...	
	4365	4	6	6	,, ...	
	4431	2	3	$4\frac{1}{2}$	,, ...	
	4434	2	$3\frac{1}{2}$	$2\frac{1}{2}$	,, ...	
	4450	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..	
	4733	3	$4\frac{1}{2}$	$2\frac{7}{10}$	,, ...	
	4734	3	$4\frac{1}{2}$	$2\frac{2}{5}$	,, ..	
	7159	3	4	$2\frac{1}{2}$	,, ...	
	7188	2	4	4	,, . .	
	8442	3	$5\frac{1}{2}$	2	,, ..	
	8447	$2\frac{1}{2}$	4	$2\frac{3}{10}$	,, ..	
	8450	4	$6\frac{1}{2}$	5	,, ...	
Hay	2370	$3\frac{1}{5}$	$3\frac{1}{4}$	2	,, ..	
	2371	2	2	$1\frac{4}{5}$	,, ...	
	2372	2	2	$1\frac{4}{5}$	,, ...	
	2375	4	4	$4\frac{1}{5}$	,,	
	2388	3	3	4	,, ...	
	2392	$3\frac{3}{10}$	$3\frac{3}{10}$	4	,, ..	
	2417	4	4	$4\frac{1}{4}$	,, ..	
	2418	4	4	$4\frac{1}{10}$	,, ...	
	2432	$2\frac{3}{10}$	$2\frac{1}{2}$	$1\frac{4}{5}$	,, . .	
	2438	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{2}{5}$	,, ...	
	3615	3	3	$1\frac{7}{10}$	,, ..	
	3900	2	$2\frac{1}{2}$	$1\frac{3}{4}$	,, ...	
	4521	3	3	4	,, .	
	6897	3	3	3	,, ..	
	6903	3	$3\frac{1}{2}$	$1\frac{3}{4}$	,, ..	
	6972	$3\frac{4}{5}$	4	$3\frac{3}{5}$	,, ..	
	7671	$3\frac{4}{5}$	$3\frac{4}{5}$	3	,, ..	
	7677	$3\frac{3}{5}$	$3\frac{3}{5}$	$1\frac{3}{4}$	,, ..	
	7712	$3\frac{7}{10}$	$3\frac{7}{10}$	$2\frac{3}{5}$	,, .	
	7714	$3\frac{4}{5}$	$3\frac{4}{5}$	$2\frac{3}{4}$	,, ..	
	7864	2	2	$1\frac{1}{4}$	,, ..	
	12495	$2\frac{7}{10}$	$2\frac{7}{10}$	$2\frac{1}{4}$	,, ...	
	13215	$4\frac{1}{2}$	$4\frac{1}{2}$	3	,, ...	

SCHEDULE LXXVIIi—*continued.*

District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1884.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.
		d.	d.	d.		d.
Hillston	2443	2	2	$2\frac{1}{10}$	Referred..	$1\frac{3}{4}$
	3954	$2\frac{1}{2}$	$2\frac{1}{2}$	4	Accepted..	
	3956	$2\frac{3}{10}$	$2\frac{3}{10}$	$1\frac{1}{4}$	,, ...	
	3971	$2\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{1}{2}$	,, ...	
	3983	2	2	$1\frac{1}{4}$	,, ...	
	3984	$2\frac{3}{5}$	$2\frac{3}{5}$	4	,, ..	
	3994	2	3	$1\frac{9}{10}$	,, ...	
	3995	$2\frac{3}{10}$	$2\frac{3}{4}$	$2\frac{1}{4}$	,, ...	
	3996	$2\frac{3}{10}$	$2\frac{3}{4}$	$2\frac{1}{4}$	,. ...	
	4004	$2\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{2}{5}$	,, ..	
	4211	$2\frac{1}{5}$	$2\frac{1}{5}$	$1\frac{2}{5}$	,, ...	
	7726	2	2	$1\frac{1}{4}$	,, ...	
	7731	$2\frac{2}{5}$	$2\frac{1}{2}$	$1\frac{2}{5}$	,, ...	
	8966	$2\frac{3}{5}$	$2\frac{3}{5}$	4	,, ...	
	11558	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	,, ...	
	13785	$2\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{2}{5}$	,, ...	
Inverell	1863	2	2	$3\frac{1}{4}$	,, .	
	1916	2	2	$2\frac{1}{4}$	,, ...	
	3510	2	2	$3\frac{1}{4}$	,, ..	
	5011	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	6487	$3\frac{1}{2}$	4	$4\frac{1}{4}$	,, ...	
	9415	$2\frac{1}{2}$	$2\frac{1}{4}$	3	,, ...	
	11264	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ..	
	11745	3	3	3	,, .	
Kempsey.....	9893	2	2	2	,, ...	
	11545	2	2	$2\frac{1}{2}$	,, ...	
Lismore	4887	3	3	5	,, ...	
	10005	3	3	2	,, ...	
Molong	2609	$2\frac{3}{4}$	4	$3\frac{3}{4}$	,, ...	
	2621	$2\frac{1}{4}$	$2\frac{1}{2}$	3	,, ...	
	2622	2	3	$3\frac{1}{4}$	,, ...	
	2633	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ...	
	2650	$2\frac{1}{4}$	$2\frac{1}{4}$	$3\frac{3}{4}$	,, ...	
	6492	$3\frac{3}{4}$	4	$4\frac{1}{2}$	,, ...	
	6493	$2\frac{1}{2}$	$2\frac{1}{2}$	4	,, ...	
	8628	$3\frac{1}{2}$	$3\frac{1}{2}$	4	,, ...	
	8732	$4\frac{1}{2}$	5	$6\frac{1}{2}$	,, ...	
Moree	80	$4\frac{1}{2}$	3	4 3	,, ...	
	94	3	3	4	,, ...	
	131	$4\frac{1}{2}$	3	3·6	,, ...	
	136	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	,, ...	
	292	$2\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{1}{2}$	,, ...	
	420	4	3	3 9	,, ...	
	745	$2\frac{3}{4}$	3	3·8	,, ...	
	1452	3	3	$3\frac{1}{4}$	,, ...	
	1453	3	3	$3\frac{1}{2}$	,, ...	
	2347	3	3	$3\frac{3}{4}$	,, ...	
	4016	$2\frac{1}{2}$	$2\frac{1}{2}$	4	,, ...	
	4126	$2\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{1}{2}$	,, ...	
	4127	3	3	$3\frac{1}{2}$	,, ...	
	4889	3	3	$3\frac{3}{4}$	,, ...	
	4959	6	$4\frac{1}{2}$	4	,, ...	
	4965	$5\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	,, ...	
	7964	$3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{3}{4}$	,, ...	
	9169	2	$2\frac{1}{2}$	5·4	,, ...	
	9170	3	$3\frac{1}{2}$	$4\frac{1}{2}$	,, ...	
	9258	3	3	5·4	,, ..	
	9662	3	3	5 4	,,	
Narrabri	1936	2	$2\frac{1}{2}$	$4\frac{1}{2}$	,, ...	
	1940	2	$2\frac{1}{2}$	6	,, ...	
	1946	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	,, .	
	1947	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{3}{10}$	,,	
	1948	3	3	$3\frac{1}{2}$	,, ...	
	1949	2	2	$2\frac{3}{5}$	,, .	
	1952	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{5}$	,,	
	1953	2	2	$2\frac{1}{2}$	,,	
	1966	$3\frac{1}{2}$	$4\frac{1}{2}$	7	,, .	
	1977	3	3	$3\frac{9}{10}$	,, . .	
	2219	3	$3\frac{1}{2}$	$4\frac{1}{2}$	,, ...	
	2223	$2\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{5}$	,, ...	
	2929	$2\frac{1}{2}$	$2\frac{1}{2}$	5	,,	
	4136	$2\frac{1}{2}$	$2\frac{1}{4}$	5	,,	
Narrandera..... .	3515	$3\frac{1}{2}$	4	$6\frac{1}{2}$	,, .	
	3518	2	2	$2\frac{1}{4}$	,, ...	
	3523	2	2	$2\frac{1}{2}$	,, .	
	3527	2	$2\frac{1}{2}$	4	,,	
	3528	2	2	4	,,	
	3530	2	$2\frac{1}{2}$	$1\frac{3}{4}$	,, .	
	3532	2	3	$2\frac{1}{2}$	,, .	
	3661	2	3	$2\frac{3}{4}$	,, ...	
Narrandera—*contd.*	3662	$2\frac{3}{4}$	3	3	Accepted..	
	3663	$2\frac{3}{4}$	3	3	,, ...	
	3664	2	3	$2\frac{3}{4}$	,, ...	
	4143	2	$2\frac{1}{2}$	$4\frac{1}{4}$	,, ...	
	4145	2	2	2	,, ...	
	4147	2	$2\frac{1}{4}$	$2\frac{1}{4}$	,, ...	
	4890	2	2	$5\frac{3}{4}$	,, ...	
	5463	2	2	$4\frac{3}{4}$	,, ...	
	7090	3	3	$3\frac{1}{4}$	,, ...	
	7091	2	$2\frac{1}{2}$	2	,, ...	
	7092	2	$2\frac{1}{4}$	$2\frac{1}{2}$	,, ...	
	7093	3	$4\frac{1}{2}$	2	,, ..	
	7095	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	7096	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ..	
	7097	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	7098	2	3	2	,, ...	
	7099	4	4	$8\frac{1}{2}$	,, .	
	7379	3	$4\frac{1}{2}$	$3\frac{1}{4}$	,, ..	
	7380	3	$4\frac{1}{2}$	$3\frac{1}{2}$	,, ...	
	7381	2	$3\frac{1}{2}$	$1\frac{1}{2}$	,, .	
	7382	2	$2\frac{1}{2}$	$1\frac{1}{2}$	,, ...	
	7384	2	3	3	,, ...	
	7385	2	3	$1\frac{1}{2}$	,, ...	
	7388	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ...	
	7393	2	$2\frac{1}{2}$	$3\frac{1}{4}$	,, ..	
	7574	3	3	$5\frac{1}{4}$	,, .	
	7596	2	2	4	,, .	
	7598	2	2	2	,, ...	
	7599	3	3	$1\frac{1}{2}$	,, ..	
	7782	2	2	$4\frac{1}{4}$	,, ...	
	7784	2	2	$7\frac{1}{4}$	,, ...	
	7803	5	5	6	,, ...	
	8239	2	2	$2\frac{3}{4}$	,, .	
	8240	4	4	$4\frac{1}{2}$	,, ..	
	8241	$2\frac{1}{4}$	$2\frac{1}{4}$	$1\frac{3}{4}$	,, ..	
	8242	$2\frac{1}{4}$	$2\frac{1}{2}$	2	,, ..	
	8479	2	2	6	,, ...	
	8615	2	2	3	,, ..	
	9329	3	3	2	,, ...	
	9330	$2\frac{1}{2}$	$2\frac{1}{2}$	2	,, ..	
	9331	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ...	
	9332	$4\frac{1}{2}$	$4\frac{1}{2}$	4	,, ...	
	9334	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$	,, ...	
	9336	2	$2\frac{1}{2}$	4	,, ...	
	9919	$3\frac{1}{4}$	$3\frac{1}{4}$	12	,, ...	
	9920	3	3	$7\frac{1}{2}$	,, ...	
	9921	$3\frac{1}{4}$	$3\frac{1}{4}$	6	,, ...	
	9958	4	4	$2\frac{1}{4}$	,, ...	
	9960	$4\frac{1}{2}$	$4\frac{1}{2}$	$6\frac{1}{4}$	,, ...	
	9963	$4\frac{1}{2}$	$4\frac{1}{2}$	$3\frac{3}{4}$	,, ...	
	9964	2	2	$1\frac{3}{4}$	,, ...	
	10007	3	3	5	,, ...	
	10402	$3\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	,, ...	
	10404	2	2	$1\frac{1}{2}$	,, ...	
	10408	$2\frac{1}{4}$	$2\frac{3}{4}$	$2\frac{1}{4}$	,, ..	
	10523	$4\frac{1}{2}$	$4\frac{1}{2}$	$2\frac{1}{4}$	,, ...	
	10524	$3\frac{1}{4}$	$3\frac{1}{4}$	$2\frac{1}{2}$	,, ...	
	10525	6	6	$2\frac{3}{4}$	,, ..	
	10666	10	10	$8\frac{1}{2}$	,, ...	
	10668	4	4	3	,, ...	
	11056	$2\frac{1}{4}$	$2\frac{1}{4}$	$1\frac{1}{2}$	,, ..	
	11428	6	6	$9\frac{1}{2}$	,, .	
	11864	3	3	2	,, ...	
Parkes	1392	2	2	2·16	Referred.	$2\frac{1}{4}$
	4995	3	3	$3\frac{1}{2}$	Accepted..	
	4996	$2\frac{3}{4}$	$2\frac{3}{4}$	3·21	,, ...	
	7973	2	3	2 8	Referred.	$2\frac{7}{8}$
	7980	2	$2\frac{1}{2}$	2·16	,, ..	$3\frac{1}{2}$
	7981	2	$2\frac{1}{2}$	2 6	,, ..	$3\frac{3}{4}$
	7985	2	$2\frac{3}{4}$	2 6	,, ..	$3\frac{1}{4}$
	7986	2	$2\frac{3}{4}$	2·16	,, ...	$3\frac{1}{2}$
	7987	2	$2\frac{3}{4}$	2	,, ..	$2\frac{3}{4}$
	7988	2	$2\frac{1}{2}$	1·62	,, ...	$2\frac{1}{4}$
	7989	2	$2\frac{1}{4}$	2·16	,, ...	$3\frac{3}{8}$
	8200	$2\frac{1}{2}$	3	2·6	,, ..	$3\frac{1}{4}$
	8210	$2\frac{3}{4}$	$4\frac{1}{2}$	2·8	,, ...	$3\frac{1}{8}$
	8211	$2\frac{1}{2}$	$3\frac{1}{2}$	2 8	,, ...	3
	8214	$2\frac{1}{4}$	$3\frac{1}{2}$	2·54	,, ..	$2\frac{3}{4}$
	8215	2	3	2	,, ...	$2\frac{1}{8}$
	9112	2	$2\frac{1}{2}$	1·85	,, ...	$2\frac{1}{8}$

SCHEDULE LXXVIIi—*continued.*

District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1884.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.	District.	Conditional Lease No.	Rate per acre as appraised by the Land Board under the Act of 1884.	Rate per acre as determined by the Minister under the Act of 1884.	Rate per acre as appraised by the Land Board under the Act of 1889.	Accepted, Referred, or Appeal.	Rate per acre determined by the Land Court.
		d.	d.	d.					d.	d.	d.		
Parkes (*contd.*)	13028	2	2	$2\frac{1}{4}$	Accepted.		Warialda (*contd.*)...	295	2	$2\frac{1}{2}$	3·3	Accepted.	
Taree	5580	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	,, ...			296	$3\frac{3}{4}$	$4\frac{1}{2}$	6	,, ...	
	8232	$2\frac{1}{2}$	$2\frac{1}{8}$	$2\frac{1}{2}$	,, ...			1493	$2\frac{3}{4}$	$2\frac{3}{4}$	$1\frac{1}{2}$	,, ...	
Tenterfield	3538	3	5	4	,, .			1554	2	$2\frac{1}{2}$	2	,, ...	
	3555	3	3	$3\frac{3}{4}$	,, ..			1555	$2\frac{3}{4}$	3	3	,, ...	
	3570	3	$3\frac{1}{2}$	$4\frac{1}{4}$	,, ...			3679	$2\frac{3}{4}$	$2\frac{3}{4}$	3	,, ...	
	4556	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{3}{4}$	,, ..			4316	2	$2\frac{1}{2}$	2·9	,, ...	
	4894	2	2	$1\frac{1}{4}$	,,			4937	2	2	$2\frac{1}{2}$	,, ...	
	4950	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	,,			5975	4	$4\frac{1}{2}$	6	,, ..	
	5067	4	4	$4\frac{1}{2}$	,, .			10001	3	3	$3\frac{4}{5}$	,, ...	
	8657	3	3	$4\frac{1}{4}$	,, .			10002	$2\frac{3}{4}$	$2\frac{3}{4}$	$4\frac{1}{10}$	,, ...	
	8658	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	,, ...			10003	3	3	$3\frac{2}{5}$	,, .	
	9427	3	3	4	,, ...			10527	$2\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{7}{10}$	,, .	
	10554	3	3	$3\frac{1}{2}$	,,			10545	3	3	$3\frac{7}{10}$	,, ...	
Tumut.....	1089	2	2	$1\frac{3}{4}$	,, ..			11740	3	3	$4\frac{3}{10}$	,, ..	
	1090	2	2	2	,, ...		Wentworth	4321	2	2	$1\frac{1}{5}$	,, ...	
	1091	2	2	2	,, ...			4333	$2\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{4}{5}$	,, ...	
	1092	2	2	$1\frac{3}{4}$	,, ...			4337	2	2	$0\frac{4}{5}$	,, ..	
	1279	2	2	3	,, ...			4338	2	2	$2\frac{1}{10}$	,, ...	
	1280	3	3	3	,, ...			4342	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{10}$	,, ...	
	1289	2	2	2	,, ...			4343	$2\frac{4}{5}$	3	$1\frac{2}{5}$	,, ...	
	1300	3	3	$6\frac{3}{4}$	,, ...			4344	$2\frac{4}{5}$	$2\frac{4}{5}$	$1\frac{3}{5}$	,, ...	
	1367	2	2	$3\frac{1}{4}$	,, ..			4345	2	2	$1\frac{3}{5}$	,, .	
	1682	2	2	$1\frac{3}{4}$	,,			4347	$2\frac{3}{5}$	$2\frac{3}{4}$	$1\frac{3}{5}$	,, ...	
	1683	2	2	$1\frac{3}{4}$	,, ...			4348	2	2	$2\frac{1}{10}$	,, ...	
	1686	2	2	$1\frac{1}{2}$	,, ...			4354	$2\frac{2}{5}$	$2\frac{2}{5}$	$1\frac{4}{5}$	,, ...	
	2309	5	5	$2\frac{5}{4}$	,,			4359	2	2	$1\frac{3}{5}$	,, .	
	2313	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	,, .			4360	2	2	$1\frac{2}{5}$	,, ..	
	4162	2	$2\frac{1}{2}$	$2\frac{1}{2}$	,, ..			4820	2	2	$1\frac{3}{5}$	,, ..	
	4165	2	3	$1\frac{1}{2}$	,, ..			4899	2	2	$1\frac{4}{5}$	,, ...	
	4559	2	3	$1\frac{1}{2}$	,, ..		Wilcannia.....	297	2	2	2	,, ..	
	6148	3	4	$3\frac{1}{4}$	,, ..			298	2	2	2	,, ...	
	8324	3	3	$2\frac{1}{2}$	,, ..			299	2	2	3	,, ..	
	9340	4	$4\frac{1}{2}$	$2\frac{1}{4}$	,, ..			494	2	2	2	,, ...	
	9342	4	$4\frac{1}{2}$	$2\frac{1}{4}$	,, .			495	2	2	2	,, ..	
	9344	4	$4\frac{1}{2}$	$2\frac{1}{4}$	,, ..			496	2	2	2	,, ...	
	9574	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{4}$	,, ...			542	2	2	2	,, .	
	9972	6	6	$2\frac{3}{4}$	,, ..			1556	2	2	2	,, .	
	9976	$3\frac{1}{4}$	$3\frac{1}{4}$	$1\frac{3}{4}$	,, ...			1559	2	2	$2\frac{1}{5}$	,, .	
	10875	2	2	$2\frac{1}{2}$	,, ...			1560	2	2	2	,, . .	
	11635	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$	,, ..			1561	2	2	2	,, ...	
Urana	3759	6	9	$3\frac{1}{4}$	,, ..			1562	2	2	2	,, .	
	3760	2	2	3	,, ..			2954	2	2	2	,, ..	
	7819	6	6	$7\frac{3}{4}$	,, . .			2955	2	2	$2\frac{1}{4}$	,, ...	
	8486	3	3	$6\frac{1}{2}$	,, ...			2956	2	2	$2\frac{1}{4}$	,, ..	
	10008	9	9	12	,, ...			4180	2	2	2	,, ...	
Walgett	3922	2	2	$1\frac{4}{5}$	,, ..			4593	2	2	2	,, ..	
	3923	2	2	$2\frac{4}{5}$	,,			4938	2	2	2	,, ...	
	3932	2	2	$2\frac{1}{4}$	,, ...			5469	2	2	$2\frac{1}{4}$	,, ...	
	13073	3	3	3	,, ...			5470	2	2	$2\frac{1}{4}$	,, ...	
	13074	3	3	3	,, ..		Willyama	543	2	2	2	,, .	
Warialda	117	$2\frac{3}{4}$	$3\frac{1}{2}$	$4\frac{7}{10}$	,, ...			771	2	2	2	,, ...	
	119	$2\frac{1}{4}$	3	$4\frac{2}{5}$	,, .			772	2	2	2	,, ...	
	120	$2\frac{1}{4}$	$2\frac{3}{4}$	$4\frac{7}{10}$	,, .			773	2	2	2	,, ...	
	121	$2\frac{1}{4}$	3	$1\frac{1}{2}$	,, ...			2957	2	2	2	,, ...	
	191	$2\frac{1}{4}$	$2\frac{3}{4}$	4	,, .		Young	1696	2	2	2	,, ..	
	200	2	$2\frac{1}{2}$	2	,, . .			2961	2	2	6	,, .	
	202	$2\frac{1}{4}$	$2\frac{1}{2}$	$5\frac{3}{10}$	,, ..								

SCHEDULE LXXVIII.

RETURN showing the Number of Pastoral Leases appraised under the Crown Lands Act of 1889, the rates of which were notified in the *Government Gazette* during 1891.

Division	Number of Pastoral Leases.	Area.	Annual Rental
		Acres.	£ s. d.
Central	427	10,309,251	118,404 . 3 11
Western	129	15,007,730	67,974 13 8
Totals	556	25,316,981	186,378 17 7

Schedule LXXIX.

Return showing the number of Preferential Occupation Licenses of Resumed Areas in the Eastern Division appraised under the Crown Lands Act of 1889, the rates of which were notified in the *Government Gazette* during 1891.

Number.	Area	Annual License Fee
	acres.	£ s. d.
193	1,993,400	14,337 0 5

Schedule LXXX.

Return showing the number of Occupation Licenses appraised under the Crown Lands Act of 1889, the rates of which were notified in the *Government Gazette* during 1891.

Division.	Number of Occupation Licenses	Area	Annual License Fee
		acres.	£ s. d.
Central	206	3,985,731	20,651 5 10
Western	79	9,443,886	16,273 8 2
Totals	285	13,429,617	36,924 14 0

Schedule LXXXI.

Return of Applications to Surrender Land within a Leasehold Area, in exchange for other land within the Lease hold Area, for the year 1891—Section 46.

No of Applications	Division	Land District	Area proposed to be Surrendered	Remarks.	No of Applications	Division.	Land District	Area proposed to be Surrendered.	Remarks.
			acres					acres.	
1	Central	Bingera	473		2	Central	Hay	9,360	
1	„	Condoublin	40		2	„	Narrandera	2,640	
1	Eastern	Cooma	400	Refused	1	„	Parkes	179	
1	Central	Coonamble	860		2	Western	Wentworth	1,843	
1	„	Corowa	4,052		1	„	Wilcannia	40	
1	„	Dubbo	2,568						
1	„	Grenfell	2,084		16			24,920	
1	„	Gunnedah	381	Withdrawn.					

Schedule LXXXII.

Return showing the number of Applications to Surrender Land situated within a Leasehold Area, in exchange for other land within the Leasehold Area, and outstanding on 31st December, 1890, and the number disposed of during 1891.

No of Applications outstanding	Division	Land District.	Area.	How disposed of during 1891.	No of Applications outstanding	Division	Land District.	Area	How disposed of during 1891.
			acres.					acres.	
2	Eastern	Albury	281	Outstanding	2	Eastern	Young	2,494	1 withdrawn, 1 outstanding.
4	„	Armidale	1,660	Refused.					
3	„	Bombala	1,835	1 refused, 2 outstanding.	1	Central	Forbes	540	Outstanding
					4	„	Hay	11,713	„
1	„	Burrowa	160	Refused.	1	„	Hay, Balranald South	640	Refused.
1	„	Burrowa, Cowra, Young	3,693	Outstanding.	2	„	Hillston	1,439	„
1	„	Casino	68	„	1	„	Parkes, Condobolin, and Forbes.	21,684	Outstanding.
1	„	Casino, Grafton	1,235	„					
2	„	Cooma	1,080	1 refused, 1 outstanding.	3	„	Narrandera	13,103	1 refused, 1 withdrawn, 1 outstanding.
2	„	Cootamundra	2,000	Outstanding.					
1	„	Corowa	1,099	„	1	„	Urana	317	Outstanding.
1	„	Cowra	610	„	1	Western.	Bourke	2,800	Refused.
2	„	Glen Innes	501	Refused.	2	„	Brewarrina	2,416	Outstanding.
1	„	Gundagai	721	Outstanding.	1	„	Balranald, Hay North	120	„
2	„	Tamworth	593	Refused.	1	„	Hillston North	1,280	Refused.
1	„	Tenterfield	1,135	„					
1	„	Walcha	2,201	Outstanding.					
1	„	Walcha and Armidale	140	Withdrawn.				77,588	

Schedule LXXXIII.

Return of Applications to Surrender Land situated within a Resumed Area, in exchange for land within the Leasehold Area, for the year 1891—Section 46.

No of Applications	Division	Land District.	Area proposed to be Surrendered	Remarks.	No of Applications	Division	Land District.	Area proposed to be Surrendered.	Remarks.
			acres					acres	
1	Eastern .	Albury	135	Refused	1	Eastern	Inverell	343	
1	Western	Balranald	2,660		1	,, ...	Molong	1,280	Refused.
3	,,	Bourke	2,980		1	Central .	Moree	275	
1	,,	Bourke, Brewarrina ...	1,453		1	,,	Narrandera	600	
2	,,	Brewarrina	1,393		2	,,	Narrandera, Urana .	14,006	
2	Central .	Condoublin	1,104		2	,, .	Parkes	216	
1	,,	Condoublin, Hillston .	1,699		2	,,	Urana	791	
1	,,	Coonabarrabran, Gundagai	50		5	,, .	Wagga Wagga	9,704	
1	,, ..	Dubbo	100		2	,, ..	Warialda, Moree	1,581	
2	,, ...	Forbes	1,599		1	Western	Wentworth	510	
4	,,	Hay	12,041		1	,, .	Wentworth, Balranald	1,138	
1	,, .	Hay, Balranald .. .	209						
1	,,	Hay, Deniliquin ..	358		40			56,233	

Schedule LXXXIV.

Return showing the number of Applications to Surrender Land situated within a Resumed Area, in exchange for land within the Leasehold Area, outstanding on 31st December, 1890, and the number disposed of during 1891.

No. of Applications outstanding	Division	Land District	Area	How disposed of during 1891.	No of Applications outstanding	Division	Land District.	Area.	How disposed of during 1891.
			acres					acres	
1	Eastern.	Albury	50	Outstanding	2	Central	Forbes	1,974	1 refused 1 outstanding.
1	,, .	,, ...	620	Refused					
5	,,	Armidale	1,225	,,	3	,, ..	Hay	2,497	Outstanding.
1	,, .	Casino	320	Outstanding.	1	,,	Hay, Balranald	530	Refused.
3	,, ..	Cooma	935	2 refused, 1 outstanding	1	,, ..	Narrandera	8,753	Outstanding.
					1	,	Narrandera, Urana	593	,,
1	,, ...	Cootamundry, Wagga Wagga	40	Refused.	2	,, ...	Parkes	80	1 refused, 1 outstanding.
1	,,	Gunnedah, Tamworth .	5,265	,,	1	,	Parkes, Condobolin	860	Outstanding.
2	,, . .	Glen Innes	2,067	,,	1	,, ..	Urana	6,283	,,
2	,, ...	Inverell	1,568	,	1	,, ...	Wagga Wagga	360	,,
1	,, ...	Kempsey	60	Disallowed.	2	,,	Warialda	6,385	,,
1	,,	Kempsey, Armidale	250	,,	2	Western	Balranald	5,700	,,
1	,,	Molong, Forbes	60	Withdrawn	5	,,	Bourke	9,046	1 outstanding, 4 refused.
1	,, .	Murrurundi	250	Refused.					
2	,	Tamworth	1,191	,,	2	,, ..	Brewarrina	1,086	1 outstanding, 1 refused.
4	, ..	Walcha	10,467	Outstanding.					
1	,, ...	Walcha, Armidale ...	415	Withdrawn.	2	,,	Hillston North	3,032	1 withdrawn, 1 outstanding.
1	,,	Walcha, Tamworth .	160	Refused.					
1	,, ..	Young	100	,,					
1	Central	Dubbo	180	Withdrawn.				72,402	

Schedule LXXXV.

Return of Applications to Surrender Land situated within Leasehold and Resumed Areas, in exchange for other land within the Leasehold, for the year 1891—Section 46.

No of Applications	Division	Land District.	Area Proposed to be Surrendered	Remarks	No of Applications	Division	Land District.	Area Proposed to be Surrendered	Remarks.
			acres.					acres.	
1	Western..	Bourke, Cobar . . .	800		1	Central	Hay, Balranald .	1,846	
2	,,	Brewarrina	4,620		1	,,	Hillston	6,781	
1	,, .	Cobar	280		1	Western..	Hillston North .	4,120	
1	Central	Condoublin	3,592		1	Central	Narrandera, Wagga Wagga.	2,065	
1	,, .	Condoublin, Forbes	520						
1	,,	Forbes	3,347		1	,,	Parkes, Condoublin, Forbes	25,718	
1	,, .	Gunnedah, Coonbarrabian.	799		1	,,	Wagga Wagga	3,224	
1	,, .	Gunnedah, Narrabri	10,029						
5	,,	Hay	44,901	1 refused.	20			112,642	

Schedule LXXXVI.

Return showing the number of Applications to Surrender Land situated within Leasehold and Reserved Areas, in exchange for other land within the Leasehold Area, outstanding on the 31st December, 1890, and the number disposed of during 1891.

No. of Applications outstanding on 31 Dec., '90.	Division.	Land District.	Area.	How disposed of during 1891	No. of Applications outstanding on 31 Dec., '90.	Division.	Land District.	Areas.	How disposed of during 1891.
			Acres					Acres.	
1	Eastern..	Albury	2,223	Outstanding.	1	Central..	Coonamble	1,265	Outstanding.
1	,,	Armidale	1,056	Refused.	1	,,	Hay, Hillston	5,705	,,
2	,,	Casino	5,991	Outstanding.	2	,,	Narrandera	5,979	,,
1	,,	Cooma	539	Withdrawn	1	,,	Narrabri	1,763	Refused.
1	,,	Glen Innes	45	Refused.	1	,,	Parkes, Dubbo, Cobar East	3,714	Outstanding.
1	,,	Inverell	458	,,	1	,,	Wagga Wagga	7,965	,,
1	,,	Molong	290	Outstanding.	1	Western.	Bourke	2,800	Refused.
1	,,	Tamworth, Gunnedah	2,180	Refused.	1	,,	Cobar, Hillston North	1,380	Outstanding.
1	,,	Tenterfield	717	Outstanding.	2	,,	Hillston North	29,814	,,
3	,,	Walcha	2,589	,,					
1	,,	Walcha, Armidale	96	Withdrawn.	26			76,809	
1	Central..	Condobolin, Forbes	240	Outstanding.					

Schedule LXXXVII.

Return showing the number and area embraced in Applications for Homestead Leases made in 1891, and the action thereon.

Land Board District.	Land District.	No of Applications received and area embraced by such Applications		Deposits lodged with Applications for Homestead Leases	No granted.	No refused	No outstanding.
		No.	Area				
			Acres.	£ s. d.			
Bourke	Bourke	68	569,311	2,413 2 7	5	5	58
	Brewarrina	9	66,233	275 8 8	.	1	8
	Cobar	10	103,760	390 13 4	1	..	9
	Wilcannia	25	230,000	962 10 0		.	25
	Willyama	27	168,675	656 19 8	.	.	27
Hay	Balranald	10	78.207	325 17 3	. .	2	8
	Hay North	6	44,180	191 11 8	.	3	3
	Hillston North	5	29,403	122 10 3	. . .	1	4
	Wentworth	5	20,600	85 16 8	.	1	4
Moree	Walgett North	26	205,260	853 12 6	1	6	19
	Totals... ..	191	1,515,629	6,278 2 1	7	19	165

Schedule LXXXVIII.

Return showing the number and area of Applications for Homestead Leases granted during 1891, applied for during that and previous years.

Land Board District.	Land District.	No. of applications approved of and area embraced in such applications		Annual Rent.
		No.	Acres.	£ s. d.
Bourke	Bourke	66	611,636	2,548 3 9
	Brewarrina	2	20,480	85 6 8
	Cobar	8	54,940	228 18 4
	Wilcannia	5	24,080	100 6 8
	Willyamia	7	47,371	197 7 7
Hay	Balranald	5	51,200	213 6 8
	Hay North	1	3,034	12 12 10
	Hillston North	7	40,352	168 2 8
	Wentworth	6	45,240	188 10 0
Moree	Walgett North	20	186,880	778 13 4
	Totals	127	1,085,213	4,521 8 6

Schedule LXXXIX.

Return showing the number of Applications for Homestead Leases refused and permitted to be withdrawn during the year 1891, in the several Land Districts, with those outstanding at the close of 1891.

Land Board District.	Land District.	No. of Applications refused and permitted to be withdrawn.	No. of Applications outstanding at the end of 1891.
Bourke	Bourke	7	85
	Brewarrina	3	16
	Cobar	3	13
	Wilcannia	...	30
	Willyama	...	31
Hay	Balranald	4	19
	Hay North	4	5
	Hillston North	4	13
	Wentworth	1	13
Moree	Walgett North	15	35
		41	260

Schedule XC.

Return showing the number, area, and rent determined of Homestead Leases in existence at the end of 1891 in the several Land Districts.

Land Board District.	Land District.	No. of Leases.	Area embraced in such Leases.	Rent determined.
			acres.	£ s. d.
Bourke	Bourke	347	3,298,469	18,298 9 10
	Brewarrina	141	1,089,113	9,359 11 10
	Cobar	61	495,687	2,388 10 4
	Wilcannia	51	468,661	2,905 16 8
	Willyama	52	347,203	847 0 4
Hay	Balranald	68	630,418	3,683 7 8
	Hay North	58	541,033	4,275 8 0
	Hillston North	74	603,016	3,931 5 11
	Wentworth	41	346,591	1,824 17 1
Moree	Walgett North	90	844,844	6,708 13 10
		983	8,665,035	54,226 1 6

Schedule XCI.

Return showing the number of Applications received and dealt with during the year 1891, for refund of value of improvements, situated within Homestead Leases.

Number received, 65. Number dealt with, 99. Number outstanding, 4.

Schedule XCII.

Return showing the number of Transfers of Homestead Leases completed during the year 1891, and number outstanding at same date.

Number completed, 119. Number outstanding, 58.

Schedule XCIII.

Return showing the number of Homestead Leases appraised under the Crown Lands Act of 1889, the rates of which were notified in the *Government Gazette* during 1891.

Number of Homestead Leases.	Area.	Annual Rental.
	acres.	£ s. d.
180	1,745,792	13,884 15 1

Schedule XCIV.

Return for 1891, Artesian Wells, section 45, Crown Lands Act of 1889.

No. of applications tendered for permission to bore and search for water.		Area.	Land Board District.	Area temporarily exempted from sale or lease.		No. and Name of Pastoral Holding.		No. of Leases issued.	No. Withdrawn or Refused.
No.	Reserve.			Area set apart.	Date of *Gazette*.				
		acres.		acres.					
1	13,328	10,240	Bourke	10,240	24 Jan., 1891	206	Belalie	Nil	Nil.
1	13,432	10,240	Wilcannia	10,240	31 ,, ,,	55	Momba	,,	,,
1	13,681	10,240	do	10,240	22 April, ,,	156	Yancowinna	,,	,,
1	13,841	10,240	Bourke	10,240	9 May, ,,	90	Lissington	,,	,,
1	14,570	10,240	do	10,240	15 Sept., ,,	43	Elsinora	,,	,,
1	14,664	10,240	do	10,240	29 ,, ,,	43	do	,,	,,

Applications not refused are under reference to Local Land Boards

Schedule XCV.

Return of Applications for Scrub Leases under section 35, Act of 1889.

Land Board District.	Land District.	No. of Applications.		Total to be dealt with during 1891.	Area of those outstanding from 1890.	Area of those made during 1891.	Total Area.	Applications disallowed and withdrawn.		Total disallowed and withdrawn during the year.	No. of Leases granted during the year.	No. of Applications not finally dealt with
		Outstanding from 1890.	Made during 1891.					Of those outstanding from 1890.	Of those made during 1891.			
					acres.	acres.	acres.					
Armidale	Armidale	1	.....	1	4,500	.....	4,500	1	.....	1	...	.....
Forbes	Condobolin	1	.....	1	10,240	.....	10,240	1	.....	1	...	.....
	Parkes	2	.....	2	19,840	.....	19,840	2	.....	2	...	.....
Goulburn	Nowra	1	.....	1	2,520	.....	2,520	.....	.....	.....	...	1
Hay	Deniliquin	.....	1	1	.....	2,560	2,560	.....	.....	.....	...	1
	Hay	3	.....	3	18,520	.....	18,520	2	.....	2	...	1
	Hillston	1	1	2	10,000	2,880	12,880	.....	1	1	...	1
	Hillston North	25	.....	25	245,360	.....	245,360	23	.....	23	1	1
Maitland	Maitland	.....	1	1	.....	1,000	1,000	.....	.....	.....	...	1
	Scone	.....	1	1	.....	560	560	.....	.....	.....	1	.....
Moree	Moree	2	2	4	4,280	43,240	47,520	.....	.....	.....	2	2
	Warialda	1	4	5	2,560	10,240	12,800	.....	.....	.....	...	5
Tamworth	Coonabarabran	1	.....	1	640	.....	640	.....	.....	.....	...	1
Wagga Wagga	Narrandera	7	.....	7	63,990	.....	63,990	7	.....	7	...	.....
	Urana	2	.....	2	7,491	.....	7,491	2	.....	2	...	.....
	Totals	47	10	57	389,941	60,480	450,421	38	1	39	4	14

Schedule XCVI.

Return showing number, area, and rental of Scrub Leases granted during the year.

Land District.	No. granted.	Area.	Rent.
		acres.	£ s. d.
Hillston North	1	10,240	64 0 0
Moree	2	3,600	2 5 0
Scone	1	560	1 0 0
Totals	4	14,400	67 5 0

Schedule XCVII.

Return showing number, area, and rental of Scrub Leases current on 31st December, 1891.

Land District.	No.	Area.	Rental.
		Acres.	£ s. d.
Deniliquin	1	640	0 9 1
Hillston North	1	10,240	64 0 0
Moree	10	74,957	16 7 6
Scone	1	560	1 0 0
Totals	13	86,397	81 16 7

Schedule XCVIII.

Return showing number, area, and rent of Special Leases which expired on 31st December, 1891.

Land District.	No. of Leases.	Area.	Rent.	Land District.	No. of Leases.	Area.	Rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Armidale	1	5 0 0	10 0 0	Metropolitan	19	4 1 21	597 0 0
Bourke	3	3 2 36	30 0 0	Milton	3	2 0 15½	52 0 0
Cooma	1	10 0 0	1 0 0	Moruya	2	3 0 11	20 0 0
Cowra	1	4 0 0	10 0 0	Parramatta	2	0 0 10	25 0 0
Deniliquin	3	71 1 0	70 0 0	Walgett North	1	3 0 0	10 0 0
Dubbo	2	11 0 0	20 0 0	Wilcannia	1	2 0 0	10 0 0
Eden	1	0 0 8¾	25 0 0	Wollongong	1	0 1 28	10 0 0
Goulburn	1	7 0 0	10 0 0	Young	1	2 0 0	10 0 0
Kempsey	1	1 1 0	10 0 0				
Lithgow	3	11 0 0	55 0 0	Total	47	141 1 10¼	975 0 0

Schedule XCIX.

Return showing number and area of Special Leases forfeited during 1891

Land District	No of Leases	Area			Rent			Land District	No of Leases	Area			Rent		
		a	r	p	£	s	d			a	r	p	£	s	d.
Bourke	4	682	1	0	86	0	0	Lismore	1	0	3	12¾	5	0	0
Campbelltown	1	2	0	0	20	0	0	Metropolitan	6	0	0	19½	184	10	0
Cooma	1	40	0	0	25	0	0	Moruya	1	0	1	0	10	0	0
Dubbo	1	5	0	0	10	0	0	Walgett	1	25	0	0	10	0	0
Gosford	1	1	3	29	30	0	0	Willyama	2	18	0	0	41	0	0
Goulburn	1	7	0	0	10	0	0								
Grafton	1	0	0	20	10	0	0	Total	21	782	2	1¼	441	10	0

Schedule C.

Summary of purposes of Special Leases current on 31st December, 1891.

Purposes of Leases	No of Leases	Area			Rent			Purposes of Leases	No of Leases	Area			Rent		
		a	r	p	£	s	d			a	r.	p	£	s.	d.
Accommodation houses	11	152	0	0	105	0	0	Procuring clay	1	48	0	0	15	0	0
Accommodation paddocks & stables	4	963	0	0	119	0	0	Protection of water supply (tanks, dams, and wells)	10	2,262	0	0	201	0	0
Approaches to bridges	2	9	1	17	15	0	0	Quarries	19	243	3	38	333	10	0
Baths, landing places, &c	17	9	1	36½	360	0	0	Recreation	1	60	0	0	400	0	0
Brickmaking	27	143	1	26	320	10	0	Sheep and cattle yards	1	40	0	0	15	0	0
Business premises (stores, &c)	16	37	3	0	163	0	0	Shipbuilding	8	22	3	29¾	104	10	0
Docks	3	1	3	19½	140	0	0	Saw mills	29	1,111	1	20	379	0	0
Drainage	1	108	0	0	10	0	0	Skin drying & skin packing	2	20	0	0	30	0	0
Erection of machinery	4	255	0	39	56	15	0	Slaughtering	19	1,235	3	0	249	13	6
Factories	4	22	0	10	40	0	0	Smithies, smelting works &c	4	67	0	0	37	0	0
Ferries	8	15	2	39	90	0	0	Tramways	9	434	0	20	155	0	0
Fisheries	1	2	2	0	10	0	0	Vegetable gardens	19	103	0	24	236	0	0
Inns	35	1,401	2	36¼	433	10	0	Wharfage (90 sec)	19	57	2	11¼	263	0	0
Irrigation and irrigation works	5	800	0	0	66	0	0	Wool scouring	8	477	3	0	120	0	0
Jetties and wharves (89 sec)	214	34	3	10½	6,182	10	0	Working mineral spring	1	5	0	0	20	0	0
Lime kilns	7	122	0	25	85	0	0	Total	516	11,287	1	2	10,863	8	6
Mail stations and stables	7	1,019	2	0	108	10	0								

Schedule CI.

Return of Special Leases current on 31st December, 1891.

Land District	No of Leases	Area			Rent			Land District	No of Leases	Area			Rent		
		a	r	p	£	s	d			a	r.	p.	£	s.	d.
Albury	2	4	0	0	20	0	0	Lismore	6	11	0	24¼	70	0	0
Armidale	4	16	2	0	40	0	0	Lithgow	17	308	3	17	253	10	0
Balranald	3	7	0	0	40	0	0	Liverpool	4	0	0	11¾	17	0	0
Bega	1				5	0	0	Maitland	1	8	0	0	15	0	0
Bellingen	1	1	1	0	10	0	0	Metropolitan	173	98	0	13½	6,575	10	0
Bingera	1	10	0	0	10	0	0	Melton	6	10	0	6	77	0	0
Bourke	26	3,280	3	0	470	16	0	Molong	2	10	2	21	22	10	0
Brewarrina	3	73	3	0	35	0	0	Moree	2	2	2	0	20	0	0
Campbelltown	5	189	1	35	67	15	0	Moruya	7	179	3	6	80	0	0
Carcoar	1	20	0	0	10	0	0	Mudgee	1	77	3	0	21	0	0
Casino	1	0	0	12½	10	0	0	Muswellbrook	2	1	2	0	27	0	0
Cobar	6	704	0	0	82	10	0	Narrabri	7	403	0	0	76	0	0
Cobar East	1	40	0	0	10	0	0	Narrandera	6	28	1	9	60	0	0
Cooma	3	17	0	0	31	0	0	Newcastle	22	24	1	39	264	0	0
Coonamble	1	10	0	0	10	0	0	Nowra	2	14	0	6	20	0	0
Coonabarabran	2	52	0	0	22	0	0	Orange	1	1	0	0	10	0	0
Cootamundra	2	103	0	0	24	0	0	Parkes	4	26	0	0	46	0	0
Corowa	5	8	2	23	65	0	0	Parramatta	21	9	0	28½	201	0	0
Cowra	2	6	0	0	20	0	0	Port Macquarie	2	11	0	0	20	0	0
Deniliquin	16	1,332	2	32	222	10	0	Raymond Terrace	2	40	1	18	25	0	0
Dubbo	7	325	1	0	89	0	0	Rylstone	3	67	0	0	35	0	0
Dungog	1	0	0	14	10	0	0	Singleton	2	220	0	0	27	0	0
Eden	5	1	2	13¼	65	0	0	Stroud	3	44	0	0	30	10	0
Forbes	4	338	3	0	60	0	0	Tamworth	3	30	2	0	30	0	0
Glen Innes	1	25	0	0	10	0	0	Taree	14	54	0	10	202	10	0
Gosford	9	10	2	13¾	92	0	0	Tumut	2	2	3	38	10	0	0
Goulburn	2	12	0	30	20	0	0	Uiana	4	11	0	12½	45	0	0
Grafton	6	4	2	1½	45	0	0	Walgett	3	10	0	0	35	0	0
Grenfell	1	20	0	0	10	0	0	Walgett North	3	43	0	0	30	0	0
Gunnedah	4	53	2	12	43	0	0	Warialda	1	30	0	0	20	0	0
Hay	9	399	1	17	97	0	0	Wentworth	1	10	0	0	15	0	0
Hillston	4	17	0	16	55	0	0	Wilcannia	6	414	2	0	82	0	0
Hillston North	1	2	0	0	5	0	0	Willyama	27	1,901	2	32	410	7	6
Inverell	2	30	0	0	20	0	0	Wollongong	2	1	0	26	35	0	0
Kempsey	8	65	0	3	92	0	0								
Kiama	4	0	1	20¼	37	0	0	Total	516	11,287	1	2	10,863	8	6

SCHEDULE CII.

RETURN of Applications for Special Leases under Crown Lands Act of 1884, and action taken thereon during 1891.

Land Board District.	Land District.	Number of Applications.			Applications granted.			Declined, withdrawn, and lapsed.			Pending.			Purposes for which such leases were required
		Outstanding in 1890.	Made during 1891.	Total.	Number.	Area.	Rent.	Number.	Area.		Number.	Area.		
						a. r. p.	£ s. d.		a. r. p.			a. r. p.		
Armidale	Armidale	1	4	5	3	6 2 0	30 0 0	...	.....		2	2 0 0		Vegetable garden, 1 granted; brickmaking, 1 granted; factory, 1 granted; mail-stables, 2 pending.
	Glen Innes ...	2	...	2	1	25 0 0	10 0 0	...	.....		1	5 0 0		Vegetable garden, 1 granted; mail-station, 1 pending.
	Inverell	...	2	2	...	.....	.....	1	10 0 0		1	3 0 0		Brickmaking, 1 declined, 1 pending.
	Tenterfield ...	...	1	1	...	.....	.....	...	.....		1	1 0 0		Store.
	Walcha	...	1	1	...	.....	.....	1	2 0 0		...	.....		Inn.
Bourke	Bourke	3	20	23	9	1,214 0 0	135 16 0	9	1,130 0 0		5	371 0 0		Brickmaking, 1 granted; Store, 1 granted; hotels, 2 granted; mail-stations, 1 granted; slaughtering, 1 granted, 1 declined; accommodation houses, 2 granted, 1 pending; accommodation paddock and stables, 1 granted, 4 declined, 1 pending; vegetable gardens, 3 declined; irrigation, 1 declined; access to water, 2 pending; wool-scouring, 1 pending.
	Brewarrina ...	...	9	9	2	70 3 0	25 0 0	2	321 0 0		5	1,280 2 0		Stores, 1 granted, 1 pending; irrigation, 1 granted, 1 declined; vegetable gardens, 1 declined, 2 pending; accommodation paddock and stables, 1 pending; dam, 1 pending.
	Cobar	...	3	3	1	40 0 0	10 0 0	...	.....		2	325 0 0		Lime-kiln, 1 granted; brickmaking, 1 pending; inn, 1 pending.
	Cobar East ...	...	2	2	1	40 0 0	10 0 0	...	.....		1	3 0 0		Tank, 1 granted; saw-mill, 1 pending.
	Wilcannia	7	2	9	1	2 0 0	10 0 0	5	1,360 0 0		3	390 0 0		Accommodation house, 1 granted; tanks, 2 declined; sheep and cattle yards, 1 declined; irrigation, 1 declined, 1 pending; mail-station, 1 declined; grazing, 1 pending; slaughtering, 1 pending.
	Willyama	1	45	46	12	1,112 0 4	198 17 6	16	2,439 0 36¾		18	2,053 0 0		Tanks, dams, and wells, 5 granted, 6 declined, 7 pending; brickmaking, 2 granted; sheep and cattle yards, 1 granted; slaughtering, 2 granted, 2 declined; factories, 1 granted; smelting works, 1 granted, 1 pending; quarries, 2 declined 2 pending; sewage farm, 1 declined; vegetable gardens, 1 declined; tramways, 4 declined, 2 pending; pipeline, 1 pending; wool-scouring, 1 pending; erection of machinery, 1 pending; accommodation paddock and store, 1 pending; storage of explosives, 1 pending; skin-drying, 1 pending.
Cooma	Bega	...	1	1	...	.....	.....	...	.....		1	10 0 0		Quarry.
	Cooma	1	1	2	2	12 0 0	11 0 0	...	.....		...	.....		Brickmaking, 1 granted; stores, 1 granted.
	Eden	...	1	1	1	0 0 8¾	25 0 0	...	.....		...	.....		Receiving store.
	Milton	...	5	5	2	2 0 0	47 0 0	...	.....		3	10 0 0		Receiving stores, 1 granted, 1 pending; saw-mills, 1 granted, 1 pending; tramways, 1 pending.
	Moruya	...	5	5	2	175 0 8½	15 0 0	...	.....		3	185 0 11		Sawmills, 1 granted, 1 pending; boat-sheds, 1 granted; wharfs, 1 pending; tramways, 1 pending.
Dubbo	Dubbo	2	8	10	3	80 2 0	34 0 0	2	181 0 0		5	135 0 0		Vegetable gardens, 1 granted; erection of machinery, 1 granted; brickmaking, 1 granted, 1 pending; dam, 1 declined; saw-mill, 1 declined; inns, 3 pending: brewery, 1 pending.

SCHEDULE CII—*continued.*

Land Board District.	Land District.	Number of Applications. Outstanding in 1890.	Made during 1891.	Total.	Applications granted. Number.	Area. a. r. p.	Rent. £ s. d.	Declined, withdrawn, and lapsed. Number.	Area. a. r. p.	Pending. Number.	Area. a. r. p.	Purposes for which such leases were required.
Dubbo (*contd.*)	Coonamble ...	..	2	2	...	.....	.....	1	4 0 0	1	320 0 0	Mail stables, 1 declined; inn, 1 pending.
Forbes	Forbes	...	2	2	1	2 3 0	10 0 0	1	10 0 0	...	.....	Brickmaking, 1 granted; wool-scouring, 1 declined.
	Grenfell	...	2	2	1	20 0 0	10 0 0	1	320 0 0	...	.....	Slaughtering, 1 granted; saw-mill, 1 declined.
	Parkes	3	8	11	2	11 0 0	26 0 0	4	430 1 0	5	87 0 0	Stores, 1 granted, 1 declined; brickmaking, 1 granted, 1 pending; inns, 1 declined, 3 pending; slaughtering, 2 declined, 1 pending.
Goulburn	Burrowa	...	3	3	...	.....	.....	.	....	3	560 0 0	Quarry, 1 pending; slaughtering, 1 pending; punt, 1 pending.
	Berrima	1	...	1	..	.....	....	..	.....	1	68 0 0	Tramway.
	Goulburn	...	3	3	1	7 0 0	10 0 0	.	.....	2	12 0 0	Quarries, 1 granted, 2 pending.
	Nowra	...	3	3	...	.....	.....	1	20 0 0	2	200 0 0	Factory, 1 declined; vegetable garden, 1 pending; jetty, 1 pending.
	Young	...	6	6	..	.....	.....	2	12 0 10	4	20 1 23	Brick-making, 1 declined, 2 pending; smithy, 1 declined; limekiln, 1 pending; vegetable garden, 1 pending.
Grafton..... ...	Bellingen	...	2	2	1	1 1 0	10 0 0	...	.....	1	3 0 0	Wharfage, 1 granted, 1 pending.
	Casino	1	...	1	...	.....	.....	...	.....	1	.....	Wharf.
	Grafton	2	7	9	1	0 2 0	10 0 0	1	2 3 0	7	72 2 5½	Store, 1 granted; vegetable garden, 1 declined, 1 pending; jetties, 2 pending; saw-mills, 2 pending; wharfs, 2 pending.
	Kempsey	1	...	1	...	.....	.....	1	5 2 0	...	.....	Vegetable garden.
	Lismore.....	1	11	12	1	0 3 0	20 0 0	...	....	11	2 2 25	Shipbuilding, 1 granted; baths, 1 pending; wharves, 5 pending; store, 1 pending; slip, 1 pending; tramway, 1 pending; fishery, 1 pending.
	Murwillumbah	...	2	2	...	.....	.....	..	.....	2	7 1 8	Hotel, 1 pending; tramway, 1 pending.
	Port Macquarie	...	3	3	1	.....	10 0 0	...	.....	2	5 2 0	Wharf, 1 granted; store, 1 pending; saw-mill, 1 pending.
Hay	Deniliquin	3	3	6	3	261 0 32	43 0 0	1	100 0 0	2	184 0 0	Ferries, 1 granted, mail-stations, 1 granted, 1 declined, 1 pending; inn, 1 granted, 1 pending.
	Hay	2	10	12	1	7 1 17	10 0 0	1	320 0 0	10	2,505 0 0	Bridge, 1 granted; accommodation paddocks, 1 declined; tannery, 1 pending; mail-stations, 6 pending; hotel, 1 pending; irrigation, 2 pending.
	Hillston	1	...	1	1	5 0 0	10 0 0	...	.....	...	.....	Smelting works.
	Wentworth ...	1	2	3	1	10 0 0	15 0 0	1	2 0 0	1	0 2 0	Slaughtering, 1 granted; ferries, 1 declined, 1 pending.
Maitland	Gosford.....	...	6	6	2	3 3 13	15 0 0	2	168 0 0	2	50 1 10	Jetty, 1 granted; shipbuilding, 1 granted; wharfage, 1 declined; fishery, 1 declined; obtaining guano, 1 pending; erection of machinery, 1 pending.
	Newcastle	6	10	16	11	16 1 21	114 10 0	1	1 1 5¾	4	2 1 1	Saw-mill, 1 granted; wharves and jetties, 6 granted, 2 pending; boatbuilding, 1 granted; quarries, 3 granted; brickmaking, 1 declined; dock, 1 pending; store, 1 pending.
	Raymond Terrace	1	1	2	1	0 1 18	10 0 0	..	.....	1	100 0 0	Jetty, 1 granted; obtaining loam, 1 pending.
	Scone.....	...	1	1	...	.....	... .	1	1 0 0	...	.....	Tramway.
	Stroud	...	4	4	1	14 0 0	10 0 0	1	6 3 0	2	11 0 0	Vegetable garden, 1 granted; sawmill, 1 declined; wharfage, 2 pending.
	Taree.....	1	7	8	3	3 1 15	30 0 0	.	.....	5	50 3 0	Wharfage, 2 granted, 3 pending; shipbuilding, 1 granted; bridge, 1 pending; vegetable garden, 1 pending.
Moree	Bingara	...	1	1	...	.....	.....	...	.....	1	100 0 0	Sawmill.

SCHEDULE CII—*continued.*

Land Board District.	Land District.	Number of Applications. Outstanding in 1890.	Made during 1891.	Total.	Applications granted. Number.	Area. a. r. p.	Rent. £ s. d.	Declined, withdrawn, and lapsed. Number.	Area. a. r. p.	Pending. Number.	Area. a. r. p.	Purposes for which such leases were required.
	Moree	...	3	3	...	.....	.....	...	.....	3	470 0 0	Vegetable garden, 1 pending; drainage, 1 pending; accommodation paddock, 1 pending.
	Warialda	...	1	1	1	30 0 0	20 0 0	...	....	..	.....	Woolscouring, 1 granted.
	Walgett	2	4	6	2	8 0 0	25 0 0	2	7 0 0	2	5 0 0	Vegetable garden, 1 granted; slaughtering, 1 granted, 1 pending; hotel, 1 declined; procuring clay, 1 declined; store, 1 pending.
	Walgett North	...	2	2	2	41 0 0	25 0 0	...	.....	...	.....	Hotel, 1 granted; vegetable garden, 1 granted.
Orange	Carcoar	2	...	2	1	20 0 0	10 0 0	1	0 0 37¾	...	.....	Smelting works, 1 granted; brickmaking, 1 declined.
	Cowra	...	2	2	...	.....	.....	...	.....	2	64 0 0	Brickmaking, 1 pending; slaughtering, 1 pending.
	Lithgow	4	7	11	6	55 1 0	77 10 0	1	2 0 0	4	99 3 30	Quarries, 3 granted, 2 pending; accommodation paddock, 1 granted; slaughtering, 1 granted; store, 1 granted; tramways, 1 declined, 1 pending; procuring clay, 1 pending.
	Mudgee	...	1	1	...	.....	.....	1	7 0 0	...	.....	Tramway, 1 declined.
	Rylstone	...	1	1	1	40 0 0	15 0 0	...	.....	...	.....	Lime-kiln, 1 granted.
	Wellington	1	...	1	...	.....	.....	1	5 0 0	...	.....	Smelting works, 1 declined.
Sydney	Campbelltown	3	...	3	...	.....	.....	2	40 0 0	1	113 0 0	Vegetable garden, 1 declined; poultry farm, 1 declined; tramway, 1 pending.
	Liverpool	...	2	2	1	0 0 0¾	1 0 0	...	.....	1	.....	Boatskids, 1 granted; 1 jetty, 1 pending.
	Metropolitan	38	66	104	37	10 3 8¾	971 0 0	10	1 3 17¼	57	2 0 29	Wharves and jetties, 33 granted, 8 declined, 53 pending; baths, 3 granted, 2 declined, 1 pending; quarries, 1 granted, 1 pending; slips, 1 pending; dock, 1 pending.
	Parramatta	5	16	21	7	7 2 2¼	114 0 0	4	0 1 0	10	30 2 27½	Jetties, 6 granted, 2 declined, 8 pending; quarries, 1 granted, 1 pending; bakery, 1 declined; baths, 1 declined, 1 pending.
	Penrith	...	1	1	...	.....	.....	...	.....	1	4 0 0	Quarry, 1 pending.
	Windsor	...	1	1	...	.....	.....	..	.....	1	.....	Erection of machinery, 1 pending.
Tamworth	Wollongong	...	1	1	...	.....	.....	...	.....	1	20 0 0	Quarry, 1 pending.
	Coonabarabran	1	...	1	1	2 0 0	10 0 0	...	.....	...	.....	Inn, 1 granted.
	Narrabri	...	4	4	1	20 0 0	10 0 0	...	.....	3	82 0 0	Woolscouring, 1 granted; hotel, 1 pending; accommodation house, 1 pending; accommodation paddock, 1 pending.
	Tamworth	...	2	2	...	.....	.....	1	30 0 0	1	20 0 0	Mail-station, 1 declined; lime-kiln, 1 pending.
Wagga Wagga	Albury	...	6	6	...	.....	.....	1	20 0 0	5	36 2 0	Tannery, 1 declined, 1 pending; brickmaking, 1 pending; saw-mill, 1 pending; slaughtering, 1 pending.
	Cootamundry	1	4	5	1	3 0 0	10 0 0	2	230 0 0	2	129 3 13	Inn, 1 granted; slaughtering, 1 declined; dam, 1 declined; vegetable garden, 1 pending; dairy, 1 pending
	Corowa	3	2	5	1	3 0 0	13 0 0	...	.....	4	53 1 0	Ferry, 1 granted, 2 pending; woolscouring, 2 pending.
	Gundagai	1	1	2	...	.....	.....	1	70 0 0	1	100 0 0	Quarries, 1 declined, 1 pending.
	Narrandera	...	7	7	1	5 0 0	10 0 0	5	198 1 0	1	1 1 12½	Saw-mill, 1 granted, 1 declined; brickmaking, 1 declined; slaughtering, 1 declined; irrigation, 1 declined; wool-scouring, 1 declined; inn and store, 1 pending.
	Urana	...	2	2	...	.....	.....	...	.....	2	7 3 0	Stores, 2 pending.
	Wagga Wagga	...	9	9	...	.....	.....	6	51 0 0	3	4 2 1¼	Saw-mill, 3 declined; mail stables, 1 declined; inn, 1 declined; store, 1 declined; store and smithy, 1 pending; smithy, 1 pending; accommodation paddock and stables, 1 pending.
Total	.....	102	354	456	136	3,390 0 29	2,236 13 6	91	7,509 1 27½	226	10,379 2 36¾	

Schedule CIII.

Return showing Number and Area of Residential Leases applied for under section 48 of the Crown Lands Act of 1889, and action taken thereon.

Land District.	No. of Applications			Area applied for.	No. of Applications disallowed and withdrawn.	No. of Applications in course of action on 31st Dec., 1891.	Leases granted.		
	Outstanding on the 31st Dec., 1890.	Received during 1891.	Total to be dealt with.				Number.	Area.	Annual Rent.
				a. r. d.				a. r. p.	£ s. d.
Albury	10	8	18	138 0 0	12	6	.....	.....	.....
Armidale	1	2	3	17 0 0	.....	3	.....	.....	.....
Bathurst	14	5	19	190 0 0	11	7	1	10 0 0	1 0 0
Bega	.....	1	1	0 2 0	.....	1	.....	.....	.....
Bingera	3	.....	3	25 0 0	.....	2	1	10 0 0	5 0 0
Braidwood	3	3	6	55 0 0	4	2	.....	.....	.....
Burrowa	3	2	5	50 0 0	2	3	.....	.....	.....
Carcoar	8	.....	8	80 0 0	.....	5	3	30 0 0	3 15 0
Cobar	.....	2	2	20 0 0	.....	2	.....	.....	.....
Cowra	.....	1	1	10 0 0	.....	1	.....	.....	.....
Dubbo	6	2	8	75 0 0	5	1	2	20 0 0	5 0 0
Dungog	1	.....	1	4 0 0	1	.....	.....	.....	.....
Forbes	2	5	7	66 0 0	4	2	1	10 0 0	2 5 0
Glen Innes	1	1	2	14 0 0	2	.....	.....	.....	.....
Goulburn	.....	2	2	17 0 0	.....	2	.....	.....	.....
Grenfell	7	4	11	95 0 0	7	1	3	30 0 0	7 10 0
Gundagai	6	5	11	91 0 0	8	2	1	10 0 0	1 10 0
Hillston	1	.....	1	5 3 31	.....	1	.....	.....	.....
Inverell	1	2	3	30 0 0	.....	3	.....	.....	.....
Molong	1	2	3	18 0 27	.....	3	.....	.....	.....
Moruya	.....	2	2	20 0 0	1	1	.....	.....	.....
Mudgee	9	8	17	158 0 0	11	5	1	10 0 0	1 0 0
Orange	.....	2	2	20 0 0	1	1	.....	.....	.....
Parkes	24	7	31	282 3 14	21	2	8	68 0 34	20 17 0
Scone	1	.....	1	10 0 0	.....	1	.....	.....	.....
Tamworth	3	7	10	92 0 0	6	4	.....	.....	.....
Tenterfield	4	3	7	52 0 0	1	6	.....	.....	.....
Tumut	.....	2	2	20 0 0	2	.....	.....	.....	.....
Wellington	1	3	4	35 0 0	1	1	2	20 0 0	2 0 0
Willyama	10	7	17	159 0 0	8	6	3	30 0 0	7 10 0
Young	19	5	24	232 0 0	8	10	6	60 0 0	13 5 0
Total	139	93	232	2,082 0 24	117	83	32	308 0 34	70 12 0

Schedule CIV.

Return of Residential Leases current on 31st December, 1891.

Land Districts.	Number of Leases.	Area.	Rent.
		a. r. p.	£ s. d.
Bathurst	1	10 0 0	1 0 0
Bingera	1	10 0 0	5 0 0
Carcoar	3	30 0 0	3 15 0
Dubbo	2	20 0 0	5 0 0
Forbes	2	16 0 10	3 15 4
Grenfell	2	20 0 0	5 0 0
Gundagai	1	10 0 0	1 10 0
Mudgee	1	10 0 0	1 0 0
Parkes	5	38 0 34	12 12 0
Wellington	2	20 0 0	2 0 0
Willyama	7	63 0 0	15 10 0
Young	6	60 0 0	13 5 0
Total	33	307 1 4	69 7 4

Schedule CV.

Return showing number, area, and rent of Residential Leases forfeited during 1891.

Land District.	Number of Leases.	Area.	Rent.
		a. r. p.	£ s. d.
Grenfell	1	10 0 0	2 10 0
Parkes	3	30 0 0	8 5 0
Total	4	40 0 0	10 15 0

Schedule CVI.

Return of Applications for Leases of Snow Lands under the Crown Lands Act of 1889, and action taken thereon during the year 1891.

Number of Applications, 10. Number dealt with, 3 Number outstanding on 31st December, 1891, 7.

Schedule

SCHEDULE CVII.

RETURN showing Number and Area of lots offered at auction, and Number, Area, and Rental of Snow Leases purchased at auction under section 36, Act of 1889.

Land District.	No. of Lots offered at auction.	Area offered.	No. of Leases granted.	Area leased.	Annual Rent.
		acres.		acres.	£ s. d.
Albury	5	27,280	4	18,750	115 2 11
Cooma	37	125,730	15	45,800	778 3 5
Totals	42	153,010	19	64,550	893 6 4

SCHEDULE CVIII.

RETURN of Applications for Leases of Inferior Crown Lands under the Crown Lands Act of 1889, and action taken thereon during the year 1891.

Number of Applications, including those outstanding from 1890.	Number refused.	Number outstanding on 31st December, 1891.	Number of Applications approved of.	Area offered by tender as an Inferior Lease.
15	7	7	1	4,000

SCHEDULE CIX.

DEEDS OF GRANT.—Number, Area, and Nature of Grant prepared during the year 1891.

No. of Deeds of Grant.	Area.	Nature of Grant.
	a. r. p.	
57	254 3 16	Sales by Auction, Special, Field of Mars Resumption Act of 1874, 38 Vic. No. 3.
1,900	53,687 0 14	Do 61st clause of Crown Lands Act of 1884.
40	23 1 34¼	Do Special, Newcastle Pasturage Reserve Act, 53 Vic. No. 1.
3	210 2 12¼	After Auction Selections, 25th clause Crown Lands Act Further Amendment Act of 1880.
24	5,187 1 26½	Purchases in virtue of Improvements, 2nd and 31st clauses of Lands Act Amendment Act of 1875.
792	356 2 7	Do do 46th clause of Crown Lands Act of 1884.
116	27 3 29½	Do do Special, Newcastle Pasturage Reserve Act, 53 Vic. No. 1.
881	158,171 3 34	Conditional Purchases, 13th, 14 h, 19th, 21st, and 22nd clauses of Crown Lands Alienation Act of 1861.
17	1,518 1 0	Do 26th, 42nd, and 47th clauses of Crown Lands Act of 1884.
16	163 0 12¾	Purchases under 9th, 10th, 11th, and 12th clauses of Crown Lands Alienation Act of 1861.
75	719 2 0¼	Do 63rd, 64th, 66th, 67th, and 69th clauses of Crown Lands Act of 1884.
22	1,100 0 0	Volunteer Land Order Grants.
11	16 3 11½	Dedications under 5th clause of Crown Lands Alienation Act of 1861, the 32nd clause of Lands Act Amendment Act of 1875, and the 104th clause of the Crown Lands Act of 1884.
7	1,899 2 0	Grants by way of Exchange, for land surrendered under the 75th clause of the Crown Lands Act of 1884.
6	195 0 17½	Miscellaneous.
3,967	223,532 0 15½	

SCHEDULE CX.

RETURN showing number of Deeds issued each year since 1880, and number and area of Conditional Purchases embraced in such deeds.

Year.	No. of Deeds issued.	No. of C.Ps. embraced in those Deeds.	Area.
			a. r. p.
1880	774	775	73,306 1 39
1881	794	799	86,177 2 14
1882	1,098	1,103	140,425 3 17
1883	976	983	107,329 3 39
1884	1,090	1,105	125,231 3 24
1885	835	850	92,632 2 10
1886	1,121	1,147	118,842 0 33
1887	914	928	115,492 2 4
1888	1,016	1,033	152,347 2 22
1889	1,320	1,398	182,964 2 8
1890	1,191	1,200	173,706 3 16
1891	898	934	159,690 0 34
Total	12,027	12,255	1,528,148 1 20

SCHEDULE CXI.

RETURN of Applications for permission to Ringbark for the year 1891.

Land Board District.	Land District.	Applications made during 1891.						Applications made prior to 1891.		
		No. received	Area applied for.	Fees lodged.	No. allowed.	Area allowed.	No. disallowed.	No. allowed.	Area allowed.	No. disallowed
			Acres.	£		Acres.			Acres.	
Armidale	Armidale	2	13,421½	18	...	.....	.....	1	1,700	...
	Glen Innes	...	.....	.....	...	.....	.....	.....	.....	...
	Inverell	1	1,503	3	...	.....	.....	.....	.....	...
	Tenterfield	3	5,720	9	1	1,920	.....	1	1,920	...
	Walcha	1	1,200	3	...	.....	.....	1	1,000	...
Bourke	Bourke	3	51,680	57	...	.....	.....	.....	.....	...
	Brewarina	5	21,079	31	...	.....	1	1	5,760	1
	Brewarina East	...	.....	.....	...	.....	.....	.....	.....	...
	Cobar	2	103,640	112	...	.....	.....	.....	.....	...
	Cobar East	1	13,440	15	...	.....	.....	.....	.....	...
	Wilcannia	...	.....	.....	...	.....	.....	.....	.....	...
	Willyama	...	.....	.....	...	.....	.....	.....	.....	...
Cooma	Bega	...	.....	.....	...	.....	.....	.....	.....	...
	Bombala	...	.....	.....	...	.....	.....	.....	.....	...
	Braidwood	...	.....	.....	...	.....	.....	.....	.....	...
	Cooma	...	.....	.....	...	.....	.....	.....	.....	...
	Eden	...	.....	.....	...	.....	.....	.....	.....	...
	Milton	...	.....	.....	...	.....	.....	.....	.....	...
	Moruya	...	.....	.....	...	.....	.....	.....	.....	...
	Queanbeyan	...	.....	.....	...	.....	.....	.....	.....	...
Dubbo	Coonamble	5	14,650	23	3	8,820	.....	1	3,360	...
	Dubbo	2	11,520	14	1	1,920	.....	.....	.....	...
Forbes	Condobolin	3	29,500	35	...	.....	.....	3	16,200	...
	Forbes	1	12,000	15	...	.....	1	.....	.....	...
	Grenfell	11	13,414	33	8	10,449	3	2	5,063	...
	Parkes	3	5,800	11	...	.....	.....	3	44,920	...
Goulburn	Berrima, now Moss Vale	1	387	3	...	.....	1	.....	.....	...
	Burrowa	1	320	3	...	.....	.....	.....	.....	...
	Goulburn	...	.....	.....	...	.....	.....	.....	.....	...
	Gunning	...	.....	.....	...	.....	.....	.....	.....	...
	Nowra	...	.....	.....	...	.....	.....	.....	.....	...
	Yass	...	.....	.....	...	.....	.....	.....	.....	...
	Young	...	.....	.....	...	.....	.....	.....	.....	...
Grafton	Bellingen	...	.....	.....	...	.....	.....	.....	.....	...
	Casino	...	.....	.....	...	.....	.....	.....	.....	...
	Grafton	2	3,200	6	1	1,920	.....	.....	.....	...
	Kempsey	...	.....	.....	...	.....	.....	.....	.....	...
	Lismore	...	.....	.....	...	.....	.....	.....	.....	...
	Murwillumbah	...	.....	.....	...	.....	.....	.....	.....	...
	Port Macquarie	1	1,920	3	...	.....	.....	.....	.....	...
Hay	Balranald, Balranald, South	4	6,060	12	1	300	.....	.....	.....	...
	Deniliquin	1	480½	3	1	480½	.....	.....	.....	...
	Hay, Hay, North	...	.....	...	...	.....	.....	.....	.....	...
	Hillston, Hillston, North	7	86,120	91	3	69,400	.....	3	10,840	...
	Wentworth	4	11,480	16	3	9,090	.....	1	4,340	...
Maitland	Cassilis	...	.....	.....	...	.....	.....	.....	.....	...
	Dungog	...	.....	.....	...	.....	.....	.....	.....	...
	Gosford	...	.....	.....	...	.....	.....	.....	.....	...
	Maitland	...	.....	.....	...	.....	.....	.....	.....	...
	Muswellbrook	...	.....	.....	...	.....	.....	.....	.....	...
	Newcastle	...	.....	.....	...	.....	.....	.....	.....	...
	Paterson	2	960	6	1	320	.....	.....	.....	...
	Raymond Terrace	...	.....	.....	...	.....	.....	.....	.....	...
	Scone	2	5,880	7	2	5,880	.....	1	765	...
	Singleton	...	.....	.....	...	.....	.....	.....	.....	...
	Stroud	...	.....	.....	...	.....	.....	.....	.....	...
	Taree	...	.....	.....	...	.....	.....	.....	.....	...
	Wollombi	...	.....	.....	...	.....	.....	.....	.....	...
Moree	Bingara	...	.....	.....	...	.....	.....	3	17,130	...
	Moree	7	9,238	23	7	9,238	.....	3	7,140	...
	Walgett	2	3,400	6	...	.....	.....	.....	.....	...
	Walgett, North	12	120,160	142	7	107,060	.....	1	1,920	...
	Warialda	5	10,960	19	4	9,760	.....	.....	.....	...
Orange	Bathurst	...	.....	.....	...	.....	.....	2	3,840	...
	Carcoar	...	.....	.....	...	.....	.....	.....	.....	...
	Cowra	2	989	6	1	349	1	.....	.....	...
	Lithgow	...	.....	.....	...	.....	.....	.....	.....	...
	Molong	1	1,500	3	...	.....	1	.....	.....	...
	Mudgee	2	1,225	3	...	.....	1	.....	.....	...
	Orange	1	96	3	...	.....	.....	.....	.....	...
	Rylstone	...	.....	.....	...	.....	.....	.....	.....	...
	Wellington	1	400	3	...	.....	.....	.....	.....	...
Sydney	Campbelltown	...	.....	.....	...	.....	.....	.....	.....	...
	Kiama	...	.....	.....	...	.....	.....	.....	.....	...
	Liverpool	...	.....	.....	...	.....	.....	.....	.....	...
	Metropolitan	...	.....	.....	...	.....	.....	.....	.....	...
	Parramatta	...	.....	.....	...	.....	.....	.....	.....	...
	Penrith	...	.....	.....	...	.....	.....	.....	.....	...
	Picton	...	.....	.....	...	.....	.....	.....	.....	...
	Windsor	...	.....	.....	...	.....	.....	.....	.....	...
	Wollongong	...	.....	.....	...	.....	.....	.....	.....	...

Land Board District.	Land District.	Applications made during 1891.						Applications made prior to 1891.		
		No. received	Area applied for.	Fees lodged.	No. allowed.	Area allowed.	No. allowed.	No. allowed.	Area allowed.	No. disallowed.
			Acres.	£		Acres.			Acres.	
Tamworth	Coonabarrabran	2	3,840	6	...	.....	.....	6	29,780	...
	Gunnedah	3	2,180	9	2	1,220	.....	1	1,500	1
	Murrurundi	...	.....	.....	...	.....	.....	...	.....	...
	Narrabri	1	1,920	3	1	1,920	.....	...	.....	...
	Tamworth	...	.....	.....	...	.....	.....	...	.....	...
Wagga Wagga	Albury	1	320	3	...	.....	.....	...	.....	...
	Cootamundra	3	5,755	11	1	1,920	.....	3	2,925	2
	Corowa	...	.....	.....	...	.....	.....	...	.....	...
	Gundagai	...	.....	.....	...	.....	.....	1	300	...
	Narranderra	...	.....	.....	...	.....	.....	2	4,900	...
	Tumut	2	1,164	6	...	.....	2	1	1,920	...
	Urana	2	8,532	12	...	.....	.....	...	.....	...
	Wagga Wagga	4	14,022	22	1	192	.....	1	850	...
	Total	119	601,076	809	49	242,158½	11	42	158,731	5

Schedule CXII.

Return showing number of Trespasses on Crown Lands reported during 1891, and action taken thereon under the provisions of the Crown Lands Act of 1884.

Number of cases not disposed of at end of 1890	146	
Number of cases of trespass reported by Crown Lands Bailiffs during 1891	174	
		320
Number of prosecutions in which convictions were obtained	30	
Number of cases dismissed	4	
Trespasses abated after notice, without legal proceedings by the Department	103	
Cases in which action was suspended by the Department, pending investigation of applications to be placed on legal occupation	28	
Number of cases of reported trespass in which, after investigation, it was found that no proceedings were necessary	25	
Number of cases referred to other departments for action	2	
Number of cases in which, on acknowledgment of trespass, no further proceedings were taken	8	
Cases not disposed of at end of year	120	
		320

Schedule CXIII.

Comparative Statement of Manuscript Letters, Formal Documents, and Parcels despatched from Head Office during the years 1890 and 1891.

Year.	Manuscript Letters.	Formal Documents, including Printed Letters, Schedules, Ex. Co. Minutes, *Gazette* Notices, Books of Reference to Benches of Magistrates, and Plans of Roads to same.		Parcels.	Total.
		Printed Letters, Ex. Co. Minutes, &c.	Schedules.		
1890	26,817	91,889	1,063	13,386	133,155
1891	22,791	102,397	1,235	13,223	139,646
Decrease	4,026	.....	.....	163	.....
					Net increase.
Increase	.....	10,508	172	.....	6,491

Telegrams sent during 1890	2,603	
Telegrams sent during 1891	1,866	
Decrease	737	
Circulars sent during 1890	169	
Circulars sent during 1891	225	
Increase	56	

Schedule CXIV.

Comparative Statement of Letters Registered during the years 1890 and 1891 at Head Office.

Branch.	Documents Registered.		Increase.	Decrease.
	1890.	1891.		
Ministerial	15,158	14,392	.....	766
Miscellaneous	19,317	15,149	.....	4,168
Alienation	11,890	11,979	89	.....
Leases	10,123	12,671	2,548	.....
Conditional Sales	32,769	32,066	.....	703
Occupation	15,491	14,563	.....	928
Miscellaneous Leases	4,401	8,885	4,484	.....
Total	109,149	109,705	7,121	6,565

Schedule CXV.

Return showing Number of Letters and Documents received at and despatched from the Head Offices of the Local Land Boards during the year ending 31st December, 1891.

Land Board District.	Received. No. of Letters and Circulars.	Despatched.			Total No. Despatched.
		Manuscript Letters.	Formal Documents (partly printed and partly manuscript).	Parcels (including Maps, &c.)	
Armidale	16,906	4,825	6,322	733	11,880
Bourke	7,066	520	3,497	567	4,584
Cooma	11,446	897	10,504	358	11,759
Dubbo	9,674	380	6,505	35	6,920
Forbes	9,827	934	7,161	478	8,573
Goulburn	6,907	675	11,382	425	12,482
Grafton	10,192	1,307	4,982	742	7,031
Hay	8,207	1,738	5,575	370	7,683
Maitland	11,859	1,333	11,601	769	13,703
Moree	8,974	293	4,335	297	4,925
Orange	15,891	1,946	12,057	467	14,470
Sydney	3,049	267	1,676	29	1,972
Tamworth	12,654	1,105	6,968	354	8,427
Wagga Wagga	15,993	2,576	12,578	707	15,861
Total	148,645	18,796	105,143	6,331	130,270

Schedule CXVI.

Approximate Statement of Area of Land Alienated and Unalienated in the Colony on the 31st December, 1891.

	Acres.
1. Area alienated in all forms prior to 1861	7,338,539
2. Area alienated by Auction and after Auction Selection from 1861 to 31st December, 1891	13,069,746
3. Area alienated by Improvement Purchase during same period	2,777,278
4. Area alienated by Conditional Purchase during same period, for which deeds have issued	2,084,112
5. Area alienated by all other forms during same period, including lands dedicated	1,220,924
Area alienated up to 31st December, 1891	26,490,599
6. Estimated area of unalienated land in the Colony on 31st December, 1891	169,391,551
Estimated area of Colony	195,882,150
Area under incomplete Conditional Purchase up to 31st December, 1891, exclusive of forfeitures, lapsings, cancellations, and voidances	19,236,076

Schedule CXVII.

Return of Special Areas from 1st January, 1885, to 31st December, 1891.

Board District.	Land District.	Total Acreage included in Special Areas when proclaimed.	Area thereof since included in Reserves or otherwise rendered unavailable for Conditional Purchase.	Area available for Selection.	Area Selected.	Area Unselected on 31 Dec., 1891.	Total Price represented by land selected.	Total received for Deposit Money.	Percentage of Area selected to Area available for selection.
		a. r. p.	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	per cent.
Armidale	Armidale	7,006 3 0	3,049 3 0	3,957 0 0	2,008 1 0	1,948 3 0	3,463 7 6	355 1 6	50·7
	Glen Innes	7,710 0 0	118 2 0	7,591 2 0	3,331 2 0	4,260 0 0	6,263 12 6	626 9 3	43·8
	Inverell	812 2 0	264 2 0	548 0 0	548 0 0	Nil.	1,096 0 0	109 12 0	100·0
	Tenterfield	1,431 2 0	240 1 0	1,191 1 0	285 0 0	906 1 0	577 10 0	57 15 0	23·9
	Walcha	4,143 3 0	100 0 0	4,043 3 0	1,995 0 0	2,048 3 0	4,292 15 0	429 5 0	49·3
	Totals	21,104 2 0	3,773 0 0	17,331 2 0	8,167 3 0	9,163 3 0	15,693 5 0	1,578 2 9	47·1
Bourke	Bourke	10,277 1 0	1,573 3 0	8,703 2 0	1,697 3 0	7,005 3 0	3,227 13 6	327 2 0	19·5
	Cobar	7,248 3 0	Nil.	7,248 3 0	Nil.	7,248 3 0	Nil.	Nil.	Nil.
	Brewarrina East	1,967 0 0	Nil.	1,967 0 0	Nil.	1,967 0 0	Nil.	Nil.	Nil.
	Totals	19,493 0 0	1,573 3 0	17,919 1 0	1,697 3 0	16,221 2 0	3,227 12 6	327 2 0	9·4
Cooma	Bega	1,591 0 17	Nil.	1,591 0 17	1,591 0 17	Nil.	8,025 10 8	802 11 0	100
	Bombala	916 1 0	351 0 0	564 3 0	401 3 0	163 0 0	722 12 6	72 5 3	71
	Cooma	7,309 0 20	3 2 0	7,305 2 20	4,927 3 0	2,377 3 20	7,956 15 6	795 13 9	67
	Eden	776 1 0	413 0 0	363 1 0	363 0 0	Nil.	898 2 6	83 15 0	100
	Moruya	273 2 20	Nil.	273 2 20	Nil.	273 2 20	Nil.	Nil.	Nil
	Queanbeyan	1,184 3 20	239 3 0	945 0 20	657 1 0	287 3 20	1,529 0 0	152 18 0	69
	Milton	2,210 0 0	1,570 0 0	640 0 0	640 0 0	Nil.	960 0 0	128 0 6	100
	Totals	14,261 0 37	2,577 3 0	11,683 1 37	8,581 0 17	3,102 1 20	20,092 1 2	2,035 3 6	73
Dubbo	Dubbo	20,700 0 0	4,330 3 0	16,369 1 0	9,320 3 0	7,048 2 0	14,890 12 6	1,489 1 3	56·9
	Coonamble	7,705 0 0	2,550 1 0	5,154 3 0	2,423 1 0	2,731 2 0	4,578 17 6	457 17 9	47
	Totals	28,405 0 0	6,881 0 0	21,524 0 0	11,744 0 0	9,780 0 0	19,469 10 0	1,946 19 9	54·5
Forbes	Condobolin	8,723 0 0	118 0 0	8,605 0 0	7,635 0 0	970 0 0	12,394 5 0	1,239 8 6	88·72
	Forbes	17,114 2 15	7 0 0	17,107 2 15	15,760 2 10	1,347 0 5	28,478 14 9	2,849 15 2	92·12
	Grenfell	21,146 2 0	1,158 1 10	19,988 0 30	18,099 0 37	1,888 3 33	32,717 6 9	3,271 14 8	90·54
	Parkes	20,723 3 0	1 1 10	20,722 1 30	20,104 0 30	618 1 0	31,860 5 0	3,138 0 6	97·01
	Totals	67,707 3 15	1,284 2 20	66,423 0 35	61,598 3 37	4,824 0 38	105,450 11 6	10,498 18 10	92·1

SCHEDULE CXVII—*continued*

Board District	Land District	Total Acreage included in Special Areas when proclaimed	Area thereof since included in Reserves or otherwise rendered unavailable for Conditional Purchase	Area available for Selection	Area Selected	Area Unselected on 31 Dec., 1891	Total Price represented by land selected	Total received for Deposit Money	Per centage of Area selected to Area available for selection
		a r p	a r p	a r p	a r p	a r p	£ s d	£ s d	per cent
Goulburn	Boorowa	8,571 1 0	694 0 0	7,877 1 0	7,351 0 0	526 1 0	15 475	1,547 13 8	93 32
	Goulburn	622 3 0		622 3 0	439 1 0	183 2 0	958 1 0	95 17 0	70 53
	Gunning	3,197 0 0	1,906 3 0	1,290 1 0	1,290 1 0	Nil	2,146	214 10 9	100
	Moss Vale	1,020 0 0		1 020 0 0	242 0 0	778 0 0	434	43 8 0	23 73
	Yass	2,113 3 0	219 0 20	1,894 2 20	1 861 2 20	33 0 0	3 108 8 9	315 17 3	98 26
	Young	13,087 2 35	301 0 20	12 786 2 15	10,850 1 29	1,936 0 26	26,978 18 1	2,697 17	84 85
	Nowra	520 3 10	41 1 0	479 2 10	87 3 0	391 3 10	163 11 3	15 14 0	18 30
	Totals	29,133 1 5	3,162 1 0	25,971 0 5	22 122 1 9	3,848 2 36	49 314 16 11	4 930 19 0	85 18
Grafton	Grafton	6,002 0 8	590 0 0	5 412 0 8	2,469 1 8	2,942 3 0	5 120 15 0	485 19 9	45 6
	Lismore	43,959 2 0	1,504 0 0	42,455 2 0	9,520 0 0	32 935 2 0	24 733 15 0	2,423 7 6	22 4
	Casino	5,752 0 23	404 2 0	5,347 2 23	1,518 1 0	3 829 1 33	3 665 10 0	365 11 0	28 4
	Murwillumbah	11,843 3 0	1,110 0 0	10,733 3 0	2,984 1 0	7 749 2 0	5 405 17 6	553 1 9	27 8
	Kempsey	6 324 0 0	100 0 0	6,224 0 0	4 824 1 0	1 399 3 0	7 239 7 6	735 18 9	77 5
	Bellingen	22 254 3 0	9,231 2 0	13,023 1 0	7,971 1 0	5,052 0 0	13 948 7 6	1,589 19 6	61 2
	Totals	96,136 1 1	12,940 0 0	83 196 1 1	29,287 1 8	53 908 3 33	59 603 12 6	6 153 18 3	35 2
Hay	Deniliquin	115 284 0 0	9,941 0 0	105 343 0 0	61 368 2 0	43,974 2 0	114,614 6 3	11,461 9 9	58
	Hay	71,585 0 0	38,611 0 0	3 ? 974 0 0	19,526 3 0	13,447 1 0	32 153 0 0	3,?15 6 0	59 5
	Hillston	6,856 1 0		6 856 1 0	1 792 2 0	5,063 3 0	3 016 0 0	301 12 0	26
	Totals	193,725 1 0	48,552 0 0	145 173 1 0	82,687 3 0	62,485 2 0	149,783 6 3	14,978 7 9	57
Maitland	Cassilis	1,273 3 0	226 0 0	1 047 3 0	740 2 0	307 1 0	1,110 15 0	111 1 6	7
	Dungog	2,422 1 0	Nil	2,422 1 0	1,120 3 0	1,301 2 0	1 949 17 6	198 5 9	46
	Gosford	842 2 20	Nil	842 2 20	673 2 20	169 0 0	2,746 0 6	266 8 8	79
	Maitland	1,815 3 0	1 533 1 0	282 2 0	282 2 0	Nil	423 15 0	42 7 6	100
	Muswellbrook	2,794 3 0	1,281 0 0	1 513 3 0	1,433 1 0	75 2 0	2,991 10 0	299 3 0	95
	Newcastle	379 1 25	Nil	379 1 25	40 0 0	339 1 25	120 0 0	12 0 0	10
	Paterson	732 0 0	Nil	732 0 0	593 3 0	138 1 0	1,004 12 6	100 9 3	81
	Raymond Terrace	2,241 3 0	Nil	2 241 3 0	Nil	2,241 3 0	Nil	Nil	Nil
	Scone	251 1 38	Nil	251 1 38	251 1 38	Nil	503 0 0	50 6 0	100
	Singleton	975 2 20	Nil	975 2 20	663 1 20	312 1 0	1,620 11 5	162 1 2	67
	Taree	6 460 2 20	451 2 0	6 009 0 20	433 0 0	5,576 0 20	748 15 0	74 19 9	7
	Wollombi	125 3 0	Nil	125 3 0	81 0 0	44 3 9	162 0 0	16 4 0	64
	Totals	20 315 3 3	3,491 3 0	16 824 0 3	6 318 0 38	10 505 3 5	13,380 16 9	1,333 6 7	42
Moree	Moree	11,746 3 0	2,344 3 0	9,402 0 0	7,371 1 0	2 030 3 0	12,973 10 0	1,?26 18 3	78 4
	Bingara	548 2 0	Nil	548 2 0	420 1 0	128 1 0	940 15 0	199 0 0	76 6
	Warialda	5,314 1 13	950 0 0	4,364 1 13	2,304 1 13	2 060 0 0	3 773 10 10	387 8 9	52 7
	Walgett	2,127 0 0	823 3 0	1,303 1 0	126 1 0	1,177 0 0	378 15 0	37 17 6	9 6
	Totals	19,736 2 13	4,118 2 0	15,618 0 13	10,222 0 13	5,396 0 0	17,366 10 10	1,781 4 6	65 4
Orange	Cowra	11,934 0 30	2,560 0 0	9,374 0 30	8,054 0 0	1,320 0 30	1,599 8 9	1,571 9 5	85
	Mudgee	1,972 0 0	Nil	1,972 0 0	1,329 2 0	642 2 0	2,143 0 0	214 0 6	67
	Bathurst	1,753 1 0	Nil	1 753 1 0	1 346 0 0	407 1 0	2 019 7 6	201 17 6	76
	Molong	7,632 1 0	Nil	7,632 1 0	6,359 3 0	1,272 2 0	13,017 12 6	1,299 15 3	83
	Wellington	378 0 0	Nil	378 0 0	378 0 0	Nil	567 0 0	56 14 0	100
	Lithgow	1,077 1 0	10 2 0	1,066 3 0	716 2 0	350 1 0	2,373 0 0	237 18 0	67
	Totals	24,746 3 30	2,570 2 0	22,176 1 30	18,183 3 0	3,992 2 30	35,719 8 9	3,581 14 8	81
Sydney	Campbelltown	8,939 3 0	1,925 3 0	7,014 0 0	1,483 0 0	5,531 0 0	2,896 0 0	279 12 0	21
	Liverpool	96 2 0	Nil	96 2 0	96 2 0	Nil	193 0 0	19 6 0	100
	Metropolitan	353 2 0	313 2 0	40 0 0	40 0 0	Nil	320 0 0	32 0 0	100
	Parramatta	162 0 0	40 0 0	122 0 0	122 0 0	Nil	244 0 0	40 8 0	100
	Penrith	1 068 3 0	Nil	1,068 3 0	347 0 0	721 3 0	1 467 10 0	146 15 0	32 4
	Picton	1,838 2 0	Nil	1,838 2 0	980 2 0	858 0 0	2,942 10 0	334 5 0	53 3
	Windsor	140 3 0	Nil	140 3 0	61 2 0	79 1 0	123 0 0	12 6 0	44
	Totals	12,599 3 0	2,279 1 0	10,320 2 0	3,130 2 0	7,190 0 0	8,186 0 0	864 12 0	30 3
Tamworth	Coonabarabran	1,961 0 0	1,371 0 0	590 0 0	160 0 0	430 0 0	240 0 0	24 0 0	27
	Gunnedah	12,079 3 0	160 1 0	11 919 2 0	5,662 0 0	6,257 2 0	11,423 2 6	1,142 6 3	47 5
	Murrurundi	7,243 3 0	1,018 3 10	6,224 3 30	5,435 0 10	789 3 20	10 628 16 3	1,062 17 8	84 7
	Nairabri	31,906 3 0	7,917 3 0	23 989 0 0	4,419 3 0	19,569 1 0	7,117 15 0	711 15 6	18 4
	Tamworth	36,163 2 20	675 3 0	35,487 3 20	11,735 1 0	23,752 2 20	26,360 15 7	2,636 2 8	33
	Totals	89,354 3 20	11,143 2 10	78,211 1 10	27,412 0 10	50,799 1 0	55,770 9 4	5,577 2 1	35
Wagga Wagga	Albury	33 532 0 33	3 835 3 0	29 696 1 33	24 167 3 33	5 528 2 0	56,368 4 11	5,636 16 6	81
	Corowa	33,923 0 31	10,596 1 0	23 326 3 31	21,062 1 31	2,264 2 0	59,115 18 2	5,911 11 10	90
	Cootamundra	88,024 2 30	4,491 0 0	83 533 2 30	52,076 2 0	31,457 0 30	101 680 8 9	10 168 1 1	62
	Gundagai	10 370 2 10	280 0 0	10 090 2 10	9,846 1 15	244 0 35	30,643 4 5	2,292 17 11	97
	Narrandera	31 200 1 0	6,933 2 0	24,266 3 0	12,622 0 0	11 644 3 0	27 995 8 9	2,799 10 11	52
	Tumut	6,505 0 0		6 505 0 0	2 324 0 0	4,181 0 0	3 633 7 6	363 6 9	35
	Urana	44,375 1 30	13,174 1 30	31,201 0 0	21,752 3 30	9 448 0 10	47,949 5 7	4,794 8 8	69
	Wagga Wagga	77,636 3 30	5,735 3 0	71,901 0 30	53,080 0 32	18 820 3 38	113,325 17 6	11 312 6 7	73
	Totals	325,568 1 4	45,046 2 30	280,521 2 14	196,932 1 21	83,589 0 33	440,711 15 7	43 279 0 3	70
Totals and Percentage for the whole Colony.									
Armidale		21,104 2 0	3,773 0 0	17 331 2 0	8,167 3 0	9 163 3 0	15,093 5 0	1,578 2 9	47 1
Bourke		19 493 0 0	1,573 3 0	17,919 1 0	1,697 3 0	16,221 2 0	3 227 12 6	327 2 0	9 4
Cooma		14 261 0 37	2,577 3 0	11,683 1 37	8 581 0 17	3,102 1 20	20 092 1 2	2,035 3 6	73
Dubbo		28,405 0 0	6 881 0 0	21 524 0 0	11,744 0 0	9 780 0 0	19,469 10 0	1,946 19 0	54 5
Forbes		67,707 3 15	1 284 2 20	66,423 0 35	61 598 3 37	4,824 0 38	105 470 11 6	10,498 18 10	92 1
Goulburn		29 133 1 5	3 162 1 0	25 971 0 5	22 122 1 9	3,848 2 36	49,314 16 11	4 930 19 0	85 18
Grafton		96 136 1 1	12 940 0 0	83,196 1 1	29,287 1 8	53 908 3 33	59 603 12 6	6 153 18 3	35 2
Hay		193 725 1 0	48 552 0 0	145,173 1 0	82,687 3 0	62,485 2 0	149 783 6 3	14,978 7 9	57
Maitland		20 315 3 3	3 491 3 0	16 824 0 3	6 318 0 38	10 505 3 5	13,380 16 9	1,333 6 7	42
Moree		19 736 2 13	4 118 2 0	15 618 0 13	10,222 0 13	5,396 0 0	17,336 10 10	1,781 4 6	65 4
Orange		24,746 3 30	2,570 2 0	22,176 1 30	18 183 3 0	3 992 2 30	35,719 8 9	3,581 14 8	81
Sydney		12 599 3 0	2,279 1 0	10 320 2 0	3,130 2 0	7 190 0 0	8 186 0 0	864 12 0	30 3
Tamworth		89 3 4 3 20	11,143 2 10	78 211 1 10	27 412 0 10	50,799 1 0	55 770 9 4	5 577 2 1	35
Wagga Wagga		325 568 1 4	45 046 2 30	280 521 2 14	196 932 1 21	83 589 0 33	440,711 15 7	43,279 0 3	70
Grand total		962,288 2 8	149,394 2 20	812,893 3 28	488 085 2 33	324 807 3 35	993,759 17 1	98 846 14 2	60

SCHEDULE CXVIII.

Area of land measured, the plans of which were transmitted, during 1891, and cost thereof.

Class of survey	Licensed Surveyors			Salaried Surveyors			Aggregate Area—	Aggregate cost	Average cost per acre.
	Area—	Cost	Average cost per acre	Area—	Cost	Average cost per acre			
	acres	£ s d	£ s d	acres	£ s d	£ s d	acres	£ s d	£ s d
Conditional purchases	874,397	39,175 0 0	0 0 10½	14,416	1,439 5 0	0 2 0¾	888,813	40,614 5 0	0 0 10.9/10
Conditional leases	1,989,206	45,298 0 0	0 0 5½	15,457	619 5 0	0 0 9½	2,004,663	46,217 5 0	0 0 5½
Special areas	22,555	634 0 0	0 0 6¾	305	49 10 0	0 3 2⅞	22,860	683 10 0	0 0 7½
Homestead leases	992 838	3,298 0 0	0 0 0⅞	147,886	842 5 0	0 0 1⅛	1,140,724	4,140 5 0	0 0 0.87/100
Special leases	1,067	121 10 0	0 2 1	728	275 15 0	0 7 6¼	1,795	397 5 0	0 4 5
Measured in anticipation	219,236	6,536 10 0	0 0 7	17,172	387 15 0	0 0 5½	236,708	6,924 5 0	0 0 7
Auction, country	46,769	2,271 0 0	0 0 11½	3,332	258 5 0	0 1 6¾	50,101	2,529 5 0	0 1 0½
Do suburban	2,096	732 0 0	0 7 0	527	233 0 0	0 8 10	2,623	965 0 0	0 7 4½
Do town	494	975 0 0	1 19 6	254	431 15 0	1 14 0	748	1,406 15 0	1 17 7½
Improvement purchase	115	38 0 0	0 6 7½	1,495	242 0 0	0 3 3½	1,610	280 0 0	0 3 5½
Special purchases, rescissions, and reservations	36	20 0 0	0 11 1½	41	331 5 0	8 1 7	77	351 5 0	4 11 3
Reserves	35,338	749 0 0	0 0 5	2,048	391 5 0	0 3 0¾	37,386	1,140 5 0	0 0 7¼
Public School sites	227	232 10 0	1 0 6	66	181 10 0	2 15 0	293	414 0 0	1 8 3½
Cemeteries	291	33 0 0	0 16 0	751	609 0 0	0 16 2½	1,042	842 0 0	0 16 1.2/10
Parks				15	46 0 0	3 1 4	15	46 0 0	3 1 4
Miscellaneous	13,040	439 0 0	0 0 8	62,094	2,287 5 0	0 0 8¾	75,139	2,726 5 0	0 0 8⅝
Amendments									
	4,198,010	101,052 10 0	0 0 5¾	266,587	8,625 0 0	0 0 7¾	4,464,597	109,677 10 0	0 0 5.10/11
	Chains	Cost	Average per chain	Chains	Cost	Average per chain	Total length (chains)	Total cost	Average per chain.
Roads (4 Wm IV, No 11)	20,270	1,367 10 0	0 1 4	18,590	2,264 10 0	0 2 5¾	38,860	3,632 0 0	0 1 10.8/9
Boundaries of pastoral areas	10,725	625 0 0	0 0 7¹	2,849	165 15 0	0 1 1½	22,574	790 15 0	0 0 8½
Feature and geographical surveys	12,935	530 0 0	0 0 9¼	25,057	2,331 10 0	0 1 10¼	37,990	2,861 10 0	0 1 5⁵
Miscellaneous lengths	16,881	1,030 0 0	0 1 2½	110,024	6,687 5 0	0 1 2½	126,905	7,717 5 0	0 1 2½
	60,809	3,552 10 0	0 1 0	156,520	11,449 0 0	0 1 5½	226,329	15,001 10 0	0 1 3.10/11

SCHEDULE CXIX.

LAND APPEAL COURT.

THE expenses of the above Court for the year 1891 were as follows —

	£ s d.
Salaries, Commissioners and Officers	5,030 0 0
„ Mr Cannaway (Counsel)	500 0 0
Travelling expenses	657 7 0
General expenses	829 12 7
	£7,016 19 7

Report of The Chief Surveyor to The Under Secretary for Lands.

Sir, Department of Lands, Survey Office, Sydney, 19 February, 1892.

I do myself the honor to submit the Annual Report for this office for the year 1891.

Staff. The permanent field staff consisted of fifty-two officers, who were classified as follows, viz., fourteen district surveyors, and thirty-one other salaried surveyors.

Promotions. Mr. A. Sharp, of the first class, was promoted to the position of District Surveyor at Forbes, which became vacant through the removal of Mr. G. H. Sheaffe to be District Surveyor at Cooma, *vice* Mr. A. C. Betts, who was appointed Chairman of the Local Land Board at Cooma.

Mr. A. W. Chapman, of the second class, was promoted to the position of first-class surveyor; Mr. C. R. Scrivener, of the third class, was promoted to the second class; and Mr. W. H. Foster, of the fourth class, was promoted to the third class.

Resignation of office. Mr. W. M. Gordon resigned his appointment as a staff surveyor, and Mr. R N. Somerville, who was employed temporarily on salary, was promoted to the position thus vacant on the permanent staff.

Surveyors temporarily on salary. Thirteen licensed surveyors were employed temporarily on salary, four of whom were engaged on the detail survey of Sydney environs for sewerage purposes.

Assistant surveyors. On the recommendation of the late Board of Inquiry a new grade in temporary salaried service was created, viz., that of assistant surveyors, to which junior licensed surveyors should be eligible, who would acquire further experience under direction of salaried surveyors; and thus the grade would constitute a trained reserve, from which surveyors might be selected for salaried employment. During the year ten junior licensed surveyors were appointed to this grade, and there were six resignations.

License to survey under the Real Property Act. Licenses under the Real Property Act were issued to 228 surveyors during the year.

Acting on a suggestion of the Board of Inquiry a fee was recommended to be charged for future issue of this license; this course was authorised by the Minister, and during the last month of the year sixty-seven licenses were granted for 1892, in respect of which a fee of 21s. was paid. Many surveyors who had held this license objected to renewal under this condition, and obtained permission to represent their objections at an interview, and a deputation was received by the Minister, who, however, declined to alter his decision in the matter.

Investigation of survey. On application of the Registrar-General there have been three investigations of subdivisions of grants which had been brought under operation of the Real Property Act.

There have been three inspections and reports upon surveys effected by applicants desiring to obtain license to survey under the Real Property Act.

Proceedings of the Board of Examiners for license to survey Crown lands There were two examinations held by the Board during the year. At the first examination, which took place in January, twelve candidates presented themselves, of whom four were found to be qualified, and were recommended to be licensed as surveyors, namely:—

J. M. Conroy,	A. J. Peisley,
A. E. Crossman,	N. Ford.

At this meeting of the Board, the regulations under which the examinations are conducted were considered, and desirable amendments were submitted for the approval of the Honorable the Secretary for Lands. The approval sought has not, however, yet been given.

At the meeting held in July, fifteen candidates were examined, of whom five were found to be qualified, and were recommended to be licensed as surveyors, namely:—

S. Archer,	H. Roche,
H. P. Hannify,	A. E. Roberts,
A. J. Ryan.	

The Surveyor-General of Queensland being about to hold a similar examination at the same time in Brisbane, copies of the examination papers were at his request supplied to him, in order that the examinations in the two places with the same papers might be held simultaneously.

The question of reciprocal recognition by the several Australian Colonies of certificates of qualification issued under authority in any Colony of the group, which had been before considered by the Board, was further discussed, and it was recommended to the Honorable the Secretary for Lands that a conference of representatives of the various Survey Departments of these Colonies be held to consider the following subjects:—

1. The best means of establishing a uniform system of examination—this being thought to form the only basis for reciprocity.
2. The constitution of Boards of Examiners.
3. The practice to be followed in respect of certificates of competency already issued.
4. The best means of dealing with surveyors who are shown in their professional practice to be unworthy of confidence.
5. The best means of securing the efficiency as surveyors of those engaged on mining, railway, road, municipal, and other surveys.
6. The qualifications requisite for license to practice under the Real Property, Land Transfer, or other similar Acts.
7. And any other matters relating to surveying which, in the opinion of the Conference, should be discussed.

TRIGONOMETRICAL SURVEY OF THE COLONY.

In furtherance of the recommendation of the late Board of Inquiry, which was approved by Mr. Secretary Brunker, the trigonometrical survey was again taken in hand, and early in the month of January of this year field operations were commenced; Mr. J. Brooks, F.R.A.S., F.R.G.S., lately acting in the position of Field Astronomer, having been appointed Surveyor-in-charge of field operations, with Mr. J. Richmond and Mr. R. C. Gordon as Observing Surveyors. Field Staff.

Mr. Brooks, using the 18-inch Alt-azimuth, proceeded with measurement of the main series of triangles southerly from Lake George, beginning at Purrorumba, and thence successively observing from Ainslie, Yarrow Pic, Tennent, Tinderry, and Townsend. The total number of horizontal angles at first-class stations being 2,782, and of vertical angles 301; in addition to which, using the 8-inch Bamberg theodolite, he observed from second-class stations Rob Roy and Campbell; and besides, he carried out several connection surveys.

Mr. J. Richmond, using a 10-inch theodolite, entered on the work at Heaton, thence proceeding northerly and westerly through the counties Northumberland, Durham, and Gloucester; and he completed the requisite observations at five stations, viz.: Eaton, Tomalpur, Red Hill, Wareng, and Wambo West, measuring 2,034 horizontal and 1,044 vertical angles. In connection with this work there was about 11¼ miles of traverse.

Mr. R. C. Gordon was directed to continue the minor triangulation trough the counties Bathurst, Georgiana, and King, and, using a 10-inch theodolite, measured angles from twenty-two stations, viz.: Stromlo, Bathurst, Rockley, Lawson, Cullen, Dogrocks, Fulton, Clyde, Sulphur, Ryan, Copperhannia, Bell, Howard, Rothery, Trap, Wells, Wattman, Narrawa, Hume, Midgee, Buffalo, and Canemumbola, comprising 3,581 horizontal angles and 1,654 vertical angles; in addition to which there was about 35 miles of traverse for connections.

The two piling overseers, viz., E. H. Taylor and J. Healy, have been employed in clearing and forming new stations in the counties Beresford, Wallace, Wellesley, Camden, and St. Vincent; and during the year sixty-one stations have been completed ready for observing. The aggregate area cleared of timber for this purpose amounts to about 300 acres. It is fitting for me here to direct attention to the need for a third piling party, in order to utilise the services of the surveyors to the best advantage. This has been the subject of a separate recommendation.

I may also point out that the observing surveyors are instructed to make the requisite connection to a trigonometrical station before removal, instead of leaving the connections between the trigonometrical survey and the alienation surveys to be effected after triangulation by other surveyors. This alteration of the former practice will be economical.

Attention is invited to the quarterly reports from the Surveyor-in-charge, which contain further detail particulars.

COMPUTING BRANCH.

The field-books of angle observations at the following stations have been received during the year, viz.:—Purrorumba, Ainslie, Yarrow, Tennent, Rob Roy, Campbell, Tindery, and Townsend on the south meridian series; Heaton, Tomalpin, Red Hill, Wareng, and Wambo West in the Hunter River District; and stations Stromlo, Bathurst, Rockley, Lawson, Ryan, Copperhannia, Bells, Howard, Rothery, Trap, Wells, Wattman, Narrawa, Hume, Midgee, Buffalo, and Canemumbola, which are situated in the Western District. The observations have been examined and the results entered in the record books. The final positions of many of the stations observed to and from have not yet been reduced, as they depend upon observations yet to be made at other stations of the same series—as for example, at stations Sugarloaf and Brokenback. With regard to observations from other stations, final reduction is delayed pending explanation by the observer. Provisional computations, however, have been made of the positions of a number of the stations in anticipation of demand for them for the purposes of map-compiling. Provisional co-ordinates have also been computed of a number of stations, data for reduction of which were obtained, partly from the trigonometrical survey, and partly from observations made by the surveyor who connected the stations in question with the alienation or other surveys in the locality.

The co-ordinates of twenty-five stations which had been computed from stations E and Towrang as points of origin were reduced to the station Jellore as origin, the values so reduced being utilised in the compilation of a map of the County of Camden. The co-ordinates of stations in that county and in the County of Cumberland were supplied to the Compiling Branch, general information as to the co-ordinates and bearings of the survey being also supplied for information of surveyors and others.

The register of co-ordinates of stations, Sydney and environs, which at the end of 1889 was forwarded to be printed and revised and published during this year, and the information is now available for the use of surveyors and others.

The register of descriptions of stations, Sydney and environs, which was published in 1884, was revised, as far as could be done, without an inspection of the stations, and a new edition of this work is now being printed. A new edition of the reference map showing the stations has also been prepared.

Information as to stations in the northern part of the Colony, fixed by astronomical observations, was supplied to the Surveyor-General of Queensland.

The particulars of astronomical stations determined during previous years, have been collected and revised, and published with an index map in the form of a pamphlet, which will be found very useful for general geographical information.

The general map, in six sheets, of trigonometrical stations, which had been plotted by the assistant computer under direction of Mr. Brooks, prior to the report of the Board of Inquiry in 1890, was in accordance with the recommendation of that Board, completed by a draftsman under contract, and reproduced to half-scale by photo-lithography, and is now available for use.

Tables

Tables for conical projection of county maps have been prepared for printing, the elements being computed for five cones tangent at latitudes 29°, 31°, 33°, 35°, and 37°.

Among the miscellaneous duties of the year may be mentioned registration of descriptions of stations, reports of the formation of which have been received from the piling overseers and observing surveyors, registration of reserves for trigonometrical purposes, examination of reference bearings given in the general register of stations, and partial preparation, just at end of the year, of a programme of stars for observation to determine latitude of and azimuth at station Rhinefalls.

Of the instruments in stock, sales of some of those not required for departmental use have been effected. General repairs have been made to all except the surplus stock, which it has been proposed shall be sold as opportunity offers, and all instruments likely to be required may be reported as now in good working order.

Correspondence and Record Branch.

The duties performed in this branch during the year are shown hereunder :—

Papers received from other branches	15,338
Papers, plans, tracings, &c., received by post	8,022
Instructions issued to Surveyors	1,473
Memoranda sent to Surveyors	10,300
Letters written and despatched	690
Lithos., tracings, and Plans sent to Surveyors	3,053
Minutes written to the Under Secretary	940
Decisions by the Minister noted	640
Telegrams despatched...	64

A general record of all leaves granted during the year to the Survey Staff (field and office) has been kept.

Detail Survey Branch.

Throughout the year 1891, the detail survey of the city and suburbs has been carried out by Mr. D. M. Maitland, under the altered arrangements entered upon in accordance with the recommendations of the late Board of Inquiry, and consequently comprises surveys required in connection with the extension of the Sewerage and Water Supply Schemes, together with such other work as could be carried out more economically in conjunction therewith. In the beginning of the year, twelve surveyors were engaged, but four of these have been, at different times, temporarily transferred to other duties, so that, since the 17th March, eight only have been engaged on the work.

2. The only alignment survey completed in connection with this branch was that of fifteen streets in the town of Parramatta, carried out under authority simultaneously with the standard or skeleton survey of that town, prior to the detail survey being commenced. This method of performing the required service proved economical; as, although there were several practical difficulties in carrying out the alignment itself, the average cost of the whole 13 miles and 60 chains of building lines was only a little over 3s. per chain, the cost of the part actually required for the detail survey being only 2s. 7d. per chain, inclusive of the cost of supervising the erection of the 284 alignment posts which permanently mark the survey. The field work of an alignment survey of several streets in Redfern, carried out in connection with a revisional detail survey of the locality was also completed. Although the report, &c., has not yet been received, and consequently the work cannot be recorded for the year 1891, it has been ascertained that the combination of the two classes of survey is an extremely economical arrangement.

3. As the detail survey becomes more advanced from year to year, and its operations are consequently carried out at ever increasing distances from the centre of population, the labour necessary for determining the position of each separate tenement is also increased with a corresponding rise in the expense of survey when estimated on the basis of so much per tenement. Calculated on an area basis the cost, of course, steadily decreases. During 1891 the plans have been plotted and prepared in the office, so that the cost of survey has been reduced to a minimum, the rate for new surveys for 1891 having been 15s. 6½d. per tenement, as compared with 15s. 11d. for 1890, 15s. 8d. for 1889, 11s. 6d. in 1888, 17s. in 1887, and £1 3s. 8d. in 1886. The detail survey has cost 14s. 3d. per acre in 1891, £1 4s. 1d. in 1890, £1 13s. 11d. in 1889, £3 1s. 6d. in 1888, £6 4s. 7d. in 1887, and £8 12s. 8d. in 1886.

In consequence of the reduced staff the actual area covered by new surveys has been somewhat less than in the two preceding years, being 3,772 acres, as against 6,574 acres in 1891, and 3,904 in 1890; but in localities where the original surveys had become out of date, consequent upon alterations in old and erection of new buildings, the area resurveyed for second editions has been 777 acres in 1891, while in 1890 it was but 39 acres, and in 1889, 256 acres. 172 sheets of new work, showing the full details of 3,454 tenements, have been received during the year, in addition to which resurveys for second editions of 48 sheets, showing 1,930 tenements, erected since the date of original survey, have been completed. In order that the first editions of the lithographs may contain the latest information, revisions are made of each sheet immediately before publication; 87 of these sheets were so revised during the year, with the result that 810 fresh tenements were added. The total number of tenements surveyed through the year have therefore been—New work, 3,454; in surveys for second edition, 1,930; and in revision prior to publication, 810; making a total of 6,194. The enumeration of the new tenements fixed in the course of the second edition and revision surveys does not, however, fairly indicate the amount of work necessary for carrying out those surveys, as in addition to the new tenements fixed, the alterations and additions effected to old buildings since the date of the original survey amount to 3,294.

Incidental to the survey of new work has been the fixation of about 77½ miles of streets, 7½ miles of shore line, 7¼ miles of water-courses, and 5 miles of tram-lines.

The

The distribution of the detail survey is shown in the following tabular statement:—

New Surveys.			Surveys for 2nd Edition.		
Municipalities.	No. of Sheets.	Area—Acres.	Municipalities.	No. of Sheets.	Area—Acres.
Alexandria	10	205	Alexandria	2	36
Ashfield	16	298	Paddington	3	45
Burwood	9	264	Redfern and Darlington	15	219
Canterbury	18	355	Sydney	13	191
Enfield	30	633	Waterloo	1	25
Manly	16	360	Waverley	11	218
Marrickville	10	258	Woollahra	3	43
North Sydney	16	291			
Parramatta	7	124			
Randwick	11	364			
St. Peters	3	67			
Strathfield	6	126			
Waterloo	11	199			
Woollahra	9	228			
	172	3,772		48	777

4. The standard, or skeleton survey, of Parramatta, preparatory to the detail, with a traversed length of 12 miles 24 chains, was carried out during the year at an extremely low cost; and in order that a map of that town on a scale of 2 chains to the inch might be prepared, a subsidiary survey was made in connection therewith.

5. Several minor surveys, together with inspections and reports on matters within the area of which the detail surveys are being made, were also carried out; amongst them were the following:—Inspection of and report on proposed road through Parramatta Park; connection of old grant corners with the trigonometrical survey; survey of Police-station site; proposed site for Friendly Societies' Hall; proposed extension of Post and Telegraph Office; report on boundaries of Industrial School ground, Parramatta, &c.

6. One examination survey for the Real Property Act has been made.

7. Since the 19th November the branch has been deprived of the services of one draftsman, who was granted extended leave on account of ill-health, but on the other hand the office staff has been augmented by the temporary employment of two additional draftsmen.

8. The office work, consequent upon the detail survey field work has been proceeding at a satisfactory rate, 76 plans or sheets having been plotted and drawn during the year, in addition to which, the extra details have been placed on 20 sheets for 2nd editions, 11 sheets of recent detail surveys have been plotted on general survey plans, and 77 sheets have been revised and brought up to date prior to publication.

9. Sixty-four sheets of detail were completely traced, and 126 more, of which the bare outlines had been drawn by contract, were completed; 97 tracings were also altered and added to in consequence of 2nd edition and revision surveys; 26 detail tracings have been forwarded to the Lithographic Branch for zincography, and 44 sheets were published, making a total of 439 now published.

10. Maps on a scale of 2 chains to an inch of the Municipalities of North Sydney and Parramatta, the former in 5 sheets and the latter in 4 sheets, which were required by the Sewerage Construction Branch of the Public Works Department, were commenced and completed during the year, and the tracings forwarded to the Lithographic Branch.

11. As an indication of the increasing use made of the information in the Detail Survey Branch, it should be mentioned that during the last five months of the year, surveyors under the Real Property Act and others outside this department have made reference to 473 plans and 155 field-books.

12. Herewith, in Appendix A, is a tabular statement showing the comparative amount and cost of detail surveys from 1886 to 1891, inclusive, and in Appendix B a list of surveyors employed in 1891, giving also their respective salaries, and a statement of the duties performed by them during the year. Two maps are also annexed, showing in blue tint the area surveyed for sewerage and water supply purposes during 1891, and in red the area surveyed up to the end of 1890.

Drafting Branches.

During the year 1891, the drafting staff was gradually restored to its normal strength by the return of officers from country branches to which they had been lent, the transfer of several members of country staffs to head-quarters, and the appointment of juniors to fill vacancies caused by promotion of members of the staff.

The pamphlet showing measured lands open to selection was completed and published early in the year and its existence made known as widely as possible; but although it has proved of some service in the direction anticipated, it is doubtful whether the demand has been sufficient to justify the publication of a further edition.

The large printing machine contracted for was duly received and erected, and lithographs of the largest size can now be printed in an expeditious and economical manner.

Although the number of parish maps completed and published is in excess of last year's return, the total is not nearly so large as should be reached when standard maps are all prepared.

A less number of town maps have been published, as anticipated, but a considerable number yet remain drawn upon stone in course of revision and alteration of design, &c.

About the same number of county maps was completed as during the previous year; and it has at last been found practicable to commence the much needed compilation of the metropolitan county of Cumberland.

The

The progress made on the new Colony map is exhibited on the annexed sketch-map, and during the coming year it is intended to institute inquiries among the leading map publishers of Great Britain and the United States, as to the best methods of reproducing this map.

The lithography of the city and environs map is proceeding satisfactorily. Two sheets have been completed, two others drawn and now in course of revision to date, and the remaining two are in the contractor's hands in a forward condition.

Arrangements are being made for bringing this map under the notice of the public, and it is hoped that by the time it is completed and printed, a fair number of orders for its purchase will have been received.

Late in the year a special branch was organised, consisting of six officers borrowed from Drafting Branches, two from Clerical Branch, and two temporary assistants recommended by the Treasury, for the purpose of computing the refunds due to Crown lessees under the provisions of the Crown Rents Act; and it is expected that this important work will be completed in the first quarter of 1892, when the branch will be disbanded and the departmental officers returned to their proper duties.

Eight candidates were examined with a view to qualification as temporary draftsmen. All these satisfied the examiners except in one instance, in which a better plan will require to be drawn before the candidate can be regarded as having passed satisfactorily.

Detail statements of the work performed in the different branches follow.

Miscellaneous Charting Branch.

The staff of this branch was not restored to its usual strength until October.

During the year one officer was transferred to Compiling Branch, another was promoted to a position in the Department of Agriculture, and another was appointed to a Crown Lands Agency.

Three draftsmen were transferred to the Charting Branch from country offices, and two juniors were appointed, thus completing the usual staff.

The pamphlet showing measured lands open to selection in the Eastern and Central Division was completed and published on the 24th February.

All the applications for exchange of land received during the year for preliminary investigation were disposed of by the close of the year.

The reserve notifications for 1891 were posted in accordance with the new system, and it is proposed to adapt that system to back years, commencing with 1861 to 1865, as opportunity offers.

The confirmation noting has received some attention during 1891, a substantial increase being exhibited, as compared with the quantity of noting disposed of in 1890. This work can be regarded as practically up to date, and it now only remains to complete the noting of consecutive numbers of conditional leases in order to place the whole matter upon a satisfactory basis.

The number of new surveys charted shows a substantial increase on that of 1890. This work, which is carried out by contract, embraced 11,300 plans, representing 13,546 portions, the cost being £536, as against 6,621 plans and 8,315 portions in 1890.

A considerable part of the time of one officer was occupied in comparing certified copies of certain plans with the originals, which latter had been forwarded to head office under a misapprehension.

The preparation of Parliamentary returns at different periods during the year involved an appreciable amount of work. On the 1st of January there were 680 cases in the hands of draftsmen. This number increased to 963 in February, but declined to 430 in September, and at the close of the year stood at 679.

The following statement sets forth the classification and quantity of service performed during this and the previous year:—

	1890.	1891.
Miscellaneous papers in Branch on 31st December	533	679
Auction	147	180
Cases dealt with during year, inclusive of auction	10,652	9,087
Cases dealt with during year, exclusive of auction	8,586	7,462
Confirmations noted	7,491	10,644
Consecutive numbers of conditional leases noted	...	2,767
Plans and tracings charted	6,907	11,300
Area gazetted for auction during the year	147,768 acres.	125,030 acres.

Compiling Branch.

Miscellaneous Division.—This division is charged with the compilation and drawing of town, county, Colony, and miscellaneous maps, and the charting of plans of feature surveys and connections and new railway lines proclaimed. Several members of the branch were temporarily attached to country offices during the year; and one was permanently transferred to the country, his place being filled by a competent draftsman from the Charting Branch.

Twenty-two town maps have been completed, including Willyama (Broken Hill) and Newcastle.

Four county maps have been compiled and drawn, viz., Northumberland, Townsend, Kennedy, and Clyde; and one, St. Vincent, charted up for new edition. The compilations of counties of Argyle, Camden, Fitzroy, Raleigh, Vernon, Hawes, Clarke, and Cumberland are in different stages towards completion.

The progress made on the new Colony map compilation is shown on the appended sketch map.

One hundred and eighty-six plans of feature surveys and connections, comprising 1,025 miles of survey, have been charted during the year.

Seven proclaimed railway lines have been charted upon office maps and original plans.

Maps of the Land Board Districts of Dubbo and Cooma have been completed, and that of Armidale taken in hand.

A number of miscellaneous maps have also been prepared, including a new edition of small Land District map, postal map, a large outline map of Australia, measuring 12 ft. by 13 ft. 6 in., for Sir Henry Parkes in connection with the Federation proposals, population maps for the Railway Commissioners, and others of minor importance.

Parish Map Division.—This division, as the name indicates, is exclusively engaged upon the compilation and charting up of parish maps for publication.

One draftsman belonging to the division retired from the service, another was appointed to a Local Board office, and two others were transferred to other branches. One officer was attached to a country office for half the year, and another was absent for some months through a serious illness. The vacancies were ultimately filled by the appointment of juniors, who, however, until they had acquired the necessary experience of the routine of the branch, did not render so effective assistance as some of the experienced men whom they replaced.

The total number of maps completed during the year is in excess of the previous year's return, the numbers being—

	1890.	1891.
Parish maps compiled...	235	192
Parish maps prepared for new edition	48	121
Totals	283	313

The standard maps have now reached 1,900.

The heliographic printing performed is considerably less in quantity than during 1890, owing principally to there being less demand by country offices and for office parish maps. The majority of the prints were, however, of large size, in view of which the average cost of 1s. 6d. each cannot be regarded as excessive.

Inquiries were instituted as to the possibility of obtaining a tougher description of heliographic paper, and, after testing different samples, arrangements were finally made to draw part of our supplies from a London firm, the cost being quite one-third less than had hitherto been paid. It has been proved, however, that the best helio. paper obtainable is not substantial enough for maps required for everyday use, and we have been compelled to abandon heliographs for office maps in favour of the lithographs on drawing-paper, to scale of 40 chains to an inch.

The names of maps actually printed during the year will be found under the head of Lithographic Branch.

Lithographic Branch.

The business of this branch shows an increase in the number of maps, plans, or documents printed above that of 1890. The following returns in tabular form show the results of map compilation at the head office, and printing of work for other Departments, printing of official forms for Departmental use, and printing of plans drawn by surveyors for reproduction. These maps and plans are either lithographed in the branch, or, after photo-lithography at the Government Printing Office, are completed here by transfer to stone or zinc.

By the acquisition, in the early part of the year, of the largest printing machine yet imported to this continent, maps of unusual dimensions have been produced with increased speed at a greatly reduced cost; and the numerous maps of suburbs and sheets of the detail survey, which are in process of survey and publication for the Department of Public Works in connection with sewerage operations, have been completed more rapidly than heretofore.

For convenience of official record, lithographs are classified thus:—1. Counties; 2. Towns; 3 Parishes; 4. Auction Sale Plans; 5. Miscellaneous; 6. Other Departments; and 7. Official Forms.

1. *Counties.*

County lithographs show measured areas, roads, reserves, features, and all other information which is capable of delineation on a scale of 2 miles to an inch. They are published at 5s. per copy. Copies are also printed on a reduced scale of 8 miles to an inch, which are used for office purposes only.

Fifteen counties were completed during the year, comprising 2,650 printed copies:—

Brisbane	Fitzgerald	Rous	Townsend
Brisbane*	Livingstone	Rous*	Townsend
Camden	Livingstone*	St. Vincent	Wentworth
Cook	Northumberland	St. Vincent*	

Of these maps, those indicated by the asterisk are on the scale of 8 miles to an inch.

2. *Towns.*

Town lithographs show the general design, measured lands and names of purchasers, reserves, and dedications within town and suburban limits; they are usually photo-lithographed from compilations made at this office or from the surveyor's original plans, to the scales of 4 or 8 chains to an inch, and sold at 1s. per copy.

Thirty-nine towns were completed during the year, comprising 4,430 printed copies:—

Arthur	Dungog	Lewis Ponds	Tumut
Baan Baa	Ford's Bridge	Moree	Walbundry
Barmedman	Glenbrook	Mount McDonald	Wallendbeen
Barooga	Glenrouth	Neville	Willyama
Berowra	Gooloongong	Numby	Wollar
Bundarra	Gundagai	Obley	Wollongong
Carinda	Hargraves	Raleigh	Wyee
Cunningar	Keramingly	Sofala	Wyee
Currabubula	Kiama	Somerton	Yamba
Double Bay	Kramback	Swamp Oak	

Names repeated show that two editions have been printed during the year.

3. *Parishes.*

Parish maps are compiled to a scale of 20 chains to an inch, for office use, and then, with few exceptions, reduced to 40 chains scale for publication and sale, at 1s. per copy.

Two hundred and seventy-seven parishes were completed during the year, comprising 21,615 printed copies.

2	parishes	in county	Argyle
10	,,	,,	Ashburnham
10	,,	,,	Auckland
1	parish	,,	Baradine
2	parishes	,,	Bathurst
1	parish	,,	Benarba
2	parishes	,,	Beresford
10	,,	,,	Bland
2	,,	,,	Brisbane
1	parish	,,	Buccleuch
1	,,	,,	Cadell
10	parishes	,,	Camden
2	,,	,,	Clarence
5	,,	,,	Clarendon
2	,,	,,	Clarke
4	,,	,,	Cook
3	,,	,,	Cooper
1	parish	,,	Cowley
8	parishes	,,	Cumberland
2	,,	,,	Dampier
1	parish	,,	Denham
1	,,	,,	Dowling
1	,,	,,	Drake
1	,,	,,	Durham
2	parishes	,,	Ewenmar
5	,,	,,	Fitzroy
1	parish	,,	Flinders
1	,,	,,	Forbes
3	parishes	,,	Gipps
5	,,	,,	Gloucester
3	,,	,,	Gough
7	,,	,,	Goulburn
1	parish	in county	Gowen
7	parishes	,,	Gregory
10	,,	,,	Harden
1	parish	,,	Hardinge
6	parishes	,,	Hawes
29	,,	,,	Hume
1	parish	,,	Inglis
1	,,	,,	Jamison
1	,,	,,	King
3	parishes	,,	Lincoln
9	,,	,,	Macquarie
1	parish	,,	Mitchell
3	parishes	,,	Monteagle
7	,,	,,	Murray
3	,,	,,	Nandewar
2	,,	,,	Narromine
20	,,	,,	Northumberland
3	,,	,,	Parry
2	,,	,,	Phillip
6	,,	,,	Pottinger
2	,,	,,	Raleigh
4	,,	,,	Richmond
21	,,	,,	Rous
1	parish	,,	Roxburgh
1	,,	,,	Selwyn
1	,,	,,	Stapylton
3	parishes	,,	St. Vincent
11	,,	,,	Urana
2	,,	,,	Vernon
1	parish	,,	Wellesley
1	,,	,,	Wellington
3	parishes	,,	Wynyard

4. *Auction Sale Plans.*

Lithographs of all lands measured for auction are printed for use at auction sales, and sold at 1s. per copy.

One hundred and eighty-nine auction sale plans were completed during the year, comprising 13,940 printed copies.

5. *Miscellaneous.*

In this class, during the year, the principal maps printed have been:—New edition of 4-sheet general map of New South Wales, 16 miles to an inch scale; new edition of map of New South Wales, showing all divisions for the purposes of the Crown Lands Acts; map of New South Wales, showing stock routes, &c.; plans showing occupation licenses; map of Newcastle Pasturage Reserve; Land Board District maps of Dubbo and Cooma; military map of country between George's River and Broken Bay; map of City of Sydney, southward of Port Jackson and Parramatta; map of Rookwood Necropolis Extension; and maps to illustrate Annual Report of Department of Lands for 1890.

Eighty-one miscellaneous maps, &c., were completed during the year, comprising 24,000 printed copies.

6. *Other Departments.*

Maps, plans, and diagrams have been printed for the departments of Colonial Secretary, Treasurer, Mines, Public Works, Water Supply and Sewerage, and Government Statistician, embracing Electoral map of New South Wales; map of Australasia; sheets of orchid drawings; map showing progress of sewerage survey; South Polar chart; 23 sheets of the detail survey of suburbs of Sydney for sewerage purposes, on 2 chains scale; maps illustrating Railway Guide Books; diagrams of bridges; diagrams showing on separate sheets heights and discharges of the Murray, Murrumbidgee, Macquarie, and Darling Rivers; section of bores in connection with conservation of water; and map of New South Wales, showing localities of principal minerals.

Sixty-one maps, plans, and diagrams completed for other Departments during the year, comprising 36,190 printed copies.

The approximate value of the work, including drawing, printing, paper, and supervision, amounted to £830 4s. 10d.

7. *Official Forms.*

These forms comprise circulars, decisions, forms, and memoranda required for use at head-quarters and at country offices.

One hundred and ninety-six official forms were completed during the year, comprising 107,365 printed copies.

COMPARATIVE SUMMARY FOR 1890 AND 1891.

Map, Plan, or Document.	1890		1891.	
	Number of separate Maps.	Number of Copies printed.	Number of separate Maps.	Number of Copies printed.
Counties	12	2,250	15	2,650
Towns	44	5,927	39	4,430
Parishes	259	19,025	277	21,615
Auction Sale Plans	165	17,750	189	13,940
Miscellaneous	113	43,332	81	24,000
Other Departments	35	37,415	61	36,190
Official Forms	169	93,470	196	107,365
Totals	797	219,159	858	210,190

Contractors for lithographic work received the sum of £1,010 14s. 2d.; the drawing for this supplementary work costing £957 10s. 2d., including an advance of 5 per cent. on part of contract for the new city and environs map, and the printing £53 4s.

ROADS BRANCH.

The Roads Branch deals with all applications for survey and opening of roads under the Act 4 William IV. No. 11, and 42nd section of Act 53 Vic. No. 21, and takes action towards the establishment of roads under those Acts, and the consideration of objections and settlement of claims which arise out of such proceedings. It deals also with applications for land in lieu of the land taken for roads; with applications for the purchase of unnecessary roads, under 67th section of Act 48 Vic. No. 18; with applications for the survey and alignment of streets under Act 2 Vic. No. 2, and takes steps to effect alignment and to investigate objections set up by dissatisfied land-owners. It also deals with applications made for permission to erect public gates upon roads under Act 39 Vic. No. 10, and with several other matters having reference to roads.

During the year 312 applications were received for surveys of roads and streets; 524 surveyors' reports (exclusive of reports transmitting plans) were dealt with; 226 road plans, showing about 523 miles of road survey, and 35 alignment plans, showing 341 streets as aligned for carriage and footways; 70 applications for public gates, and 250 objections and claims have been received; besides various letters and applications asking for information and inquiring as to road and street matters, &c.

Papers having reference to roads, streets, and gates, in number about 5,974, have been registered and dealt with in this branch, as well as about 489 papers registered in other branches, so that about 6,463 papers and 261 plans of road and street surveys have been dealt with during the year.

One member of this branch (Mr. Fawns) died during the year.

OCCUPATION DRAFTING BRANCH.

The general work of this branch has been similar to that of previous years, with the addition of charting rabbit-proof fencing, and supplying information required to deal with about 200 applications in connection with the erection of same.

One draftsman was lent to Charting Branch for a considerable part of the year.

Upwards of 1,300 refund calculations were revised, and as the schedules were not in some cases received until late in the year, it was found necessary to obtain assistance from other branches for a few weeks, in order that this business might be all disposed of before the close of the year.

324 miles of pastoral holding boundaries were surveyed, at a total cost of £666, of which the sum of £287 was recouped from the lessees. Also a sum of £142 was recovered from pastoral lessees for the survey of pastoral holding boundaries common to homestead leases, &c., and a sum of £192 was paid by pastoral lessees for the total cost of survey of 65½ miles of boundaries, and £20 on account of a survey made by a salaried surveyor.

Plans of 307 abandoned resumed and leasehold areas have been prepared, with a view to their being offered for lease at auction.

In addition to the above, a set of maps has been kept charted for the Minister showing appraised rents of pastoral holdings and homestead leases. Preliminary calculations were made in connection with the computation of refunds to lessees under the Crown Rents Act, and a number of miscellaneous matters were dealt with.

The following schedule shows the principal items of business dealt with during the year:—

Cases under section 143, Act of 1884, and section 52, Act 1889	55
County maps charted with pastoral holdings	3
Parish " " "	629
Homestead leases charted and noted	192
Surveys of pastoral holdings charted	31
Tracings and lithos prepared	226
Refund schedules dealt with	1,328
Questions as to leasehold and resumed areas replied to	1,874
Abandoned holdings prepared for auction	307

MISCELLANEOUS CONTRACT BRANCH.

The number of drawings issued from the branch in 1891 is not so large as in the preceding year. The total for 1890 was largely increased by tracings, &c., required by inspectors in carrying out the provisions of the 29th section of the Crown Lands Act of 1889, no tracings of this character being made in 1891.

There has been a decrease in the total number of drawings forwarded to district offices, owing chiefly to the practice having been discontinued of preparing in the head office standard tracings for use in the Orange District Office. A decrease is also observable in the number of tracings prepared for auction sale purposes, and in the number prepared for surveyors in the field. About the same number of applications were dealt with in 1891 as in 1890.

RETURN OF SERVICE PERFORMED.

	Tracings.	Lithos.	Plans.	Sundries.	Totals.
Tracings and charted-up lithographs supplied to district surveyors, including 264 standard tracings prepared for heliography for Orange, Armidale, and other district offices	663	22	.....	.....	685
Tracings made, and tracings noted to date, for use in head office in lieu of original plans transferred to district offices now dealing with land districts excised from the Metropolitan Land Board District	779	.....	.....	.....	779
Tracings and charted-up lithographs supplied to surveyors in the field	217	28	.....	.....	245
Tracings of plans of roads and alignments of streets, supplied to municipalities	61	.....	.....	.....	61
Tracings of alignment and road plans, prepared for exhibition at Police Office and at Crown Lands Offices	111	.....	.....	.....	111
Tracings prepared for auction sale purposes	745	.....	.....	.....	745
Tracings and charted-up lithographs prepared for Parliamentary Returns	11	1	.....	.....	12
Tracings and chartered-up lithographs prepared for other Departments	175	247	.....	.....	422
Standard tracings of parish maps	45	.....	.....	.....	45
Tracings and lithographs showing special and residential leases prepared for lessees, Chairmen of Land Boards, Land Agents, and Cumberland ranger	273	2	.....	.....	275
Tracings of plans of detailed survey of city and suburbs prepared in connection with publication of city and suburban maps	176	.....	.....	.....	176
Original plans showing connections to trigonometical stations and section place, prepared to supersede the original large plan of town of Willyama (Broken Hill)	.....	.....	91	.....	91
County maps in office use charted to date	.....	17	.....	.....	17
Tracings, charted-up lithographs, &c., prepared for sundry purposes	589	277	.....	155	1,021
Totals	3,845	594	91	155	4,685
Total number of applications					1,075

NOTE.—The drawings enumerated above comprise copies of colony, county, parish, and town maps, plans of railway, alignment, road, and feature surveys, and ordinary small plans.

PLAN RECORD BRANCH.

Return of Service performed.

Approximate number of plans entered in books at end of year	249,000
Approximate, issued and returned to and from officers in Head Office, Metropolitan Office, and Mines Department	176,240
Cancelled maps	630
Sent to plan-mounter	2,858
Issued to Inquiry Branch	1,900
Exhibited at counter	2,600
Despatched to District Survey Offices	20,959
Returned from do do	21,190
Applications received for original plans and registered	3,722
Memo. returning original do do	1,378
Memoranda sent to D.S.O.'s for plans	1,408
Certified copies received	10,601
Surveyors' field books in branch	2,270
Auction sale lithographs	169

MAP SALES BRANCH.

Fewer maps were received in this branch than during 1890; but the number issued is much larger, and the cash sales show an advance of upwards of 25 per cent.

The stock books are now in a more satisfactory condition than under previous management.

An examination of the stock during the year disclosed the fact that in some cases more copies were being printed than were actually required. The numbers were accordingly reduced, and the balance sheet now shows that the maps issued and sold in 1891 were 2,000 in excess of those received, instead of being 14,000 less than receipts as in 1890.

RETURN of Lithographs received for the years 1890 and 1891.

Lithographs received from the Lithographic Branch.

	Number.		Copies.		Value.					
	1890.	1891.	1890.	1891.	1890.			1891.		
					£	s.	d.	£	s.	d.
County maps	12	8	2,200	1,246	660	0	0	373	16	0
Cities, towns, and villages maps	44	39	5,560	3,990	347	10	0	249	7	6
Parish maps	259	279	14,360	17,414	718	0	0	870	14	0
Auction sale maps	165	177	17,090	13,348	854	10	0	667	8	0
Colony maps	7	5	3,890	1,450	486	5	0	571	17	6
Detail surveys	2	62	252	3,549	94	0	0	532	7	0
Miscellaneous maps	96	6	5,530	1,308	829	10	0	179	17	0
Totals	585	576	48,882	42,305	3,989	15	0	3,445	7	0

Lithographs sold in 1890—3,823 copies; price realised, £315 2s. 1d.
Lithographs sold in 1891—3,915 copies; price realised, £399 11s. 2d.
Letters replied to 1890—763.
Letters replied to 1891—1,084.

COPIES

COPIES issued, inclusive of those sent to Land Agents for sale, District Survey Offices, Railway, Roads and other Departments.

	Copies.		Value.	
	1890.	1891.	1890.	1891.
			£ s. d.	£ s. d.
Counties	2,254	1,755	676 4 0	526 13 0
Towns, cities, and villages	3,096	3,126	193 10 0	195 7 6
Parishes	17,529	23,060	826 9 0	1,153 0 0
Auction	3,993	6,858	199 13 0	342 18 0
Detail surveys	3,060	3,329	454 0 0	499 7 0
Geographical divisions	89	69	11 2 6	8 12 6
Large Colony	178	352	133 10 0	264 3 9
Small Colony	139	411	8 13 3	25 13 9
Calculation-books	65	130	5 19 2	11 18 4
Land Board district maps	25	317	1 17 6	39 12 6
Miscellaneous	441	899	60 10 9	123 12 3
Totals	30,869	40,306	2,571 9 2	3,190 18 7

PLAN-MOUNTING BRANCH.

The return of this branch shows that 15,876 pieces of work were performed during the year, being a considerable decrease as compared with 1890; but this is accounted for by the plan-mounter having a lad to assist in place of an efficient workman.

All current work has been disposed of, although it has not been found possible to mount so many original plans as usual.

E. TWYNAM,
Chief Surveyor,
23 February, 1892.

APPENDIX A.

TABLE showing comparative amount and cost of Detail Surveys from 1886 to 1891.

	1886.	1887.	1888.	1889.	1890.	1891.
Number of sheets surveyed and transmitted.	49	91	104	178	311	172
Number of original sheets revised for second editions of lithographs.	.....	.....	.....	19	3	48
Number of sheets revised and brought up to date prior to first publication.	.....	.....	.....	.....	44	87
Area surveyed (ex. surveys for second editions).	649 ac.	1,095 ac.	1,583 ac.	3,924 ac.	6,574 ac.	3,772 ac.
Area covered by surveys for second editions.	.....	.....	.....	256 ac.	39 ac.	777 ac.
Length of streets fixed	28 m.	47 m.	57 m. 41 ch.	111 m. 30 ch.	176 m. 22 ch.	77 m. 40 ch.
Number of tenements fixed (ex. second edition and revision surveys).	5,094	8,309	8,125	8,464	9,929	3,454
Number of tenements fixed in surveys for second editions.	.....	.....	.....	511	84	1,930
Number of tenements fixed in revision surveys prior to first publication.	.....	.....	.....	.....	380	810
Number of alterations and additions to original surveys, exclusive of new tenements.	.....	.....	.....	.....	.....	3,294
Average cost per tenement, in the suburbs.	£1 3 8	17s.	11s. 6d.	15s. 8d.	15s. 11d.	15s. 6½d.
Average cost per tenement of revision and second edition surveys.	.....	.....	.....	11s. 11d.	7s. 11d.	13s.
Average cost per acre throughout	£8 12 8	£6 4 7	£3 1 6	£1 13s. 11d.	£1 4s. 1d.	14s. 3d.

APPENDIX B.

SURVEYORS employed during 1891 under Mr. D. M. Maitland in charge of Detail Survey parties.

Name.	Office or rank in Service.	Salary.	Duties on which engaged.	Remarks.
		£		
Madsen, H. F.....	First Surveyor, Detail Survey Staff.	350	Detail survey—Alexandria, 10 sheets transmitted; survey of additional details, 1 sheet in Camperdown. Resurvey for second editions—5 sheets in Darlington and Redfern, 2 sheets in Alexandria; Survey of alterations and additions at University.	
Mills, S.	Surveyor, Detail Survey Staff.	325	Detail survey—Woollahra 9 sheets, Waterloo 11 sheets, and Enfield 30 sheets transmitted. Resurvey for second editions—5 sheets in Sydney, 10 sheets in Redfern, and 1 in Waterloo. Survey of Cleveland-street and part of Druitt Town tram lines.	
Thomas, W. M.....	„ ...	325	Detail survey—Strathfield 6 sheets, and 1 in Parramatta; and resurvey of 1 sheet in Sydney for second edition. Alignment of 15 streets in Parramatta; standard or skeleton survey of Parramatta for detail survey; survey for 2-chain scale maps, trigonometrical connections, survey of old Police Station, proposed extension of Post and Telegraph Office, site for Friendly Societies' Hall, allotments for sale, and access roadway, Parramatta.	
Wilson, T. G.....	„ ...	325	Detail survey—North Sydney, 15 sheets transmitted; and survey of additional details on 11 sheets also in North Sydney.	
Roberts, R. J. A.	„ ...	325	No work completed for Detail Survey Branch.....	Transferred to Tamworth Land Board District on 14th January, afterwards transferred to Forbes.
Shute, H.	Temporary Salaried.	300	Detail survey—Ashfield 15 sheets, and 9 sheets in Burwood. Survey of additional detail on 5 sheets in Leichhardt, and 1 sheet for second edition in Sydney. Surveys in connection with proposed resumption near Rushcutters' Bay and part of Druitt Town tram line.	
Sloman, T. B. U.	„ ...	300	Detail survey—Randwick, 11 sheets transmitted Survey of additional details on 9 sheets in Waverley, and resurvey of 11 sheets in Waverley for second edition.	
Stephen, T. M.	„ ...	300	Detail survey—North Sydney, 1 sheet	Temporarily transferred to Chief Surveyor's staff, on 7th January.
Riddle, J. D. A.....	„ ...	300	Detail survey—1 sheet in Ashfield. Survey of part of Shea's Creek.	Temporarily transferred to Cooma Land Board District, on 17th February.
White, D. C.	„ ...	300	Detail survey—Marrickville 10 sheets, and 3 sheets in St. Peters. Survey of additional details on 7 sheets in Petersham, 10 in Newtown, 21 in Leichhardt, 4 in Marrickville, and 1 in Paddington. Resurvey for second edition of 4 sheets in Sydney, 3 in Woollahra and 1 in Paddington.	
Legge, G. H.	„ ...	300	Detail survey—Manly, 16 sheets	Temporarily transferred to Armidale Land Board District, on 17th March.
Watkins, F.....	„ ...	300	Detail survey—Canterbury 18 sheets, and 6 sheets in Parramatta. Survey of additional detail on 7 sheets in Balmain, 5 in Petersham, 5 in Leichhardt, and 1 in Sydney. Resurvey for second edition of 2 sheets in Sydney, and 2 in Paddington. Survey of part of Druitt Town tram line.	

[Four Maps.]

Sydney: Charles Potter, Government Printer.—1892.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS ACT OF 1889.

(REGULATION NO. 56, SUBSTITUTED FOR SAME NUMBER, NOW IN FORCE.)

Presented to Parliament, pursuant to Act 53 Vic. No. 21.

Department of Lands,
Sydney, 18th December, 1891.

His Excellency the Governor, with the advice of the Executive Council, has been pleased to approve of the following Regulation No. 56, under the Crown Lands Acts, being substituted for that at present in force bearing the same number.

[Ml. 91-13,475] HENRY COPELAND.

56. The survey fee to be paid with every application shall be charged on the aggregate area applied for, irrespective of whether the land is measured or unmeasured, or a subdivision of measured land is involved, according to the following scales, that is to say:—

For an Original Conditional Purchase.

	£	s.	d.
For any area not exceeding 4 acres	1	0	0
For every additional acre or fraction of an acre up to 10 acres, 3s. 4d.			
For 10 acres	2	0	0
For every additional acre or fraction of an acre up to 20 acres, 2s.			
For 20 acres	3	0	0
For every additional acre or fraction of an acre up to 40 acres, 1s.			
For 40 acres	4	0	0
For every additional 5 acres or fraction of 5 acres up to 80 acres, 2s. 6d.			
For 80 acres	5	0	0
For every additional 10 acres or fraction of 10 acres up to 320 acres, 2s. 6d.			
For 320 acres	8	0	0
For every additional 15 acres or fraction of 15 acres up to 640 acres, 2s. 6d.			
For 640 acres	10	15	0
For every additional 20 acres or fraction of 20 acres up to 1,280 acres, 2s. 6d.			
For 1,280 acres	14	15	0
For every additional 40 acres or fraction of 40 acres up to 2,560 acres, 2s. 6d.			
For 2,560 acres	18	15	0

For an Additional Conditional Purchase or for a Conditional Lease.

	£	s.	d.
For any area not exceeding 4 acres	0	15	0
For every additional acre or fraction of an acre up to 10 acres, 2s. 6d.			
For 10 acres	1	10	0
For every additional acre or fraction of an acre up to 20 acres, 1s. 6d.			
For 20 acres	2	5	0
For every additional acre or fraction of an acre up to 40 acres, 9d.			
For 40 acres	3	0	0
For every additional 5 acres or fraction of 5 acres up to 80 acres, 1s. 10½d.			
For 80 acres	3	15	0
For every additional 10 acres or fraction of 10 acres up to 320 acres, 1s. 10½d.			
For 320 acres	6	0	0
For every additional 15 acres or fraction of 15 acres up to 640 acres, 1s. 10½d.			
For 640 acres	8	1	3
For every additional 20 acres or fraction of 20 acres up to 1,280 acres, 1s. 10½d.			
For 1,280 acres	11	1	3
For every additional 40 acres or fraction of 40 acres up to 2,560 acres, 1s. 10½d.			
For 2,560 acres	14	1	3

1891–2.

NEW SOUTH WALES.

CROWN LANDS ACT OF 1889.

(REGULATION NO. 273 UNDER THE CROWN LANDS ACTS, SUBSTITUTED FOR SAME NUMBER NOW IN FORCE, AND ADDITIONAL FORMS NOS. 74 AND 75.)

Presented to Parliament, pursuant to Act 53 Vic. No. 21.

Department of Lands,
Sydney, 25th March, 1892.

HIS Excellency the Governor, with the advice of the Executive Council, has been pleased to approve of the following Regulation No. 273 under the "Crown Lands Acts," being substituted for that at present in force bearing the same number, and of additional Forms Nos. 74 and 75 hereunder set out.

[Ml. 92-3,819]

HENRY COPELAND.

REGULATION No. 273.

WHEN a homestead lease is, before the expiration of the prescribed term of residence, transferred, by way of mortgage or security, a statutory declaration in Form 73, shall be made by the proposed transferee and lodged with the transfer, and such transfer shall be made in Form 74. Any such transferee as aforesaid desiring, before the expiration of the prescribed term of residence, to transfer his mortgage over the homestead lease may do so by executing a transfer in Form 75, and with such transfer of the mortgage shall be lodged a statutory declaration by the transferor of the mortgage, setting forth that the said transfer is *bona fide*, and giving particulars of the advances which have already been made under the mortgage, and of the sums which still remain due thereunder; and the Minister may also require the proposed transferee of the mortgage to make and lodge a statutory declaration, giving such particulars in connection with the transfer as he may see fit to require. It shall be in the discretion of the Minister whether he will allow the transfer of any such mortgage to be registered, and any registration obtained by the fraud of either the transferor or transferee may be cancelled after notice has been given to the parties concerned.

Form 74.

CROWN LANDS ACTS—REGULATION 273.

Transfer by way of Mortgage of Homestead Lease before expiration of the prescribed term of residence.

I [*Name in full*], of [*residence and occupation or designation*] hereby transfer, by way of mortgage, to , of [*residence and occupation or designation*], all my right, title, and interest in and to the homestead lease from the Crown, known as No. in the land district of , county of , parish of , and containing acres roods perches, to secure the repayment of the sum of £ s. d.

Signed this day of , 189 .

(*Signature of Transferor.*)

Witness to signature of Transferor—

(*A Justice of the Peace, &c.*)

I accept this transfer [and declare that I am above the age of 21 years]. (*The words in brackets are to be struck out if the transferee is a Corporation.*)

(*Signature of Transferee.*)

Witness to signature of Transferee—

(*A Justice of the Peace, &c.*)

The sum of £ for transfer fee has been duly paid hereon.

NOTE.—This transfer is to be lodged with the Land Agent.

Form 75.

CROWN LANDS ACTS—REGULATION 273.

Transfer of Mortgage of Homestead Lease before expiration of the prescribed term of residence.

I [*Name in full*] of [*residence and occupation or designation* being the transferee, by way of mortgage, of the homestead lease from the Crown, known as No. , in the land district of , county of , parish of , and containing acres roods perches do hereby transfer to , of [*residence and occupation or designation*] all my right, title, and interest as such mortgagee as aforesaid, in and to the said homestead lease.

Signed this day of 189 .

(*Signature of Transferor*).

Witness to signature of Transferor,—

(*A Justice of the Peace, &c.*)

I accept this transfer [and declare that I am above the age of 21 years]. (*The words in brackets are to be struck out if the transferee is a Corporation.*)

(*Signature of Transferee.*)

Witness to signature of Transferee,—

(*A Justice of the Peace, &c.*)

The sum of £ for transfer has been duly paid hereon.

NOTE.—This transfer is to be lodged with the Land Agent.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CROWN LANDS.

(CONDITIONAL PURCHASES AND LEASES, PARISHES OF DAPPER, TUCKLAN, &c.)

Ordered by the Legislative Assembly to be printed, 23 *February*, 1892.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 11th February, 1892, That there be laid upon the Table of this House, a Return showing,—

"(1.) How many conditional purchases, conditional leases, and annual "leases, were taken up in the parish of Dapper, Tucklan, Cobrauraguy, "Medway, Dunedoo, Spring Creek, Boomley, Cobbora, Adelyne, Black-"heath, and Taylor, during the years 1890 and 1891, with their respective "areas.

"(2.) The dates of applications and names of applicants."

(Mr. Booth.)

No. 1.

CONDITIONAL PURCHASES.

Parish.	Year.	No. of Conditional Purchases.	Area.	Parish.	Year.	No. of Conditional Purchases.	Area.
			a. r. p.				a. r. p.
Dapper	1890	4	580 0 0	Bomely	1890	...	.....
	1891	7	530 0 0		1891	1	420 0 0
Tuckland	1890	...	.....	Cobborah	1890	...	.....
	1891	1	50 0 0		1891	2	360 0 0
Cobrauraguy	1890	...	.....	Adelyne	1890	...	.....
	1891	...	.....		1891	3	750 0 0
Medway	1890	1	320 0 0	Blackheath	1890	1	44 3 0
	1891	2	380 0 0		1891	1	40 0 0
Dunedoo	1890	3	560 0 0	Taylor	1890	...	.....
	1891	10	2,421 0 0		1891	2	800 0 0
Spring Creek	1890	...	.....				
	1891	...	.....				

Total, 1890, No. of Conditional Purchases, 9; area, 1,504¾ acres.
„ 1891, „ „ 29; „ 5,751 „

770—

[870 copies—Approximate Cost of Printing (labour and material), £6 10s. 6d.]

No. 1—*continued.*

Acres.	Date of Selection.	Applicant.	Portion No.
CONDITIONAL PURCHASES—PARISH OF DAPPER.			
	1890.		
100	20 February ...	Arthur Talbot	64
150	8 May	Charles M'Ghee	63
280	4 December ...	Samuel Gundy.....	.....
50	18 ,, ...	Wm. Cowley, jun.	.....
	1891.		
80	8 January ...	Henry Dorman	.....
50	26 February ...	Wm. Dorman, jun.....	.....
100	5 March	Wm. Cowley, jun.	.....
100	26 ,, ...	Jas. Dorman.....	.....
50	23 April	David Whale	.....
100	21 May	Wm. Cowley, jun.	.....
50	13 August	Wm. Dorman	.....
CONDITIONAL PURCHASES—PARISH OF TUCKLAND.			
	1890—Nil.		
	1891.		
50	16 April	Arthur R. Rindfleist	.....
CONDITIONAL PURCHASES—PARISH OF COBRAURAGUY.			
	1890—Nil. 1891—Nil.		
CONDITIONAL PURCHASES—PARISH OF MEDWAY.			
	1890.		
320	30 January.. ...	Jas. Bell	34
	1891.		
60	9 July	Martha Jane M'Kenna ...	.....
320	23 ,, ...	,, ,, ...	.....
CONDITIONAL PURCHASES—PARISH OF DUNEDOO.			
	1890.		
100	2 January.....	Walter Herbert	38
320	13 February ..	Ed. Thos. Nott	23
140	20 ,, ...	George Stewart	35
	1891.		
145	8 January.....	Walter Herbert	.....
336	22 ,, ..	Albert Leeson	37
175	22 ,, ...	Reginald Belmore Cox ...	.....
120	26 February ...	Wm. Henry Mason.....	.....
100	9 April	Elizabeth Mary Lindsay..	.....
135	28 May	Ed. Thos. Nott	.....
100	25 June	,, ...	.....
51	30 July	Christopher Reed Young..	40
600	27 August	A. J. S. Bank	.....
659	22 October.....	Wm. Patrick	.....

Acres.	Date of Selection.	Applicant.	Portion No.
CONDITIONAL PURCHASES—PARISH OF SPRING CREEK.			
	1890—Nil.		
	1891—Nil.		
CONDITIONAL PURCHASES—PARISH OF BOMELY.			
	1890—Nil.		
	1891.		
420	21 May	Harold Robt. Slack	.....
CONDITIONAL PURCHASES—PARISH OF COBBORAH.			
	1890—Nil.		
	1891.		
300	30 July	Charles Nott	.....
60	6 August	Henry Hodden	.....
CONDITIONAL PURCHASES—PARISH OF ADELYNE.			
	1890—Nil.		
	1891.		
640	21 May	John Wm. Bourke	.....
60	19 Nov.	Wm. Hurcum	.....
50	3 Dec.	Robt. Wm. Martin.....	.....
CONDITIONAL PURCHASES—PARISH OF BLACKHEATH.			
	1890.		
44¾	25 Sept.	Wm. Chandler.....	100
	1891.		
40	30 July	John Robt. Johnston.....	35
CONDITIONAL PURCHASES—PARISH OF TAYLOR.			
	1890—Nil.		
	1891.		
160	23 April	Joseph Nott	.....
640	15 Oct.	George Yeo	.....

No. 2.

TOTAL NUMBER AND AREA OF CONDITIONAL LEASES.

Parish.	1890.		1891.	
	Total No. of Conditional Lease Applications.	Area.	Total No. of Conditional Lease Applications.	Area.
Dapper	2	1,290	4	750
Tuckland	1	480	.....	.....
Cobrauraguy.....	1	1,200	1	60
Medway.....	1	960	1	145¼
Dunedoo	3	2,700	11	5,405
Spring Creek.....	1	1,360	.....	.....
Bomely	1	750	1	800
Cobborah	.....	.....	2	1,080
Adelyne.....	.....	.....	1	1,920
Blackheath	.....	.....	2	420
Taylor	.....	.....	2	2,400
	10	8,740	25	12,980¼

CONDITIONAL

CONDITIONAL LEASES.

Parish.	Year.	No. of Conditional Leases.	Date of Application	Applicant.	Area.
Dapper	1890	1	8 May	Charles M'Ghee	450
		1	4 December	Samuel Grundy	840
	1891	1	26 February	William Dorman, junior	150
		1	26 March	James Dorman	300
		1	23 April	David Whale	150
		1	13 August	William Dorman, junior	150
Tuckland	1890	1	30 January	Percy James Wilson	480
	1891	..			
Cobrauraguy	1890	1	27 March	William Rowe	1,200
	1891	1	10 December	Matthew M. Robert	60
Medway	1890	1	30 January	James Bell	960
	1891	1	23 July	Martha Jane M'Kenna	145¼
Dunedoo	1890	1	2 January	Walter Herbert	300
		1	13 February	Edward Thomas Nott	960
		1	10 April	Reginald King Fowbotham	1,440
	1891	1	8 January	Walter Herbert	435
		1	22 ,,	Albert Leeson	272
		1	22 ,,	Joseph Hourn	272
		1	22 ,,	Walter Herbert	145
		1	26 February	William Henry Mason	360
		1	28 May	Edward Thomas Nott	540
		1	25 June	,,	400
		1	20 August	Albert Leeson	500
		1	20 ,,	Thomas E. Nott	540
		1	27 ,,	Australian Joint Stock Bank	1,750
		1	15 October	Edwin Chambers	191
Spring Creek	1890	1	2 ,,	James Bunter Chant	1,360
	1891				
Bomely	1890	1	2 October	Richard Chant	750
	1891	1	21 May	Harold R. Slack	800
Cobborah	1890				
	1891	1	30 July	Charles Nott	900
		1	6 August	Henry Hogden	180
Adelyne	1890				
	1891	1	21 May	John William Bourke	1,920
Blackheath	1890				
	1891	1	30 July	John Robert Johnston	120
		1	15 October	William Thomas Chapman	300
Taylor	1890				
	1891	1	23 April	Joshua Nott	480
		1	15 October	George Yeo	1,920

No. 3.

ANNUAL LEASES FOR THE YEAR 1890.

Parish.	Area.	Date of Gazettal of Lease.	Name of Lessee.
	acres.		
Dapper			
Tucklan			
Cobrauraguy			
Medway			
Dunedoo			
Spring Creek			
Bomely			
Cobborah			
Adelyne	670	13th May	William Hurcum.
	990	13th ,,	,,
Blackheath			
Taylor			
Total, 2 leases	1,660		

ANNUAL LEASES FOR THE YEAR 1891.

Parish.	Area.	Date of Gazettal of Lease.	Name of Lessee
	acres.		
Dapper	1,040	30th April	Thomas Talbot.
	1,280*	30th ,,	William Dorman.
	1,280	30th ,,	,,
	1,420	30th ,,	,,
	1,266	14th July	James Thomson.
	1,700	16th October	William Cowley, junr.
	1,920†	13th November	William Meers.
	920	13th ,,	Charles M'Ghee.
Tuckland	1,920	14th July	Thomas Talbot and P. Haley.
Cobrauraguy	1,400	14th ,,	James Thomson.
	600	8th December	,,
	960	8th ,,	,,
Medway	.....	.....	
Dunedoo	.....	.....	
Spring Creek	.....	.....	
Bomely	.....	.....	
Cobborah	.....	.....	
Adelyne	.....	.....	
Blackheath	.....	.....	
Taylor	1,920	1st December	Thomas James Freeman.
	1,920	1st ,,	,,
	1,920	22nd ,,	Joshua Nott.
	1,450	22nd ,,	,,
	1,920	22nd ,,	James Nott.
	1,920	22nd ,,	,,
Total, 18 leases	26,756		

* Partly in the parish of Bunglebomar. † Partly in the parish of Tuckland.

Sydney: Charles Potter, Government Printer.—1892.

[3*d*.]

1891.
(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

PASTORAL HOLDINGS IN LAND DISTRICTS OF FORBES, PARKES, AND CONDOBOLIN.

(RETURN)

Ordered by the Legislative Assembly to be printed, 18 *November*, 1891.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 19th August, 1891, That there be laid upon the Table of this House,—

"A Return showing the names of the respective lessees of the various pastoral "holdings in the Land Districts of Forbes, Parkes, and Condobolin, and the number "of acres at present held under each pastoral lease (exclusive of travelling stock "and camping reserves) in the aforesaid Land Districts."

(*Mr. Hutchinson.*)

SCHEDULE showing areas of Pastoral Leases and areas of Travelling Stock and Camping Reserves therein, within the Lands Districts of Forbes, Parkes, and Condobolin

CENTRAL DIVISION.

Land District.	Name and Number of Pastoral Holding		Lessee	Area of Leasehold at beginning of current year of lease	Area of Travelling Stock and Camping Reserves existing on 19th August, 1891	Area of Leasehold, exclusive of T S and Camping Reserves	Remarks.
				acres	acres.	acres	
Condobolin ..	Back Wardry	487	Commercial Banking Co of Sydney	19,100		19,100	
	Bolagamy .	126	Australian and New Zealand Mortgage Co (Ld)	16,240	1,185	15,055	
	Boona West	313	P. M'Intyre and L. M'Lean	38,122	6,784	31 338	
	Borambil	134	New Zealand Loan and Mercantile Agency Co	37,224	6,986	30,238	
	Bygaloree .	597	Reed, M'Leod, and M'Bain	61,082	4,544	56,538	
	Carlisle	332	W. Murray and H M. Strachan...	17,500		17,500	
	Condobolin	648	Halfey, the Chairman, Australian Alliance Assurance Company	42,064	8,252	33,812	
	Crown Camp	302	C B and H J King	9,980		9,980	
	Dundoo Hills	725	Richardson and Parkman	32,800		32,800	
	Euglo	365	Charles Burcher	53,645	6,400	47,245	
	Four Bob Camp	63	Union Bank of Australia (Limited)	11,900	620	11,280	
	Gorman's Hill West	170	A R Minter	6,680		6,680	
	Gulgo	586	R. L Scott	9,445	2,700	6,745	
	Gulgo South	216	Wm Richards	4,626	1,530	3,096	
	Kiacatoo	33	Australian and New Zealand Mortgage Co (Ld)	53,093	5,452	47,641	
	Kookaburragong	508	Jno Hore	7,275	324	6,951	
	Lake Cowal	701	Australian Mortgage Land and Finance Co (Ld)	78,879	3,630	75,249	Partly in Forbes Land District
	Melrose	689	W E and E J Broughton	280,380	9,172	271,208	Partly in Parkes Land District.
	Melrose, Block D	247	Bank of New South Wales	32,517	11,740	20,777	,, ,,
	Merringreen	623	John Cox	7,425	3,462	4 043	Remainder in Hillston District.
	Micabil	483	The Hon William Campbell	16,568		16,568	
	Milboy West	180	Alexander Mackay	18,200		18,200	
	Milby	115	Union Bank of Australia (Limited)	18,133		18,133	
	Monument Flats	512	Goldsbrough, Mort and Co (Limited)	6,492		6,492	
	Moonbri or Bogandillon	542	R, T C, A, and G Hope	37 382	2 350	35,032	
	Moulmain	280	C C Murray and W Sanderson	18,900		18,900	
	Mowablaa	266	,, ,, ,,	31,380	1,445	29,935	
	Murrumbogie	380	Australasian Mortgage & Agency Co (Ltd)	18,225		18,225	
	Nangerybone	459	,, ,,	37,558	6,624	30,934	
	Palisthon	499	Commercial Banking Co of Sydney	31,580		31,580	
	South Condobolin	24	Geo Lee	9,010	1,835	7,175	
	Ungaree	133	Australian Mortge Land & Finance Co (Ld)	34,610	2,240	32,370	
	Waidry	269	Bank of New South Wales	13,067		13,067	
	Wargambegal	111	New Zealand Loan & Mercantile Agency Co	12,750		12,750	Land District boundary amended.
	Wollongough	83	Jno King	23,398	5,680	17,718	

471—

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Land District	Name and Number of Pastoral Holding		Lessee	Area of Leasehold at beginning of current year of lease	Area of Travelling Stock and Camping Reserves existing on 19th August 1891	Area of Leasehold, exclusive of T S and Camping Reserves	Remarks
				acres	acres	acres.	
Condobolin	Wooyeo	654	D G M'Kellar	11,293	3,454	7,839	Remainder in Hillston Land District
	Yaddia	267	Bank of New South Wales	15,360		15,360	
	Youngara Creek	543	New Zealand Loan & Mercantile Agency Co	5,587	358	5,229	Remainder in Hillston Land District
	Youngee Plain	45	Australasian Mortgage & Agency Co (Ltd)	12,700	1,532	11,168	
Parkes	Albert Waterhole	469	New Zealand Loan & Mercantile Agency Co	9,302	3,094	6,208	
	Balgay	41	J Hinchcliff and A Thomson	33,484		33,484	
	Bartley's Creek	398	Commercial Banking Co of Sydney	12,616	2,965	9,651	Partly in Forbes District
	Billabong West	668	S E Close	3,812	1,069	2,743½	
	Blowclear West	265	F Treweeke	15,782	550	15,232	
	Brogan Plains	84	Commercial Banking Co of Sydney	8 080	560	7,520	
	Blue Plains	488	Union Bank of Australia (Ltd)	15,900		15,900	
	Buddabudah	606	Chas Smith	34,300	3,000	31,300	
	Bulbodney	416	The City of Melbourne Bank (Ltd)	34,480	4,624	29 856	
	Bulgandramine	127	J N Gilmour	10,760	318	10,442	Remainder in Dubbo Land District Appraised in Dubbo
	Burdenda	91	Bank of New South Wales	19 678		19,678	
	Burra Burra	546	Australian & New Zealand Mortge Co (Ltd)	59,838	2,850	56,988	
	Coradgery	51	New Zealand Loan & Mercantile Agency Co	58,460	8,905	49,555	
	Curra and Currawinnia	618	S E Close	18,100		18,100	
	Derribong	478	New Zealand Loan & Mercantile Agency Co (Ltd)	20,424	4,242	16,182	Remainder in Dubbo Land District Appraised in Dubbo.
	East Billabong	55	Australian Mortgage, Land, & Finance Co	33,359		33,359	
	Flagstone Creek	130	Australasian Mortgage & Agency Co	23,140		23,140	Partly in Forbes Land District
	Genanagie	513	W O Gilchrist, Hon J B Watt	41,889	1,961	39,928	Remainder in Dubbo Land District.
	Gillenbine and Gobondry	230	Commercial Banking Co of Sydney	8,466	1 900	6,566	
	Gennaren	271	H Arthur	4,900		4,900	
	Goobang	307	Australian Mortgage, Land, & Finance Co (Ltd)	36,410	431	35 979	
	Gunningbland	148	R F Horsley	41,484	4,810	36,670	Partly in Forbes Land District.
	Keeriwah	368	Moss and Fergie and Moss	17,380	3,806	13,574	
	Middle Field	433	M W Lee	10,180		10,180	
	Mogong	735	R Goldsbrough and Co (Ltd)	5,400		5,400	
	Mungary West	515	R J. H and W Strahorn	24,542	4,414	20,128	Remainder in Dubbo District Appraised in Dubbo
	Nelungaloo	726	Mercantile Bank of Sydney	5,156	809	4,347	
	New Wyregall	531	New Zealand Loan & Mercantile Agency Co (Ltd)	1 866		1,866	Remainder in Dubbo District Appraised in Dubbo
	Opposite Derribong	613	J C Ryrie	6,267	424	5,843	
	Orange Plains	226	P H Osborne	110,140		110,140	
	Tabratong West	480	S Harding	5,080		5,080	
	The Overflow	187	R J Jeffray and Wm Murray	152,720	950	151,770	Part in Condobolin District Remainder in East Cobar District
	The Troffs	218	Australasian Mortgage and Agency Co	64,560	1,810	62,750	
	Tyrie	202	New Zealand Loan & Mercantile Agency Co (Ltd)	9,939	2,914	7,025	Remainder in Dubbo District Appraised in Dubbo
	Wallanbillan	741	Union Mortgage & Agency Co of Australia (Ltd)	7,523		7,523	Subdivided (see Wallanbillan East)
	Wallabeiry & St Giles	240	Australian Joint Stock Bank	7,320	2,969	4,351	
	Warriegal	451	Mercantile Bank of Sydney	10,549	326	10,223	Part in Forbes District
	Wallanbillan East	740	Bank of New South Wales	8 500	1,790	6,710	
	Woodlands	205	Moss and Fergie and Moss	42,275	3,327	38,948	
Forbes	Back Daroubalgie	632	J Williamson and H Arthur	9,300		9 300	
	Back Yamma	521	Mrs C H Martel	7,961		7,961	
	Bandon	647	Jas Newell	1,834	1,101	733	
	Barrawang	498	Goldsbrough, Mort, and Co (Ltd)	205,886	39,101	166,785	Part in Parkes & Condobolin Ld Districts
	Binda	564	Union Bank of Australia (Ltd)				Wholly in Grenfell Land District
	Bocabigal	549	Bank of New South Wales	4,073	974	3,099	
	Boyd	74	W H Suttor	13,635	60	13,575	
	Bundaburrah	446	Commercial Banking Co of Sydney	4,644	1,269	3,375	
	Cadow	28	Edwd Jones	19,471	3,959	15,512	Partly in Condobolin Land District
	Caragabal	15	F F Gibson				Wholly in Grenfell Land District
	Eugoura	656	Commercial Banking Co	20,212	1,956	18,256	
	Geron or Derangibal	149	Goldsbrough, Mort, and Co (Ltd)	2,680		2,680	
	Gunning East	486	Bank of New South Wales	4,345	371	3,974	
	Lake Cowal	162	J B Donkin	12,071	136	11,935	
	Lower Droubalgie	568	Jno Martin	1,849	878	971	
	Moura	705					Wholly in Molong Land District
	Nanima	593	M West	6,757	1 398	5,359	
	Ooma	489	Jno Dent	7,602	1,915	5,687	
	Pinnacle	727	New Zealand Loan & Mercantile Agency Co (Ltd)	17,513	3,424	14,089	
	Sandy Creek	503	Bank of New South Wales				Wholly in Grenfell Land District.
	Tin pot Alley	457	Bank of Australasia	16,009	1,060	14,949	
	Tomanbil	653	J B Suttor	7,168	768	6,400	
	Towyal	591	Australian and New Zealand Mortgage Co (Ltd)	21,123	463	20,660	
	Tregalana	75	A F Gibson	12 585	4,079	8,506	
	Tregalana East	157	Bank of New South Wales	2,788		2,788	Remainder in Grenfell Land District
	Upper Daroubalgie	286	Jno Martin	2,197	648	1,549	
	Walla Walla	554	Dalgety and Co (Ltd)	5 108	1,577	3,531	
	Walla Walla and Curragatell	570	Wm Calvert (the younger)	3,127	760	2,367	
	Wandary	21	English, Scottish, & Aus Chartered Bank	4,340	1,686	2,654	
	Waroo	181	Chas M'Phillamy	20,681	1,151	19,530	
	Weelong	65	W O Gilchrist	21,287	4,007	17,280	
	Wongagong	396	R M'Lachlan and D Strachan	3,717		3,717	
	Wowingragong	340	Jas Crowe	3,056	868	2,188	
	Yamma	215	Australian Joint Stock Bank	4,572	1,236	3,336	
	Yeria Yeria	442	Mrs M A Strickland	3,450	986	2,464	
	Billabong	61	H Ricketson & Australian M L & F Co	12,102		12,102	Remainder in Grenfell Land District Appraised at Grenfell

[3d]

Sydney: George Stephen Chapman, Acting Government Printer.—1891

1891.
(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CLAIM OF ISAAC BARCLAY.

(FOR COMPENSATION.)

Ordered by the Legislative Assembly to be printed, 14 *December*, 1891.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 3rd December, 1891, That there be laid upon the Table of this House,—

"A copy of the Crown Solicitor's opinion relating to the claim of Isaac "Barclay for compensation."

(*Mr. Morton.*)

The Crown Solicitor to The Under Secretary for Lands.

Re claim of Isaac Barclay.

Sir, Crown Solicitor's Office, Sydney, 4 September, 1891.

I have the honor to return herewith the Departmental papers submitted to me in connection with Isaac Barclay's claim for compensation, numbered as in margin, and to state that I have, as carefully as the time at my disposal would permit, perused and considered the whole of these voluminous papers, commencing with the original selections made in 1863, and passing through all the various years that have elapsed between that time and the present. 91-3,878 Cor.

It is greatly to be regretted that two Select Committees of a former Legislative Assembly should have furnished the reports which they have.

These Committees ignored the really material fact in the case, namely, that before Isaac Barclay attempted to acquire or select the three allotments referred to in the first paragraph of each of the Committees reports, William Emery had previously applied for and had lawfully acquired, and was in possession of 72 acres of land, portion 137, taken up on 25th June, 1863, which land embraced portion of the land afterwards sought to be selected by Barclay.

It was this selection of 72 acres, and not the later selection of 96 acres, referred to by the Select Committee, which was subsequently and very properly upheld by the Supreme Court as a good selection.

The two Select Committees state that Isaac Barclay "*acquired*," by conditional purchase, three allotments, ignoring the fact that he could only lawfully acquire land by conditional purchase so far as there were Crown lands available for that purpose.

A second point ignored by the two Select Committees is that the whole claim of Barclay upon the Government had been already years before submitted to and considered by Parliament, who, having all the matters freshly and properly brought before them, agreed to vote to Barclay £467, in compensation for his imaginary claims upon the Crown, and that this sum, thus considered by Parliament as adequate compensation, was offered to and ultimately accepted by Barclay.

The fact is not only distinctly proved by the Appropriation Act on the statute books of the Colony, and appears over and over again in the Departmental papers submitted to me, but was distinctly brought under the notice of the Select Committees in the *précis* prepared by Mr. Freeman and put in with the evidence of Mr. Capper.

The

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The Select Committees did not inform themselves of the terms or facts connected with the Supreme Court action of trespass brought by Emery against Barclay, nor had they any evidence before them respecting the result of the second trial, in which Emery recovered nominal damages against Barclay for trespass, not upon the 96 acres, or upon Barclay's selections, but on the 72 acres of land which Emery had taken up on 25th June, 1863, prior to any of Barclay's selections, and which thereupon became vested in him in fee as a conditional purchase under the 13th clause of the Crown Lands Act of 1861.

When Barclay, on the 16th July, 1863, attempted to jump part of this selection by taking up 54 acres of land by a very vague description, so as to encroach upon Emery's previous selection, he committed an illegality, for all the consequences of which he should be held responsible.

Barclay subsequently took up other selections, on the 6th and 20th August, but all these selections were necessarily confined by the Act to available Crown lands, and by no circumstances could he or the Government take away from Emery what an Act of Parliament had given him.

The whole of the losses and expenses that Barclay has been put to have thus resulted from his own illegal act, in endeavouring unlawfully to acquire from the Crown lands which were not Crown lands at the time of his application, and with respect to which the Crown grants when issued were invalid, and are now liable to be set aside by writ of *sci. fa.*, so far, at least, as they include lands already sold to Emery, and for which he had acquired a prior Parliamentary title.

So far from Barclay having had any claim whatever upon the Government, the tables should be turned, as the Government have a claim upon him to cancel or correct the grants already issued to him under what in law has been decided to be an erroneous representation and misdescription by him.

Unfortunately for the public it happened that the counsel for Barclay, the present claimant, was the Attorney-General in those days, and that, acting on the one hand as the adviser of the Crown and on the other as the counsel for Barclay, he advised the Government that Barclay had a strong claim upon them for protection. It was manifest, of course, at the time, that the facts were entirely the other way. That so far from Barclay ever having had any claim upon the Government for protection, Emery, whose lawful possession and rights had been interfered with, was the person who had the claim, and was certainly the person entitled to consideration.

Be this, however, as it may, Parliament, the masters of the situation, having the matter brough before them, ultimately agreed to vote to Barclay a sum of £467, in compensation, and this money he received years ago, as appears by the evidence put before, but ignored by, the Select Committees.

How, under these circumstances, he can pretend to have any further legal claim upon the Government I am utterly at a loss to conceive.

It appears to me from first to last that the Crown has been misled in this matter, and a false sympathy apparently created for Isaac Barclay, whereas the true person to be sympathised with was rather the selector, Emery, whose prior and lawful selection had been, it appears to me, attempted unlawfully to be interfered with at the instance of Barclay, and it further appears to me that the Legislature have already treated Barclay with a liberality not at all justified, if the true facts of the case had been understood and explained.

I have, &c.,
For JOHN WILLIAMS,
Crown Solicitor,
R.S.

Sydney: Charles Potter, Government Printer.—1891.

[3*d*.]

1891.
(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CLAIM FOR COMPENSATION BY JAMES AND PATRICK GUIHAN.

(CORRESPONDENCE RELATING TO THE.)

Ordered by the Legislative Assembly to be printed, 14 *December*, 1891.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 19th November, 1891, That there be laid upon the Table of this House,—

"Copies of all papers and correspondence relating to the claim for compensation by James and Patrick Guihan, in respect of certain land in the parish of Cambewarra, county of Camden, at Broger's Creek."

(Mr. Morton.)

SCHEDULE.

557—A
[870 copies—Approximate Cost of Printing (labour and material), £9 11s. 1d.]

CLAIM FOR COMPENSATION BY JAMES AND PATRICK GUIHAN.

No. 1.

Mr. W. Lovegrove to The Secretary for Lands.

Sir, 109, Pitt-street, 4 June, 1890.

Referring to the correspondence and various action of the Government in the case of Messrs. J. and P. Guihan, terminating with the Under Secretary's letter of 24th March, 90-2,187 Misc., I have the honor to recapitulate the facts, and to point out that the action of the Government has been such as to entitle the Messrs. Guihan to a considerable claim for compensation. This arises in the following way:—

About the commencement of 1887, Mr. Irwin, their neighbour, was informed that a certain piece of land belonging to Guihan did not so belong, but was, in fact, Crown lands. He says he got his information at the Crown Lands Office, Sydney, *i.e.*, your Department.

He was thereby encouraged to trespass upon said lands, and from that time until last March my clients had no peaceable possession, a period of three years.

Passing over minor matters, I find that I applied to see the original survey of the land, and found that it belonged to Guihan, and that the western boundary was 13 chains, whilst in the deed it had been altered (without intimation to the owners) to 9 chains 35 links, in order to deprive them of this land.

I endeavoured, but in vain, to impress upon the Department, in my letter, 13th October, 1887, that the land belonged to Messrs. Guihan. I received a reply dated 13th January, 1888, to the effect that Guihan must buy half of his own land from the Crown by special purchase, or it would go to auction. I was also favoured with a letter (88-535 Misc.), dated 2nd February, stating that the deed agreed with the plan, and generally traversing my statement. I replied to this on the 3rd February, 1888, but was informed, 15th March, 1888, that the decision "cannot be disturbed." I also endeavoured to get the land measured to see how much Guihans would be short of their quantity, but in vain.

I pointed out that certain maps in the Department had Guihan's name on the land; those maps were at once altered, and the name struck out.

After two years and a half of vain endeavour to get the Department to do justice to my clients, I was obliged to enter caveat against the application of Irwin, published by the Government in the *Gazette*.

The case came on for hearing by the Land Board in November, and was decided in Guihan's favour.

Then it was brought before the Departmental Board of Inquiry, and they decided that the acts of the officers were strictly in accordance with a Ministerial decision, but that the decision was erroneous, as the land belonged to Guihan. This was followed by the recall of the deed, in order that it may be issued in accordance with the facts, and that brings the matter up to date.

There is no doubt on my mind that, looking to the indefensible opposition of the Government to a claim about which there could not be the slightest doubt, and yet concerning which they threw open Guihan's land to all trespassers, deprived them of the profits, kept them in perpetual anxiety, and put them to great expense at law and otherwise, a jury would give very substantial damages; or that if it were brought before Parliament the result would be equally damaging; but so far, it has been kept within the Department, and I should be prepared, without prejudice, and with a view to prevent further waste of time, to recommend them to accept a moderate sum, which at present I should consider £300 or thereabouts.

I may add that rent (apparently for twenty-five years) was claimed, in one letter of the Department, from Guihans for this land.

Trusting that you will treat this matter as urgent.

I have, &c.,
W. LOVEGROVE.

No. 2.

Office Memorandum.

Claim for £300 for compensation; Island at Broger's Creek, parish of Cambewarra, county of Camden—J. and P. Guihan. Aln. 90-4,430.

In 1835, G. Irwin applied to purchase an island situated in Broger's Creek (*vide* Miscellaneous 84-25,127), but as the land adjoining was held under conditional purchase the application was refused (Miscellaneous 85-1,564).

As the ownership of this land was questioned, a report was called for as to whether the land was Crown land.

On 87-14,059 the Metropolitan District Surveyor reported that the land applied for was shown on the maps as an island, and outside the deed description of M'Ilwraith's (now Guihan's) land, and recommended that both parties be invited to apply to purchase the area fronting their respective portions.

This was approved by Mr. Secretary Garrett, 87-14,059, 15,971, and 88-6,792 herein, and Irwin having made the necessary application, survey of the land was made, with a view of sale 88-5,193 (89-5,888).

A vast amount of correspondence passed between this Department and Mr. Lovegrove (for Guihan), the latter contending that the island in question was the property of Guihan, while the Department, on reports furnished by the District Surveyor's Office, held that it was Crown land.

On Erwin's case being gazetted for objections, a caveat was lodged against such application being allowed, 88-9,846.

The matter was heard before the Land Board, Nowra, and in view of the Board's report on 89-17,037 herein, it was decided the matter should be investigated by the Board of Inquiry, certain charges of alleged alteration of plans having been made against the Department by Lovegrove.

The

The Board of Inquiry, after a very careful and searching investigation, reported in favour of Guihan's claims, opinion being expressed as follows:—"The Board are of opinion that the facts presented are incontrovertible, and would respectfully advise that the Crown grant be recalled, with a view to the issue of a new deed, including the island, in accordance with the original survey; also that the recent survey of the island be cancelled, the marks obliterated, and the notations referred to as having been cancelled on the plan restored." (89–18,534 Miscellaneous.)

The deed of grant was recalled accordingly, with a view of including the island in the proposed new deed (90–12,687 Miscellaneous).

Irwin's application was, in view of this decision, refused on 90–4,473 Alienation. Irwin again asks for a reconsideration of the matter.

Lovegrove (for Guihan) now asks (90–4,430) for compensation to the amount of £300, as he states that Irwin was encouraged by the Department to trespass on Guihan's property (the land in dispute), and for three years Guihan had no peaceable possession; he has also, he alleges, been put to considerable expense and inconvenience in having to attend the Land Board, &c.

With reference to the statement made in paragraph 5 of Lovegrove's letter, he has already been informed that the alteration complained of was not made; please see paragraph 5 of the report of Board of Inquiry (89–18,534).

No. 3.

Office Memorandum.

Claim for £300 as compensation by Messrs. Guihan—Aln. 90–4,430.

A *precis* of the facts in this case is enclosed.

30 June, 1890.

THE grounds upon which the claim for compensation is based are stated in paragraph No. 7 of Mr. Lovegrove's letter—Alienation 90–4,430. With regard to these it may be remarked:—

1. That the actions of the Department were, in pursuance of the decisions given by Mr. Secretary Garrett, based on the reports of an experienced professional officer, and although some of the opinions expressed in those reports have since been held to be incorrect, it can scarcely be held that the action of the Department is indefensible, as stated, or that the claim was one about which there could be no doubt, and the fact that Messrs. Guihan made no attempt to assert their rights in a civil Court shows that they did not so consider it.
2. That while it is a fact, as stated in the third paragraph of Mr. Lovegrove's letter, that both Irwin and Guihan were informed that the land in dispute was Crown land, the former was never placed in possession of any of it. The fact that an application for a part of it was received from Irwin, and dealt with in the usual manner up to a certain stage, did not give him any right to occupy the land, and if he did trespass upon it this Department is not responsible for his actions in that respect. As a matter of fact there appears to be no evidence in these papers that Irwin did occupy the land applied for by him, and from Miscellaneous 87–8,962, and Land Board 88–5,281, it would seem as if Messrs. Guihan retained possession, though such cannot be stated with certainty.

(3.) The strongest argument in support of the claim appears to be the fact that the applicants have been put to considerable expense in connection with the matter, though it is pointed out that as a set-off against this the result of the dispute has been to put them in legal possession of land which, though embraced by the original survey, was not described in their deed.

With regard to Irwin's letter, Alienation 90–4,473, he should perhaps be informed that the matter has been very fully considered, and the decision already arrived at will not be departed from.

E.A.B.

It would appear that there is some ground for compensation in this case, but before any sum is approved the items making up the amount claimed, viz., £300, by Mr. Lovegrove should be shown.—W.H.C., 17/9/90.

Mr. Lovegrove may be asked, without prejudice, to specify the various items making up the total amount of claim, £300.—F.H.W., 18/9/90. For approval.—W.H., 18/9/90. No claim for compensation can be recognised until the particulars are furnished.—J.N.B., 19/9/90. Correspondence Branch.—E.A.B., 19/9/90. Mr. Lovegrove, 25/9/90.

No. 4.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir,

109, Pitt-street, 26 September, 1890.

I have the honor to acknowledge receipt of your letter of yesterday, No. 90–8,601 Alienation, which requests me to furnish items of Messrs. J. and P. Guihan's claim for compensation. As my suggestion, at their instance, of £300 has not been accepted, it must be held to be without prejudice to their further claims, as the amount was given without close calculation, and, indeed, some of the damages can only be assessed theoretically, but my impression is that the amounts will be more than fully supported, and the course adopted by the Government will lead to additional expense and journeys on the part of these industrious but unfortunate men.

I have, &c.,

W. LOVEGROVE.

Mr. M'Kern,—While the request for compensation is in abeyance, perhaps you can proceed with your action.—E.A.B., 29/9/90. Mr. Neill.—Please prepare a description of portion 11/11, parish of Cambewarra, county Camden, in accordance with application of 7/2/90 on Miscellaneous 89–18,534 herewith.—F.M'K., 14/10/90. Urgent. Description prepared.—W.J.N., 3/11/90. Mr. M'Kern.

Mr.

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Mr. Shaw,—Please furnish a tracing of portion 11/11, parish Cambewarra, county Camden, plan C 175-1,521. (See description herewith.)—F. M'K., 3/11/90. Urgent. Tracing herewith.—M.S., 7/11/90. Mr. M'Kern.

Mr. Davis,—Please forward copy description and tracing of portion 11/11, parish Cambewarra, county Camden, and certificate of title, vol. 588, folio 132, to Registrar-General. Inform fully of facts in the case, and ask that the diagram on the certificate of title be amended in accordance with the description and tracing.—F.M'K., 19/11/90. Registrar-General, with certificate of title, description, and tracing.—20/11/90.

No. 5.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 7 October, 1890.

I have now the honor to enclose the details asked for in your letter of 25th September, No. 90-8,601 Alienation, concerning Messrs. J. and P. Guihan's claim against the Government for expenses and losses sustained by them in defending the possession of their land, and I trust it will be dealt with so speedily as to afford some hope that the justice of the claim will be recognised, if not the amount.

I should be prepared to advise my clients to accept the amount first mentioned, £300, if no further delay occurs, but I have not their authority to say so.

I have, &c.,
W. LOVEGROVE.

How does Alienation 90-8,601 stand ?—E.A.B., 10/10/90. Mr. Lander. Deeds.—29/9/90., A.J.L., 15/10/90. Mr. Brunsden. Mr. M'Kern,—Can the issue of the deed be expedited, and the previous papers returned to me, please ?—E.A.B., 16/10/91. Mr. Neill,—The case referred to is with you for preparation of amended description.—F.M'K., 18/10/91. Urgent.

[*Enclosure.*]

Items of claim by Messrs. James and Patrick Guihan against the Government for losses and expenses sustained by the wrongful acts of said Government of New South Wales.

		£ s. d.
In 1886	Mr. Irwin, owner of the opposite frontage at Kangaroo River, stated that he was informed by the Government Surveyor that we did not own the land now admitted to be ours. From that time it has been impossible to have quiet possession of the land, or to use it for profit. Say three and a half years want of quiet possession of 20 acres of best quality land, cleared and grassed.	200 0 0
1886-7.....	Three journeys to Nowra to Crown Lands Office to get information, each 32 miles, and loss of time.	*6 0 0
	One journey to Berry, to see the deed in the custody of Commercial Bank	*1 0 0
	Attendance on Surveyor Riley when he came to report on the matter, and expense of shifting fences to comply with his surveys.	*8 0 0
13 October, 1887	Attendance on Mr. Lovegrove, in Sydney, to inform him of proceedings, and to instruct him in the matter.	*5 5 0
November.....	Attendance in Sydney to learn result of steps taken so far	*5 5 0
December	Hearing that Irwin was to be allowed to purchase half said 20 acres, attendance in Sydney thereon.	5 5 0
January 19, 1888	Attendance in Sydney	5 5 0
23 June	,, ,, ...	5 5 0
16 July	,, ,, ...	5 5 0
	Two attendances during foregoing period on the Honorable Thomas Garrett, Minister for Lands, who resisted our just claim, and said the land should be sold.	*10 10 0
December 4, 1888.....	Attendance on Honorable James N. Brunker, Minister for Lands	*5 5 0
March, 1889	Received letter, informing us that Mr. Riley was to make additional road through said land ; attendance in Sydney thereon.	*5 5 0
April to 30 July	Protesting against persecution, and being informed that the land was to be sold, and Irwin permitted to purchase, his application being gazetted ; attendance in Sydney thereon ; visit to Mr. Slattery, &c.	*10 10 0
10 September.....	Notice of caveat and deposit of £10. Mr. L.	.....
30 October.....	Notice of trial at Nowra Court-house	.....
	Journeys to collect evidence from Moss Vale, Balmain, Newtown, &c.....	10 0 0
	Attendance of selves at Nowra Court-house, 32 miles.....	5 4 0
	,, Mr. Whittell, solicitor.....	3 3 0
	,, Geo. Tate, Esq., J.P., witness, 76 miles.....	6 6 0
	,, W. J. M'Ilwraith, witness, 204 miles.....	5 0 0
	,, D. M'Ilwraith, witness, 1 mile	1 1 0
	,, former Crown Land Agent, 204 miles	10 10 0
	Copy of decision and depositions, paid by Mr. L.	.....
	Subsequent proceedings at Departmental Court of Inquiry, when we succeeded in obtaining final verdict ; Mr. Lovegrove's charge.	.....
	Further unliquidated damages.....	.....
	Adverse occupation by Irwin of 8 acres for three and a half years, under encouragement of the Government. Anxiety of mind occasioned by the proceedings. Loss through inability to carry out an agreement to survey and divide the land, our ownership of £400 worth of it being denied by the Government.	*200 0 0
		519 4 0
	Mr. Lovegrove's services for three and a half years.....	50 0 0
		569 4 0

29th September, 1890.—Expenses recommended.

JAMES GUIHAN.
PATRICK GUIHAN.

Notes.—On the original paper the first item of £200 is ruled through, in blue pencil, and £105 written above, also in blue pencil. The items marked thus * are ruled through in blue pencil.

No. 6.

5

No. 6.

Office Memorandum.

Extract from Paper Alienation 90-11,109.

29 December, 1890.

It is submitted that the claim to compensation now increased to £569 4s. from £300 be investigated by the Local Land Board.

W.H.C.

F.H.W., 29/12/90. For approval.—W.H., 3/1/91. Approved.—J.N.B., 5/1/91. Has receipt of certificate been acknowledged?—E.A.B., 6/1/91. Mr. Legg,—Receipt acknowledged (*vide* 90-11,745 Alienation).—F.B.S., 9/1/91. The Chairman, Local Land Board, Goulburn, in accordance with Ministerial decision of 5th instant.—E.A.B. (for the Under Secretary), Lands Department, B.C., 8/1/91. Mr. Lovegrove informed, 9/1/91.

Mr. Lovegrove addressed the Board, and gave his own evidence, and called James Guihan. After considering the evidence the Chairman stated his opinion that the claim was wholly inadmissible, the action of the late Minister, Mr. Garrett, having been in pursuance of his function as Minister determining a question between parties which came before him in the regular course, and having been in accordance with the deed of grant held by the present claimant. The items connected with the late inquiries before the Land Board should have been, if properly chargeable, claimed as costs against the other parties to the proceedings before the Board, who was the proper authority to settle the question of costs. As no such were asked for or allowed, clearly they cannot now be included as a claim against the Government. It appears that the land in question was (whether correctly or incorrectly, as for that question immaterial) not included in his deed of grant. The owner cannot claim to be compensated for not having consulted his deed, which would have shown him that the land was not included, and enabled him to take the proper steps to have the error corrected at the time of the occurrence, and protect himself against disturbance of possession. The majority of the Board, Messrs. Bice and M'Intyre, decided to recommend the claim for the items indicated by them, amounting in all to the sum of £167 4s., inclusive of £41 4s., costs of inquiry before the Board on 13th November, 1889.—A. O. Moriarty, Chairman, Z. G. Bice, L. M'Intyre.

No. 7.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 9 January, 1891.

I have the honor to acknowledge receipt of your letter of yesterday, No. Alienation 90-11,745, stating that the claim of Messrs. James and Patrick Guihan for compensation for injuries sustained by the actions of a former Government has been referred to the Local Land Board.

I must confess that I do not see the necessity for such a course, but it may be that a Board not meant to assess damages may be competent to do so.

At all events, a further Court sitting means further delay and expense for my clients, unless they choose to avoid the expense by simply resting their case on the facts already decided in their favour.

I have, &c.,
W. LOVEGROVE.

No. 8.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 2 February, 1891.

Referring to your letter, Alienation 90-11,745, 8th January, and to my answer of 9th January, also to an announcement in the *Gazette* that a Land Court will be held at Nowra on the 27th instant, I shall feel obliged by the information whether the Government has referred Guihan's compensation to that Board for private discussion, or whether it is contemplated that the Messrs. Guihan should again appear in Court.

I have, &c.,
WM. LOVEGROVE.

This has reference to a claim by Messrs. Guihan for compensation. The claim was on 8th ultimo forwarded to the Local Land Board at Goulburn for investigation and report, and will, of course, be dealt with in open Court. Perhaps the Chairman may be asked by wire whether the case is set down for hearing on 27th instant?—E.A.B., 3/2/91.

For approval.—W.H.C., 3/2/91. Approved.—F.H.W., 5/2/91. Mr. Swete, 5/2/91. Chairman, Goulburn, by wire, 5/2/91.

No. 9.

Telegram from The Chairman, Local Land Board, Goulburn, to The Under Secretary for Lands.

Goulburn.

Guihan's compensation case is down for Nowra sittings, 27th instant.

JOHN G. BLAXLAND.

Mr. Lovegrove may be informed that the case was sent to the Land Board for investigation in the usual way, and is set down for hearing at Nowra on 27th instant. Submitted.—E.A.B., 6/2/91. Yes.—W.H.C. (*pro* Under Secretary), 6/2/91. W. Lovegrove informed.—F.B.S., 7/2/91.

No. 10.

No. 10.

Mr. J. G. Blaxland to The Under Secretary for Lands.

[L.B. 91–120; Alienation 90–11,745.]

Sir, Land Board Office, Goulburn, 6 February, 1891.

I have the honor to inform you that the case of compensation claimed by James and Patrick Guihan against the Government, respecting certain land, parish Cambewarra, county Camden, for £569 4s., will come before the Local Land Board at Nowra on the 27th February instant.

I have, &c.,
J. G. BLAXLAND
(For the Chairman).

No. 11.

Telegram from The District Surveyor, Goulburn, to The Under Secretary for Lands.

Goulburn.

I SHALL be at Nowra on Friday to oppose Lovegrove's claim.

District Surveyor.

What is this?—W.H., 25/2/91. Claim, Guihan.

No. 12.

Caption to Deposition of Witnesses.

Crown Lands Act of 1884—Part II, section 14, sub-section 1.

New South Wales, }
to wit. }

THE examination of William Lovegrove, of Sydney, in the Colony of New South Wales—James Guihan, of Kangaroo Valley, in the said Colony.

In the matter of a claim by James and Patrick Guihan for compensation against the Government for £569 4s., before the Local Land Board at Nowra, on the 27th February, 1891, and it hath been found necessary to investigate the said matter on oath, the depositions of the several witnesses are appended hereto.

William Lovegrove, of 109, Pitt-street, Sydney, being duly sworn, saith:—My letter to the Under Secretary for Lands dated 7th October, 1890, with its enclosure headed items of claim by Messrs. James and Patrick Guihan, &c., is the claim which I make on behalf of my clients; the first item in it, £200, should have been £210, being calculated by me at the rate of £3 per acre per annum for three and a half years; the journeys to the Crown Lands Office, which form the next item, I am aware were taken by the claimant whilst I was Crown Lands Agent; passing over the two next items, I find certain attendances in Sydney which I know took place; I also know that the two attendances on the Honorable Thomas Garrett took place, and that the attendance on the Honorable J. N. Brunker took place; the first item of the expenses of the trial in this district being the subpœnaing of witness for which I paid 4s.; I know that the local solicitor, Mr. Whitell, attended, and that I also attended, and the witnesses Mr. George Tate, J.P., Messrs. J. and D. M'Ilwraith, and the two caveators, Messrs. Guihan; I know that I was paid altogether during those three and a half years a sum of £50, which included cost out of pocket.

By Chairman: I lodged the caveat, and appeared for him before the Board, with great inconvenience; I lodged the usual deposit of £10 with my caveat, which the Board investigated; I did not ask the Board for costs, because I thought it was not the proper time; I think this is.

W. LOVEGROVE.

Recalled,—I have seen the deed; the island was in the deed, but was excluded by colour.

W. LOVEGROVE.

Sworn by William Lovegrove, at Nowra, this }
27th February, 1891, before us,— }

A. O. MORIARTY, Chairman.
Z. G. BICE, }
LEWIS M. M'INTYRE, } Members.

James Guihan, of Kangaroo Valley, being duly sworn, saith:—I am one of the owners of 199½ acres in the Kangaroo Valley; I have been troubled in the possession of it; since I got possession of it I recollect getting a letter from the Department of Lands through Mr. Frazer Martin, about three and a half years ago (*letter produced, marked "A"*) to the effect that the land did not belong to me, but that I might apply for it; I never applied to be allowed to purchase the land; I came to the Land Agent to see him about this land; I went to the Commercial Bank to see the deeds in Berry; the distance between Kangaroo Valley and Nowra is 16 miles, and I would lose the whole day; I have attended about twelve times in Sydney on this business; I saw Mr. Thomas Garrett in Sydney; he told me if I did not apply for half of the land he would sell it inside of a month; I went twice to Sydney in consequence of receiving notice that my land would be sold; at the inquiry here Mr. Tate, J.P., came from Moss Vale, Mr. J. M'Ilwraith came from Sydney, Mr. D. M'Ilwraith came from here, Mr. Lovegrove from Sydney, and I and my brother from Kangaroo Valley; I was interfered with in possession of the land, and lost the profit off it for three years and a half; Irwin has been trespassing on it for ten years; a sergeant of police came there and made a report; I remember Mr. Riley going there and sending Mr. Lovegrove a telegram to that effect; I suffered anxiety of mind, and often did not sleep; I do not think that item of £200 is an extravagant

extravagant one; it is three months since I was advised that the new deed was prepared; since then I have taken steps to divide the land; I am employing Mr. Cook, of Berry, licensed surveyor and engineer.

By Mr. Deeriny: I was always sure that the land was mine; my anxiety was caused by the action of the Government; I purchased the land about nine or ten years ago; I got a conveyance of the land; the transaction was arranged between Mr. M'Ilwraith and me by a solicitor.

To the Bench: Mr. M'Ilwraith paid the balance of the purchase money; he paid it before I bought it; the transaction was delayed owing to the deed not having been issued; I knew when I bought that the deed was being prepared; the agreement was that the deed was to be produced; I never saw the deed at all; it was left at the bank by Mr. M'Ilwraith.

Sworn by James Guihan, at Nowra, this 27th February, 1891, before us,— JAMES GUIHAN.

A. O. MORIARTY, Chairman.
Z. G. BICE,
LEWIS M. M'INTYRE, } Members.

THIS is the letter marked "A" referred to in the evidence of James Guihan before us this 27th February, 1891.

A. O. MORIARTY, Chairman.
Z. G. BICE.
LEWIS M. M'INTYRE.

Sir, Department of Lands, Sydney, 21 January, 1888.

I am directed to transmit herewith, for your information, a tracing showing area proposed to be sold to J. Guihan, as applied for by you on the 16th instant.

I have, &c.,
R. H. DE LOW,
(For the Under Secretary).

W. Fraser Martin, Esq., M.P., Sydney.

No. 13.

Decision of Local Land Board.

Crown Lands Act of 1884—(Part II, section 14, sub-section 4.)

New South Wales, to wit.

WHEREAS on the 27th February, 1891, it became a matter for investigation before us as to a claim for compensation by James and Patrick Guihan in respect of certain land in the parish of Cambewarra, county Camden, Broger's Creek.

Mr. Lovegrove, appearing for the claimants, addressed the Board, and gave his own evidence, and called James Guihan, and having taken evidence, and inquired into the said matter,—

1. After considering the evidence the Chairman stated his opinion that the claim was wholly inadmissible, the action of the late Minister, Mr. Garrett, having been in pursuance of his function as Minister determining a question between parties which came before him in the regular course, and having been in accordance with the deed of grant held by the present claimant.
2. The item connected with the late inquiry before the Land Board should have been, if properly chargeable, claimed as costs against the other party to the proceedings before the Board, who were the proper authority to settle the question of costs; as no such were applied for or allowed, clearly they cannot now be included in a claim against the Government.
3. It appears that the land in question was (whether correctly or incorrectly is for this question immaterial) not included in the deed of grant. The owner cannot claim to be compensated for not having consulted his deed, which would have shown him that the land was not included, and enabled him to take the proper steps to have the error corrected at the time of the occurrence, and protect himself from disturbance of his possession.
4. The majority of the Board, Messrs. Bice and M'Intyre, decided to recommend the claim for the items indicated by them, amounting to in all £167 4s., inclusive of £41 4s., costs of inquiry before the Board on the 13th November, 1889.

Given under our hands, at Nowra, this 27th day of February, 1891,—

A. O. MORIARTY, Chairman.
Z. G. BICE,
LEWIS M. M'INTYRE, } Members.

No. 14.

Mr. W. Lovegrove to The Clerk-in-Charge, Local Land Board Office, Goulburn.

Sir, Sydney, 109, Pitt-street, 4 March, 1891.

Will you be good enough to send me certified copy of the proceedings and verdict for £167 4s., given in favour of Messrs. J. and P. Guihan, at the Local Land Court, holden at Nowra, on Friday, 27th February. I will forward any fees by P.O. order.

I am, &c.,
W. LOVEGROVE.

Inform that the decision of the Board was as announced in Court. The papers will be forwarded to the U.S. in due course, to whom application may be made. The time for appeal to the Land Court will expire on 25th instant.—A.O.M., 9/3/91.

Informed, 9/3/91.

No. 15.

No. 15.

Mr. W. Lovegrove to The Clerk-in-charge, Local Land Board Office, Goulburn.

Sir, 109, Pitt-street, 10 March, 1891.

I have the honor to acknowledge receipt of your letter of the 9th March, refusing my application for copies of the proceedings and judgment of the Local Land Court at Nowra, in the matter of compensation for injury sustained, from the Crown, by Messrs. J. and P. Guihan.

The ground you assign is that the decision of the Board was announced in Court.

You thus admit that the proceedings were conducted in open Court, and it is a rule of English Law Courts that the parties to the proceedings are entitled to copies of those proceedings from the officers in whose charge they happen to be (see also section 14, sub-section 1, of Act, 1875).

You also state that they will be forwarded to the Secretary for Lands in due course. The words of the Act are "immediately after adjudication."

I give you notice that I cannot state grounds of appeal from a decision of which I have no record.

I have, &c.,

W. LOVEGROVE.

Mr. Fisher may make copies in his own time, and charge for them at 4d. per folio of seventy-two words, as authorised by circular.—J.E.B. Mr. Lovegrove informed, 17/3/91.

No. 16.

The Chairman, Local Land Board, to The Under Secretary for Lands.

(L.B. 91-1,318.)

Sir, Land Board Office, Goulburn, 17 March, 1891.

Under separate cover.

I have the honor to forward the case of compensation claimed by James and Patrick Guihan, together with the minute of the Board, and proceedings at their sitting at Nowra, on the 27th ultimo. All papers are enclosed.

I have, &c.,

JNO. G. BLAXLAND

(For the Chairman).

No. 17.

Mr. W. Lovegrove to The Clerk-in-Charge, Local Land Board Office, Goulburn.

Sir, 109, Pitt-street, Sydney, 19 March, 1891.

Referring to your letter of 17th instant, 91-1,318, Land Board, I have the honor to say that the copies therein alluded to have not reached me.

I enclose a post-office order made payable to the gentleman named in your letter.

I trust that the copies will reach me with as little delay as possible, duly certified to as correct by yourself.

I have, &c.,

W. LOVEGROVE.

No. 18.

Mr. W. Lovegrove to The Clerk-in-Charge, Local Land Board Office, Goulburn.

Sir, 109, Pitt-street, 19 March, 1891.

This is the second letter written by me to-day, and is written for the purpose of acknowledging receipt of the copies of evidence, &c., by which I learn for the first time the items allowed by the majority of the Board.

I am sorry to find that no allowance has been made for costs of the trial in February. As my clients were summoned there, and as the proceedings are to be on the model of the District Court, I presume the costs shall follow the event and be recovered by the successful party.

Moreover, I stated the claim to be for the items set out, and the costs of this trial, when the Chairman said, "This is not the time to apply for costs." Mr. Moriarty will probably recollect this, and, at all events, no order was made to deprive the successful party of costs.

I shall also apply to the Minister for my costs as agent; it would interfere with justice if the claimants, usually illiterate men, could not employ skilled advice, or had to lose by so doing.

I have, &c.,

W. LOVEGROVE.

I referred to the previous trial in this remark, and the decision was read from the minutes. The matter is not in the hands of this Board, and I cannot correspond with the writer on the subject. He had already been referred to the Under Secretary.—A.O.M., 23/3/91.

Forwarded in connection with Guihan's compensation case, 91–1,318, Land Board, sent with letter 17th instant.—JNO. G. BLAXLAND (*pro* Chairman), Land Board Office, Goulburn, 23/3/91. The Under Secretary for Lands.

No. 19.

Mr. W. Lovegrove to The Secretary for Lands.

James and Patrick Guihan *v.* The Government.

Sir, Pitt-street, Sydney, 19 March, 1891.

Presuming that you are now in possession of the evidence and judgment of the Local Land Board in the case remitted to them by you in the usual way, as set forth in the Departmental letter, 8th January last, Aln. 90–11,745, and tried by them on 27th February, I have the honor to make the following remarks :—

The verdict for £167 4s. comprises certain items, disallows others, and does not include the costs of the trial, 27th February.

1. The members of the Board have disallowed or omitted the costs of my assistance to the Messrs. Guihan for the four years.

2.

2. It disallows some of their necessary journeys to Sydney.
3. Nothing is allowed for their and my attendance at Court on 27th February.
4. Nor for their disturbance and sense of injustice and uncertainty during the four years. The verdict is only for the grass and the costs of the first trial.

I respectfully submit that the verdict should be increased to £300, the sum first asked for, and should be placed on the Estimates for this year.

I have, &c.,
W. LOVEGROVE.

No. 20.

Office Memorandum.

Claim for compensation by J. and P. Guihan.—Amount of Claim, £569 4s.—Aln. 91–2,564.

26 March, 1891.

In accordance with the decision of 5th January, 1891, on Aln. 91–11,100, this case was referred to the Local Land Board for investigation and report.

The Board, by majority (the Chairman dissenting), have recommended that £167 4s. should be allowed, having apparently disallowed the items ruled through in blue pencil on Mr. Lovegrove's schedule.

The first item claimed was £200 for want of quiet possession of the 20 acres for a period of 3½ years. In his evidence Mr. Lovegrove states that this item should have been £210, viz., at the rate of £3 per acre.

Under this heading the Board recommend £105, but there is nothing to show how they arrived at this amount.

The evidence in support of this item is very meagre, being merely Mr. Guihan's statement that Irwin has been trespassing on the land. When the land was claimed as belonging to the Crown it was proposed to sell 8 acres to Irwin and 12 acres to Guihan, so that it seems improbable that he has been deprived of the possession of more than 8 acres, if any at all.

It is also noticed that the letter informing Guihan and Irwin that the 20 acres were Crown land was sent on 13th January, 1888, and the letter abandoning the claim was sent 12th February, 1890, the interval being only two years and one month.

The other items recommended by the Board are £21 for four journeys to Sydney by Messrs. Guihan, and £41 4s. the costs of witnesses and solicitor in connection with the inquiry of 13th November, 1889.

The Chairman dissents from the decision of the Board for the reasons given in paragraphs 1 to 3 of their report (91–2,564).

Mr. Lovegrove, on the other hand, in his letter of 19th instant, protests against the disallowance of certain items, especially the charge of £50 for his services.

In view of the fact that the Chairman dissents from the recommendation of the Board, and also the fact that the evidence in support of the claim is anything but conclusive, it is submitted whether the case should not be referred to the Land Court under section 7 of the Act of 1889.

E.A.B.

Under all the circumstances in this case it is submitted that the decision of the Nowra Land Board (by majority) be now carried out.—W.H.C., 20/4/91. F.H.W., 21/4/91.

It appears to me that this is a case which can be dealt with by the Minister in his Ministerial capacity without regard to the 7th section of the Act of 1889. That being the case, it is submitted that the claims made in the document attached to 90–9,255 Aln. are simply preposterous, and that if it be determined compensation should be granted at all, the amount set down by a majority of the Board should be materially reduced. I may point out more particularly the nature of the claim put forward as item No. 1 in the document referred to. It may further be pointed out that under the 66th section there can be no occupation by virtue of a special purchase until the application is actually granted, which did not take place in this instance. Compensation, if granted at all, should, I venture to think, be limited to the actual expenses incurred by Guihan in defending his title to the land.—W.H., 21/4/91.

I would like to have the advice of the Crown Solicitor on this case.—J.N.B., 22/4/91. Crown Solicitor, with papers, 22/4/91.

No. 21.

The Under Secretary for Lands to The Crown Solicitor.

Sir, Department of Lands, Sydney, 22 April, 1891.

I have the honor, by direction of the Secretary for Lands, to forward herewith the papers in connection with a certain claim for compensation made by Patrick and James Guihan, in respect of land at Brogher's Creek, in the parish of Cambewarra, county of Camden, and to request that you will be good enough to furnish the Minister with an opinion thereon.

I have, &c.,
WM. HOUSTON,
Under Secretary,
(*Per* W.H.C.)

No. 22.

The Crown Solicitor to The Under Secretary for Lands.

Sir, Crown Solicitor's Office, Sydney, 4 May, 1891.

I have the honor to return herewith the papers noted in the margin, on the subject of Patrick and James Guihan's claim for compensation. Aln. 91-3,610.

It appears to me that claims for compensation of this character are not in any way matters for decision by a Local Land Board. The submission of the claim to investigation by the Local Land Board

 was

was submitted on paper No. 11,109, of 3rd December, 1890, as follows:—"It is submitted that the claim be investigated by the Local Land Board." This was approved by the Minister, 5/1/91.

It will be seen it was not referred to the Local Land Board to decide anything, but only to investigate the claim.

The Local Land Board appear also to have taken the same view of the matter, their decision being upon an investigation of the claim, by majority, as follows:—"Decided to recommend the claim for the items indicated by them, amounting to £167 4s., inclusive of £41 4s., costs of inquiry before the Board on 13th November, 1889.

It accordingly appears that it was not intended by the Minister to leave the Land Board to decide, and that the Land Board has not decided anything.

It would further appear that Mr. Lovegrove, as agent for the parties, has taken the same view of the matter, because in his subsequent letters he submits that what he is pleased to call the verdict—that is, the amounts recommended by the Land Board—should be increased, showing his dissatisfaction with it. I mention these points because it might be open to doubt whether, if the matter had been referred by the Minister to the Land Board for decision, and if both parties concurred in giving them jurisdiction (which by statute they do not possess), the fact of the decision of the Land Board—as the tribunal mutually approved of and assented to by both parties—would, if not appealed against to the Land Court, have been final and conclusive, both on the Minister and the parties.

These difficulties, for the reasons already pointed out, have not arisen in the present case.

It is, therefore, quite open to the Minister to deal with the recommendation of the Land Board in exactly the sense in which it was asked, namely, as a report, and either to confirm and adopt the report, or to act otherwise in the matter, as he may see fit.

On further considering the whole matter, it appears to me that there is no case whatever of any claim against the Government arising out of the items of claim set out by Mr. Lovegrove, on behalf of Messrs. Guihan. The Government in no way whatever contested the title of Messrs. Guihan to the land, and if it did, would not be obliged to pay any expenses or costs if so doing, unless such costs and expenses were properly awarded in the suit; nor will any action lie against the Government for slander of title, nor could that claim arise. It cannot in any way be pretended, or is it alleged, that there was any malice on the part of the Crown, and without allegation of and proof of malice no action of slander of title will lie.

I have, &c.,
For JOHN WILLIAMS,
Crown Solicitor,
R.S.

No. 23.

Office Memorandum.

Claim for compensation by Messrs. Guihan.

In accordance with the request contained in the Secretary for Lands' minute of 22nd ultimo, on Aln. 91-3,610, the Crown Solicitor has reported on this case, and advises that the claim for compensation is not a valid one. It is presumed, however, that this report is only intended to deal with the legal aspect of the case.

In view of the report, the claim, in so far as it relates to compensation for want of peaceable possession, &c., need not, perhaps, be further considered; but it seems still to be a question for consideration whether, as an act of grace, some compensation should not be made for the expenses in which the Messrs. Guihan have been involved in connection with the matter, in view of the fact that the difficulty has arisen through what is now admitted to have been an error on the part of the Crown. As against this it must, however, be admitted that the result of the contest has been to put those gentlemen in legal possession of land to which they had a moral claim, though apparently not a legal one, as the land was not embraced by the metes and bounds of the grant.

If it is thought that any concession should be made, perhaps £25 would be a sufficient sum to allow.

E.A.B., 7/5/91.

In view of the Crown Solicitor's advice, embodied in his communication of the 4th instant, given in pursuance of the Minister's request of the 22nd ultimo, the case is resubmitted.—W.H.C., 29/5/91. F.H.W., 1/6/91.

The question is apparently narrowed down to that submitted in my minute of the 21st April last.—W.H., 2/6/91.

The advice given by the Crown Solicitor clearly shows that the Messrs. Guihan have no legal claim for compensation against the Crown. Notwithstanding such advice, I am of opinion that they have suffered slight loss and inconvenience, and although this is attributable to an omission on their part, I am disposed to give the case favourable consideration, and to direct, after carefully reviewing all the circumstances, that the parties directly interested may be allowed the sum of £50.—J.N.B., 4/6/91.

Mr. Conoley to inform.—E.B., 5/6/91. W. Lovegrove informed, 6/6/91.

No. 24.

Mr. W. Lovegrove to The Secretary for Lands.

Sir,

109, Pitt-street, 23 May, 1891.

I have the honor to ask attention to my letter of the 19th March, which concerned the claim of Messrs. J. and P. Guihan, and the verdict thereon of the Local Land Board at Nowra, on your reference of the matter to them. I have not been able to obtain an interview thereon.

I have, &c.,
W. LOVEGROVE.

No. 25.

No. 25.

The Under Secretary for Lands to Mr. W. Lovegrove.

Sir, Department of Lands, Sydney, 6 June, 1891.

In reply to your letter of the 23rd ultimo, as to a claim for compensation by Patrick and James Guihan, in respect of certain land in the parish of Cambewarra, county Camden, at Broger's Creek, I have the honor to inform you, by direction of the Secretary for Lands, that, although advised by the Acting Crown Solicitor your clients have no legal claim for compensation, he is nevertheless disposed to give the case favourable consideration to the extent of causing the sum of £50 to be paid to them on the understanding that such payment is accepted in full satisfaction of their claim against the Government.

I have, &c.,
WM. HOUSTON,
Under Secretary,
(*Per* W.H.C.)

No. 26.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 8 June, 1891.

I have the honor to acknowledge receipt of your letter of the 6th instant, offering £50 to the Messrs. Guihan in full satisfaction of the verdict against the Crown by the Local Land Board, at Nowra, for £167 4s.

I submit that the Government, having themselves referred the matter to the Local Land Board, and not having chosen to appeal therefrom, are estopped from taking any other step than satisfying the judgment of their Court, and that the only further steps are regulated by the 15th clause of the 48 Victoria No. 18.

I therefore trust that a cheque for the amount of verdict will be placed at the disposal of my clients, and have the honor to be,

Yours, &c.,
W. LOVEGROVE.

Mr. Lovegrove may, perhaps, be informed that this case was not referred to the Land Board for decision, but merely for investigation and report, with a view to enabling the Secretary for Lands to come to a decision, and that the Board did not make any award, but merely a recommendation to the Minister, and that therefore the case is not governed by clause 15 of the Land Act of 1884, which fact was recognised by him in his letter of 19th March, 1891, in which he asked an amount greater than that recommended by the Board should be allowed his client. He may perhaps be informed also that the case has received the fullest consideration, and that the decision already conveyed to him is final.—E.A.B., 18/6/91.

For approval.—W.H.C., 1/7/91. F.H.W., 2/7/91. W.H., 2/7/91. Approved.—J.N.B., 2/7/91. Mr. Swete, 3/7/91. W. Lovegrove informed, 3/7/91.

No. 27.

The Under Secretary for Lands to Mr. W. Lovegrove.

Sir, Department of Lands, Sydney, 3 July, 1891.

I have the honor to acknowledge receipt of your letter of 8th ultimo, regarding the claim of the Messrs. Guihan, and to inform you that the case was not referred to the Land Board for decision, but merely for investigation and report, with the view of enabling the Secretary for Lands to come to a decision.

The Board did not make any award, but merely a recommendation to the Minister.

The case is therefore not governed by clause 15 of the Land Act of 1884, and this fact was evidently recognised by you in your letter of 19th March, in which you asked that an amount greater than that recommended by the Board should be allowed your clients.

I am to add that the case has received the fullest consideration, and that the decision already conveyed to you is final.

I have, &c.,
WM. HOUSTON,
Under Secretary,
(*Per* W.H.C.)

No. 28.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 9 July, 1891.

I have the honor to acknowledge receipt of Mr. Capper's letter Aln. 91–5,075, in which I am informed that the reference to the Land Board in Nowra was only intended for the information of the Minister, and that he does not intend to act upon their award or assessment.

My clients regard the offer of £50 as an insult added to the injuries they have sustained at the hands of the Department and their neighbours for the last four years, and the only defence set up, viz., that it was their business to examine the deed when it was issued, does not apply to that period, when the Department, in face of the clearest proof on their own records, resisted the correction of the blunder; and what might have been in the commencement an unintentional mistake became a direct denial of rights, a persistent persecution causing daily pecuniary loss, and a defamation of their character by imputing that they had seized what was not lawfully theirs.

I have, &c.,
W. LOVEGROVE.

Messrs.

Messrs. Guihan's claim for compensation.—On 3rd instant Mr. Lovegrove was informed that this matter had received the fullest consideration, and that the decision already conveyed to him, viz., that while admitting no liability the Secretary for Lands was prepared to allow the Messrs. Guihan £50 as compensation, if they would accept that sum in full satisfaction of their claims, was final. So far the offer has not been accepted, and Mr. Lovegrove should perhaps be informed that if his clients do not accept the offer within one month it will be withdrawn. Submitted.—E.A.B., 13/7/91.

It is submitted that Mr. Lovegrove be communicated with as suggested.—W.H.C., 12/8/91. W.H., 13/8/91. Approved.—J.N.B., 13/8/91. Mr. Swete, 14/8/91. W. Lovegrove informed, 14/8/91. To be resubmitted in a month.—E.A.B., 14/8/91. End of August. Mr. Swete,—Any reply from Mr. Lovegrove or Guihan Brothers.—F.B.S., 14/9/91. Mr. Legg,—Nothing to date.—R.L., 18/9/91.

Mr. Lovegrove was, on the 14th August, informed that if the sum of £50 in full satisfaction of all claims that the Messrs. Guihan might deem themselves to have was not accepted within one month from that date such offer would be withdrawn. No reply has been received to that communication. Submitted Mr. Lovegrove be now informed that the offer is accordingly withdrawn.—E.A.B., 18/9/91.

For approval.—W.H.C., 18/9/91. F.H.W., 19/9/91. W.H., 21/9/91. Approved.—J.N.B., 23/9/91. Inform.—E.A.B., 23/9/91. W. Lovegrove informed, 24/9/91.

No. 29.

The Under Secretary for Lands to Mr. W. Lovegrove.

Sir, Department of Lands, Sydney, 14 August, 1891.

In reply to your letter of 9th ultimo, regarding Messrs. Guihan's claim, I am directed by the Secretary for Lands to inform you that so far the offer of 3rd ultimo has not been accepted, and that unless your clients accept the said offer of £50 as compensation within one month from this date the same will be withdrawn.

I have, &c.,
WM. HOUSTON,
Under Secretary,
(*Per* W.H.C.)

No. 30.

The Under Secretary for Lands to Mr. W. Lovegrove.

Sir, Department of Lands, Sydney, 24 September, 1891.

Adverting to my letter to you of 14th ultimo, informing you that unless the Messrs. Guihan accepted the offer of £50 in full satisfaction of all demands within one month from that date the same would be withdrawn, I am now directed by the Secretary for Lands to inform you that as the Messrs. Guihan have not notified their acceptance of the said offer within the time specified it is accordingly withdrawn.

I have, &c.,
WM. HOUSTON,
Under Secretary,
(*Per* W.H.C.)

No. 31.

Mr. W. Lovegrove to The Under Secretary for Lands.

Sir, 109, Pitt-street, 12 November, 1891.

Claim of Messrs. J. and P. Guihan.

I have the honor to acknowledge receipt of your letter of the 24th September, Alienation 91-6,062, withdrawing the offer of £50 to settle their claim against the Government, for which the sum of £167 8s. was awarded to Messrs. Guihan by the Local Board, to whom it had been referred by the Government. I am glad that the offer was withdrawn, as the sum of £167 8s. is quite small enough under the circumstances, and I now request that the matter be brought under the notice of the Minister with as little delay as possible, in order that he may deal with the matter.

I am quite willing at any moment to attend the Minister with any officer of the Department, the whole of the papers being then before him.

I have, &c.,
W. LOVEGROVE.

In view of the decision of 23rd September on Alienation 91-6,062, it is submitted that the writer be informed that the case has now been closed, and will not be re-opened.—E.A.B., 14/11/91. A.S., 16/11/91. F.H.W., 17/11/91. Submitted.—W.H., 17/11/91. Approved.—H.C., 24/11/91. Inform.—E.A.B., 25/11/91. W. Lovegrove informed, 25/11/91.

Sydney: Charles Potter, Government Printer.—1891

[9*d*.]

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON

CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND

APPENDIX.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
25 *November*, 1891.

SYDNEY: GEORGE STEPHEN CHAPMAN, ACTING GOVERNMENT PRINTER.

1891.

[1s. 3d.] 420—A

1891.

(SECOND SESSION.)

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 28. TUESDAY, 15 SEPTEMBER, 1891.

9. CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE:—Mr. Barbour moved, pursuant to Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the conditional purchases of Neil Gallagher, Orange, conditional purchase 84–166 of 96 acres, and 84–169 of 84 acres, made at Orange in 1884.
(2.) That such Committee consist of Mr. Brunker, Mr. McFarlane, Dr. Ross, Mr. Torpy, Mr. York, Mr. Frank Farnell, Mr. Hugh Taylor, and the Mover.
Debate ensued.

And the House continuing to sit till after Midnight,—

WEDNESDAY, 16 *SEPTEMBER*, 1891, A.M.

Question put and passed.

VOTES No. 54. WEDNESDAY, 25 NOVEMBER, 1891.

11. CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE:—Mr. Barbour, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee for whose consideration and report this subject was referred on 15th September, 1891; together with Appendix.
Ordered to be printed.

CONTENTS.

1891.

(SECOND SESSION.)

CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on the 15th September, 1891, "*with power to send for persons and papers, to inquire into and report upon the conditional purchases of Neil Gallagher, Orange, conditional purchase* 84–166 *of* 96 *acres, and* 84–169 *of* 84 *acres, made at Orange in* 1884,"—have agreed to the following Report :—

Your Committee having examined the witnesses named in the list* (whose evidence will be found appended hereto), find as follows :— * See list, page 4.

1. That the conditional purchases, the subject of this inquiry, were made by Neil Gallagher on the 23rd and 30th days of October, 1884, and contain an aggregate area of 180 acres, and the evidence of Gallagher is to the effect that when he made the applications he was told by the Crown Lands Agent, at Molong, that the land was available for conditional purchase, but (Question 339) the Surveyor-General makes the following minute—"It is recommended that these conditional purchases be declared void, as the land described is situated within the population reserve of Cargo, census 1881 ;" this was approved by Mr. Secretary Farnell, 29/1/85.
2. That sometime thereafter (Question 347), Mr. Secretary Garrett made the following minute :—"Approved that the C.P's. may be included for next Validation Bill, no further action to be taken in the meantime"—28th May, 1885. Subsequently, about 15th July, 1889, Mr. Garrett's minute was suspended, and the case sent to the Land Board, to inquire if Gallagher had resided on the subject C.P's., but as the residence had previously been performed upon the original C.P. years before, and as no residence was required on the A.C.P's. under consideration, your Committee cannot see why this inquiry was necessary.
3. That the population area of Cargo was gazetted 20th March, 1885, (Question 334) which is nearly five months after Gallagher had taken up the land, and that previous to this the Department had not published in the *Gazette* the population area, but had relied upon the census returns.
4. That at clause 20, Land Act 1880—being the Act under which the selections now under inquiry were made—that "the then last census shall mean the then last census published by authority of the Government," which your Committee takes to mean publication in the *Gazette ;* and as this was not done until nearly five months after Gallagher made his applications, such proclamation cannot apply to Gallagher's conditional purchases.

Your Committee therefore recommend that the conditional purchases, the subject of this inquiry, should be confirmed or legalised.

ROBT. BARBOUR,
Chairman.

No. 1 *Committee Room,*
Sydney, 25 *November,* 1891

PROCEEDINGS OF THE COMMITTEE.

TUESDAY, 6 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Barbour, | Dr. Ross,
Mr. Hugh Taylor, | Mr. Torpy.

Mr. Barbour called to the Chair.
Entry from Votes and Proceedings appointing the Committee *read* by the Clerk.
[Adjourned till To-morrow at half-past *Ten* o'clock.]

WEDNESDAY, 7 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Barbour in the Chair.
Dr. Ross, | Mr. Torpy,
Mr. York.

Neil Gallagher called in, sworn, and examined.
Witness withdrew.
James Powers called in, sworn, and examined.
Witness withdrew.
Alfred Salwey (*Clerk, Lands Department*) called in, sworn, and examined.
Witness withdrew.
[Adjourned till To-morrow at half-past *Ten* o'clock, sharp.]

THURSDAY, 8 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Barbour in the Chair.
Mr. Brunker, | Dr. Ross,
Mr. Torpy.

Alfred Salwey (*Head of Conditional Sales Branch, Department of Lands*) called in, sworn, and examined.
Witness *handed in copy of Depositions taken before the Land Court at Cudal in the matter of the forfeited C.P. of Neil Gallagher.*
Witness withdrew.
Ordered,—That C. J. Saunders (*Chief Draftsman, Lands Department*) be summoned to give evidence next meeting.
[Adjourned till Thursday next at half-past *Ten* o'clock, sharp.]

THURSDAY, 15 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Barbour in the Chair.
Mr. McFarlane, | Mr. Torpy.

Charles James Saunders (*Chief Draftsman, Lands Department*) called in, sworn, and examined.
Witness withdrew.
Committee deliberated.
[Adjourned till Wednesday next at *Two* o'clock.]

WEDNESDAY, 21 *OCTOBER*, 1891.

MEMBERS PRESENT:—

None.

[In the absence of a quorum the meeting called for this day lapsed.]

WEDNESDAY, 25 *NOVEMBER*, 1891.

MEMBERS PRESENT:—

Mr. Barbour in the Chair.
Dr. Ross, | Mr. Torpy.

Chairman submitted Draft Report.
Same read and agreed to.
Chairman to Report to the House.

LIST OF WITNESSES.

5

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON THE

CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE.

WEDNESDAY, 7 OCTOBER, 1891.

Present:—

MR. BARBOUR, DR. ROSS, | MR. TORPY, MR. YORK.

ROBERT BARBOUR, ESQ., IN THE CHAIR.

Mr. Neil Gallagher sworn and examined:—

1. *Chairman.*] You are a selector in the Orange Land District? No; in the Molong District; Orange was a mistake.
2. When you went there, did you buy out another selector? Yes.
3. What was his name? Martin Credland.
4. He was an original selector? Yes.
5. Those two selections that you have taken up were additional conditional purchases? Yes.
6. In virtue of the original which you bought from Credland? Yes.
7. When did you take up the first of these additionals? I believe in October, 1884.
8. What was the area of that selection? 96 acres.
9. Then you took up a second? Yes; on the following Thursday, October 31.
10. What was the extent of that? 84 acres.
11. That makes 180 acres altogether? Yes.
12. How much do you hold altogether, including the one you bought from Credland; how much is the total area of your holding? About 320 acres.
13. Is that all the land that you have? Yes.
14. How long is it since you bought the selection from Credland? I should say about nine or ten years.
15. Could you tell us what occurred when you went to the Lands Office to take up the first of these additional selections? I wanted to take up another piece of land in another part of the country and the Land Agent said that it was not available.
16. You applied to the Land Agent at Molong on a Lands Office day? Yes.
17. And you told him that you wanted to take up another piece of land? Yes.
18. Did you tell him where it was? Yes.
19. Was it away from your present holding? Yes, a good distance away.
20. What did he say? He said that the land I wanted was not available.
21. What more did he say? Then he said, "Here is land that is available."
22. Did he not say something about your not requiring to live upon it? I asked him if there was any occasion for me to reside on the land. He said "No."
23. And that you could take it up as an additional? Yes, an additional conditional.
24. He it was who told you that the land was open to selection? Yes.

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25.

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25. In consequence of his having told you that, did you take up the land? Yes; on the strength of that I took up the land.
26. On the following Thursday you took up another piece? Yes.
27. So far as you knew at that time the selections were good selections? Yes.
28. When was it that you first heard from the Department that there was some mistake about the land being open,—how long after your having taken up the selections? I could not exactly tell you the date, but it was a good while afterwards.
29. Well, about? I should say about four months afterwards.
30. You knew nothing about anything being wrong until about four months after that? No, I did not.
31. What then? I believe they said that a portion of the 96 acres was on the population reserve.
32. If that was bad, then the other would fall with it—the other was beyond the population area? Yes.
33. So that was equal to their both being bad selections according to their account to you? Yes.
34. What did you do after that? I wrote a letter to the Department about the matter. I was always encouraged in the belief that I would get the land. I went on with improvements, and I put about £400 worth of improvements on the land the last four years.
35. On these two pieces? Not on the two. The land agent told me there was no occasion for it.
36. You mean altogether? There was about £800 altogether on the lot.
37. What made you think the selections were good? I reckoned that by the justice of the law they were good.
38. You have remained in possession of the land ever since? Yes, and have never had any refund of the money that I paid at Molong to the land agent.
39. When did you first know that the Department found out that it was part of the population area? I never knew anything about it till the letter came.
40. You are positive that the land agent told you that the land was open to selection? Yes, I am positive of that.
41. Would you have taken up the land if you had had any doubts about it? No, I would not. If I had known that I would have been put to this trouble about it I would not have taken it up, for I reckon that it has already cost me the full value of the land.
42. Ever since that time, off and on, you have been corresponding with the Department with reference to it? Yes.
43. Some time after that you applied to Dr. Ross to represent the matter to the Minister? Yes.
44. I believe that the Minister at that time was Mr. Garrett? I believe so.
45. Did you ever see the Minister yourself upon the matter? No, I did not.
46. What did the Minister do about your selection? Sometimes I was encouraged about the land, and at other times I was not.
47. Did Mr. Garrett agree to validate your selection? I think so; it was measured for me by the Government.
48. Coming a little farther on, you have been continually in correspondence with the Lands Department about it? Yes.
49. Do you know anything about Mr. Garrett having consented to place this conditional purchase in a Validating Bill making it legal? Yes.
50. Do you know that Mr. Garrett, when he was Minister for Lands, agreed with Dr. Ross that your selection should be made valid by being put in the first Validating Bill that was to be brought before Parliament? Yes.
51. That was agreed upon? I believe so.
52. Was it validated? I could not say.
53. Did you get some letters from the Department about your representations not being correct, or something of that sort? Yes.
54. Was it represented by them that you were not residing on the land? Yes.
55. Do you remember that it was in consequence of that that the Department said it could not be validated? I cannot tell you.
56. Have you resided on the land from the time you took it up until now, and have you had it in your possession? I have had it in my possession ever since.
57. It is part of your farm? Yes.
58. You have been living on the original selection ever since you took up this land? No, I have not.
59. Were you away part of the time? I resided there about 4½ years.
60. The last 4½ years? Yes; but there was a tenant on it all the rest of the time. I let it then, but the other part of the time I resided on it myself.
61. At the time you took up the additional selection were you not living on the land then? No; I was not.
62. You had it, then, rented to somebody else? Yes.
63. You went to reside on it yourself some time afterwards? Yes.
64. You have been there about 4½ years? Yes.
65. That would be—you were about two years away from it? More than that. It is about ten years since I bought the land.
66. I mean the land you took up last? Yes; about two years.
67. All the conditions had been fulfilled on the original before you bought it from Credland? Yes.
68. Then the residence condition was completed on the original before you took up the additional? Yes; the conditions were fulfilled about three years before.
69. Have you considered yourself that it was legitimately your own land—that you were holding it legally all the time? Yes; legally all the time.
70. That was your belief? Yes.
71. In consequence of that you have expended nearly £800 on this land and on the original? Yes.
72. I understand that you have a large family? Yes.
73. How many children? Ten.
74. And if this land were taken from you, what would be the effect? I believe the Government would have to keep some of the youngsters.
75. It would have the effect of ruining you if the land were taken from you? Yes, it would, because I am not able to work now the same as I used to be.

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76. Have you done everything in your power to fulfil the conditions of the law ever since you took up the land? I have.
77. If there was any error in connection with your taking up the land, was the error the fault of the land agent, or was it your own fault? It was not my fault.
78. If the land agent made you believe that that land was open to selection—if that was a fault it was his fault, and not yours? It was his fault, not mine.
79. *Mr. Torpy.*] What was the name of the land agent? Jefferies.
80. Where does he live? I don't know, but he then lived at Molong.
81. Is this land in the very centre of the Cargo gold-field? No; it is on the outside.
82. Has there been any gold found on the land? No; I do not believe there is as much gold as would blind a man.
83. Has any gold been struck on the edges of your boundaries? No. There is no appearance of it—no holes sunk there.
84. You know what I mean of course;—has any gold been traced into your ground? No.
85. From any point? No; not from any point.
86. *Mr. York.*] Do you know if the land agent had had much experience;—was he an old man? He ought to have experience, for he has been pretty nearly all over the world.
87. I mean in this particular business of land agent? I think so, by the appearance of the man. He appears to be a very sharp, keen man.
88. *Chairman.*] What I understand you to say is this: that you went to the land office to take up some land? Yes.
89. That you told the land agent what land you wanted? Yes.
90. And the land agent replied to you, what? That the land which I wanted was not open to selection; that it was cut up in blocks.
91. Did he point out to you something that was open? Yes; he said, "here is land open to selection."
92. Is that the land which you took up? Yes, the very land.
93. It was his having drawn your attention to that which made you select that very land? Yes; and I thought it would answer my purpose best too, as it was an addition to my original.
94. *Mr. York.*] Where did you intend to select prior to this;—what position was that other land in, in reference to this land? It was a good distance away from it.
95. Did it affect this land at all? No.
96. *Chairman.*] There has been a good deal of bother with other people about this population reserve, and about this gold-field reserve, as well as with you? Yes; and to my knowledge they all got their land.
97. Tell us the names of the parties whose land has been validated or made good? Robert Mackay got his.
98. Do you know how much land he has? No; I cannot tell you.
99. Was his in trouble too? Yes; I know it was in trouble.
100. Was it the same trouble as with yours—that it was on the population reserve or the gold-field reserve? I cannot say that.
101. Was Mackay's land on the reserve? Yes it was. There is only the road between it and my land.
102. Was it on the same reserve? Yes.
103. Was it in consequence of its being on the same reserve that it was in trouble? That is so, I believe.
104. Was Mackay's selection validated? I cannot tell you.
105. Was it made correct? Yes.
106. Made legal? Yes.
107. Is there anybody else besides Mackay? There is Michael Teefy.
108. *Dr. Ross.*] Teefy has got his land? Yes.
109. *Chairman.*] Was Michael Teefy's trouble similar to yours—that the selection was on the reserve? Just the same as mine.
110. Has that been put right? Yes.
111. Was there anybody else besides those two? Yes, Wetherall, or his wife.
112. That was a selection of 160 acres? Yes.
113. Do you know his wife's name? No, I cannot tell you.
114. Was that in trouble the same as yours—was it on the reserve the same as yours? Yes, but whether it was the gold-field reserve or population reserve I cannot tell you.
115. Either the one or the other? Yes.
116. Has that been made legal? Yes.
117. It has been corrected, and they have possession of the land? Yes.
118. Was there anybody else? There was John Livermore.
119. Where was he;—on the goldfield reserve or on the population area? I cannot say which.
120. Was that land in trouble? Yes.
121. Has that been corrected? Yes.
122. Is it your opinion that, because those have been corrected, yours, being in the same category, should also be corrected? I reckon that I was more entitled to get the land than any of them.
123. Do you know anything about any of those four parties having made a second selection of their land, taken it over again? Yes; I believe Teefy has done so.
124. Do you know anything about the others? No; I do not.
125. *Mr. York.*] This portion here [*pointing to the plan*] is still a gold-field reserve—it has not been cancelled yet? No; it has not been cancelled.
126. I mean the portion in yellow;—has that been cancelled? Not to my knowledge.
127. You must have received, I suppose, from the Department some intimation that your applications were not valid—that you were within the population area? I do not remember that.
128. What intimation did you get from the Department that your applications would not stand good, or in plain terms that you could not get the selections? I received one letter saying that the land was on the population area—that was all.
129. *Chairman.*] Did you receive a refund voucher in the February after you had taken up the land? I know that a paper came, but I do not know what it was.
130. Did you ever use it;—did you lift the money that it was a voucher for? No.

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131. Then the money which you lodged when you took up the land is still in the Treasury? Yes.
132. *Mr. Torpy.*] Did they ever offer to refund the money which you had paid? Not to my knowledge.
133. Did you ever receive a letter saying that you could have your money refunded to you? I never saw such a letter.
134. Did the letter which you received contain an order for you to get your money back? I believe there was something to that effect in it, but I did not read it.
135. *Mr. York.*] What induced you then to go on in the face of that;—did you not make any further inquiries about it after you had received that? No.
136. Why did you not;—did you not know that they had greater power than the land agent who told you that you could go on this land? It was my opinion that there was someone else interfering with the land besides the Government.
137. *Mr. Torpy.*] What is the distance from the edge of your land to the town of Cargo? About 3 miles.
138. *Mr. York.*] Did you ever hold selections prior to this? Yes.
139. *Dr. Ross.*] The whole of the two selections to which you refer—the additional—are not actually situated on the population area? No.
140. Only part of them? Yes.
141. Do you know how much? I cannot tell you the quantity.
142. Have you any approximate idea? I was given to understand about 34 acres out of the whole lot.
143. *Mr York.*] You say that you put about £400 worth of improvements on this land—how do you reckon the £400? In fencing and clearing.
144. On each portion? On the whole lot of it—I improved it all.
145. Have you any improvements on those portions in dispute—portions 63 and 64? No there were not.
146. *Chairman.*] Were not these two last selections which you made, fenced in? Yes, they are fenced in.
147. Do you not call fencing improvements? Yes, I do now.
148. I understood you to answer Mr. York that you had no improvements on the land? I thought that he meant years back.
149. *Mr. York.*] You say you have expended £400,—I want to locate where it has been spent; has it been spent on the latter selection or does it include the whole area? On the 96 and 84 acres. There are about £100 worth of improvements at the present day.
150. Besides fencing? No, including fencing.
151. *Chairman.*] Can you tell us when that fencing was erected? I cannot tell you, but it is a good while ago.
152. Was there not a land board inquiry? Yes; it is about two or three years since I put the fencing on the land.
153. When was the inquiry that you speak of? About eighteen months ago.
154. Was there any inquiry before that? No.
155. Up to that inquiry did the Department ever interfere with you in the holding of this land—did they send you any letters? Yes; I received a letter from the Department.
156. You think that in the February after you selected there was a voucher in a letter which came? Yes.
157. From that time until the inquiry did they try to put you out of the land? Not that I know of.
158. Was it between those two times that Mr. Garrett agreed to validate your land? I believe it was.
159. Do you remember how long it was ago that Mr. Garrett agreed to do that? I should say it must be three years ago—about that.
160. *Dr. Ross.*] How much money in the shape of instalments and interest have you paid? I have paid three instalments.
161. How much? £9 each time.
162. *Chairman.*] On these two pieces? Yes.
163. *Dr. Ross.*] There is nothing in the shape of arrears on the land? No.
164. *Chairman.*] You have paid everything up to this date? All but one instalment, which I did not pay.
165. *Mr. York.*] Is the land valuable; what is it valuable for—farming or grazing? Only for grazing.
166. *Chairman.*] Ordinary grazing land, is it? Yes.
167. There is nothing very valuable about it? No.
168. *Mr. York.*] How does it compare with the adjoining land—Hurkett's, I think it is? Yes.
169. What sort of land is Hurkett's? It is about the same sort of land—some good and some rough.
170. Is there any water on this land of yours? No; only the water in the tanks I have made on it.
171. *Chairman.*] Have you made any tank upon it? Yes.
172. Is it a big tank? No, about 250 yards.
173. Is there always water in it? Not always; in a dry year there would not be.
174. *Mr York.*] In an ordinary season would it be full enough for your stock? Yes, it is full now.
175. *Dr. Ross.*] What did the tank cost to construct? I think about £18.
176. *Chairman.*] Is the tank on a portion of these selections? Yes, on the 84 acres.
177. When was it put there? I had a great portion of it made when the land inspector was there about eighteen months ago.
178. Had it been begun a good while before then? No.
179. When was it finished? About six months ago.
180. *Dr. Ross.*] You are quite certain that it was in consequence of what the land agent told you about the non-residence on the land that you took it up? Not at all, He told me there were no improvements required to be put on it. I said I would enclose it for the use of the cattle and horses.
181. That is not the question—you know you bought a piece of ground from Credland? Yes.
182. And when you went to the land agent to take up another piece of ground, not in that locality, he told you that you could take up this additional? Yes.
183. And at the same time he told you that it was not necessary to reside on these two portions which you added to the original belonging to Credland? Yes.
184. You are quite sure of that? I am positive of that.
185. *Mr. York.*] Are you still holding some other selections that you spoke of—you said that you had selected before; are you still holding those selections? No; I am not.
186. *Chairman.*] How long is it since you parted with your previous selections? About eleven or twelve years ago.

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187. Was it after that that you bought this land from Credland—after you parted with your former selections, or before you did so? I bought this land before I parted with the selections.
188. How long afterwards did you part with the selections? About twelve months.
189. But you had parted with your original selections before you took up these two additional ones? Yes.
190. *Mr. York.*] Did you ever reside at all on this land—on the original or any portion of it? Yes; I lived about four and a half years on the original,
191. You are a married man and you made it your *bonâ fide* home? Yes.
192. You lived here I suppose (*pointing to the plan*), where it is marked "hut," up in that corner? I lived somewhere on the corner here.
193. *Chairman.*] How old is your youngest child? About eighteen months.
194. And the eldest? About twenty years.
195. *Dr. Ross.*] Are you living on any portion of this land now? I am living on the original now.
196. Is the original, together with the two additionals, all enclosed within one outer fence? Yes; it goes right round them, and the land is divided into six paddocks.
197. *Chairman.*] What do you do with the land? I cultivate about 100 acres.
198. And graze the remainder? Yes.
199. Do you cultivate any part of the two last selections which you took up? No; none at all.
200. You only use that for grazing? Yes, on account of its being rough; it is too mountainous.
201. Is there anything else which you would like to tell us? I do not think I have anything further to say.

Mr. James Powers sworn and examined:—

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202. *Chairman.*] What are you? A storekeeper.
203. At Cargo? Yes.
204. Do you know Gallagher? Yes.
205. Do you know his land? Yes.
206. How long has he lived in that neighbourhood? He has been living in and around there for the last seventeen or eighteen years—that is as long as I can remember. It might be longer, for all I know.
207. Do you remember when he bought the land from Credland? No, I do not.
208. Do you know anything about his taking up the two selections this inquiry is about? No; I do not remember his taking them up.
209. You have done some correspondence for him in connection with his land? A little.
210. It is through that that you have acquired any knowledge which you possess about the matter? Yes.
211. Do you know him to be a *bonâ fide* selector? Yes.
212. He is living on the land with his family? Yes. He is not living on the land the inquiry is about.
213. You mean the piece—they are all connected together? Yes; they are all connected together.
214. They are all in a ring fence? The land the inquiry is about is fenced in with five and six wires and a split fence.
215. And adjoins his other land? Yes; that has a dog-leg fence—part of it—and some two rails.
216. What does he do with the land? He uses it for grazing purposes, I think.
217. Any part of it for other purposes? I think he has about 100 acres cleared.
218. Can you tell us anything more about Gallagher;—do you know that he has put improvements on the land? Yes.
219. What is your estimate of the total value of the improvements which he has put on the land? I should say that if a man were properly paid for his labour the value of those improvements would be £700 or £800.
220. Altogether? Yes.
221. Are you aware that there is some trouble about the two last selections—about there being on a population area? Yes.
222. You heard about that? Yes.
223. Do you know that there were others in similar circumstances? Yes; I know two or three around Cargo.
224. Have they had their selections put all right? Yes.
225. Can you give us their names? Sharkey, Teefy, and Weatherall.
226. Was there not a Livermore? I heard something about that, but I cannot say positively.
227. Those selections were all in trouble, something like Gallagher's? Yes.
228. Do you know if they are exactly the same? I know Teefy took up his on the reserve. He sent his money to the Department, and they offered to refund it several times, but they have never refunded Gallagher's money.
229. So far as you know? Yes.
230. At all events, it is the case with Teefy that the money has often been sent to him, and his selection has at last been legalised? Yes.
231. Do you know whether it was on the population area or on the gold-fields reserve? I think part of it was a water reserve.
232. Was Weatherall's selection taken up in his own name, or in the name of his wife? I am not quite sure, but I fancy it was in the wife's name.
233. Do you know her maiden name? No, I do not; I think her christian name was Maria.
234. Is not Weatherall her husband? Yes; he went back to India and left her there.
235. Can you tell us anything more about Weatherall's selection? No, I cannot.
236. Can you tell us anything more about those that have been legalised? No, only that I know they were legalised.
237. Is the opinion in that neighbourhood in favour of this poor man's selection being also legalised? Yes.
238. The general opinion is that his should be legalised by the Minister as the others have been? Yes. The only objector, I think, was Mr. Sherwin, but he is not in the district now; he has sold out. I was talking to the manager of the station of Mr. Sherwin's successors, and he said that he would have no objection.
239. *Mr. York.*] Who are Sherwin's successors? The Atkinson's.
240. What have they to do with the matter? Their station adjoins Gallagher's property. 241.

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241. *Chairman.*] What is the name of the squatter there? Atkinson.
242. Is it in consequence of his obstruction? No; it was in consequence of his predecessor's obstruction.
243. That Gallagher got into trouble? Yes.
244. Did he make a complaint to the Department about it? I understood that he did.
245. You wrote some letters about it? Not to the Department.
246. To whom did you write? All the correspondence that I have had in the matter has been with Dr. Ross.
247. Did it make any reference to the Crown lessee's obstruction of Gallagher? No.
248. *Mr. York.*] How long have you been living at Cargo? Eighteen years.
249. *Chairman.*] Your father was in business there before? Yes.
250. And you have succeeded your father? Yes.
251. *Mr. York.*] Was the trouble that has taken place with regard to other selections, prior or subsequent to Gallagher's application? Before Gallagher's application.
252. *Chairman.*] Do you know whether these other properties, which have been legalised, were in occupation—do you know anything about the state of matters? No; I cannot say.
253. You do not know how long they lived on the land? No.
254. *Dr. Ross.*] You have stated that there were 100 acres cleared? About that.
255. On what portion is the land cleared? On the original.
256. That is Credland's? Yes.
257. There is no clearing done on the two pieces now in dispute? Well, there is a lot of timber cut down there and cut up. I could not say how many acres of timber Gallagher has cut down. He has put a dam on the land as well, which I should say would measure about 250 yards.
258. What would be the cost of constructing the dam? About 18d. a yard.
259. *Mr. York.*] You reckon the whole of the improvements, as distributed over the whole area, to be worth about £700? Judging roughly I should say between £700 and £800.
260. In what way would you make that up? If you clear 100 acres of land.
261. Is that fit for cultivation? Yes; I noticed only two trees on it.
262. Is that all cultivated? Pretty nearly all.
263. *Dr. Ross.*] Is any portion of the disputed land ring-barked? I think part of it is ring-barked—a few acres here and there—perhaps 10 or 12 acres in one piece.
264. *Mr. York.*] What sort of residence is there on Credland's? Just the old residence.
265. I mean what kind? Gallagher has, I understand, a large family living with him? Yes.
266. Do they alway live with him? Yes.
267. *Dr. Ross.*] What would you estimate is the value of the improvements on the two portions now in dispute—that is, the dams, the ring-barking, the clearing, and the outer fence? I should say about £150.
268. On the two lots? Yes.
269. *Chairman.*] Do you know who erected the fencing on the two portions in dispute? I understood that Gallagher did, but I could not say positively whether he did or did not. I know that he put up all the new fence that is there now—the fence that I went round.
270. When was that put up? The last couple of years, I think. I could not say exactly, because I do not know.
271. *Dr. Ross.*] Does this land adjoin any other selection? Yes, Hurkett's selection.
272. In regard to the fencing—If he put up some fencing, would the adjoining selector not have to pay half the cost of it? I do not know the regulations about that.
273. *Chairman.*] Does Gallagher claim the whole of the fencing, the dam and the other things that you speak of? I do not know whether he claims the whole of the fencing or not, but I know that he claims the dam and the clearing which he has done.
274. You know part of the fencing that has been put up? Yes.
275. The new fence that you spoke of? Yes. That is very nearly two miles I think.
276. Do you know that Gallagher is a very industrious colonist? Yes. I can say that.
277. A hard-working man? Yes.
278. Has he a very large family? I think he has ten children.
279. The greater part of them helpless? Yes, all young.
280. Do you believe that Gallagher has been holding on to this land in the belief that he held it legitimately? I could not say. He has always been holding on I think in the hope of getting a title to it on the ground of what the land agent at Molong told him.
281. Would it be a very great misfortune if it were taken from him? It would. It would mean ruination to him.
282. There are about 180 acres in these two pieces? Yes.
283. With the improvements on them, what would you think that the two pieces in dispute would be worth—what would be the value of the land to Gallagher now? I should say £400.
284. In its natural state what would it be worth? I should say about a pound an acre.
285. Would a loss of £400 be a pretty considerable blow to a man in the same circumstances as Gallagher? Yes.
286. Do you know about his other land being mortgaged? I could not say.
287. Do you know that a bank has a mortgage over it? I believe that he has had money from the bank.
288. You conclude that if the bank took the original, and if the Crown took the additionals from him, he and his ten children would be homeless? Yes, I do.
289. If this misfortune comes upon him, do you think it is really any fault of his own? No, I do not.
290. If he has committed any fault at all do you think it is an error of judgment—it is not intentional? No.
291. No wickedness about it? No.
292. It is innocence entirely, if any fault has been committed? Yes.
293. Can you tell us anything about the impression that was in the locality at the time he made the selection—did you know anything about the population area? No.
294. You do not know whether the people knew of this population area or whether it was a subsequent discovery? I could not say.
295. *Mr. York*] Did you know that the land in question was in a gold-field? I think there is a small part of it in the gold-field.
296. I mean at that time? Yes.

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297. Do you think there are any leads of gold running through this land? There have never been any leads worked into it.
298. Or round it—or round Hurkett's—any of the farms? Yes: there has been a run of gold on this gum flat [*pointing to the plan*] three or four yards away from his house, but not near this property.
299. So far as your local knowledge goes, it is simply valuable as grazing land, and poor at that? There are parts of it which could be put under cultivation with little trouble.
300. But ordinarily you call it grazing land? Yes.
301. *Dr. Ross.*] You say that Gallagher has ten children? Yes.
302. Are any of them able to assist him on the farm? He has one boy, but I do not think he is able to do much. He is a delicate looking boy.
303. No member of the family is able to assist him in any way? No.
304. The eldest child is rather delicate? Yes.
305. Those two portions you refer to as used for grazing purposes are rather mountainous? Yes.
306. Barren? Not exactly barren, but pretty hilly.
307. He could not well cultivate it? No. He might get little patches to cultivate, perhaps 5 or 10 acres in one spot, and 5 or 10 acres in another.
308. Amongst the inhabitants of the locality is there any dissatisfaction in regard to Gallagher getting the land? Not that I am aware of.
309. You never heard of any? No.
310. *Chairman.*] The party that was said to be opposed to it has left the district? Yes.
311. Are the present lessees opposing him in any way? No.
312. *Mr. York.*] On what grounds were the original lessees objecting? I think they used the land for a sheep run.
313. They were objecting to it in their own interest, and not in the interest of the public? Yes, in their own interest.
314. Has there been any public agitation against this man getting the land? No.
315. Amongst the diggers or any people of that sort? No.
316. Do you know anything about this land before Gallagher took it up? No, I do not.

Mr. Alfred Salwey sworn and examined:—

Mr. A. Salwey. 7 Oct., 1891.

317. *Chairman.*] What are you? Head of Conditional Sales Branch, Department of Lands.
318. As you know, this is an inquiry into Neil Gallagher's additional conditional purchases, made at Molong in the year 1884? Yes.
319. Will you tell us the date on which he made the first additional conditional purchase? On the 23rd October, 1884.
320. What is the number of that? Portion 63.
321. And the number of the conditional purchase of 1884? One hundred and sixty-six.
322. And the acreage? Ninety-six acres.
323. The second? Additional conditional purchase, made on the 30th October, 1884, portion 64.
324. The number of the conditional purchase? 84–169.
325. And the acreage? Eighty-four acres.
326. Can you tell us from the records whether at the time that additional conditional purchase was made the population census of 1881 had been proclaimed in the *Gazette*;—in other words, when was the population census of Cargo proclaimed? It was long before that; but I have not got the date here.
327. Can you tell us when the population area or the town reserve was proclaimed? I know it is not with these papers.
328. Have you any reason to doubt what Gallagher said, namely, that at the time he took up these two additional conditional purchases it was not known that the land was in the population area? I have reason to doubt it.
329. Have you anything among the papers to show that it was a population area at the time he made the selection? I can show that other people applied for land in the locality, and were refused, it being in the population area.
330. Before he made these applications? Long before—in the year 1882.
331. You believe that the township reserve was made prior to 1882? Yes.
332. And if he was under the belief that what he selected was Crown lands, open to conditional purchase, he was under a mistake? Yes.
333. You have nothing amongst the papers to show that the population area was gazetted at the time he made the selection? No, I have not.
334. Do either your plans or the parish plans show the date of the gazetting of the population area? The parish plan in the Department of Lands shows that the population area of Cargo was proclaimed on the 20th March, 1885.
335. I suppose that the land agent would only be made aware of the population area by the proclamation;—he would not be aware that it was a population area before the proclamation, would he? I could not answer that question.
336. Can you tell us what is the objection of the department to confirming this selection? One great objection is that the adjoining holders who have applied would come into the same position. They have already been refused even for the very same land.
337. *Mr. York.*] Who where those? There is one application by Miss Sherwin, I believe.
338. *Dr. Ross.*] They have left the district? Yes.
339. *Chairman.*] At the time you disallowed these two additional conditional purchases, what were your reasons for disallowing them? This is the minute by the Surveyor-General, approved by Mr. Secretary Farnell:—"It is recommended that this conditional purchase be declared void, as the land described is situated within the population reserve of Cargo, Census 1881." Approved by Mr. Farnell on the 29th January, 1885, and a refund voucher issued to Callagher on the 17th February, 1885, that is, both prior to the proclamation of the reserve according to the maps.
340. Then I take it from that date that the department was aware at that time that the population area was fixed by the census of 1881 prior to that? Yes, prior to that.

341.

Mr. A. Salwey. 7 Oct., 1891.

341. Was there anything to let the public be aware that such was the case until the proclamation of March, 1885? I could not answer that question; there may have been.
342. Do you know of anything that gave a notice to the public what the population area was in consequence of the Census of 1881? No; I do not know of anything.
343. So far as you know, the first public notice is the proclamation in the *Gazette*, which you have referred to, dated March, 1885? That is all I know of.
344. The whole of the first of these additional conditional purchases would be covered by population area? Yes.
345. If that was rendered void, the other would fall with it? Must fall with it, because it would separate it from the original.
346. There is no fault with the last additional conditional purchase except in its connection with that? It is also within the boundaries of the population area as proclaimed in 1886, and also within a gold-field reserve—part of it, nearly all of it.
347. Can you give us the date from the papers of the approval of the Minister, Mr. Garrett, to the putting of these two additional conditional purchases in the Validating Bill? Yes. "Approved that the conditional purchase may be included for next Validation Bill, no further action to be taken in the meantime." That was approved by Mr. Garrett on the 28th May, 1888.
348. Some time after that was a complaint lodged by someone which caused the Department to reconsider the matter? Two letters from Sherwin.
349. Was Sherwin the Crown lessee? I could not tell that.
350. Was there anything in the letters that would lead you to believe that he was the Crown lessee? Perhaps I had better read his letters.

THURSDAY, 8 *OCTOBER*, 1891.

Present:—

MR. BRUNKER, | DR. ROSS,
MR. TORPY.

ROBERT BARBOUR, ESQ., in the Chair.

Alfred Salwey recalled and further examined,—

Mr. A. Salwey. 8 Oct., 1891.

351. *Chairman.*] Shortly before we left off taking your evidence, yesterday, you said that Mr. Garrett had made a minute on the papers stating that Gallagher's land was to be included in the Validating Bill? Yes.
352. The next question I put to you was—Why was that not carried out; but you preferred to look over your papers before answering the question; I now put the question to you again? There are two long letters from Mr. Sherwin.
353. Do you know who he is? No, I do not.
354. He dates his letters from Cargo? I believe he is the Crown lessee.
355. Why was Mr. Garrett's minute, that the land was to be included in the Validating Bill. not carried out? On account of protests from G. D. Sherwin and Henry Hurkett.
356. What is the foundation of these protests? The foundation of both of them is that the land has been applied for previously by other people and refused by the Lands Department.
357. Does he give the reasons why they were refused? Yes; being within the population boundary.
358. And in consequence of these letters being received by the Lands Department did they take some further action with regard to it? Yes.
359. What was that action? The Minister referred the case to the Land Board to hold an inquiry.
360. Was the inquiry held? The inquiry was held.
361. What is the tenor of the Board's report; in the first place, however, I should like to ask you was the Board instructed as to what was to be the bent of the inquiry; let us know what the minute is, instructing the Board?

The statements made by Mr. Sherwin directly contradict those of Dr. Ross, M.P., on which it was determined the conditional purchases should be validated. It is a question whether before proceeding further in the matter it would not be advisable to cause an inquiry to be made by the Local Land Board as to the circumstances of Gallagher's alleged residence and improvements.

That was approved by the Minister on the 15th July, 1889.
362. Was the Lands Department satisfied that Sherwin's objection about Gallagher's non-residence was a substantial objection? I cannot tell you that.
363. Supposing that the additional conditional purchases, the subject of this inquiry, were additional conditional purchases in virtue of an original conditional purchase, and supposing that the residence condition had been fulfilled on the original conditional purchase, was any residence required on the additionals? No.
364. *Mr. Brunker.*] That is if the ground was available? Yes.
365. *Chairman.*] The only question now is—the Lands Department has remitted for inquiry the question of residence and improvements—is that not what you have read? The Lands Department referred the case to the Land Board on account of the statement of Dr. Ross as to the improvements being on this land, and as to Gallagher residing on this land. They referred that to the Board because Sherwin and Hurkett said that Gallagher never resided on the land, and that the land itself was not improved.
366. *Mr. Brunker.*] In fact the Minister meant to inquire whether Gallagher had complied with the conditions generally? Yes.
367. *Chairman.*] Is that the minute you have read? That is the minute I have read.
368. Then I think we should not go beyond the minute, because the words in the minute are the instructions to the Board; do you see anything in those instructions referring in any way to whether the land was available; No; there is nothing in the minute as to whether the land was available.
369. The case went to the Board? Yes.
370. What is their report on that minute? The Board on the 15th October, 1889, reported:—"We have to report that the statements upon which it was decided to place this case in the schedule to a proposed

posed Validating Bill are not borne out by the evidence taken. That evidence shows that Gallagher has not resided on the said additional conditional purchases and that the only improvements thereon are fencing of the value of £59 12s. 6d. erected recently, part by the holder of adjoining properties. Gallagher has, during the past two and a half years, been residing on the original conditional purchase, portion 37, or prior additional conditional purchase, portion 38, on which there are substantial improvements."

371. If that land was fenced in, and if sufficient improvements were on the original conditional purchase and the additional conditional purchases, was that fulfilling the law? If the conditional purchases stood good.

372. Have you some doubt in your mind as to whether they stood good? I know, from the papers, that they were voided.

373. They were declared to be void by the Department? Yes.

374. On what grounds? On the ground that the land was situated within the Cargo population area.

375. In the evidence yesterday we got the dates when the additional conditional purchases were made—in October, 1884, both of them? Yes.

376. And in the answer which you made to the question yesterday, when you were asked to look at the office plan and to tell the Committee what was the date of the proclamation of the population area, what did you give us yesterday as the date? The first boundary was proclaimed on the 20th March, 1885.

377. That was the proclamation of the population boundary which blocked these additional conditional purchases? Yes.

378. Was there anything else to block these additional conditional purchases before that proclamation? Yes.

379. What was it? There was a gold-field reserve.

380. Was that a reservation from conditional purchase? Yes.

381. You told us yesterday that the Department gave way on that question? No, the Department did not give way on anything.

382. You said that the only objection to the conditional purchase was the population area? That point was raised, and the Minister said that, as he had decided to validate the man in the population area, he would not let the gold-fields reserve interfere.

383. *Mr. Brunker.*] Do I understand you to say that at the time the population area was proclaimed, the land was within a gold-field reserve? Yes; reserved from conditional purchase.

384. So it was a gold-field at the time the proclamation was made of the population area? Yes.

385. And the fact of that being a gold-field reserved it from conditional purchase? Yes; it is a reservation from conditional purchase.

386. *Chairman.*] Was the whole or only part of these conditional purchases within that gold-fields reserve? The whole of the first one and part of the second one, I think.

387. Can you tell us distinctly—of course your map will show whether it is so or not—was it only part of the conditional purchases which was included in the gold-fields reserve? It forms part of a reserve from conditional purchase in each case.

388. Have you any doubt as to that being the correct date of the proclamation in the *Gazette* of the population area? No. There seems to be two proclamations—one on the 20th March, 1885, and an amendment on the 20th December, 1885.

389. But they were both after the conditional purchases were made? Yes.

390. Would you look at the *Gazette* and see whether it is gazetted, and whether that is the date of the *Gazette*. You will find it on folio 1,866—is that the proclamation in the *Gazette*? Yes.

391. What is the date of the *Gazette*? The date of the *Gazette* is 20th March, 1885.

392. That is the proclamation by His Excellency the Governor of the Cargo population area which is supposed to block these two conditional purchases? Yes. There is another proclamation altering the boundaries slightly.

393. That is a subsequent one? Yes.

394. So that if the first one blocked, the second one must block? Yes.

395. *Mr. Brunker.*] You have said that the proclaimed gold-field precluded this land from selection? Yes; but I am only speaking now so far as the population area is concerned.

396. Notwithstanding that this proclamation appears to mark out the population area, the land previously to that was reserved by proclamation of a gold-field from conditional purchase? Only a portion.

397. *Chairman.*] Did not the Committee understand from your evidence yesterday that the Department had only opposed this selection on the ground of its being within the population area? No. I read the minute, I believe, which was written on that,—that, in view of the Minister having decided to validate the selection, he would not question that.

398. Did not the Department resolve to abide entirely by the objection to Gallagher's selections on the ground that the land was within the population area? I cannot say that.

399. Well, give us the minute? I shall have to read you the minute from the Charting Branch:—"As survey has not yet taken place in satisfaction of conditional purchases, 84–166 and 169, the validation of which has been approved, instructions have this day been issued to the District Surveyor to have measurement carried into effect. In dealing with these claims in connection with the Validating Bill it should not be overlooked that a second objection, apparently not previously brought forward, lies against both applications, namely, that the land described in each case forms part of a reserve from conditional purchase proclaimed 4th September, 1877, within the southerly extension of the Cargo Gold-field." The minute written on that is:—"It is presumed that Mr. Secretary Garrett's decision on 23rd May last will still hold good. Submitted.—W.H.C. For approval. The inquiry must be made in respect of the gold-field.—W.H., Under Secretary. Submitted. Approved.—J.H.C., 18/4/89." The initials, "J.H.C.," are the initials of Mr. Carruthers.

400. As the head of the Conditional Purchase Branch—practical administrator of the conditional purchases as you are—can you tell me whether you consider that the proclamation in the *Gazette* is the date from which all population areas are to date? No.

401. You do not do so? No.

402. And although this occurred in March you would go further back still, would you? We know that certain conditional purchases in the same locality were declared void years before that, on account of the population reserve.

403. What would be your action; would you recommend them for forfeiture; would you even go behind a proclamation? Go to the original date.

404.

Mr. A. Salwey. 8 Oct., 1891.

404. But is not the original date, upon which it is your duty to act, in the proclamation in the *Gazette?* I do not think so.
405. Are you entitled to go beyond that? I could not answer that question.
406. In your practice do you go beyond that? I could not say.
407. Has your attention ever been directed to the 20th section of the Act of 1880, which is in these words:—"The words contained in section 13 of the Crown Lands Alienation Act of 1861 'the then last census' shall mean the then last census published by the authority of the Goverument"? Yes.
408. *Mr. Brunker.*] Was not that repealed by the Act of 1884? Yes.
409. *Chairman.*[Does the Act of 1884 apply to these additional conditional purchases; were these additional conditional purchases not taken up before the Act of 1884 came into existence? Yes.
410. Will you look at the Act of 1880 in order to satisfy yourself that the words which I have quoted are exactly the words of the 20th section? Yes.
411. What does that say? The words contained in Section 13 of the Crown Lands Alienation Act of 1861 "the then last census" shall mean the then last census published by the authority of the Government.
412. You would not go beyond that authority—that would not authorise you to go beyond that authority; and the publication in the *Gazette* would be the date from which you must date that population area? I do no think so.
413. *Mr. Brunker.*] So far as the population area is concerned, the proclamation that appeared notifying it would be based on the Census of 1881? Yes.
414. And would be in accordance with the provisions of this section? Yes. This section says: the words contained in section 13 of the Crown Lands Alienation Act of 1861 "the then last census" shall mean the then last census published by the authority of the Government.
415. So that if the census of 1861 or any subsequent census was exhibited in 1880 as the "last census published by the authority of the Government," can you say whether that is the basis upon which this population area was fixed by the proclamation? You mean that there may have been another census. There was one before that, and the Cargo population area was under that in existence. There is nothing to show it here. That would be a matter for the Survey Branch. If the Committee want to go into that point it would be better to write to Mr. Saunders.
416. *Chairman.*] The population area that blocks the additional conditional purchases now in question is the population area published in March, 1885—is it not? I will see what the application says. "It is recommended that the conditional purchase be declared void as the land described is situated within the population reserve of Cargo, census of 1881." That was approved by the Minister on the 29th January, 1885. There must, I presume, be a prior general notification. I think there was a general proclamation of 1881 when the census came out. I believe it was proclaimed in connection with the census of 1881, that lands within a radius of 3 miles of a township with a population of, I think, 1,000, were reserved for population.
417. *Mr. Brunker.*] Was that the last census taken within the meaning of the law? Yes; the census of 1881.
418. *Chairman.*] How do you know? That is the last which the papers show.
419. You say that the only census shown, to your knowledge, is the census of 1881;—is that not what you say? Yes.
420. Is that the census proclaimed in March, 1885? Yes, I believe that is the census.
421. I think the 13th section of the Act of 1861 defines the census;—does it not? Yes.
422. And then the 20th section of the Act of 1880 explains what that is; they began to publish them after that? Yes, but it did not require publication at all. It was under the 13th section that the census was taken, within a radius of 3 miles, without any proclamation of population reserve.
423. If it were a small population it would only be 2 miles? Yes.
424. One of the minutes refers to survey;—tell us when the survey of these two additional conditional purchases was made? The survey was made on the 22nd June, 1889, and approved by the district surveyor on the 17th September, 1889.
425. Would you read the minute authorising that survey to be made? With regard to the instructions to survey, that will come under another branch.
246. But you read a minute saying that the surveys had not been made up to the date of Mr. Secretary Garrett's approval of validation; it must have been after that, and in consequence of that, that the surveys were altered? You had better leave that to the Survey Branch to be answered.
427. *Mr. Brunker.*] Do the papers show any other conditional purchases applied for in the locality of Gallagher's declared void for the reason that they were situated within the population reserve or gold-field, and which have not been validated? Yes, the following:—There is additional conditional purchase 84–61 of 80 acres, portion 120, by Robert Mackey; additional conditional purchase 82–362 of 160 acres, by R. M. Sherwin (that is on the opposite side of the road to Gallagher's); and additional conditional purchase 78–232 by Henry Hurkett. That is actually part of the land applied for by Gallagher as additional conditional purchase 84–166.
428. Can you trace the conditional purchases by Mackey, Teefey, Livermore, Wetherill, and Sharkey, stated to have been validated? I can only trace Mackey's at present. The particulars in the other cases are not sufficient to identify them.
429. Were Mackey's conditional purchases specially validated? No; they were validated on the 7th January, 1887, under the 138th section of the Act of 1884, which provides for validation in cases where the land applied for was not open to conditional purchase, but the applicant shall have resided upon and made improvements on such land, without question by any authorised person, for not less than one year after his conditional purchase.
430. Are there any other cases similar to Mackey's that you can trace? Yes; George Plue's conditional purchase, 83–34, and John Small's conditional purchase, 83–201, were validated under 138th section on 30th May, 1888.
431. Did Gallagher's case come within the meaning of that section? No. Gallagher's additional conditional purchase was declared void and a refund of the deposit authorised on 15 February, 1885, or within four months of the date of his application.
432. Have you any proof that Gallagher received an intimation of voidance? Yes. On 23 March, 1885,

1885, Gallagher wrote to the Department protesting against the voidance, and in his evidence before the Land Board he also admits his knowledge of the voidance. Mr. A. Salwey.

433. At the date of voidance of Gallagher's additional conditional purchases had he improved the land? No. According to his own evidence before the Land Board on the 15th October, 1889, he admits that the land was not improved. He says "I fenced the two additionals in about six months ago." 8 Oct., 1891.

434. Have you a letter from Dr. Ross, M.P., on which Mr. Secretary Garrett decided to include Gallagher's additional conditional purchase in a schedule to the Special Validating Bill? Yes, it is as follows:—

The Hon. Minister for Lands, Sydney. Molong, 5 March, 1888.

Dear Sir,

I have the honor to submit for your earliest consideration the following most extraordinary case of hardship, unequalled, I believe, in land administration in New South Wales.

One Neil Gallagher selected 96 acres at Molong, in the county of Ashburnham, on 23th October, 1884 (conditional purchase 84,166) and an additional conditional purchase 84,169 of 84 acres on 30th October, 1884—in all, 180 acres. Since the selection was made the selector, who has a big family of nine children, has made it his *bonâ fide* residence and home, and has expended on improvements the large sum of six hundred pounds (£600) as follows: 120 acres cleared and fenced in, under cultivation, valued at £500 to £600; house, two rooms and kitchen, £60.

It appears that out of the area of 180 acres about 50 acres are within the population reserve of Cargo, and on this account it seems that his conditional purchase and additional conditional purchase have been declared void. I have to inform you that the selector has paid interest and instalment, and in every sense has fully complied with the Act. The selector is willing to accept that portion of the land—namely, 130 acres—which is outside the population reserve, but he would much rather, if possible, be allowed to retain the full area as originally selected, seeing that when the land was taken up the common or population reserve was not surveyed or recognised. The case is one of extreme hardship, and I hope you will be able to see your way to allow the unfortunate selector to retain the full area of the land, but if not, at least 130 acres. Hoping this matter will receive your best attention, and should any difficulty arise, that the land may be validated, seeing that it is a just and honest case in the interest of settlement of a *bonâ fide* character.

Awaiting an early reply so that I may know what further steps to take in the case, now that the discussion on the new Land Bill is before Parliament.

Yours respectfully,

DR. A. ROSS.

435. Do you know why the question of validation was re-opened? Yes, on account of protests from G. D. Sherwin and Henry Hurkett. Hurkett was one of the original selectors—the man who selected the piece of land itself.

436. When did the case come before the Board? 15th October, 1889.

437. Is there anything in the evidence taken before the Board which you think would give the Committee any valuable information? I think the evidence had better go in as an exhibit. The evidence shows that the improvements were not on the land—that Gallagher had not improved the land when the conditional purchase was declared void.

438. Who gave evidence? Only the selector Gallagher and Inspector Griffin.

439. Gallagher's own evidence is there? Yes.

440. *Chairman.*] The Minister asked you if there were conditional purchases that had been voided which were in a similar position to Gallagher's, and you mentioned three? Yes.

441. If this population area was not published until after those selections were made, and if it is necessary that the proclamation should take place before you establish a population area, these would be illegally forfeited, would they not? No; the gold-field stops them the same as this does, I believe.

442. But supposing it were on the ground of a population area, they would be illegally forfeited, would they not? They were not forfeited—they were declared void.

443. Well, they would be wrongly voided? If the proclamation is the date on which we must go for the establishment of a population area.

444. *Dr. Ross.*] Was the money refunded to Hurkett and Mackey? I believe Hurkett took back his money.

445. *Mr. Brunker.*] If these selections you refer to were good and the gold-fields proclamation stood good you would be prepared to say that the voidance was legal, and not illegal? The voidance was legal if there was a gold-field reserve.

446. *Dr. Ross.*] How do you account for the difficulty in regard to Livermore's case and Sharkey's case? I think it must be transfers or something else. I cannot see them on the map. I think they must be validations, like those which I quoted, under Section 138 of the Act of 1884.

447. Were those that were validated not in the same position as this case. No, they were in occupation of the land for twelve months, and resided on it, without knowing that it was a reserve. In this case Gallagher was aware within four months that the conditional purchase was void, and therefore could not come within the provisions of section 138 of the Act of 1884.

448. *Mr. Brunker.*] In answer to my question, when I asked you if you had any proof that Gallagher received an intimation of voidance, did you not read a letter from him? Yes.

449. You had better put in that letter; it shows that he knew the voidance had taken place? I will put it in.

THURSDAY, 15 *OCTOBER*, 1891.

Present:—

MR. BARBOUR, | MR. TORPY,
MR. McFARLANE.

ROBERT BARBOUR, ESQ., IN THE CHAIR.

Charles James Saunders called in, sworn, and examined:—

450. *Chairman.*] What are you? Chief Draftsman in the Department of Lands. Mr. C. J. Saunders.

451. Do you know the village of Cargo and the population area connected with it? Yes.

452. What is the date of the first proclamation in the *Gazette* of the population area of Cargo? The population area was first proclaimed under the Crown Lands Act of 1884. 15 Oct., 1891.

453. That was the first population area proclaimed? Previously to the Act of 1884 they were not known as "population areas." They were called "population reserves." The population area, as now called, was proclaimed in the *Gazette* of the 20th March, 1885, but there was a pre-existing proclaimed reserve by virtue of the census of 1881 which came into effect on the 30th August, 1882. Under the Land Act in existence previously to 1884 population areas were not proclaimed.

454.

Mr. C. J. Saunders. 15 Oct., 1891.

454. But they were fixed on your map? Yes, by virtue of the census.
455. What was the population area fixed on your map prior to that proclamation? It was fixed by the census of 1881, which was published on the 30th August, 1882.
456. What were the boundaries of it? Two miles from the outside limits of the village.
457. Did that include those two additional conditional purchases that were made by Neil Gallagher? No; it included only the northern additional conditional purchase—the first one—and perhaps a very small portion of the bottom one, but practically speaking it only included the northern one.
458. Had the Crown Lands Agent at Molong, where these selections were taken up, plans showing him that population area which you speak of as having been made in 1882;—had he any knowledge of that from plans in his possession? I assume that he must have had a knowledge of it, because this reserve was charted on all our maps, and maps were regularly supplied to the Crown Lands Agent from the head office, so that any maps copied from head office maps and supplied to the Crown Lands Agent in the ordinary course must have shown this population reserve.
459. But you cannot say positively? No, because I have not seen his maps that were in use at that date. I know it was charted on the head office maps.
460. Then the population area that was gazetted on the 20th March was gazetted in consequence of the Land Act of 1884? Yes.
461. Did that include one of the additional conditional purchases made by Gallagher? That included the whole of the northern one, and the greater part of the southern one.
462. But as that was gazetted after his additional conditional purchases were made, it did not of itself affect his selections? No; the proclamation of 1885 could not affect his selections in any way, because they were of prior date.
463. The selections having been made in the preceding October? Yes.
464. *Mr. Torpy.*] That proclamation would not affect them? That proclamation would not affect them; but there was a pre-existing population reserve by virtue of the census of 1881.
465. *Chairman.*] You are acquainted with the Act of 1880? Yes.
466. Would you look at the 20th section? Yes, I know that section. That is an Act that was in existence when the additional conditional purchase was taken up.
467. Would you read what the 20th section of the Act of 1880 says? It is as follows:—

The words contained in section 13 of the Crown Lands Alienation Act of 1861, "The then last census," shall mean the then last census published by the authority of the Government.

468. Does that mean published in the *Gazette*? I could not say that.
469. Which was the "then last census" published that affected these additional conditional purchases;—where was it published? It was published in the shape of this census return, which was printed by the Government Printer in 1882, and presented to Parliament in that year. That constituted the publication which was recognised by the Department as the publication of the census.
470. Would you turn up Cargo? Yes. I find it under the heading of towns and villages, which either did not exist when the census was taken in 1871, or whose population did not then number 100 persons. It quotes Cargo as in the Molong electorate, having a population of 286 persons.
471. That would fix a boundary of—what? Two miles.
472. From? From the outside limits of the village. By taking 2 miles from the southernmost extremity of the village it brings you down to the southern boundary of additional conditional purchase, portion No. 63 of 96 acres, taken up by Neil Gallagher.
473. Then you say that that is the publication that was recognised by the Lands Department, previous to the passing of the 1884 Act. Yes.
474. And was in existence at the time of the selections being taken up? Yes.
475. *Mr. McFarlane.*] That was when the population was 286 persons? Yes. There would want to be 1,000 people to give it a 3 miles reserve.
476. *Chairman.*] Can you tell us on what date the village of Cargo was proclaimed? I could not say that without referring to the records.
477. *Mr. McFarlane.*] Was it set apart when it was being surveyed as a Government village? It was first surveyed, and afterwards put before the Executive Council, and proclaimed in the *Gazette*, with certain defined boundaries.
478. What I mean is that it is not a private village? No; a Government village, proclaimed before the Government sold it.
479. *Mr. Torpy.*] This was not published. It simply says, "Presented to Parliament pursuant to Act 44 Victoria No. 2"? The census return was printed and presented to both Houses of Parliament, and that was considered sufficient publication.
480. Was it published in any other way, so far as you know? Not so far as I know.
481. It never appeared in any *Gazette*? Not that I know of.
482. Would you call "publication" the fact of this census of New South Wales of 1881 being presented to Parliament? I should consider it a publication, printed in that form and presented to both Houses of Parliament.
483. Do you not think that this is extremely unlikely—that the public generally would know of the fact of this being presented to Parliament? Well, you might say the public generally take very little notice of the *Gazette*, which is the official publication.
484. But you know this is not exhibited to them? But we make the thing public, to a certain extent, by charting it on all our maps, which are exhibited by the land agents.
485. You would not call that either publication or proclamation of the census, would you? That is what we consider publication of the census. You know there was a great difficulty over the 1881 census. A number of the papers were destroyed in the Garden Palace fire. These, I think, were the only papers saved.
486. It says "Presented to Parliament"—you would not consider that equivalent to either publication or proclamation, would you? Well, I think that at the time the Department set it itself as right as it could, by asking the Attorney-General's opinion about it, and I think he satisfied the Department that it was a sufficient publication.
487. *Chairman.*] But does not the fact that it was subsequently made plain in the Act of 1884 that it must be published by notice in the *Gazette* show there was some doubts about it? I think not. You will

Mr. C. J. Saunders. 15 Oct., 1891.

will find that every population reserve was re-proclaimed under the Act of 1884, by reason that one section of that Act in referring to exemptions from conditional purchase says "Population areas proclaimed under section four of this Act," or words to that effect.

488. That is what I mean—that the Act of 1884 made it imperative that the population boundaries should be proclaimed in the *Gazette*? Yes. The necessity for re-proclamation arose through subsection 7, of section 21 of the Crown Lands Act of 1884, which says that among other lands exempt from conditional purchase shall be lands within population areas as defined in section 4. Section 4 of the Act of 1884 says:—

> Population boundaries include lands within areas bounded by lines bearing north, east, south, and west, as defined by proclamation in the *Gazette*, and distant not more than 10 miles from the nearest boundary of any city, town, or village.

Previously, the Government could not either make or unmake a population reserve—the whole thing was bound by the census. If a reserve came into existence under the census of 1881 it could not cease to exist until the census of 1891, but under this section the Government could proclaim an area at any new centre that sprang up and had a large population, although under the old Act it could not make a population reserve until a new census came into effect. In the same way, all cities, towns, and villages had to be re-proclaimed under the Act of 1884. That was, I know, what led to the re-proclamation.

489. *Mr. Torpy.*] Do you not think it improbable that a document of that kind would ever have come under the notice of an intending selector? I do not know. I should think that most country papers would reproduce the particulars of the census, to make public the population of certain places.

490. Still you could not call that equivalent to a proclamation;—would you consider that as effective? We did not regard it as a proclamation at all. We thought it came under the terms of the section which says, "publication," not proclamation. If it had said "proclamation," there would have been great doubt about it, as proclamation is made under the hand of the Governor.

491. Are any copies of this distributed throughout the country? I could not say that. Perhaps some officer of the House could tell you.

492. Will you read section 11 of the Census Act, 44 Victoria No. 2? Section 11 says:—

> The Colonial Secretary shall, with all convenient speed, prepare or cause to be prepared abstracts of the said returns, and such abstracts shall be printed and laid before both Houses of Parliament.

493. *Chairman.*] Is the abstract of the census which you now show to the Committee in accordance with that section—that is, as printed and laid before Parliament? Yes; because it is notified on the outside, "Presented to Parliament pursuant to Act 44 Vic. No. 2, section 11."

494. *Mr. Torpy.*] That simply says, "Presented to Parliament"? Yes; but it has the Government Printer's imprint, "Thomas Richards, Government Printer, 1882."

495. That section does not direct that the thing shall be published in any newspaper, does it? No.

496. Nor in any *Gazette*? No. There is no method of publication prescribed in the Act of 1880.

497. *Chairman.*] Still it says it is to be published? Yes.

498. In the early part of the investigation into this case some allusion was made to a part of the land being within a gold-field;—do you know anything about that? Yes; the yellow edging shows a gold-field reserved from conditional purchase, which also includes the greater part of these two additional conditional purchases.

499. Are you aware that the Minister gave up the question of the gold-field reserve interfering with these selections? Not that I know of. I do not know how he could give it up.

500. Does the gold-field reserve still exist? Yes.

501. Within these yellow lines? Within that yellow edging.

502. And that takes away nearly one-half? Fully one-half of both additional conditional purchases. The date of the gold-field reserve is 4th September, 1877, reserved from conditional purchase within the Cargo gold-field.

CONDITIONAL PURCHASES OF NEIL GALLAGHER, ORANGE.

APPENDIX.

[*To Evidence of A. Salwey*, 8 *October*, 1891.]

DEPOSITIONS taken before the Land Court at Cudal in the matter of the forfeited conditional purchase of Neil Gallagher.

NEIL GALLAGHER, farmer, residing near Gum Flat, near Cargo, on oath, states :—I am the owner of conditional purchase 77-26 of 100 acres, which now is held under mortgage by the Commercial Banking Company ; I purchased it in the year 1881 ; I, in virtue of that purchase, applied for the two A.C.P.'s now under inquiry, on the 23rd and 30th October, 1884, and on the 31st day of the same month I transferred the original purchase to the Commercial Bank ; afterwards—I do not know how long after—I heard that my additional purchase was void ; I also heard through the Commercial Bank ; I wrote the letter dated 23rd March, 1885, objecting to the voidance of the purchase ; I wrote several letters to the same effect ; I did not take my money back ; at the date of the letter mentioned there were no improvements on the land applied for as additional conditional purchases, but since that I have fenced the land in ; Harbutt erected some of the boundary fence which is on the boundary of this land ; I have not made any other improvement on this land ; I did not take my deposit money back, as I considered the land had been correctly given to me at Molong ; afterwards I paid interest on the land ; the Land Agent said the purchase was correct ; I understand the population boundary was not proclaimed till 1885 ; I was aware that there was a population area (which came into force in 1881) in existence when I took up this land, but I do not think it embraced this land ; since I took up these selections I have been residing for the past two and a half years on the Cargo Road, not on these selections, but on the original selection (Gridland's) ; at the time I selected the additional conditional purchases, and previous to two and a half years ago, I was residing on the road between Cargo and Orange ; the improvements on the 10 acres are—Clearing nearly the whole area, £500 ; buildings, £30 ; dam, £18—about 360 yards ; fencing, about 2 miles, worth at least £80 ; these improvements are partly on the 40 acres I purchased from Gridland ; I have been improving the land ever since I bought from Gridland ; I did most of the clearing since I went to live on the land ; I fenced the two additional purchases in about six months ago ; I am aware that Hercourt applied for some of this land, but got his money back again ; I only knew of this lately ; I did not know before I applied for the land that it had been refused to anyone else ; I have commenced a dam on the A.C.P.'s under inquiry ; I was not prepared to fence the A.C.P.'s in earlier ; the improvements on the original were sufficient for the full area.

NEIL GALLAGHER.

Taken and sworn before us, at Cudal, this 15th day of October, 1889,—

CHAS. E. FINCH, Chairman.
JOHN J. LANE, } Members.
THOMAS S. PEARCE, }

James Harris Griffin, Inspector of Conditional Purchases, of Molong, on oath, states :—I inspected the selections under inquiry on the 23rd August last ; Gallagher, Sherwin, and Hurkett were present ; I found improvements on portions 63 and 64 were—15 chains of 4-wire fencing at 6s., £4 10s. ; 67 chains of 5-wire fencing at 7s. 6d., £25 2s. 6d. ; 10 chains 6-wire fencing, being half of fence on Hurkett's line, 10s., £5 ; 40 chains of 2-rail and 2-wire, half of Hurkett's by-fence, 12s. 6d., £25 ; small dam commenced, nil ; total, £59 12s. 6d. ; I visited the 10-acre and 40-acre, formerly Cridland's, where I found improvements—Building (two huts), £20 ; small dam, £8 ; stockyard (small), £2 ; 80 acres clearing, cost £3 per acre, £240 ; 120 chains of mixed fencing-wire, log and split fencing, £45 ; total, £315 ; I did not measure the dam nor the stockyard ; I do not know when the improvements were effected.

J. H. GRIFFIN.

Taken and sworn before us, at Cudal, this 15th day of October, 1889,—

CHAS. E. FINCH, Chairman.
JOHN J. LANE, } Members.
THOMAS S. PEARCE, }

Sir, Halfway House, Cargo Road, 23 March, 1885.

I have received notice from the Commercial Bank stating that they have received notice from your Department that a conditional purchase of mine, 96 acres, has been declared void, owing to its being partly within the Cargo population boundary reserve.

I humbly beg to submit that when I took up my original selection there was no such reserve, and it appears hard that the boundary line has been so placed so as to surround my conditional purchase on all sides ; however, you will perceive that there is only a narrow strip, about 3 chains of this reserve, separating me from the land open for selection, and I trust that you will see fit to have this small portion of the reserve revoked, so as to enable me to get the adjoining land as an additional conditional purchase to the original selection. No doubt my further additional conditional purchase of 84 acres will also be declared void for a like reason. I shall therefore instruct the Bank not to accept the refund until I hear from you, when I hope you will be able to advise me that I can again select the land.

I may mention that my neighbour, Mr. J. M. M'Kay, got land on the west side of the Cargo Road under similar circumstances.

I have, &c.,
NEIL GALLAGHER.

The Under Secretary for Lands, Sydney.

Sydney : George Stephen Chapman, Acting Government Printer.– 1891.

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON

FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND

APPENDICES.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
10 *December*, 1891.

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.

1891.

[9*d*.] 429—A

1891.

(SECOND SESSION.)

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 36. TUESDAY, 29 SEPTEMBER, 1891.

5. FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA:—Mr. Gormly moved, pursuant to Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the forfeiture of J. J. Ray's selection in the land district of Wagga Wagga.
(2.) That such Committee consist of Mr. Brunker, Mr. McCourt, Mr. Kidd, Mr. Perry, Mr. Bowes, Mr. Stevenson, Mr. E. G. Brown, and the Mover.
Debate ensued.
Question put and passed.

VOTES No. 62. THURSDAY, 10 DECEMBER, 1891.

3. FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA:—Mr. Gormly, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee for whose consideration and report this subject was referred on 29th September, 1891; together with Appendices.
Ordered to be printed.

CONTENTS.

1891.

(SECOND SESSION.)

FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 29th September, 1891,—*with power to send for persons and papers to inquire into and report upon the forfeiture of J. J. Ray's selection in the Land District of Wagga Wagga*, —have agreed to the following Report :—

Your Committee, having examined the witnesses named in the list* (whose evidence will be found appended hereto), find,— * See list page 4.

(1.) That John Jonathan Ray applied for O.C.P. 85–70, of 559½ acres, portion 18, made at Wagga Wagga on 6th August, 1885, and confirmed on 15th September, 1886; A.C.P. 86-125, of 228½ acres, portion 20, parish of Biragambil, county of Bourke, made on 16th September, 1886, and confirmed 29th November, 1886.

(2.) That at an inquiry held before a meeting of the Local Board at Wagga Wagga, on 17th June, 1889, as to the fulfilment of residence by John Jonathan Ray on his O.C.P. 85–70, the Board decided that the C.P. should be declared forfeited; that an appeal was made against this decision, and that the appeal was dismissed, and land forfeited. *(See* Appendices A and B.)

(3.) That J. J. Ray went to reside on the land he had applied for before his application had been confirmed, and that he continued to reside on the land continuously and bona fide for five years after the date on which his application for the original conditional purchases had been confirmed.

(4.) Your Committee are of opinion that had the selector brought before the Local Land Board the witnesses whom your Committee have examined, forfeiture of his C.P. would not have taken place.

2. Your Committee therefore recommend the case to the favourable consideration of the Government.

JAMES GORMLY,
Chairman.

No. 2 *Committee Room,*
Sydney, 9th December, 1891.

PROCEEDINGS OF THE COMMITTEE

TUESDAY, 6 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Gormly, | Mr. Kidd,

Mr. Stevenson.

Mr. Gormly called to the Chair.

Entry from Votes and Proceedings appointing the Committee *read* by the Clerk.

[Adjourned till Thursday next at *Two* o'clock.]

THURSDAY, 8 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Gormly in the Chair.

Mr. Kidd, | Mr. McCourt,

Mr. Perry, | Mr. Stevenson.

Alfred Salwey (*Head of the Conditional Sales Branch, Department of Lands*) called in, sworn, and examined.

Witness *handed in* copy of the evidence taken before the Local Land Board in the case of J. J. Ray's forfeited selection in the Land District of Wagga Wagga. [*Appendix* A.]

Witness withdrew.

Committee deliberated.

[Adjourned till Tuesday next at *Two* o'clock]

TUESDAY, 13 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Gormly in the Chair.

Mr. Kidd, | Mr. McCourt,

Mr. Perry, | Mr. Stevenson.

John Jonathan Ray called in, sworn, and examined.

Witness withdrew.

John Ray called in, sworn, and examined.

Witness withdrew.

Barnett Basil Bennett called in, sworn, and examined.

Witness withdrew.

Thomas Henry Hart called in, sworn, and examined.

Witness withdrew.

Arthur Ray called in, sworn, and examined.

Witness withdrew.

John Ray recalled and further examined.

Witness withdrew.

Barnett Basil Bennett recalled and further examined.

Room cleared.

Committee deliberated.

Ordered, that the Under Secretary for Lands be summoned to give evidence next meeting.

[Adjourned till to-morrow at *Two* o'clock.]

WEDNESDAY, 14 *OCTOBER*, 1891.

MEMBERS PRESENT:—

Mr. Gormly in the Chair.

Mr. Bowes, | Mr. Stevenson.

Alfred Salwey (*Head of Conditional Sales Branch, Department of Lands*), called in, sworn, and examined.

Witness *handed in* copy of the decision of the Local Land Board, in the case of Ray's forfeited selection, in the Land District of Wagga Wagga. [See *Appendix* B.]

Witness withdrew.

Committee deliberated as to their Report.

[Reassembling of the Committee to be arranged by the Chairman.]

WEDNESDAY, 8 *DECEMBER*, 1891.

MEMBERS PRESENT:—

Mr. Gormly in the Chair.

Mr. E. G. Brown, | Mr. Perry.

Chairman submitted Draft Report.

Same read and agreed to.

Chairman to Report to the House.

LIST OF WITNESSES.

1891.
(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON THE

FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA.

THURSDAY, 8 *OCTOBER*, 1891.

Present:—

MR. GORMLY, | MR. STEVENSON,
MR. McCOURT.

J. GORMLY, ESQ., IN THE CHAIR.

Mr. Alfred Salwey called in, sworn, and examined:—

Mr. A. Salwey. 8 Oct., 1891.

1. *Chairman.*] Do you produce from the Lands Department the papers in reference to the forfeiture of J. J. Ray's conditional purchase? Yes.
2. Are there amongst them minutes of evidence given before the Local Land Board? Yes; there are the depositions.
3. Will you hand in a copy of the evidence taken before the Land Board? Yes. [*See Appendix A.*]
4. Are there any other documents in reference to the appeal in the case—the appeal to the Minister? The Minister, in giving his judgment in the Appeal Court, said that after careful examination of the evidence, and especially of Ray's own testimony, it appeared to him that the residence was only a pretence, and that he also had grave doubts as to the selector's *bona fides*.
5. *Mr. McCourt.*] What Minister was that? Mr. Brunker.
6. *Chairman.*] Are there any minutes among the papers in reference to the *Gazette* notice of forfeiture being sent;—have you got a copy of the notice? I do not think I have; but I can hand in a copy.
7. For a particular reason I want to have a copy of the *Gazette* notice declaring the forfeiture? I will hand that in. [*See Appendix B.*]
8. If you see any memo. of the Minister since the dismissal of the appeal, will you kindly put it before the Committee? Yes.
9. I believe the reason stated was that the land was reserved? Yes—"reserved from sale for access." That was notified on the 29th October, 1890.
10. Of course, the forfeiture has to be sanctioned by the Executive Council? Yes.
11. Is there any memo.? That will appear in the notice that I shall hand in. It is the usual form, "Governor, with the advice of the Executive Council."
12. You do not see any memo. on the papers made since the dismissal of the appeal? No; there is nothing since.
13. Can you find out the date on which the forfeiture was approved of by the Executive Council? No. That will be the date on which it appears in the *Gazette* which I shall hand in.
14. But does not what you read show it "reserved from sale for access"? That is not the *Gazette* notice of forfeiture—it is only the reservation.

TUESDAY,

TUESDAY, 13 *OCTOBER*, 1891.

Present: —

Mr. McCOURT,	Mr. PERRY,
Mr. STEVENSON,	Mr. KIDD.

J. GORMLY, Esq., IN THE CHAIR.

Mr. John Jonathan Ray called in, sworn, and examined:—

Mr. J. J. Ray. 13 Oct., 1891.

15. *Chairman.*] Were you the holder of a selection which was the subject of an inquiry before the Local Land Board at Wagga Wagga? Yes.
16. You gave certain evidence before the Local Land Board? Yes.
17. The Local Land Board recommended the forfeiture of the selection? They did.
18. Did you appeal against the decision? Yes.
19. Was the appeal dismissed? It was.
20. Are you aware for what reason the Local Land Board recommended the forfeiture of the selection? For non-residence.
21. The Committee have a copy of the evidence which you gave before the Local Board at Wagga Wagga, and they now wish you to make any statement you like in regard to how you fulfilled the condition of residence? I resided continuously on the land, occasionally going away for a few days. I made the place my home.
22. Had you any other place of residence besides your selection from the time that you went on the land? No; I resided on the land.
23. Did you go to reside on it when your application was confirmed or before? I went to reside on the land before my application was confirmed.
24. And made it your continuous residence? Yes.
25. Had you any other residence during that time? No.
26. Were you absent from the land any lengthened period during the five years? No; I never was. used to go to my father's sometimes to do him a little turn.
27. *Mr. Stevenson.*] How long would you be away? Not more than two or three days.
28. *Mr. Kidd.*] How far was your father's place from your selection? Six or 7 miles.
29. Did your father's family all live there? Yes.
30. *Mr. McCourt.*] How many times did the inspectors visit the selection to your knowledge? Only twice.
31. Were you there? I was there when the first inspector, Mr. Batty, came.
32. Were you there when the other inspector came? No; I had gone to town, but I met him as I was coming back.
33. *Mr. Stevenson.*] Did you speak to him? Yes; I asked him if he had been to my place, and he said, "Yes," and he said he was satisfied with the residence, and that he was sorry that I was not there.
34. *Mr. McCourt.*] Did you hear his evidence before the Land Board? Yes.
35. Did he say that there? I could not say for certain.
36. Would you consider two visits of the inspector sufficient to prove non-residence in five years? I should not think so.
37. *Mr. Kidd.*] How often do they visit to your knowledge. Have they visited other selections oftener than twice? Yes.
38. Was your place very much out of the way? It is a good way from the road.
39. *Mr. Stevenson.*] How far from the main road? About 3 miles from one main road.
40. Is it easy to find your place for a man who has not a good knowledge of the district? It would not be easy for a stranger to find it.
41. *Mr. Kidd.*] What town is the nearest to your selection? Coolamon is the nearest town.
42. And at the time when you met the inspector leaving your place, were you going back to your home? Yes.
43. How did you leave your place—did you lock it up? I did.
44. *Mr. Stevenson.*] Do you follow any other occupation? No; none whatever.
45. You do not go away shearing? No.
46. The only time when you were away was when you went to assist your father? That was the only time.
47. You made the selection your home? Yes.
48. Were you a month or two at any time away from it? No; I was three weeks away at one time. That was during a drought. I had no water, and had to leave.
49. You did not go and leave your selection for months? No.
50. Did you make any improvements? Yes.
51. Did you work on it? Yes.
52. Did you put up fences? Yes.
53. Did you do scrubbing or grubbing? Yes; and tank-sinking.
54. Had you anyone to assist you in making the improvements? Yes; my brothers.
55. Did your father assist you to make any improvements? Yes.
56. What quantity of land have you? 787 acres.
57. And you did scrubbing? Yes.
58. Would that entail a considerable amount of work? Yes.
59. Was there pine scrub on the land? A little pine scrub, and suckers.
60. *Mr. Stevenson.*] When you were absent three weeks, did the inspector come at that time? He did not to my knowledge.

Mr. John Ray called in, sworn and examined:—

Mr. J. Ray. 13 Oct., 1891.

61. *Chairman.*] Are you the father of John Jonathan Ray, the selector whose case we are now inquiring into? Yes.
62. Can you give the Committee any evidence in regard to how your son fulfilled the condition of residence on his selection? Yes.

63.

Mr. J. Ray. 13 Oct., 1891.

63. Did you assist your son to do any work on his selection? Yes.
64. And when assisting him to do his work, did you reside with him on the selection? I did.
65. Had you an opportunity of seeing how he did perform the residence? Certainly.
66. Would you tell the Committee how he fulfilled the residence condition;—was he continuously on the land? He was, except that he would come at any time I was busy to help me to do a bit of ploughing.
67. You would help him, and he would come and help you? Yes; I had 600 sheep, and he used to help me to shear them.
68. Did he reside any considerable time at your residence? No.
69. He was usually residing on his own selection? Yes, on his own land.
70. Had you an opportunity of seeing him on his land on any occasion? Certainly, I had some stock on the land.
71. On his land? Yes, and I used to go and kill sheep there for my own use.
72. Did you help him to fence? Yes, I split the wood, and brought it in with my own team.
73. Your home was about 8 miles from his? It was between 7 and 8 miles.
74. And were you constantly going backward and forward between your own home and your son's selection? Yes, except when I was on the road.
75. Could you give the Committee a rough idea of how often during the five years you saw your son on his selection? I have seen him on it hundreds of times—sometimes I should be out there two or three times a week helping him.
76. Have you any reason to believe that he resided any length of time away from the selection? He never did, to my knowledge.
77. Could he have resided away from the selection, without your knowledge? It is not possible.
78. *Mr. Stevenson.*] You said "except when you were on the road?" Yes, I am a carrier.
79. But you never used to go away for any length of time? No; I went to Narrandera once, and was there about five weeks.
80. *Mr. Kidd.*] Were you very frequently away? No; I gave my second eldest son a team, and gave my youngest son one, and I went to Narrandera, and was drawing gum logs to a saw-mill.
81. You were almost continuously at your own home? Yes.
82. Except when you went to assist your son? Yes; I went to help him to put in a dam.
83. How often did the inspectors visit your son's selection to your knowledge, during the five years? I think that Mr. Batty was there first, and I think he had his dinner with my son. Mr. Mulligan visited the selection afterwards when my son was in Wagga Wagga.
84. Did the inspectors only visit your son's selection twice during the five years? Only twice that I am aware of.
85. *Mr. McCourt.*] Do you know on what ground the Local Land Board recommended the forfeiture? I could not distinctly state.
86. Was it for non-residence solely? I could not say.
87. Was there not some suspicion that he was in league with a squatter? Yes.
88. Was that brought out in evidence? It never was cleared up.
89. Was it brought out in evidence before the Land Board? They asked him where he got his money, and he said that he got it from Mr. Bennett.
90. You heard him say that? I was not in the Court.
91. Did he get his money from Bennett? I sold some land to Mr. Bennett. I had a selection at Brucedale, North Wagga Wagga.
92. You sold that to Mr. Bennett? Yes; and there were 40 acres that I could not sell because that 40 acres belonged to my son, and he was not of age, but Mr. Bennett bound me over to transfer the land when my son became of age, and when the boy became of age he did transfer it.
93. It was with the proceeds of the sale of that selection then that he selected the other land? Yes; we got £2 an acre for it.
94. Mr. Bennett did not give him the money? No.
95. *Chairman.*] Brucedale is within 3 or 4 miles of Wagga Wagga? Yes.
96. And the selection in dispute would be 40 or 50 miles from Wagga Wagga? Yes.
97. *Mr. Perry.*] What is your son's age? He is 21.
98. Then he was about 16 when he selected the land? Yes.
99. Did he live at home or at your place after he had taken up the selection? He lived on the land.
100. *Mr. Kidd.*] Do you live on a selection? Yes.
101. Do you remember how often when you were fulfilling the residence condition the inspectors visited your place? Twice.
102. Only twice in five years? Only twice.

Mr. Barnett Basil Bennett called in, sworn, and examined:—

Mr. B. B. Bennett. 13 Oct., 1891.

103. *Chairman.*] You have a conditional purchase adjoining that of John Jonathan Ray? Yes.
104. Have you resided there a number of years? Yes, some five years.
105. Have you had an opportunity of seeing whether or not Ray resided on his land? Yes, I have.
106. Did you see him on his land on any occasion? Yes, a great many times.
107. You found him usually residing on his selection adjoining your land? Yes. If I wanted to find him I should have gone to his land to look for him.
108. There was a fence dividing your land from his? Yes. It was not more than 150 yards from his house.
109. Were you in the habit of riding round your place? Yes, after cattle.
110. Could you see whether he was at home pretty often? Yes.
111. *Mr. McCourt.*] Were you in Court when the Land Board gave their decision? I was not.
112. Do you know why the land was forfeited? I have heard it rumoured.
113. Were you acquainted with the matter by rumour—explain your position in the matter? I am glad of an opportunity of explaining it, because I felt rather grieved about it. I heard it rumoured after the Court was over that the Wagga Wagga Land Board in reality cancelled the selection because they considered

Mr. B. B. Bennett. 13 Oct., 1891.

considered that Ray was dummying for me. This arose out of something the young man said about having got money from me, and about my stock being on the land. I can give a very clear explanation of the whole matter.

114. *Chairman.*] Your stock have been running on this young man's land? Yes.

115. Did you make any arrangement with Ray on the subject? I made an arrangement with his father. I rented the land from his father for about two years to put my stock on, for which I payed £60 a year. The young man was a minor.

116. Of course a selector is allowed to enter into such agreements? Yes.

117. You rented the land for £60 a year from his father? Yes.

118. Therefore you were continually going on the land when your stock was on it? Yes.

119. And you had opportunities of seeing Ray on his land? Yes.

120. Have you heard any rumours stating that you had supplied this young man with money to take up the land? Yes.

121. Did you supply him with money? No, I did not, unless paying his father for some land which I bought years ago can be called supplying him with money.

122. Did you purchase land from his father? Yes, some years ago, a property at Brucedale, Wagga Wagga, which I own now.

123. About 40 miles from this selection? Yes.

124. *Mr. McCourt.*] During that two years was Ray residing on his selection? I did not hold the land for two years.

125. Did he reside on the land during the time that you rented it? He did.

126. How long did you rent the land? I think only about six months, because when the selection was cancelled I gave it up.

127. Although you took it for two years? I did not have anything more to do with it—I abandoned it.

128. When Ray selected did you give him any money? No.

129. Nor any money near that time? I did not.

130. You purchased land from his father a long time before that? Yes, years before, and the money, about £80, was paid to his father, who entered into a bond of £160 that when the young man became of age he would obtain a transfer of the land for me.

131. That £80 was paid before? Yes, some years ago to his father.

132. *Chairman.*] Was this selection taken up in your interest? Not at all.

133. It is adjoining your land? Yes.

134. *Mr. Perry*] Would it be to your interest to have it forfeited? Yes.

135. You have had to select? I have had to select one of Mr. Brunker's special areas within the last two or three months, as I was some 400 acres short of my proper area.

136. *Mr. Kidd.*] I suppose it is in the Central Division? Yes.

137. You did not give evidence before the Land Board at all? No.

138. They never asked you? No.

139. You stated in answer to Mr. McCourt that you rented the selection for about six months? Yes, about that time.

140. During the time that you rented the land it was occupied by the selector Ray? Yes.

141. His father also put stock on the land? Up to the time that I rented the land there was stock there. I believe they belonged to his father.

142. How far is your residence from Ray's residence on the selection? About a mile.

143. Did you see Ray from time to time making improvements on his selection? Yes, fencing.

144. And clearing? No, I never saw him clearing. I saw him fencing and making a dam on several occasions.

145. To the best of your knowledge he resided continuously on the selection? As far as I know he did.

146. *Chairman.*] You are his next neighbour? Yes.

147. And you were always at home? Yes, generally attending to my own business. I went round the paddocks occasionally.

148. And your fence was what distance from his residence? When I went round the boundary of the paddock I should go within a couple of hundred yards of his house.

149. *Mr. Kidd.*] During the drought you used to supply him with water did you not? I may have done.

150. Had you an abundance of water? I had.

151. You did not object to a neighbour taking a supply? Decidedly not. I have a spring on my place, and that spring is 200 or 300 yards from his house. I think Ray used to get his supply there.

152. *Mr. Perry.*] You are a conditional purchaser yourself? Yes.

153. Do you think that this young man fulfilled the conditions of residence in accordance with the requirements of the Act? I do indeed. I think he did as good residence as nineteen out of every twenty young men would do.

154. At any time you went to the selection you found him there? I cannot say that I always did, but I found him there a great number of times.

155. When you say you rented the place, I suppose you mean that you agreed to pay him so much for the right to graze? Yes.

156. He put a hut on the land I suppose—had you anything to do with that? Nothing whatever.

157. That was during the latter portion of his five years of residence on the land? Yes.

158. How long had he been there when you leased the land? Two or three years.

159. *Mr. Stevenson.*] When he leased it to you he did not give up possession? No.

160. He resided and worked on it? Yes.

161. *Mr. Kidd.*] I suppose it is usual for young men who select a few miles away from their own homes to go home on a Saturday night and stay until Monday? Yes, they would be very strange young men if they did not.

162. *Chairman.*] You are in the habit of dealing in stock? Yes.

163. And you have more stock than your land will carry? I have.

164. You often rent paddocks from other persons? Yes.

165. You have been a resident of Wagga Wagga for a good while? Yes, over fifty years.

166. And you are a magistrate? Yes.

Mr. Thomas Henry Hart called in, sworn, and examined:—

Mr. T. H. Hart. 13 Oct., 1891.

167. *Chairman.*] You know John Jonathan Ray, the selector in this case? Yes.
168. What occupation do you carry on? At present I am a contractor.
169. Have you been in the habit of shooting kangaroos in the neighbourhood of Ray's selection? Yes. I was contracting at that time in the vicinity.
170. You were tank sinking? No; I was fencing.
171. Were you often on Ray's selection during 1887, 1888, and 1889? During part of 1887, in 1888, and in part of 1889.
172. You have been in the habit of visiting Ray's selection? Yes; frequently.
173. And were you in the habit of stopping at Ray's house at night? Yes; occasionally.
174. During those years when you went on Ray's selection, did you find him at home? Nearly always.
175. Did you buy ration sheep from Ray when you were a contractor? Yes.
176. And you had to go to the selection to get them? Yes. My camp was within about 2 miles of the selection.
177. And you bought sheep for rations? Yes; on three or four occasions.
178. And you went to the selection for those sheep? Yes.
179. Did you find Ray at the selection? Yes; he was fencing and making a gate the first time I visited him.
180. Were you often in the company of Ray? We were shooting kangaroos together for several months.
181. Was that in the neighbourhood of the selection? On the selection and within 4 or 5 miles of it. We were never more than 4 miles from it.
182. Was Ray in the habit of borrowing tools from you? Yes; he borrowed some tools to make some gates for his selection.
183. Then he was in the habit of going to your camp, and you were in the habit of going to his hut? Yes; very often. Occasionally he used to stop at my camp, and I used to stay with him.
184. You saw him and his selection a good many times during those five years? Yes; a good many times.
185. *Mr. McCourt.*] Did you give evidence before the Land Board? No.
186. What sort of a residence had he on the land? A two-roomed cottage.
187. Had he a bed and cooking utensils? Yes.
188. Do you remember when Mulligan the inspector came to inspect the selection? I remember Mr. Mulligan being in the vicinity. I think I have met him when he was inspecting Ray's sisters selection.
189. If Mr. Mulligan said that the hut had not a sign of having been recently used, would that be true? It would be untrue, I think, from what I saw.
190. *Mr. Kidd.*] I suppose you know the hut very well? Yes.
191. Could any one tell from looking in at the window what was inside in the cupboards or safe? I do not think so, because a single man as a rule puts his things together when he leaves.
192. *Mr Stevenson.*] Sometimes he has a big box to put his things in, has he not? Yes.
193. *Mr. Perry.*] To keep his things from the sundowners? Yes. And to keep off the flies.
194. *Chairman.*] Did you consider that Ray was continually residing on his selection, that is, making the selection his home during the years that you knew him there? I always understood from him that it was his home, and that he had no other.
195. If you went to look for him, he being a companion of yours, where would you have gone to? To his selection. During the period that I was in this vicinity we exchanged rations frequently.
196. If he were short you gave him some, and if you were short he gave you some? Yes.
197. *Mr. Stevenson.*] How long did you know Ray when he was on the selection? I knew him before he took up a selection.
198. But in connection with the selection? In 1887, 1888, and 1889 I lived on the adjoining run.
199. And you saw him repeatedly on the selection? Every time I went to his selection he was there.
200. And those visits extended over three years? Not more than about two years—part of 1887, 1888, and part of 1889.
201. Whenever you went there you found him on the selection? Yes.
202. *Chairman.*] I suppose the selection is a good distance from the town? Yes, 24 or 25 miles.
203. You could not run to a store when you wanted anything? No, only to the station.
204. *Mr. Stevenson.*] Was the hut furnished? There was just what a single man would require.
205. Had he any bedding there? Yes, I slept in it occasionally.
206. Had he any cooking utensils? Yes; everything that was required for a camp.

Mr. Arthur Ray called in, sworn, and examined:—

Mr. A. Ray. 13 Oct., 1891.

207. *Chairman.*] You are brother of the selector whose selection we are making inquiries about? Yes.
208. Were you in the habit of occasionally residing with your brother on the selection? Yes.
209. Did you help him to work on it? Yes.
210. Did you help him with fencing? Yes.
211. And tank-making? Yes.
212. And to knock down suckers and to cut down scrub? Yes.
213. Did you make other improvements on the selection? Yes.
214. Were you often on the selection? Yes.
215. And did you occasionally stay there a few weeks? I did. I was constantly with him for two and a half years.
216. Continuously residing with him on his selection? Yes.
217. He had a house? Yes.
218. How many rooms were there in it? Two rooms.
219. Of course if you were continuously there you must have had cooking utensils? We had.
220. And did you occasionally reside with him after that two and a half years? Yes.
221. Did you find him usually residing on the selection? Yes.
222. Are you aware that he was ever any long time away from the selection during the five years? The only time that he was away was for three weeks during a drought? He had no water.

Mr. A. Ray. 13 Oct., 1891.

223. It is a very dry country there? Yes, it is a terrible dry place.
224. No creeks or streams? Only for a short time in winter when the weather is wet.
225. You reside with your father? No; I had a bullock team, and when out of work I used to take my bullocks to my brother's place and live with him.
226. You did this for how many years? I have done it continuously up to the present time.
227. *Mr. Kidd.*] Is he still using the selection? Yes.
228. *Mr. Stevenson.*] Of course when you were residing there your brother was there? Yes.
229. Was he working on the selection? Yes, I helped him with his work.
230. What was the nature of the work? Fencing, scrubbing, tank-sinking, and other work.
231. *Mr. Kidd.*] And killing kangaroos? Yes, I helped him to kill kangaroos.
232. *Chairman.*] Are kangaroos very numerous there? Yes.
233. *Mr Perry.*] Is your brother related to Mr. Bennett? Not at all.
234. *Mr. Stevenson.*] Is Mr. Bennett related to or connected with you by marriage or in any other way? No, not at all.

Mr. John Ray recalled and further examined:—

Mr. J. Ray. 13 Oct., 1891.

235. *Chairman.*] Did you supply your son with the money to take up the selection. Was it your money? It was my money.
236. Did you go with you son to the Court? I did.
237. And you took the money with you? Yes.
238. *Chairman.*] You stated that your son, J. J. Ray, held a piece of land before that? Yes.
239. You sold that when he was a minor? I did.
240. And that was why you supplied him with money to take up another selection? Yes.
241. It was his own money that you supplied him with? Yes.
242. *Mr. McCourt.*] Was there not a question before the Land Board as to where he got the money? They asked him where he got the money, and he said from Mr. Bennett. He meant by my selling land to Mr. Bennett.
243. *Chairman.*] The reason why the Committee ask the question is, that in dismissing the appeal the Minister made a note on the papers to the effect that he considered that the *bona fides* of this selector were doubtful. You supplied your son with the money to select the land, and that money was the proceeds of land belonging to your son which you had previously sold? Yes.

Mr. Barnett Basil Bennett recalled and further examined:—

Mr. B. B. Bennett. 13 Oct., 1891.

244. *Chairman.*] The Committee wish to ask whether you supplied the selector, J. J. Ray, with the money to take up this land? I did not.
245. *Mr. Stevenson.*] You bought some land from his father? Yes; some years ago, and I paid the money to his father.
246. *Mr. Kidd.*] You are not connected in any way with the Rays? No.

WEDNESDAY, 14 OCTOBER, 1891.

Present:—

MR. GORMLY, | MR. STEVENSON,
MR. BOWES.

J. GORMLY, ESQ., IN THE CHAIR.

Mr. Alfred Salwey recalled and further examined:—

Mr. A. Salwey. 14 Oct., 1891.

247. *Chairman.*] Have you got the date of the notice of the forfeiture of J. J. Ray's conditional purchase? Yes; it was forfeited on the 24th September, 1890.
248. Have you got a copy of the recommendation of the forfeiture by the Local Land Board at Wagga Wagga? Yes; I have a copy of the decision of the Local Land Board recommending the forfeiture.
249. Will you hand that in? Yes; I hand in a copy of the decision of the Board. [*See Appendix B.*]

FORFEITURE OF J. J. RAY'S SELECTION IN THE LAND DISTRICT OF WAGGA WAGGA.

APPENDIX.

[*To evidence of Mr. A. Salwey*, 8 *October*, 1891.]

A.

COPY OF EVIDENCE TAKEN BEFORE THE LOCAL LAND BOARD AT WAGGA WAGGA IN THE CASE OF J. J. RAY'S FORFEITED SELECTION.

Francis Benedict Mulligan, sworn, saith:—I am the Inspector of Conditional Purchases for the Land District of Wagga Wagga; on the 22nd May, 1889, I visited John Jonathan Ray's conditional purchase 85/70 of 559½ acres, Parish of Biragambil, county of Bourke; I found on the additional conditional purchase, portion 20, a hut of sawn boards, 18 by 10 feet, of two rooms and verandah; the rooms were floored, and the building had an iron roof and was worth I thought £20; no one was resident upon the land at that time, and the hut of the selector was locked up, and, as far as could be judged from outside appearance, it had not the trace of recent use; the front room, as seen through the window, contained table, small cupboard, dresser, and crockery; the bed-room door was closed; I could not see any provisions; I was only able to get a partial view of the contents of the front room; as far as I was enabled to see inside the hut, and from outside appearance, no trace of occupation; was decidedly poor; there was a little partial grubbing and some burning off near the hut; the whole of the selector's land was fenced in with a six-wire fence, and a little chock and log across the stony parts.

By Mr. Fosbery: I only got a partial view of the contents of the front room; there could have been other things there without my seeing them; I called at the selection late in the evening; before the day I inspected it there had been rain; the day before I inspected the land the whole country showed signs of recent rain; the rain would have obliterated recent tracks about the hut and on the land; I met selector on 1st June between Wagga Wagga and Coolamon; when I was returning to Wagga Wagga; he told me that on the occasion of my visit he was away assisting his father with the ploughing.

F. B. MULLIGAN.

Sworn at Wagga Wagga, this 17th day of June, 1889, before us,—

T. W. WATT, J.P., Chairman, Local Land Board.
MATTHEW N. CALLAGHAN, J.P., Member Local Land Board.

John Jonathan Ray, sworn, saith:—I am the holder of conditional purchase 85-70, of 559½ acres, parish of Biragambil, county of Bourke, confirmed 15th September, 1886; I went into occupation of land within three months of the date of confirmation, in the house described by Mr. Inspector Mulligan; I first commenced to fence, scrubbing, and tank-sinking after I went into occupation; I improved my land; I had some assistance; the longest time I was absent from my selection was three weeks, in March last, during the drought; my water failed and I was forced to go; at the end of the three weeks rain fell sufficient to put water on my selection; I returned to the selection then; I remember the occasion of Mr. Mulligan's visit, it was on a Tuesday; I had left the selection the Saturday before; I went to my father's place to assist him to plough; very heavy rain had fallen on the Monday night and we could not go on with the ploughing; I returned to my selection on the Wednesday; I had been to Wagga Wagga with my mother, and when returning to my selection, on 1st June instant, I met Mr. Mulligan; I informed him where I was at the time he inspected the selection; the hut contained table, dresser, bed, bedding, chair, cooking utensils, crockery; I had everything necessary for occupation by a single man; I am a single man; I had provisions, consisting of bread, tea, sugar, and flour; I have ploughed, sheared, and harvested for my father, and during the time I was engaged at that work I stayed at my father's place, but three weeks was the longest time I was away from the selection, except at the times I was away assisting my father, and when away for the three weeks during the drought, I have resided continuously on the land; the selection is my own property, no person but myself has any interest in the land; I had previously held a farm at Brucedale, which I sold to Mr. Bennett, and with the proceeds from that sale I made the selection under inquiry; I was at Conabbie attending a sheep muster when the summons to appear at the Land Court was served on me; it was served on me on Monday; I had left the selection on Saturday night previous.

By Mr. Mulligan: I remember Mr. Inspector Battye visiting the land last May twelve months; I was resident at the time he visited it; I was in occupation the day before his visit, and the day before that; I had been there a length of time; I had been there continuously except Sundays, or when I went away cricketing; for a month at the time of Mr. Battye's visit my hut was provided with provisions and other things already spoken of; I commenced to fence the land about a month after it was confirmed; it was not completed right off; I personally, with the assistance of others, erected the fencing, which was completed in July, 1888; this would be on the additional conditional purchase, as well as on the original; the land was ringbarked when I applied for it; I only suckered and scrubbed part of it; I have not cultivated any part of it; I have scrubbed about 80 acres; the suckers were very thick; I may have been about two months suckering and scrubbing the 80 acres; besides this I employed my time in kangaroo shooting for a day and a night at a time, and in knocking about; my father's place is about 7 miles from my selection; my father has a large family; I am the oldest boy; my father and sister hold selections only separated by one chain road; I used to assist them at ploughing at harvest times, and occasionally at other times; when assisting my father and sister I generally returned to my selection on the Saturday and Sunday; I have stayed on the land for two months at a time without going away, that would be the longest time I have remained at one time on the selection; I have a small paddock in the lane between my land and Mr. Bennett's land in which to put my horse; my father had his sheep grazing on the land; up to the date of your visit my father was the only person besides myself who made use of the land; I had no vegetable garden, any vegetables I wanted I would get from my father; Mr. Bennett has not had the use of the land until within the last two or three weeks; the first time I had water on the land was in April, 1888; previous to this I used to get water from a well on Mr. Bennett's land about 200 yards away.

By the Board: Mr. Bennett has now leased the land from me for two years; he leased it from me on the 1st of this month, and up to the expiry of my residence term; I have been partly making a living by kangaroo shooting since I have been living on the selection; my father gave me the summons; he obtained it at my place, and brought it to me when I was sheep mustering at Coonabbie; up to last January Mr. Bennett had not run any sheep on the land; no person but my father had run sheep there.

By Mr. Fosbery: I got permission from Mr. Bennett to use the water from his well when I had no water; I did not pay him for it; kangaroo shooting is a means of livelihood for a good many; I used to send the skins I obtained to Sydney to Mr. Bridge; the land is all fenced in; there is also a tank on the land; it would take twelve months consecutively to effect the improvements on the original and additional conditional purchases with the assistance I had; I used to make as much as £20 per month by kangaroo shooting; the heavy skins are sold singly, the lighter ones by the pound (lb.); some skins are sometimes quoted at 105s. per dozen and the light ones at 1s. 6d. per lb.

By the Board: I have no idea of the contents of the tank; I put it down myself by plough and scoops with bullocks; I did not measure it; I obtained £20 per month for about six months shooting kangaroos; I must have obtained between 200 and 300 skins during that time; I have made nothing out of the land up to this time; 50 kangaroo skins would make up £20.

By Mr. Fosbery: It depends upon the size and weight of the skins as to how many would make up to £20 in value.

JOHN JONATHAN RAY.

Sworn at Wagga Wagga, 17th day of June, 1889, before us,—

T. W. WATT, J.P., Chairman, Local Land Board.
MATTHEW N. CALLAGHAN, J.P., Member Local Land Board.

John Wright, contractor for bush work, sworn, saith:—I know the land held by John Jonathan Ray now under inquiry, I have known it ever since he commenced to build his house; I am working on the adjoining selection of Mr. Bennett's; I am at present suckering and scrubbing for Mr. Bennett; I have seen Ray frequently on his land early in the morning and late in the evening; I cannot say how many times, but being such near neighbours often when I want a tool I go to his place for it and when he requires one he comes to me; I have been inside Ray's house; it is well furnished and is a very nice clean comfortable place; he has been away occasionally from the land during the three years I have been there; I may have missed him about two or three weeks at a time but not longer; I have seen selector building, fencing, and tank-sinking on the land; I have not the slightest doubt that the selection is selector's *bona fide* and continuous residence; before selector had water on his land he obtained water from a spring on Mr. Bennett's land, but the spring went dry during the drought; I have seen selector hunting kangaroos; he keeps springs set for wild dogs; it is a very scrubby place about there; there are a good many wild dogs and kangaroos out there.

By Mr. Mulligan: When I first went on to Mr. Bennett's land in January, 1887, the hut on Ray's land was being built; I was there about six months before I went to his hut for the first time, but I heard them working at the hut; I cannot tell who built the hut; I saw Ray and his brother erecting some of the fencing; I believe in the same year part of the fence was erected later; I have been over to the selector's hut five or six times a night during the time I have been there; Ray was there on every occasion I was there; I was never there when he was not there; I can always tell when he is there; I can see his light from my place; selector would be away from the selection at times; he went away the Saturday before your visit; he would not be away very often; I never missed him from the land for more than two or three weeks at a time; I cannot say if he was away on more than one occasion for that length of time; I cannot say if he was on the land six months without leaving it; I know that he has been there one month without leaving it; I cannot say how selector earns his living; I have not known him to do contract work for persons in the locality; I have seen him scrubbing the land; I cannot say how many acres have been scrubbed; I cannot say what his occupation was; he does not cultivate the land; I have seen stock, which I believe belonged to his father, grazing on the land; Mr. Bennett's cattle have been depasturing on the land for the last three or four weeks; the sheep which I believe belonged to selector's father had been removed some time previously; I do not know that selector is a relation of Mr. Bennett's.

Sworn at Wagga Wagga, this 17th day of June, 1889, before us,— JOHN his + mark WRIGHT.
T. W. WATT, J.P., Chairman, Local Land Board.
MATTHEW N. CALLAGHAN, J.P., Member Local Land Board.

William James Dennis, farmer and grazier, of Houlaghan's Creek, sworn, saith:—I know the land selected by John Jonathan Ray ever since it was selected, about three years ago last August; I had opportunities of seeing selector on several occasions on the land; he was living in a two-roomed weatherboard house, sufficiently furnished for a bachelor; it was comfortable; I have had meals with him whenever I was there; it showed signs of constant use and occupation; I showed Mr. Inspector Battye over the land; at the time he inspected selector was residing at that time; I did not find selector residing there on every occasion I was there, but the hut had the appearance of being recently used, and bore signs of constant occupation.

By Mr. Mulligan: I first saw the hut, to the best of my belief, in the middle of 1887; it was completed at that time; I was at the hut about a dozen times altogether, not more; I was never there of a night; I have been there early in the morning, about 8 o'clock in summer time, and during the day, but never late at night; I saw selector on the land six or seven times altogether out of a dozen times I have been there; I believe selector earns money by kangaroo shooting; I have seen him taking skins in; I left the locality in November, 1888; I had been living there from January, 1886; I was living about 3 miles away; I never saw anybody but selector's brother living there with him.

By the Board: At the time I went over the selection with Mr. Inspector Battye selector was at his house getting his dinner ready; Mr. Battye had been visiting my selection; I had to pass selector's house on my way to Coolamon, it being the direct way.

Sworn at Wagga Wagga, this 17th day of June, 1889, before us,— WILLIAM JAMES DENNIS.
T. W. WATT, J.P., Chairman, Local Land Board.
MATTHEW N. CALLAGHAN, J.P., Member Local Land Board.

Michael Mooney, farmer, of Walleroobie, sworn, saith:—I know John Jonathan Ray, also the land held by him, now subject of inquiry, for about three years; I have been to Ray's house on several occasions, had my meals there, and stayed of a night with him; the house was of pine sawn boards, built horizontally like weatherboards; it is a comfortable cottage of two rooms; it was furnished; it contained bed, bedding, cooking utensils, chair, table, cupboard, and everything necessary for a single man; it bore signs of constant use and occupation; I have stayed eight or ten nights with him on different occasions right through; I live about 6 miles away; I never saw selector working on the land when I took to going there of a night; scrubbing, fencing, and ringing had been completed; I believe selector gothis water from a spring in Mr. Bennett's land; selector had a tank on his land, in which there was water at the time I was there, but it was further away than the spring on Mr. Bennett's land; the spring goes dry at times; the longest time I have known selector to be away from his selection was for two or three weeks.

By Mr. Mulligan: I was at the selection about fifteen times altogether; I was there first about the middle of 1887; it is about six months ago since I was there last; I have stayed there eight or ten times of a night; I have been out kangarooing with him on these occasions; I was never at the hut or by there without seeing him; it would be my custom to go kangaroo shooting with him; I was at the hut sometimes without staying of a night; I never saw selector working on the land; the improvements were completed when I went there; there had been scrubbing on the land; I only know from what I have been told that selector had not been away from the selection for more than two or three weeks at a time; his brother and Mr. Toland, the uncle of selector, told me; selector did not tell me; when I said the place showed signs of constant use and occupation I meant to say that it looked as if someone was always there; there was no garden about there, but there was debris and an old heap of ashes at the back of the house which appeared to have been taken from inside; I have seen applicant taking ashes from inside and placing them there; I did not see any horse paddock; there is a lane between selector's land and Mr. Bennett's, fenced on both sides; I was never at the hut without seeing him; I generally met him at the hut, but not by appointment; he has on one or two occasions started with me from my hut; the hunting would last two or three days at a time; we used to take the skins to selector's hut.

Sworn at Wagga Wagga, this 17th day of June, 1889, before us,— MICHAEL MOONEY.
T. W. WATT, J.P., Chairman.
MATTHEW N. CALLAGHAN, J.P., Member.

B.

Decision of Local Land Board in the case of J. J. Ray's forfeited selection at Wagga Wagga.

O.C.P. 85-70.
A.C.P. 86-125.
Wagga Wagga.
Minute Book, vol. 4, folio 99.
Depositions, 12 sheets.

WHEREAS on the 17th day of June, 1889, it became a matter for investigation before us under the provisions of section 20, Crown Lands Act of 1884, as to the fulfilment of condition of residence by John Jonathan Ray upon occupation conditional purchase 85,170, of 559½ acres, portion 18, made at Wagga Wagga on 6th August, 1885, and confirmed on 15th September, 1886, additional conditional purchase 86-125, of 228½ acres, portion 20, parish of Birragambil, county of Bourke, made 16th September, 1886, and confirmed 29th November, 1886.

And having taken evidence and inquired into the said matter we are of opinion that nothing further than a pretence of residence has been carried out in this case. Applicant has never made anything out of the land and has now leased it for the remainder of his term. It is quite clear that *bona fide* and continuous residence has not been carried out in this case. We therefore decide that the conditional purchase should be declared forfeited.

Given under our hands at the Court-house at Wagga Wagga, in the Colony of New South Wales, this 17th day of June, 1889,—

T. W. WATT, J.P., Chairman.
MATTHEW N. CALLAGHAN, J.P., Member.

Sydney: Charles Potter, Government Printer.—1891

1891-2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON THE

CONDITIONAL PURCHASE BY JAMES YOUNG, AT GOSFORD,

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE

AND

MINUTES OF EVIDENCE.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
4 *February*, 1892.

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.
1892.

[1*s.* 3*d.*] 645—A

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 67. MONDAY, 21 DECEMBER, 1891.

12. CONDITIONAL PURCHASE BY JAMES YOUNG, AT GOSFORD:—Mr. Stevenson moved, pursuant to Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the conditional purchase of 160 acres taken up by James Young, at Gosford, on the 31st December, 1885.
(2.) That such Committee consist of Mr. Brunker, Mr. Dale, Mr. Copeland, Mr. Gormly, Mr. Colls, Mr. Ewing, Mr. Rose, Mr. Frank Farnell, and the Mover.
Question put and passed.

VOTES No. 80. THURSDAY, 4 FEBRUARY, 1892.

7. CONDITIONAL PURCHASE BY JAMES YOUNG, AT GOSFORD:—Mr. Stevenson, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee, for whose consideration and report this subject was referred on 21st December, 1891.
Ordered to be printed.

CONTENTS.

1891-2.

CONDITIONAL PURCHASE BY JAMES YOUNG, AT GOSFORD.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 21st December, 1891, "*with power to send for persons and papers, to inquire into and report upon the Conditional Purchase of* 160 *acres taken up by James Young, at Gosford, on the* 31*st December*, 1885,"—have agreed to the following report :—

Your Committee having examined the witnesses named in the List* (whose evidence will be found appended hereto), find :— * S List, p. 4

1. That James Young applied at the Gosford Land Court, on the 31st December, 1885, for an area of 160 acres, parish of Narara, as a non-residential selection.

2. That some three weeks after, and prior to confirmation, he (Young) wished to change his application to a conditional purchase, as the original area applied for could not be granted. The applicant had the power to refuse the lesser area, but he decided upon accepting it, believing that the Minister had the power to afterwards make the alteration to a conditional purchase.

2. Your Committee are of opinion that the Land Act does not give any such power, and that therefore the Minister could not comply with Young's request; and your Committee, after hearing the evidence, regret that it does not disclose any legal grounds upon which they could make a recommendation in favour of the selector, who no doubt has resided continuously upon the land, and who, through ignorance of the Land Act and of his own action, has been a sufferer.

R. STEVENSON,
Chairman.

No. 2 *Committee Room*,
Sydney, 2*nd February*, 1892.

PROCEEDINGS OF THE COMMITTEE.

WEDNESDAY, 13 *JANUARY*, 1892.

MEMBERS PRESENT:—

Mr. Stevenson, | Mr. Gormly,
Mr. Rose.

Mr. Stevenson called to the Chair.
Entry from Votes and Proceedings appointing the Committee *read* by the Clerk.
Committee deliberated.
Ordered,—That Mr. J. Young, Mr. H. Blackett, Mr. Harriott, and Mr. W. H. Capper be summoned to give evidence at next meeting.
[Adjourned till Tuesday next, at *Two* o'clock.]

TUESDAY, 19 *JANUARY*, 1892.

MEMBERS PRESENT:—

Mr. Stevenson in the Chair.

Mr. Gormly, | Mr. Frank Farnell,
Mr. Colls, | Mr. Ewing.

James Young called in, made a solemn affirmation, and examined.
Witness withdrew.
Horace Blackett called in, sworn, and examined.
Witness withdrew.
Thomas Warre Harriott called in, sworn, and examined.
Witness withdrew.
Alfred Salwey (*Head of the Conditional Sales Branch, Lands Department*) sworn and examined.
Witness withdrew.
Committee deliberated as to their report.
[Re-assembling of the Committee to be arranged by the Chairman.]

TUESDAY, 2 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Stevenson in the Chair.

Mr. Colls, | Mr. Ewing,
Mr. Gormly, | Mr. Rose.

Chairman submitted draft report.
Same read, amended, and agreed to.
Chairman to report to the House.

LIST OF WITNESSES.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON

CONDITIONAL PURCHASE BY JAMES YOUNG, AT GOSFORD.

TUESDAY, 19 *JANUARY*, 1892.

Present:—

MR. COLLS, MR. GORMLY, MR. STEVENSON, MR. EWING, MR. FARNELL.

RICHARD STEVENSON, ESQ., IN THE CHAIR.

Mr. James Young called in, sworn, and examined:—

1. *Chairman.*] Where do you reside? At Larbroy, Narara.
2. Can you state your case? I could. I have a statement in writing which I could submit.
3. On the 31st December, 1885, did you apply at the Land Office, Gosford, for a conditional purchase? Yes.
4. Do you recollect the area? 160 acres.
5. You applied for it as what? As a non-residential conditional purchase.
6. Was the application granted? Yes, they accepted the application, but they did not grant the 160 acres.
7. After making the application did you wish to change it? Yes, about three weeks afterwards I wished to change it to an application for a residential conditional purchase.
8. What steps did you take? I went to the land agent, Mr. Kingsmill, about three weeks afterwards, and he said that he had not power to change the application. I said "Do you think it can be done?" and he replied "Well, I think so—anyhow I hope so, but I have not the power. Your best plan is to see the Minister for Lands."
9. Did you take any action on that statement? I went to see the Minister for Lands. I tried two or three times but failed to see him.
10. What did you ultimately do? One of the messengers in the Lands Office seeing that I was rather persistent in attempting to see the Minister took me over to the old Lands Office, and pointed out a man there to me, and I explained my case to him. He said "You need not trouble about it, they will change it willingly." I said I wanted to change it from a non-residential to a residential conditional purchase, and he said "the object is to settle people on the land and they will gladly change it."
11. You do not know the name of that gentleman? No, I did not think of the name. I was twice at the Lands Office, and the first time I was told that nothing could be done until the Land Court met.
12. *Mr. Gormly.*] Do you mean the Land Court or the Land Board? I do not know the difference. I thought the Land Board and the Land Court were both the same.
13. Do you recollect when that was? About the time that I saw him would be April, 1886.
14. How long was that after your first attempt to reach the Minister? It was not very long.
15. Was it a month? It was more than a month. I tried to reach the Minister a week or two after I saw Mr. Kingsmill.
16. When you had seen that gentleman in the old Survey office, what did you do? I was expecting to hear about the application being changed.

Mr. J. Young. 19 Jan., 1892.

Mr. J. Young. 19 Jan., 1892.

17. Did you communicate with the chairman at Gosford? Yes. A friend of mine said, "Do not trust those fellows, but write to the chairman; they will say anything to get rid of you." I then wrote to the chairman.
18. To whom did you write? To Mr. Harriott.
19. What did you write? I told him I wished to change my application from an application for a non-residential to one for a residential conditional purchase.
20. You did that on the understanding that nothing could be done until the Land Court met? I did that because I was told that nothing could be done until the Land Board or the Land Court met.
21. Was that in October, 1886? I wrote to him before that.
22. Did you get any reply? I did not.
23. *Chairman.*] Did you attend the Court at Gosford? I did.
24. What did you do then? On the 28th October, 1886, I attended the Court.
25. What took place? The chairman, first of all, said it was rather a difficult case, as Mr. Hunter and I had applied for the same ground, and Mr. Hunter had applied for a conditional lease, and he said, "The decision of the Board is that you can only get 120 acres instead of 160.
26. What did he say in answer to the letter which you wrote, asking for your application to be changed? The first letter he never replied to. He said he only received it the morning of the confirmation of the application, and that it had been lying in the Lands Office or elsewhere for the last four or five months.
27. Had your application been confirmed at that time? No; he received it four or five months before that.
28. You say it was before it was confirmed;—did he tell you that you could only obtain 121 acres instead of 160? He told me that on the 20th October. He said, "Will you accept it?" and I said that I would not take it unless I could get it as a residential selection. He said, "you must answer now; but I will see the Minister for Lands about it." That induced me to take the land. I told him at another meeting that I went away with that impression as distinctly as I was then under the impression that he said the contrary.
29. If he had told you that you could take a smaller area and get a refund, would you have accepted it? No, I believed that the application would be changed.
30. You believe that the Minister had power to change it? Yes.
31. After that the Land Court would be held;—did you expect to receive a notice of your application being granted? I expected to hear something about what transpired between him and the Minister for Lands. I missed one Land Court, then I thought I would not miss the next, and I wrote a letter first, and I stated in the letter that I would attend the Court.
32. What took place then? I attended the Court, and I gave the chairman the letter, and after some cases had been disposed of they went to dinner. I attended the Court in the afternoon, and when the business was over I still remained. There were only myself, the Board, the clerk, the inspector, and another gentleman present.
33. What did he say? He said, "James Young here?" and I said "Yes." Then he said, "Mr. Young, when you write a letter be careful to put in nothing but the truth." I said, "What is there in the letter that is not true?" and he replied, "You said I would see the Minister for Lands about your selection—it is absurd. I said no such thing. I may have said that I would submit it to the Minister for Lands." I was rather excited at the time. I felt that I was not being fairly dealt with, and I did not know what to do.
34. When he denied it, what did you say? When he said that he would not see the Minister I said that I had gone away with the impression that he said he would see the Minister as clear as is my impression that he now said the contrary.
35. Were you very excited at the time? I was a little excited.
36. Did you consider that the chairman treated you discourteously? I think he did. I wrote a complaint about it.
37. *Mr. Farnell.*] Do you think that you gave him sufficient reason to be discourteous? I do not think so—I did not intend to do so.
38. *Mr. Gormly.*] Do you say that, before the conversation with the chairman, the chairman stated that the business before the Local Land Board had terminated? Yes.
39. And the Board was not sitting then? The chairman said that that was all the business, and dismissed the meeting.
40. *Chairman.*] Did the members of the Land Board remain? Yes; and the clerk and the Inspector of Selections, Mr. Brown.
41. *Mr. Gormly.*] Was your case before the Board for adjudication at that time? No; I only gave them the letter that day.
42. *Mr. Colls.*] Did you get any notice that your case would be heard that day? No.
43. What brought you there? I went to hear the result of his interview with the Minister for Lands concerning the case. He had said that he would see the Minister about it, and I had never heard what had transpired between them.
44. *Chairman.*] After accepting the 121 acres did you go on the land? I went on the land before that. I cleared the land for survey.
45. And have you lived on it ever since? Yes.
46. And you have been compelled to pay for it as a non-residential conditional purchase? Yes; I wrote a letter to say that I would pay the money to secure it. I thought I might lose the land if I did not.
47. Your object was to change it from one clause to another? Yes; it would only cost half the money if taken up under the residential clause.
48. *Mr. Ewing.*] You would save £6 a year? I should save £120 on the whole lot.
49. *Chairman.*] Being compelled to retain it as a non-residential purchase you have been very much pressed I believe? Yes.
50. *Mr. Colls.*] What improvements have you made? I have fenced in the land, built a house, and planted fruit-trees.
51. How many acres have you cleared? About 5 acres, and I have 6 or 8 acres partially cleared.
52. Have you made it your home? Yes.
53. *Chairman.*] Was there any one present when Mr. Harriott the chairman promised that he would submit your communication to the Minister? There were several. Mr. Blackett was present. 54.

Mr. J. Young. 9 Jan., 1892.

54. *Mr. Ewing.*] What do you think the land is worth? I do not place much value on the land, but I consider that the place is worth over £1,000. I value the house at £450.
55. What sort of a house is it? A six-roomed house of weather-board and lath and plaster.
56. Is it good land? There are good patches for fruit-trees, but the land has to be cleared and scrubbed—it is swampy scrubby land.
57. *Mr. Gormly.*] Are you aware that it is necessary to make a written application for a conditional purchase? No; I am not aware of that. I forget now how I applied for the land.
58. *Chairman.*] Did you not write out an application when you applied? I forget now. I went to the Land Office.
59. Did you sign a paper? I think so.
60. *Mr. Gormly.*] Are you aware that a conditional purchase can only be obtained by the applicant making a written application? I may have been aware of that, but I forget now.
61. You must have understood the difference between a residential and a non-residential conditional purchase? I intended it for a non-residential conditional purchase at first; at that time I intended to go home. I looked at the situation of the land; it was well watered, and I liked the place. I thought I would go home and then return and live there altogether. I intended to go home to see my sister, but shortly after that I got a letter to say that my sister was coming out. That was why I wished to change the application. If I had known as much as I do now, I should have taken up the land as a residential selection, gone home and got back again before the survey. I was induced to believe that my application could be readily changed.
62. Are you aware that it could not be changed—that the law will not admit of it? I was not. None of the officers could tell me that.
63. Are you aware of that now? I am not even aware of it now.
64. *Chairman.*] You have been told of it? I have been told of it, but Mr. Harriott never told me that it could not be changed, or I would not have accepted it.
65. *Mr. Farnell.*] Amongst the papers I see an application form signed "James Young," is that your signature? Yes; I recollect this now. The form was filled in in Mr. Hunter's house; he had several of these forms, and he showed me how to fill it up.
66. You appear to have filled in a certain portion of the form and some one else the rest;—who did it? I do not know.
67. Did you agree to the conditions laid down in taking up the selection? I took it up on those conditions.

Mr. Horace Blackett called in, sworn, and examined:—

Mr. H. Blackett. 19 Jan., 1892.

68. *Chairman.*] Were you present at any time when a conversation took place about changing Mr. Young's selection from a non-residential to a residential selection? Yes; I was there when his application was confirmed.
69. *Mr. Gormly.*] At the meeting of the Local Land Board at Gosford? Yes.
70. *Chairman.*] Can you tell us what took place? Mr. Young was called up, and the chairman told him he had received a letter from him, but only that morning, although it had been in the Lands Office for some time, and that he would see the Minister about it. Mr. Young said that he did not want the land unless he could take it as a residential selection, and he would not take it at all as a non-residential selection. But he seemed confused, and I think he took the paper without saying whether he would accept it or not.
71. Do you remember whether he got the area that he applied for? I am not sure. I think he did not.
72. Did you hear the chairman point out that the area was 121 acres instead of 160 acres? I heard the chairman point out that he could not receive the land as he asked for it.
73. He did not point out that Mr. Young need not take it unless he liked? No.
74. Did he insist upon having an answer then? Yes; it took some time to decide it. Young said he would not take the land unless he could change it to a residential conditional purchase, and the chairman insisted upon having an answer at once.
75. *Mr. Gormly.*] Did Mr. Young state that he had any objection to taking the land because there was a less area than he had applied for? I do not remember that he did.
76. He did not assign that as a reason for not taking the land? I do not think so.
77. *Chairman.*] At the confirmation he distinctly stated that he would not have the land if he was compelled to take it as a non-residential selection? Distinctly.
78. *Mr. Colls.*] What is the name of the chairman? Mr. Harriott.
79. Do you know him? Yes, I have been before the Board several times, and he was always the chairman.
80. *Chairman.*] Is he very courteous to selectors as a rule? I never heard him courteous to any one; he confuses most of us.
81. Did you think Mr. Young became confused by the chairman's remarks to him? I think he was very much confused. I think he took the papers without knowing what he was doing. The chairman told him that he was wasting the time of the Court, and that he must decide at once.
82. *Mr. Ewing.*] You say that the chairman definitely told him that he must agree to take the land as either one thing or the other? No; but that he must agree to either take it or refuse it.
83. And he took it? Yes.
84. But you believe he was so confused that he was not responsible for his actions? Yes.
85. Do you think he was misled by the chairman as to his real position in regard to it? I think he was. I saw him on his land a short time afterwards, and he then told me that he must live on his land, because it was going to be changed into a residential purchase.
86. *Chairman.*] Do you know whether he has resided on the land continuously? Yes; he has.
87. *Mr. Colls.*] And made improvements? Yes.
88. Good improvements? Yes; substantial ones.
89. He has never let the land? No; he and his wife have always been there.

Mr. Thomas Werre Harriott called in, sworn, and examined:—

Mr. T. W. Harriott, 19 Jan., 1892.

90. *Chairman.*] You were chairman of the Land Board at Gosford in 1886, were you not? Yes.
91. Do you recollect James Young applying for a selection at that time? No, I cannot say that I recollect any particular selection. There was an application by James Young, no doubt.
92. Do you recollect having a conversation at any time with Young in reference to his selection? I do not. I know this much, that I did not sit upon that case when it first came before the Board; I was laid up from inflammation of the lungs. Mr. Houston was the acting chairman.
93. You were chairman when the application was confirmed? Yes.
94. Can you recall the conversation that took place on that occasion in reference to it? I cannot trust my memory as to that at all.
95. Can you refresh it by the papers? No; there is nothing in the papers bearing on it.
96. Do you recollect whether Mr. Young made an application for a certain area, and did not get that area? I really cannot say from memory, but no doubt the papers will show.
97. Did you ever receive a letter from Mr. Young as a member of the Board? Possibly, but I cannot possibly recollect seeing the number of cases that came before me. If I received a letter no doubt it was dealt with, and it will be amongst the papers.
98. Young says that he wrote to the chairman of the Board asking him to change his application. He was told to attend the Land Court on the 10th October, 1886, which he did, and you said you had received a letter from him asking him to make it a residential instead of a non-residential;—have you any recollection of that? If he states that it was so it would most likely be true.
99. This matter was several times before you and you must recollect something about it? Indeed I cannot; possibly I might recollect something when I look at the papers; I recollect some of the circumstances which you have mentioned, but I could not say that they related to Young's case.
100. Looking at the papers, could you not say it was Young's case? I see the letter here, and I recollect the circumstances in connection with some man wishing to have an application under the 26th section changed to one under the 47th section.
101. Was that man James Young? According to this letter it was. I recollect his statement that he wished to go to Scotland, but then changed his mind.
102. When an applicant cannot get the area which he has applied for, is it not usual to point out that he is not compelled to take the smaller area? Yes, I generally do so, but in this case the first application did not come through me.
103. But you were present and were chairman when the application was confirmed, were you not? Yes.
104. He applied for 160 acres, but got only 121 acres? Yes.
105. Did you point out as chairman as he had written about changing his application, that it was not necessary for him to take a smaller area unless he wished? I should not do that. The Board had settled that before hand. That was settled when the applicant was there, and that was the time for him to object to the application.
106. *Mr. Farnell.*] He had accepted the lesser area before he intimated that he wished to change the section? It was first brought before the Board on the 30th April, 1886. It was then accepted, and sent out for survey of a certain kind of area.
107. It was after that that he wanted to change it to a residential selection? Yes.
108. *Chairman.*] When he found that he could not get the larger area, did he state that he would not take the smaller area unless it was granted under the residential clause? Not that I know of.
109. Will you swear that he did not? I certainly cannot recollect his ever saying anything of the sort. It is possible that he might have said it. I should have thought that it was his business to have appealed against the decision if that were the position of the matter.
110. Did you insist, as chairman, that he should decide whether he would take it or not? I could not have done that. He confirmed it apparently. There does not seem to have been any evidence taken. It was confirmed, and the land having been measured in the form in which it should be decided it should be measured, and that I presume was shown him as a tracing. In those days I used to give tracings.
111. Did you promise him at any time that you would represent his case to the Minister with reference to changing the selection from a non-residential to a residential selection? For all that I know I may have referred it to the Minister on the possibility of his doing what I did not consider it in the power of the Board to do.
112. The witness swore that the chairman never pointed out that he need not take the smaller area, but said "I have not the power to change the application; you must decide now and I will see the Minister." Do you recollect that conversation? I do not indeed.
113. You ought to answer to the Committee? I answered to the best of my ability, but I cannot possibly recollect it.
114. Then you cannot deny it of course? I cannot recollect saying it.
115. If that statement is corroborated by another witness do you think it is not probable that you are mistaken as to your recollection? No; I say I cannot recollect saying it. It is possible that I may have said something, but not that. Very often there are misapprehensions as to what people say.
116. Still if the selector has sworn this, and his statement has been corroborated by another witness, would you still believe that the statement is not correct? I think it quite possible that I said he would have to decide then.
117. Do you give the opportunity of refusing a smaller area than that applied for? I do not see what we had to do but to confirm it.
118. He states that you said to him "You must decide now, and I will then see the Minister"? I could not have said that I would see the Minister. I may have referred it to the Minister because I felt sure the Board had not the power to do it.
119. Did you ever refer a case to the Minister? Possibly.
120. Did you ever refer this case? Not that I know of.
121. *Mr. Farnell.*] If you made a promise would it not be shown on the papers? I should think so.
122. *Chairman.*] If you made a promise of that kind would you not have made some representation of the case? It is possible. There may have been some other reference that might have been decided. It is absolutely decided, not by the Board, but by the Appeal Court that such an application could not be changed.

Mr.

Mr. Alfred Salwey called in, sworn, and examined:—

123. *Chairman.*] What are you? An officer of the Lands Department.

124. Can you give the Committee any information as to this case? An application was made by Mr. Young for a non-residential conditional purchase. This came before the Local Land Board on the 30th April, 1886, the applicant being present. It was then pointed out that part of the land was in the population area, and the Board ordered a survey of that part not in the population area, the applicant being present and not objecting to a reduction in the area. That is when he should have withdrawn his application if he was not satisfied with the area. The land was then surveyed and confirmed by the Local Land Board on the 29th October, 1886, the area being 121¼ acres. The selector was present and there was no evidence that he objected to the confirmation at all. On the 6th July, 1886, Mr. Young wrote to the members of the Board desiring to know whether he could have his selection changed from a non-residential to a residential conditional purchase., and gave as a reason for the request that at the time when he made the selection he was about to visit Scotland, but he had since changed his mind, and wished to reside on the land. He also wrote to the same effect to the Minister, Mr. Copeland, and in that letter he stated that through unfortunate circumstances he would have great difficulty in fulfilling the conditions of the non-residence clause. He was however informed on the 2nd November, 1886, that no relief could be afforded to him as there was no provision in the Act for transferring an application from one section to another. Then later on Mr. Young by letter on 5th October, 1888, revived the question of changing the section which he has been repeatedly informed could not be allowed. He alleges that the trouble has been brought about through some wrong information having been supplied to him by the officers of the Department. In his letter of the 6th July, 1886, the reason he gave for making his application under the non-residential clause was that he was thinking of visiting Scotland, but having afterwards made up his mind not to leave the Colony he desired to have it changed to a residential conditional purchase. In his letter, however, of the 1st November, 1886, he gave a totally different reason for having the selection under the 47th clause, namely, that he owned an orchard at Ryde, and whilst it was not disposed of he might be considered to have two homes, but having sold the orchard since he was free to settle on the selection, and make it his home. These are all the facts of the case.

Mr. A. Salwey. 19 Jan., 1892.

125. He has made repeated applications not only to Mr. Copeland, but also to Mr. Brunker? Yes.

126. From 1886 up to the present time? Yes.

127. And in every instance he has been told that the Board has no power? Yes; that it cannot be done. The Land Board has held that it is impossible to make such a change.

128. *Mr. Gormly.*] Whilst his former application was in existence another application could not be made for the same land? No.

129. The land must become Crown land again before he could make another application? Yes. He admitted it was not an error that he had taken up the land under the 47th section. If it had been an error he could have gone into Court and said that he had made a mistake. Then the Minister could have referred the case to the Land Board, to get a re-hearing of it. Mr. Young having admitted that he intentionally applied for the land under the 47th section, the Land Court could not say that this was a wrong application, so there is no relief.

Sydney: Charles Potter, Government Printer.—1892.

[9*d.*]

645—B

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON

CONDITIONAL PURCHASE BY MRS. ANN ROUSE, IN THE PARISH OF KAHIBAH;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND

APPENDICES.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
26 *February*, 1892, *a.m.*

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.
1892.

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1891–2.

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 77. MONDAY, 1 FEBRUARY, 1892.

14. CONDITIONAL PURCHASE BY MRS. ANN ROUSE, IN THE PARISH OF KAHIBAH:—*Mr. Melville*, for Mr. Grahame, moved, pursuant to Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon all the circumstances attending the conditional purchase of Mrs. Ann Rouse, of 80 acres, situate in the parish of Kahibah, and the forfeiture of the same.
(2.) That such Committee consist of Mr. Brunker, Mr. Ewing, Mr. Hassall, Mr. O'Sullivan, Mr. Scott, Mr. Lees, Mr. Hart, Mr. Davis, and the Mover.
(3.) That the Report from the Select Committee of Session 1887–8 be referred to such Committee.
Question put and passed.

VOTES No. 92. THURSDAY, 26 FEBRUARY, 1892.

9. CONDITIONAL PURCHASE BY MRS. ANN ROUSE, IN THE PARISH OF KAHIBAH:—Mr. Grahame, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee for whose consideration and report this subject was referred on 1st February, 1892; together with Appendices.
Ordered to be printed.

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1891-2.

CONDITIONAL PURCHASE BY MRS. ANN ROUSE, IN THE PARISH OF KAHIBAH.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 1st February, 1892, "*with power to send for persons and papers to inquire into and report upon all the circumstances attending the Conditional Purchase of Mrs. Ann Rouse, of* 80 *acres, situate in the parish of Kahibah, and the forfeiture of the same,*"—and to whom was referred on 1st February, 1892, the Report of Select Committee of Session 1887-8 to such Committee, have agreed to the following Report:—

Your Committee having examined the witnesses named in the List* (whose evidence will be found appended hereto) find:— See List p. 5.

(1.) That, on 20th July, 1871, Ann Rouse conditionally purchased 80 acres of land, portion No. 221, in the parish of Kahibah, county of Northumberland, and which had been surveyed for alienation, in pursuance of the provisions of the Crown Lands Alienation Act of 1861, by Surveyor Maitland.

(2.) In 1874 the Government sent Mr. Surveyor Stuart to again measure the land, and he reported the survey on the 26th January, 1875, which was approved on 20th September, 1875, four years after the land was selected.

(3.) On the 29th January, 1875, the conditional purchase was declared lapsed owing to Mrs. Rouse's inability to make a declaration of residence.

(4.) On the 4th February, 1875, the said Ann Rouse reselected the land by virtue of her freehold, on which she then resided, and on the 6th February, 1879, her second selection was declared void as being on a water reserve.

(5.) Formal protests were made by the said Ann Rouse to the Lands Department against such voidance, and Mr. Secretary Copeland, after considering the case, wrote a minute on the 9th December, 1886, to the effect that he considered the case was one which should be validated under section 138 of the Crown Lands Act of 1884. This minute was written some nine years after the first selection, and over four after the second.

(6.) On 31st July, 1886, Messrs. Houghton and Palmer made application for a permit to mine *inter alia* under the portion No. 221 selected by Mrs. Ann Rouse under section 28 of the Mining Act of 1874.

(7.) That on 14th December, 1886, a permit, in pursuance of the application in the last paragraph mentioned, was issued to Messrs. Houghton and Palmer, but the permit does not in fact include the portion No. 221 selected by Mrs. Ann Rouse.

(8.) On 17th January, 1887, Messrs. Houghton and Palmer applied for a lease of portion 221, under 48 Victoria No. 10, section 3, upon the basis of the permit granted to them on 14th December, 1886. Section 3 of 48 Victoria No. 10 says:—"Any permit or authority granted under the twenty-seventh or twenty-eighth section of the principal Act, and now in force may, upon application of the holder in the prescribed manner, be converted into a lease by the Governor with the same effect, and subject to the same conditions and provisions to those contained in leases made by virtue of the last preceding section."

(9.) On the 28th March, 1887, a lease was wrongfully obtained by Messrs. Houghton and Palmer, for portion No. 221, parish of Kahibah, it having been selected by Mrs. Ann Rouse.

(10.) No further steps appear to have been taken by the Lands Department until 30th September, 1887, when it was discovered that a lease of portion 221 had been issued to Messrs. Houghton and Palmer, and the Department then wrote to Mr. Henry Rouse, as representing Mrs. Ann Rouse, advising him that conflicting interests had arisen, which prevented Mr. Secretary Copeland's minute from being carried into effect.

Your Committee having carefully considered all the circumstances of the case respectfully submit that whereas the permit, in virtue of which the lease of the portion 221 was granted, in terms of 48 Victoria No. 10, section 3, and under which it is issued, does not include the said portion and inasmuch as it has been conclusively proved to your Committee that Messrs. Houghton and Palmer wrongfully obtained the said lease from the Mines Department, and that the evidence proves the present lessees were cognisant of the fact, the said lease, therefore, in whatsoever form it may now be, is bad in law and in fact, and consequently there should be no existing conflicting interests to the validating of the conditional purchase, and in view of the improvements effected on the land—the extraordinary delay of the Lands Department in declaring the voidance of the selections—and that the said Ann Rouse and her representatives have been in undisturbed possession since 1871, and have paid all the deposits and instalments required of them, your Committee strongly recommend the case to the favourable consideration of the Government.

WILLIAM GRAHAME,
Chairman.

No. 2 *Committee Room,*
Sydney, 25 *February,* 1892.

PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 4 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

None.

In the absence of a quorum the meeting called for this day lapsed.

THURSDAY, 11 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Grahame, | Mr. O'Sullivan,
Mr. Hart, | Mr. Scott,
Mr. Ewing.

Mr. Grahame called to the Chair.

Entry from Votes and Proceedings appointing the Committee, and referring the Report of Session 1887–8, to such Committee, *read* by the Clerk.

[Adjourned till Tuesday next, at *Two* o'clock.]

TUESDAY, 16 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

None.

In the absence of a quorum the meeting called for this day lapsed.

WEDNESDAY, 17 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Grahame in the Chair.

Mr. Ewing, | Mr. Lees,
Mr. Hart, | Mr. Scott.

William Gillies called in, sworn, and examined.
Witness withdrew.
Henry Rouse called in, sworn, and examined.
Witness withdrew.
Thomas Gervase Alcock called in, sworn, and examined.
Witness withdrew.
Alexander Belford called in, sworn, and examined.
Witness withdrew.
Walter Thompson called in, sworn, and examined.
Witness *handed in* plan of Newcastle Land District, and papers, &c., in reference to the case.

[Adjourned till Tuesday, next at *Half-past Two* o'clock.]

TUESDAY, 23 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Grahame in the Chair.

Mr. Hart, | Mr. Scott,

Committee deliberated as to their report.

[Reassembling of the Committee to be arranged by the Chairman.]

THURSDAY, 25 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Grahame in the Chair.

Mr. Ewing, | Mr. Hart,
Mr. Davis, | Mr. Scott.

Chairman submitted draft report.
Same read, amended, and *agreed to*.
Chairman to report to the House.

LIST OF WITNESSES.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON

MRS. ANN ROUSE'S CONDITIONAL PURCHASE, PARISH OF KAHIBAH.

WEDNESDAY, 17 *FEBRUARY*, 1892.

Present:—

MR. EWING, MR. HART, | MR. LEES, MR. SCOTT.

WM. GRAHAME, ESQ., IN THE CHAIR.

William Gillies called in, sworn and examined :—

Mr. W. Gillies. 17 Feb., 1892.

1. *Chairman.*] Were you resident in Newcastle in 1870 and 1871? Yes.
2. Do you recollect measuring a piece of land marked portion 221 with Mr. Surveyor Maitland? Yes; Mr. Maitland was a Government surveyor.
3. Do you recollect seeing the papers in connection with the purchase? Yes.
4. Did you hear conversations between Mr. Maitland and Mr. White, his assistant? Yes.
5. Were you employed by Mr. Maitland to take out his implements with a horse and cart to carry on the survey? Yes.
6. Did Mr. Maitland say that this land was not within a water reserve? Yes.
7. Did he say that it was open for selection? Yes.
8. Did you confer with Mrs. Ann Rouse? Yes. Previous to this I advised her to take up this piece of land; and I pegged it out for her under her instructions, and I acted as agent for her.
9. Did you attend at the land agent's office, and put in an application as agent for Mrs. Rouse? Yes.
10. Who filled in the application? Mr. George Scott, who was assistant to Mr. Baker, the land agent.
11. Did you explain to him under what section you wanted the land taken up? Yes.
12. Did you explain that Mrs. Rouse was living on the adjoining piece of land, and that she wanted to take up this land as an additional conditional purchase? Yes.
13. Did he understand that? Yes; it was filled in in that way.
14. Did you ever give evidence before on this subject? No. Two years ago Mr. Rouse advertised for me, when I was at Sofala. I did not know anything about it until then.
15. Did you know any mistakes that were made through the land agent at Newcastle in connection with applications for land? Yes. There was a mistake with reference to a block of land which I took up nearly alongside this one. I lost that land entirely through a mistake made by the land agent.

Henry Rouse called in, sworn, and examined:—

Mr. H. Rouse. 17 Feb., 1892.

16. *Chairman.*] Do you recollect this portion 221, Parish of Kahibah, taken up for you by Mr. Gillies? Yes.
17. When did he apply for it? July 20, 1871.
18. At that time where there any discussions between Gillies and Mrs. Rouse as to the section of the Act under which it should be taken up? I recollect Gillies saying, "Mrs. Rouse, I would advise you to take up 80 acres of land alongside your freehold, and take it up as an additional purchase, and I will make out the application for you." She paid him for his trouble, and he put in an application at the court-house.
19. Did any communication take place between Mrs. Rouse and the Lands Department, between 1871 and 1874? A surveyor was sent from Sydney specially, Mr. Clarendon Stewart, and he surveyed the land in the beginning of 1874 or 1875.
20. Do you recollect that on the 29th July, 1874, you wrote this letter:—

Sydney, 29 July, 1874.

Sir,

On the 20th day of July, 1871, my mother, Mrs. Ann Rouse, of Red Head, near Newcastle, selected a piece of land, adjoining her own freehold property, of 80 acres, under (as she thought) the 22nd section of the Crown Lands Alienation Act, and has made improvements thereon to the value of not less than £100. She now finds that the said land was applied for under another section of the Act.

She now therefore and hereby requests permission to amend her application for the said land, so as to fulfil the requirements under the aforesaid 22nd section of the said Act.

I have, &c.,
H. ROUSE,
Agent for the said Ann Rouse.

The Minister for Lands decided this morning that the purchase should be declared lapsed, as Mrs. Rouse cannot make the declaration required by the Act in consequence of her not having resided on the land.—30/7/74. A. Rouse, 5 August, 1874.

and did you receive the following reply from the Lands Department, on 5th August, 1874?:—

No. 3.

The Under Secretary for Lands to Mrs. A. Rouse.

Department of Lands, Sydney, 5 August, 1874.

Madam,

With reference to your letter of the 29th ultimo, respecting the conditional purchase noted in the margin, and requesting that the section thereof may be altered from the 13th to the 22nd, I am directed to inform you that the Minister for Lands has decided that the purchase in question must be declared lapsed, as Mrs. Rouse cannot make the declaration required by the Crown Lands Alienation Act, in consequence of her not having resided on the land.

I have, &c.,
W. W. STEPHEN.

Yes. I saw the Secretary for Lands personally on the matter.
21. Do you recollect writing on the 24th November, 1874, asking that the land should be declared forfeited as soon as convenient? Yes, and it was forfeited in February, 1875.
22. Why did you ask to have it declared forfeited? Mr. Farnell, the Minister, advised me to do so in order to secure the property again.
23. Did you understand, so far back as 1874, that there was coal under your mother's land? I knew it, because we had the seam on the beach and it took the prize at the Exhibtion.
24. Did you know that there was coal under portion 221? The place where we found the seam of coal on the sea-beach was only a quarter of a mile away from it.
25. Was that one of the reasons why you were so anxious to get this piece of land? Yes.
26. Was the balance of the purchase money paid for this piece of land ever given back to you? We never received a shilling from the Government as compensation.
27. Did you make a second application in 1875? Yes; I think it was on the 6th February, 1875. I saw it declared forfeited in the Lands Office at Newcastle, and I went in immediately and secured it under the clause which Mr. Farnell had pointed out to me, and I paid the £20 deposit.
28. Did you afterwards see Mr. Copeland? Yes, on the 9th December, 1876. I saw Mr. Freeman first, and he went with me to Mr. Copeland, and the whole of the facts of the case were laid before the Minister.
29. What did Mr. Copeland say? That he did not see any reason why we should not have the land under a certain section of the Act.
30. Do you know a man named Palmer? Yes.
31. Do you recollect his going to Newcastle? Yes, on several occasions. He was living at Newcastle.
32. What was he doing when you went there first? He leased Mr. Merewether's paddocks. He took up a coal-mine within about 2 miles from my land.
33. Do you recollect his going about prospecting and taking up land? Yes, because my son put down pegs for him. He brought him into my paddock. Palmer paid my son to put him on the hill.
34. Did Palmer speak to you about this application of yours? Yes.
35. Did he ever say anything to you about the coal under it? Yes; he applied for the coal under it. I met him in Phillip-street, Sydney, in October or November, 1886. I had just come out of the Mines Department. He said, "I see you have applied for your 80 acres of land." I said, "How do you know that?" but he could not tell me. I said, "I have, because if I do not look after it somebody else is looking after it; but I think it is properly secured. I have a promise that I shall have it." He said, "If you should get it, I wish you would give us the first chance of it, because we represent a very rich company." I said, "As far as I am concerned I shall be only too happy to do so, with the consent of my trustees, and I will not only sell you that, but also the homestead on which I am residing." He said, "That will do us first rate; that is what we want."
36. *Mr. Scott.*] When was this? In October, 1886. Palmer is part owner of the *Newcastle Herald.* I said, "Have you any money in your pockets, Sam?" He said, "Yes," and I said, "Give me a pound, for I have no money," and he gave me a pound. After that he came out and got my son to put the pegs in for him on the south boundary of the reserve at Redhead.
37. *Chairman.*] Did he ever measure this portion of yours? He sent a surveyor out to measure it in November, 1886. The surveyor came there, he was Harry Grey. He told me he was sent expressly by Palmer. He said he could not find the pegs.
38. How long were you in possession of the land? I have kept possession since 1871, up to the time it was fenced, about eighteen months ago.
39. Do you recollect Palmer ever serving you with a notice that he was going to apply for a permit for this land? He never gave me notice.

Mr. H. Rouse. 17 Feb., 1892.

40. Did he ever tell you? Only in October, 1886, he told me, "If you get it we can buy it from you."
41. Did he ever serve you with any notice, as required by the Mines Act? No.
42. Did he ever serve any of your people with a notice? No, he could only serve me or the trustees.
43. Was the land fenced in? Part of it. I commenced fencing in 1871 to make the improvements required by law.
44. Were Mr. Palmer's horses ever put into that paddock? I could not say that, but he had ridden by it hundreds of times—he knew it as well as I did.
45. Did you always believe that the land which was taken by Mrs. Rouse, and applied for by yourself, was within the water reserve? I never knew a word about the water reserve until 1879, when I had been in possession eight years.
46. How long were you living with your mother on the 40-acre block? She went to reside there at the end of 1873 or 1874.
47. Have you been living in Newcastle pretty well all your life? Yes.
48. Had it ever been hinted to you that this piece of land was within the reserve? I never heard a word about it until 1879.
49. Was it the general impression in Newcastle that it was not within the reserve? Yes.
50. Did any one ever tell you that it was within the reserve? No, never.
51. When people knew that this trouble had occurred in connection with the land, did they tell you that it was within the reserve? Never. No one knew that it was within the reserve. If they did, we would not have put improvements upon it.
52. Do you recollect how much money had been expended on the land, in improvements, up to 1886? 50 acres were fenced in with a substantial two-rail fence. Taking it altogether I had spent about £250 upon it up to 1879. Since then I have only spent money in repairing the fences.
53. Was there any clearing? No, there was only one clearing.
54. Is there a letter of Mr. Brown in 1879 mentioning that over £200 had been spent on it? Yes.
55. *Mr. Scott.*] When did you make the second application? On the 4th February, 1875.
56. What deposit money was paid? £20 on each occasion.
57. *Mr. Lees.*] It appears that Mr. Copeland made a minute nine years after the first selection and over four years after the second selection. How was it that that time elapsed between the applications? I cannot say. In 1879 we received a reply to say that the Government required the land then for water purposes and that any improvements we had made on the land should be claimed for, and we would be paid for them; I gave the letter to my trustees and Mr. Brown, one of them, said, "No we will make no application for compensation. The land is our freehold property and they must buy it out-and-out."
58. Did the delay occur through any fault of yours? No, the instalments were paid up to date. We kept up all the payments.

Thomas Gervase Alcock called in sworn, and examined:—

Mr. T. G. Alcock 17 Feb., 1892.

59. *Chairman.*] Were you a resident of Newcastle about the year 1870? Yes; I resided there for about eight or nine years after that.
60. Do you know the locality pretty well? Yes.
61. Do you recollect Mrs. Rouse's original freehold, in the parish of Kahibah? Yes; I frequently visited her there.
62. Do you recollect Mrs. Rouse making application for a piece of land about 80 acres alongside of her original purchase? Yes. She told me that she had applied for it and paid the deposit.
63. Did she tell you in 1874 that it had been declared forfeited? No.
64. Did Mr. Rouse tell you that? I do not recollect.
65. Do you know anything about the water reserve in that neighbourhood? Yes.
66. To the best of your knowledge, was this portion which Mrs. Rouse applied for within the water reserve? Not at that time.
67. Outside the lower boundary there was a water reserve? Yes; everybody knew that. My property is bounded by it.
68. Did you know a man named Palmer? Yes.
69. Did you ever talk about Mrs. Rouse's property with him? Yes.
70. Did he know that Mrs. Rouse was in occupation of that property? Yes.
71. Can you recollect any conversation? Yes, it was with reference to land I had taken up. I had taken up two acres before he had pegged it out. I said to him, "Are you applying for this man's freehold"? and he said "Yes."
72. Then he admitted it? Yes.
73. Meaning the freehold of 80 acres? Yes.
74. Was there a general impression that it was Mrs. Rouse's freehold? Yes. I always understood it to be so.
75. Did you always understand that Mr. Rouse was in occupation, and that he put up fences, and that you knew of this application? Yes.
76. Dou you know the manager of the Lambton colliery? Yes.
77. What is his name? Thomas Croudace.
78. Have you ever had any conversation with him about this portion 221 of 80 acres? Yes.
79. Before he bought from Mr. Palmer? I cannot say. I never recognised Palmer. I recognised the company.
80. Are you aware that Palmer sold to them? Nominally, no doubt he sold to them.
81. *Mr. Scott.*] Do you mean that he was buying for the company? That was always what I understood.
82. Did Mr. Croudace know that this land was in the occupation of Mr. Rouse? Yes.
83. Was it common repute that it was Rouse's land? I drew attention to it as we passed along the fence. That was about three or four years ago. He had not got it at that time. Mr. Croudace was in company with Mr. Short, the underground manager of the company at the time, and I was riding with them. We were going down to the pit which was then being sunk.
84. *Mr. Lees.*] Are you next door to this freehold of Rouse's? Yes, I have been living there eleven years—his land is 40 acres bearing north and south.

Mr. T. G. Alcock. 17 Feb., 1892.

85. Had you any reason to suppose at any time that this land of Mrs. Rouse's was a water reserve? No, not until lately.
86. Was it ever hinted that you were on the water reserve? I knew I was, because ours was proclaimed many years ago. That was after our selection.
87. Is yours actually an encroachment on the reserve? No, because the reserve was made afterwards.

Alexander Belford called in, sworn, and examined:—

Mr. A. Belford. 17 Feb., 1892.

88. *Chairman.*] Were you a resident of Newcastle in the year 1870? Yes.
89 What was your occupation? I was a free selector.
90. Do you recollect going out to take up a piece of land in the parish of Kahibah? Yes.
91. Do you recollect a portion belonging to Mrs. Rouse, consisting of 40 acres freehold? Yes.
92. Do you recollect a measured portion of 80 acres besides that on the western side? When I went out first it was not measured—it was measured subsequently.
93. Do you know that that portion unmeasured was a portion of the water reserve? I did not know of any reserve there then.
94. Did you have any intention of taking up that land? Yes, but I did not take it up because I thought the land was not so good as the land which I took up for agriculture. I wanted it for orchard purposes.
95. Who did you sell your land to? Hudson.
96. How long were you in occupation of your land before anything was said to you? It was eight or ten years before I received a notification that there was a reserve or anything of that sort about there.
97. What did they say to you then? They told me that I was 20 links on the east side of the water reserve and they wanted it resurveyed, and I think they did so. They marked two posts at a distance of 20 links, but my fence and house was up, and I did not pay any attention to it.
98. *Mr. Lees.*] Had you any idea that that piece of land on your eastern side was a water reserve? No.
99. Can you give any reason why all this area was unselected although it was not known to be a water reserve? I have no idea.
100. What is the character of the land? It is barren land. There was only the little gully which I got suitable for orchard work.
101. Was that the reason why the land was not taken up? Yes.
102. Would you have taken up Mrs. Rouse's land? Yes, if it had been suitable for my purpose. I did not know that it was in the reserve.
103. About what date was it when they told you that you were on a part of the reserve? It was about the year 1879.

Mr. Walter Thompson called in, sworn, and examined:—

Mr. W. Thompson. 17 Feb., 1892.

104. *Chairman.*] What is your occupation? I am managing clerk for Cope and King, Solicitors, Sydney and as such I have had charge of this case.
105. Are these papers which you produce correct copies of documents received from the Mines Department? I swear that they are the originals of the documents which I have received from the Mines Department. The answers to the questions on these papers are the answers given to me on my applications.
106. *Mr. Lees.*] Ultimately did you correspond with them by letter? Yes, ultimately asking them to have the lease cancelled.
107. Is this permit No. 8, issued to Houghton and Palmer under Section 28 of the Mines Act 1874, a correct copy of the permit? Quite so. I saw the Assistant Under Secretary for Mines and asked whether it was a true copy of the original permit and he told me yes. A few days afterwards I put an inquiry in the usual way asking the same question and they replied that they understood that the Assistant Under Secretary had already answered this. I again put him the same question and they answered yes.

MRS. ANN ROUSE'S CONDITIONAL PURCHASE, PARISH OF KAHIBAH.

APPENDIX.

[*To the Evidence of Mr. Walter Thompson, 17th February*, 1892.]

Department of Mines.—Inquiry Branch.

Cope and King.

Is the copy permit set out on pages 4 and 5 of printed papers 443—A (printer's number) ordered to be printed by the Legislative Assembly, 7 February, 1888, in connection with the application of Messrs. Houghton and Palmer a true copy of the permit No. 352 granted to them?—Yes.

Department of Mines.—Inquiry Branch.

Cope and King.

Is the copy permit set out on pages 4 and 5 of printed papers 443—A (printer's number) ordered to be printed by the Legislative Assembly, 7 February, 1888, in connection with the applications of Messrs. Houghton and Palmer a copy of the permit No. 352 granted to them?

The Assistant Under-Secretary, it is understood, gave the information required verbally.—24/1/90.

Department of Mines.—Inquiry Branch.

Does M.P. 177, parish Kahibah, county Northumberland, comprise portion 221, same parish and county?—No.

Sir, Department of Mines, Sydney, 28 February, 1890.

I am directed to inform you that your application for permission, under section 28 of the Mining Act, 1874, to mine for coal within portion No. 221, water reserve No. 4, in the county of Northumberland, parish of Kahibah, has been refused. *Vide Government Gazette* of the 18th instant.

I have, &c.,
GERARD E. HERRING,
Assistant Under Secretary.

Mr. Henry Rouse, care of Messrs. Cope and King, 139, Pitt-street.

P.S.—Refund voucher £1 10s., balance of deposit lodged with your application, is forwarded herewith for your signature and return.

Gentlemen, Department of Mines, Sydney, 3 April, 1890.

Referring to your letter of the 19th ultimo, requesting the cancellation of mineral lease 216 (48 Vic.) of portion 221, parish of Kahibah, with a view to your client, Mr. Henry Rouse, obtaining a lease of the land, I have the honor to inform you that your complaint has been disallowed, as the lease in question is amalgamated with others on which the requisite labour may be employed.

I have, &c.,
HARRIE WOOD,
Under Secretary.

Messrs. Cope and King, 139, Pitt-street, Sydney.

Statutory Declaration.

I, WILLIAM AUSTRALIA STEEL, of Newcastle, in the Colony of New South Wales, colliery proprietor, do hereby solemnly and sincerely declare as follows:—

1. I have been resident in Newcastle for the last fifty-eight years, and have known Henry Rouse of that place for the last fifty-eight years.
2. I know that the said Henry Rouse improved to a large extent and was occupying that piece of land known as portion 221, in the parish of Kahibah, county of Northumberland, up to the present time.
3. It was generally known in Newcastle that the said Henry Rouse was interested in, and was occupying the land aforesaid at the time in the last paragraph mentioned.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of an Act made and passed in the ninth year of the reign of Her present Majesty, intituled, "An Act for the more effectual abolition of Oaths and Affirmations taken and made in various departments of the Government of New South Wales, and to substitute Declarations in lieu thereof, and for the suppression of voluntary and extra-judicial Oaths and Affidavits."

W. A. STEEL.

Subscribed and declared at Newcastle this twentieth day of January, one thousand eight hundred and ninety, before me,—

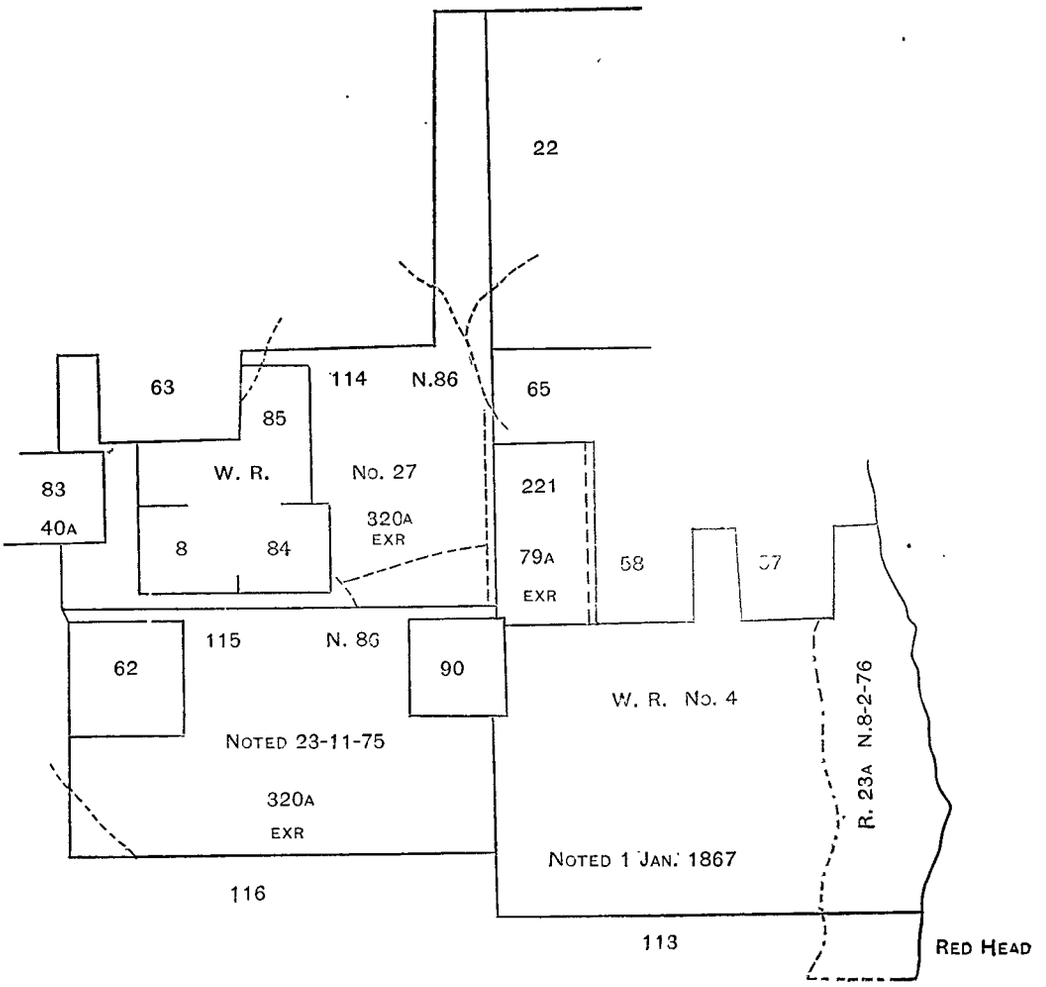
W. H. SHAW, J.P.

No. 8.—

No. 8.—Copy of Permit issued to Messrs. Houghton and Palmer.

Schedule A.—Authority to mine—issued under section 28, Mining Act, 1874.

VICTOR THOMAS SHERBROOKE HOUGHTON and Samuel Palmer, each being the holder of a mineral license, having applied to me in writing, in accordance with section 28 of the Mining Act, 1874, and I having inquired into the case and decided that the same can be effected without injury to adjoining property, or injury or obstruction to water reserve 4, part of water reserve 27, and part of reserve 23a, county of Northumberland, parish of Kahibah, I, James Fletcher, the Secretary for Mines for the Colony of New South Wales, in pursuance of the power to me given in this behalf by the said Act, do, by this order, authorise, empower, and permit the said Victor Thomas Sherbrooke Houghton and Samuel Palmer, hereinafter called lessees, to mine for coal under all those parts of the reserves aforesaid, being portions Nos. 115 and M.P. 177, and part of portion No. 114, delineated in the diagram, and containing, exclusive of all reserved roads, except that shown from A to B on diagram,



1,263 acres, upon condition that the said lessee shall not mine under this authority in any place other than that hereinbefore described, and on the terms and conditions set out on the back hereof, so far as they are applicable to this authority, and on the further special terms and conditions, and subject to the restrictions following, that is to say :—

First.—That the said lessees, during their occupancy under this authority, shall each be the holder of one mineral license in force, which shall be produced at the Department of Mines on the 12th and 31st days of July in each year, and failure therein shall render this authority void, and shall on delivery of this authority pay the sum of £6 10s. 5d., as rent for the quarter ending 31st December, 1886, and thereafter shall pay the sum of £31 11s. 6d.. on the first day of January, April, July, and October in each year, and shall on the 1st day of January, April, July, and October respectively, in each year, pay to the Colonial Treasurer, by way of royalty, a sum equal to 6d. for every ton of coal raised from under the said reserves during the three months next preceding the day on which such payment should be made as aforesaid. Provided that if the royalty for any quarter shall exceed the sum of £31 11s. 6d., no rent shall be payable for such quarter; but if during any quarter the royalty at the rate aforesaid does not amount to the said sum of £31 11s. 6d., such sum shall be paid as rent for that quarter in lieu of royalty.

Second.—That plans and sections of the mine, and books and vouchers showing the quantity of coal raised, shall be kept by the lessees, and shall, together with the mine works, be open at all times to the inspection of the Examiner of Coal-fields or such officer as the Secretary for Mines shall authorise to inspect the same.

Third.—That no excavation shall be made or carried under any public railway line, or any building or erection, or within 30 feet thereof, or of any site upon which any building is about to be erected, or under any road or street within the portions, except the road aforesaid, and that the said lessees shall in no way interfere with the surface of such reserves without the express sanction in writing of the Secretary for Mines aforesaid, who may, and if necessary shall, before giving such sanction, require the said lessees to deposit in the hands of the Colonial Treasurer a sum of money sufficient to cover the cost of repairing any damage that may be done to any such building or erection by reason of such excavation, and may impose such conditions as he shall deem advisable.

Fourth.—The Secretary for Mines may, at any time, by an order in writing, or by a notice in the *Government Gazette*, prohibiting the construction of mine works under such portion of the reserve as shall or may be required for any public purpose, until such Secretary shall be satisfied that such works may be carried on without interfering with such purpose.

Fifth.—That all mine works within the portion of the reserves hereby permitted to be mined under shall be commenced on or before the 14th day of June, 1887, by six miners, workmen, or others, and shall thereafter be carried on by such number of miners, workmen, or other persons, and shall be constructed in such a manner as shall be satisfactory to the Secretary for Mines.

Sixth.—Such works shall at all times be open to inspection by the Examiner of Coal-fields or such officer as the Secretary for Mines shall authorise to inspect the same; and if it shall appear to the Secretary for Mines that the work has not been commenced, or is not being carried on as aforesaid, or that any excavation or mine work is being, or has been, so made or constructed as to endanger or injure any adjoining property, or to interfere with the use or enjoyment of the said reserves aforesaid, or any public railway line, or any building or erection, or if for any other reason it shall appear to the Secretary for Mines expedient so to do, he may cancel this authority, and thereupon the right to mine under the said reserves shall cease and determine absolutely. Seventh.—

Seventh.—And if the said lessees shall continue to mine under the said reserves after notice of cancellation of this authority shall have been served upon them or published in the *Government Gazette*, they shall be liable to be prosecuted for unlawfully mining under reserved land, in terms of the Mining Act, 1874, section 123.

And if the said reserves shall at any time during the existence of this authority be cancelled, or if the said lessees shall fail to observe, perform, and keep all and every the terms and conditions upon which this order or permission is granted as aforesaid, or shall mine in any way contrary to the restrictions hereinbefore stated, then, and in any such case, the permission and authority hereby given shall immediately cease and determine. And the occupation of such reserves under this authority, and the making of improvements or construction of works thereunder, shall confer no right to purchase the land in virtue of improvements or otherwise, or entitle the said lessees to any compensation upon the cancellation of the reserves or of this authority.

In witness whereof, I have hereunto set my hand, at Sydney, in the said Colony, this 14th day of December, in the year of our Lord 1886.

JAMES FLETCHER,
Secretary for Mines.

We hereby accept the within permit upon the terms herein stated,—
V. T. SHERBROOKE HOUGHTON.
SAMUEL PALMER
(By his Agent,—V. T. S. HOUGHTON.)

Witness,—
W. LLOYD, 14/12/86.

Application by Messrs. Houghton and Palmer.

Mineral Lease Regulations.—Schedule 2—Form of Application under 48 Vic. No. 10, section 3.

To the Honorable the Secretary for Mines, Sydney.

Sir,

Newcastle, 17 January, 1887.

We hereby make application for a mineral lease of that piece or parcel of land situated parish of Kahibah, county of Northumberland, portion No. 221, containing 79 acres, of which we took possession on the 17th day of January, 1887, at the hour of 6 o'clock in the forenoon, for the purpose of mining thereon and therein for coal, for a period of twenty years, by placing 3-foot stakes and 6-foot trenches at each angle thereof. The datum point is the south-west corner of portion 221, of 79 acres.

Notice of our having made this application will be given in accordance with the regulations in that behalf, and we hand herewith the sum of £7 18s., being the first year's rent in advance of the said land.

We hereby acknowledge that this application is made upon the distinct understanding and condition that if we shall abandon or fail to proceed with it, or if it is refused, the Secretary for Mines for the time being may deduct from the sum of £7 18s., deposited as aforesaid any cost to which in his opinion the Crown may have been put in or about or in respect of this application: and this application shall thereupon become and be void, and the possession aforesaid shall cease and determine. And if the lease shall be granted, we shall and will commence mining operations upon or in connection with the demised land within six months from and after the granting thereof, and shall and will employ upon such land not less than two men during the first three years of the term thereby created, and not less than four men during the remainder of such term. And shall and will at any time when called upon in terms of the regulations relating to mineral leases to do so, execute and take delivery of such lease, or failing therein for a period of fourteen days, after being so called upon, we shall and will forfeit the said sum of £7 18s., and all right, title, or interest in and to the said land and the possession thereof, and the said lease shall be forthwith cancelled.

We have, &c.,
VICTOR THOMAS SHERBROOKE HOUGHTON,
of Sydney.
SAMUEL PALMER,
Newcastle.

Description.

Measured portion No. 221, of 79 acres, in the parish of Kahibah, county of Northumberland, being part of water reserve No. 4, notified 1st of January, 1867.

THIS application was received by me this 17th day of January, 1887, at the hour of 10·30 o'clock in the forenoon, and is numbered 87-2.

17th January, 1887.

ALEX. LUMSDAINE,
Crown Lands Agent, Newcastle.

Questions to be answered by Applicants for Mineral Lease.

WHEN receiving an application to lease land for mining purposes, the Warden, Warden's Clerk, or Land Agent, as the case may be, shall hand to the applicant or applicants, or his or their agent, to answer to the following questions, and shall take down such answers in writing. The statement, when complete, to be read over to, and signed by, the person furnishing the answers:—

1. Were you, or each of you (applicants), the holder of a miner's right in force at the date of taking possession of the land referred to in application No. 87-2? Not within a gold-field.
2. Do you produce them (mineral license, 31st July, 1886)? In favour of S. Palmer, stated to be in Sydney.
3. What was the date and hour of the day when you took possession of the land referred to in application No. 87-2? 17th January, 1887, at 6 a.m.
4. Did you take possession by erecting posts and cutting trenches at each angle of the land? Yes. (If No. 4 be replied to in the affirmative, then 5, 6, and 7.)
5. What was the diameter of the posts? Three inches.
6. How high did they project above the surface when fixed in the ground? Three feet.
7. What was the length of each arm of each trench, and what was the depth of each trench? Six feet 9 inches.
8. If a substitue for post or trench was used, describe it.
9. At which angle of the land is the datum post fixed? South-west corner.
10. Did you affix a board or metal plate to the datum post? Board.
11. What was written or painted on such board or plate? Mineral lease applied for 17th January, 1887, by V. T. S. Houghton and S. Palmer.
12. Where did you post the notices, Schedule 1? At Crown Lands Office, Newcastle, and Post Office, Charlestown.
13. When did you post such notices? 17th January, 1887.
14. Did anybody claim or appear to be in possession of the land applied for, or any portion of it? No.
15. Did you serve notice in the form Schedule 1 upon every such person, and when? (*See* answer to question 14.)
16. Have you obtained the consent of every such person to the granting of the lease for which you apply? (*See* answers to questions 14 and 15.)

I, Samuel Palmer, on behalf of Victor Thomas Sherbrooke Houghton and myself, declare that the foregoing questions have been answered by me truthfully in every particular, and the answers thereto have been read over to me, and are correctly taken down in writing.

SAMUEL PALMER.

Witness to signature,—
ALEX. LUMSDAINE, Crown Lands Agent, Newcastle.

Mining District, Hunter and Macleay; applicant's locality, Redhead.

Application No. 87-2, at Newcastle.

Description.

82 acres 2 roods 14 perches, county of Northumberland, parish of Kahibah.

Portions 221: Commencing at the south-east corner of portion 65, and bounded thence on the north by the south boundary of that portion bearing south 88° 40′ west 20 chains and 87½ links; on the west by part of the east boundary of portion 114, and part of the east boundary of portion 90, bearing respectively south 1° 44′ east 37 chains and 6½ links and south 2° 30′ east 3 chains and 44 links; on the south by a north boundary of portion M.P. 177 bearing north 87° 45′ east 20 chains and 1 link; and on the east by a west boundary of that portion, the west boundary of portion 58, and part of the west boundary of portion 55, in all bearing north 35′ west 40 chains and 21½ links, to the point of commencement.

Copy of Lease issued to Messrs. Houghton and another.

THIS indenture, made the 26th day of March, in the year of our Lord 1887, between Her Most Gracious Majesty Queen Victoria, of the one part, and Victor Thomas Sherbrooke Houghton, of Sydney, in the Colony of New South Wales, and Samuel Palmer, of Newcastle, in the Colony aforesaid (hereinafter called the lessees), of the other part witnesseth:—That in consideration of the sum of £61 2s. paid by the said lessee on the 17th day of January, 1887, and of the rents and royalties hereinafter reserved, and of the covenants and provisos hereinafter contained, Her Majesty doth by these presents grant and demise unto the lessees, their executors, administrators, and transferees, all that piece or parcel of land, containing by admeasurement 610 acres 3 roods 25 perches, and more particularly described and delineated in the Schedule hereto or in the plan hereunto annexed, and numbered M.P. 177, and all those mines, veins, seams, or deposits of coal, in, on, and under the said land (hereinafter called the said mine), together with all and singular the shafts, levels, drifts, works, ways, fixtures, erections, liberties, easements, advantages, and appurtenances which are now or at any time during the term hereby granted may be held, occupied, or enjoyed therewith, for the purpose of mining upon and under the said land for coal, and also with full power for the said lessees, their executors, administrators, and transferees, and his and their agents and workmen (including contractors, tributors, and so forth), to dig, sink, drive, make, and use excavations, pits, shafts, levels, tunnels, watercourses, and other works necessary for winning and raising the coal in, on, or under the said land, and to take and appropriate the same during the term hereby granted, and to make and construct, on that portion of the surface of the said land, races, drains, dams, reservoirs, roads, and tramways, and also to erect, on that portion of the surface of the said land, all buildings, engines, furnaces, pumps, machinery, and appliances necessary for the purpose of winning and obtaining the coal in, on, or under the said land, and for effectually carrying on the works of the said mine, and also to erect, on that portion of the surface not excepted as aforesaid of the said land, such offices, cottages, and dwelling-houses, for the use of the agents, workmen, and persons employed in the said mine and works, as the said lessees, their executors, administrators, and transferees shall think proper, to hold the said land, mine, and premises, with the appurtenances (subject nevertheless to such rights and interests as may be lawfully subsisting therein at the date of these presents), unto the said lessees, their executors, administrators, and transferees, from the date hereof, for the term of twenty years, for the purpose of mining therein or thereon, for working or winning the said coal, and for no other purpose,—Yielding and paying therefor unto Her Majesty, her heirs and successors, yearly and every year during the said term, the yearly rent of £61 2s. in advance, or in lieu thereof a royalty equal to 6d. for every ton of coal raised during the year, the first year's rent having been paid as aforesaid on the 17th day of January, 1887, the next payment being the rent of the said land at the rate of 2s. per acre per annum to the 25th day of March, 1889, shall be made to the Colonial Treasurer, in Sydney, on or before the 26th day of March, 1888, and thereafter on or before the 26th day of March in each and every year the yearly rent aforesaid shall be paid to the Colonial Treasurer aforesaid, clear of all rates, taxes, and assessments to which the said land, mine, and premises are now, or at any time during the said term may be, subject or liable: Provided that if the royalty upon the coal raised during any year of the said term, computed at the rate aforesaid, shall exceed the rent paid for such year, such royalty, after deducting therefrom the rent paid for such year, shall be paid to the Colonial Treasurer at the expiration of the year or within one month thereafter; but if such royalty in any year amount to less than the rent paid for such year no royalty shall be demanded in respect of the coal raised during that year: Provided always, and it is hereby agreed, that if the said yearly rent or royalty shall be in arrear for thirty days after the same shall have become payable, whether such rent or royalty shall have been legally demanded or not, any officer appointed or authorised thereto by the Secretary for Mines may, by himself, or his agent, enter upon the said land, and seize and distrain all minerals, metals, and ores actually got and raised from the said mine; and all machinery, apparatus, tools, waggons, carts, carriages, engines, plant, and all other goods, chattels, and effects whatsoever, in, upon, and about the said land and premises; and in every distress thus made may take away, sell, and dispose of as in cases of distress for rent reserved in common leases, and out of the moneys arising thereby retain so much as shall be sufficient to satisfy the said arrears, and which shall at the time of such sale be unpaid; and all expenses incurred by him or them in or in respect of such seizure, distraint, removal, and sale; and if there be any surplus such officer shall pay the same to the said lessees, their executors, administrators, or transferees; and the acceptance or receipt of rent or royalty by or on behalf of Her Majesty, after breach of any covenant hereinafter contained, shall not be or be deemed a waiver of the right of Her Majesty, or of the Secretary for Mines, or other officer on behalf of Her Majesty, to enforce observance of such covenant. And if the said lessees, their executors, administrators, or transferees, shall mine for or win from the said land, mine, and premises, any gold, or any earth, rock, stone, quartz, clay, sand, gravel, or soil containing gold, or any mineral or metal with which gold is associated or combined, without the express sanction first had and obtained of the Secretary for Mines for the time being, the Governor, with the advice of the Executive Council, may declare these presents void, and thereupon all the right, title, and interest of the lessees, their executors, administrators, and transferees, under these presents shall cease and determine both at law and in equity. And the said lessees do hereby for themselves, their heirs, executors, administrators and transferees, covenant with Her Majesty, her heirs and successors, in the manner following, that is to say:—

1. That the said lessees, their executors, administrators, and transferees, shall and will during the said term pay unto Her Majesty, her heirs and successors, the rent or royalty hereby reserved, at the times and places hereinbefore appointed for payment thereof, clear of all deductions.

2. And shall and will, after the expiration of six months from the date of delivery hereof, upon and during all lawful working days, except when prevented by inevitable accident or during the execution of repairs, work the said land, mine, and premises, or the land, mine, and premises adjoining thereto and proposed to be worked in connection therewith, in the best and most effectual manner, and to the best advantage, without interruption, and shall and will with reasonable expedition make and construct all necessary works with a view to diligently explore and search for coal in, on, and under the said land, mine, or premises, by employing thereon not less than three men for the first three years of the term.

3. And shall and will, after the expiration of the said three years, or after the underground works shall have reached the said land, employ in the construction of the works, or in mining operations on or under the said land, during the first of the said term, and during the usual hours of labour, six able and competent workmen and miners at the least; unless prevented by inevitable accident or during the execution of repairs: Provided that the lessee, or if there be more than one lessee, each lessee who shall work as aforesaid, shall count as and be deemed for the purposes of these presents to be a workman or miner employed as aforesaid.

4. And shall and will during the said term effectually drain the said mine, and pump all water likely to cause injury thereto, or which would prevent or interfere with the working thereof; and if the said mine shall be affected, or be liable to be affected, by the same flow or body of water as any other mine or mines contiguous thereto shall and will, if and whenever requested so to do, contribute with the lessee or lessees or owner or owners of such other mines, a reasonable proportion of the machinery and labour necessary to free and keep such mine or mines free from water to a workable extent; or if the said mine shall be kept free from water to a workable extent either wholly or partially by means of the machinery and labour of a contiguous mine or mines, or by reason of any works constructed or money expended by the lessee or lessees, owner or owners, of such contiguous mine or mines—then shall and will pay to such lessee or lessees, owner or owners, as aforesaid, a reasonable proportion of the cost of such machinery, labour, or works, or a reasonable proportion of the money so expended; and the Secretary for Mines for the time being may, if and whenever he shall think fit, depute some efficient person, who shall have access to and inspection of all such mines, to determine when the said mine is so freed or kept wholly or partially free from water, and what are the reasonable proportions of such expenses aforesaid, and to whom and when the same are to be paid,—such decision to be final and conclusive on all parties.

5.

5. And shall and will make such provision for the disposal of the detritus, dirt, waste, or refuse of the said mine that the same shall not be an inconvenience, nuisance, or obstruction to any roadway, river, creek, or private or Crown lands, or shall not in any manner occasion any public or private damage or inconvenience.

6. And shall and will erect, and keep erected, during the said term, a post painted white at each angle of the said land, and at such points along the boundary-lines as shall be necessary, so as plainly and accurately to define the boundary-lines and angles of the said land; and each such post shall be fixed firmly in the ground, and shall project above the surface thereof not less than 3 feet.

7. And shall and will keep proper books, or a book, in which shall be entered the quantity of coal raised each day from the land hereby demised, and shall enter therein as soon as known the value of such coal, and permit any officer of the Department of Mines at all times to inspect the same, and as often as required so to do during the term make and deliver to the Secretary for Mines for the time being, or any officer appointed or instructed to collect, obtain, or receive the same, all such true and proper plans, sections, returns, statements, and statistics of the workings and operations of the said mine, made up to the last day of the preceding month (the truth and accuracy of which shall be verified by the statutory declaration of the lessee for the time being, or the manager or other officer having the charge control, and direction of the works of the said mine), as the Secretary for Mines shall from time to time direct, or as shall be required by any regulation, and shall and will, whenever required by the Secretary for Mines so to do, deliver to any officer appointed or instructed as aforesaid samples of the minerals, metals, and ores, or any of them, found in or upon such mine and lands.

8. And shall and will, during the said term, make proper and reasonable compensation to the occupier or occupiers, lessee or lessees from the Crown of any adjoining land in respect of any damage which may be sustained by him or them, by reason of the working of the said mine, or the carrying on of the works thereof or connected therewith, such compensation to be determined by the Secretary for Mines, or by some person authorised by him so to do.

9. And shall and will permit any mining surveyor, or other person duly authorised in that behalf, with all proper or necessary assistants, at all reasonable times, during the said term, quietly to enter into and upon the said land, mine, and premises, to survey and examine the state and condition thereof, and for the purposes aforesaid, to descend all pits and shafts, and to enter into and use all adits, levels, galleries, drives, and excavations, and to use all roads, ways, engines, ropes, machinery, gear, appliances, materials, labour, and other things in or on the said land and mine, which shall be by him deemed necessary, without making any compensation for the same, so nevertheless that in so doing no unnecessary interference is caused with the carrying on of the said mining works.

10. And further, shall and will at all times during the said term keep and preserve the said mine and premises from all avoidable injury or damage, and also the levels, drifts, shafts, water-courses, roads, ways, works, erections, and fixtures therein and thereon, in good repair and condition, except such of the matters and things last aforesaid as shall from time to time be considered by a mining surveyor or other proper officer authorised by the Secretary for Mines to inspect and report upon such matters and things to be unnecessary for the proper working of the said mine or any contiguous mine, and in such state and condition shall and will at the end or sooner determination of the said term deliver peaceable possession thereof, and of all and singular the premises hereby demised to Her Majesty, her heirs and successors, or to the Warden or other officer authorised to receive possession thereof. Nevertheless the Secretary for Mines may, if he think fit, permit the lessees, their executors, administrators, and transferees, within six months after possession shall have been received as aforesaid, to enter upon the said land, and to remove therefrom such machinery, plant, and apparatus as shall have been erected and fixed upon such land, and such earth, rock, ore, mineral, or metal as shall have been won from and raised to the surface of such mine.

11. And shall not nor will use or occupy, or permit to be used or occupied, the said land, or any part thereof, for other than mining purposes, or for pasturage, or as sites for dwellings, or garden ground for the persons employed in, on, or about the said mine.

12. And shall not nor will mine in or upon the said mine, land, and premises, for any mineral, metal, or ore other than coal, without the express sanction of the Secretary for Mines.

13. And shall not nor will transfer, underlet, or part with possession of the said land, mine, and premises, or any part thereof, or mortgage, charge, or encumber the same, without the license first had and obtained of the Secretary for Mines for the time being: Provided always that no such license shall be necessary in cases where, by operation of law or otherwise, a sale of the said land, mine, and premises, or any part or parts thereof, is made by any person or persons entitled to sell the same for the benefit of the creditors or a creditor of the lessees or their transferees, or in cases where the lessees or their transferees desire to let the said mine and premises, or any part thereof, to be worked on tribute.

14. And shall not nor will close up or obstruct any adit or adits to or from any contiguous mine or mines whereby fresh air is admitted or ventilation promoted.

15. And shall not nor will plead acceptance of rent or royalty by or on behalf of Her Majesty as a waiver of the right of Her Majesty, or of the Secretary for Mines, or other officer on behalf of Her Majesty, to enforce observance of the covenants herein contained, or of the right of the Governor, with the advice of the Executive Council, to declare these presents void for breach of any such covenant: Provided always and it is hereby agreed and declared in manner following:—

16. That it shall be lawful for Her Majesty, her heirs, successors, and assigns to make and use in, on, or under the said land, any levels, drifts, leads, shafts, water-courses, adits, roads, ways, and passages for freeing and keeping free any other lands or mines from water, or for conveying water to any other lands or mines for mining purposes, or for supplying any other mines with fresh air, or for effectually working any other mines, or for any public purpose whatsoever, causing as little damage, obstruction, or interference as possible to or with the said mine and the works thereof. And if, at any time during the term hereby created, any part or parts of the land hereby demised, or any part or parts of the surface thereof, shall be required for the purpose of any township, village, railway, road, canal, water-course, reservoir, or for any other public purpose, it shall be lawful for the Governor for the time being, with the advice of the Executive Council, on giving three months' notice of his intention so to do, to cause to be set out the part or parts of the said land, or of the surface thereof, which shall be so required; and as soon as the same shall be so set out, such part or parts of the said land, or of the surface thereof, shall cease to be included in the land hereby demised, and the lessees, their executors, administrators, or transferees shall not be entitled to any abatement of rent or royalty, or any compensation whatever in respect thereof.

17. And if the said lessees, their executors, administrators, or transferees, shall prove to the satisfaction of the Secretary for Mines for the time being that the said mine is unworkable, or cannot be profitably worked, from any cause whatsoever, or that the lessees, their executors, administrators, or transferees, is or are unable, by reason of sickness or other sufficient cause, to work in such land or mine, or that the supply of water is insufficient to allow the working of the said land, mine, and premises to be profitably carried on, the said Secretary for Mines may grant permission to suspend work therein or thereon, for any period not exceeding six months, without the lessees, their executors, administrators, or transferees incurring in respect thereto any forfeiture or penalty for breach of any covenant herein contained.

18. And, lastly, that if the lessees, their executors, administrators, or transferees, shall at any time during the said term fail to use such land *bona fide* for the purpose for which it has been demised, or if and whenever the said rent or royalty shall be in arrear for thirty days after the time appointed for payment thereof, whether the same shall have been legally demanded or not, or if and whenever there shall be a breach of or non-compliance with the covenants and provisos herein contained by the lessees, their executors, administrators, or transferees, and the lessees, their executors, administrators, or transferees shall not have obtained from the Secretary for Mines for the time being permission to suspend work as aforesaid, in case the breach shall have been for non-compliance with the covenants for the employment of workmen or miners, or for the working of the mine, the Governor, with the advice of the Executive Council, who alone and finally shall judge and determine the matter upon the evidence or reports submitted by the Secretary for Mines for the time being, may declare these presents void, and upon publication in the *Government Gazette* of notice of such declaration, all the right, title, and interest of the lessees, their executors, administrators, and transferees under these presents shall cease and determine both at law and in equity; and the production of a copy of the *Government Gazette* containing a notice, purporting to be signed by the Secretary for Mines, declaring the lease void, shall be conclusive evidence in all Courts whatsoever, in the Colony of New South Wales of a breach of or non-compliance with the covenants and provisos herein contained sufficient to authorise and sustain such declaration having been lawfully made, and that the interest created hereunder has been lawfully determined; and thereupon it shall be lawful for Her Majesty, her heirs and successors, or her or their agents or officers, or for any bailiff, or other person duly authorised thereto, or for any holder of a mineral license who has the permission of the Secretary for Mines for the time being, without any previous demand whatsoever, to enter forthwith into and upon the said land and

premises

premises hereby granted, and the same to repossess and enjoy as fully and effectually to all intents and purposes as if these premises had not been made, and the said lessees, their executors, administrators and transferees to expel and remove without any legal process, and as effectually as the Sheriff might do in case judgment in ejectment had been obtained and a writ of *habere facias possessionem* had been issued on such judgment; and in case of such entry, and any legal proceeding taken in respect thereof, the defendant or defendants in any such proceeding may plead leave and license in bar thereof; and these presents shall be conclusive evidence of such leave and license by the lessees, their executors, administrators, and transferees, or other the person or persons, plaintiff or plaintiffs in such proceedings, for such entry or other matters complained of in such proceedings.

In witness whereof, His Excellency the Right Honorable Charles Robert, Baron Carrington, a Member of Her Majesty's Most Honorable Privy Council, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies, hath, on behalf of Her Majesty the Queen, caused the Seal of the said Colony to be affixed to this grant, and also set his hand, at Government House, Sydney, in the said Colony, the day and year first above written, and the lessees have also set their hands and seals the 28th day of March, 1887.

CARRINGTON.

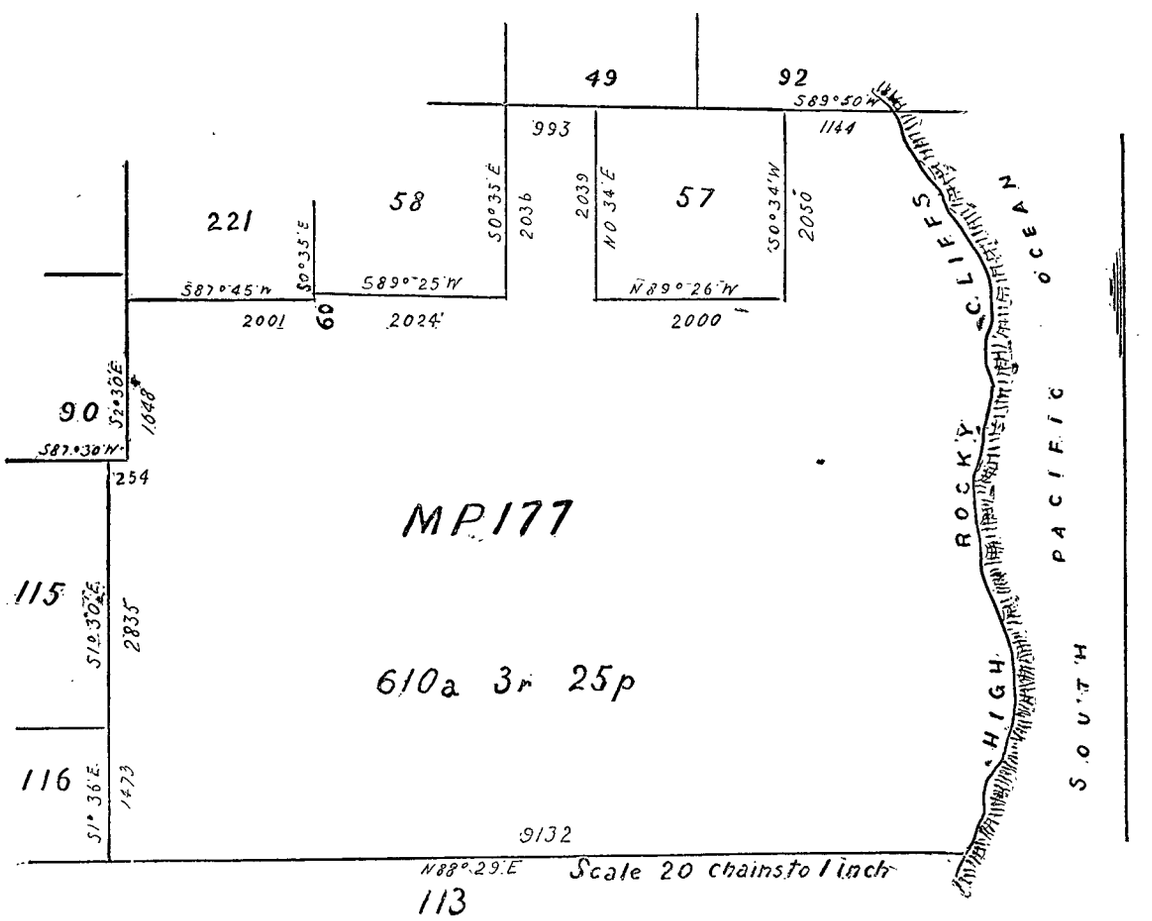
Signed, sealed, and delivered by the within-named Victor Thomas Sherbrooke Houghton and Samuel Palmer, in the presence of,—
STEPHEN T. BURCHER.

VICTOR THOMAS SHERBROOKE HOUGHTON.
SAMUEL PALMER.
FRANCIS ABIGAIL.

Schedule.

610 acres 3 roods 25 perches. County of Northumberland, parish of Kahibah, portion M.P. 177: Commencing at the south-east corner of portion 92; and bounded thence on part of the north by part of the south boundary of that portion bearing south 87 degrees 50 minutes west 11 chains 44 links; on part of the west by the east boundary of portion 57 bearing south 34 minutes west 20 chains 50 links; again on the north by the south boundary of that portion bearing north 89 degrees 26 minutes west 20 chains; on part of the east by the west boundary of that portion bearing north 34 minutes east 20 chains 39 links; again on the north by part of the south boundary of portion 49 bearing west 9 chains 93 links; again on the west by the east boundary of portion 58 bearing south 35 minutes east 20 chains 36 links; again on the north by the south boundary of that portion bearing south 89 degrees 25 minutes west 20 chains 24 links; again on the west by part of the east boundary of portion 221 bearing south 35 minutes east 60 links; again on the north by the south boundary of that portion bearing south 87 degrees 45 minutes west 20 chains 1 link; again on the west by part of the east boundary of portion 90 bearing south 2 degrees 30 minutes east 16 chains 48 links; on the remainder of the north by part of the south boundary of that portion bearing south 87 degrees 30 minutes west 2 chains 54 links; on the remainder of the west by part of the east boundaries of portions 115 and 116 bearing respectively south 1 degree 30 minutes east 28 chains 35 links, and south 1 degree 36 minutes east 14 chains 73 links; on the south by part of the north boundary of portion 113 bearing north 88 degrees 29 minutes east 91 chains 32 links, to the edge of the high cliffs fronting the South Pacific Ocean; and on the remainder of the east by the edge of the cliffs northwardly, to point of commencement.

Plan.



Registered in the Department of Mines, at Sydney, this 28th day of March, A.D. 1887, at the hour of 12 o'clock noon, and numbered in the Register 215.

EDWARD FARR
(For the Registrar).

Transfer from V. T. Sherbrooke Houghton and Samuel Palmer of their interests in mineral lease No. 215 to the Scottish Australian Mining Co. (Limited). Registered by me, in the Department of Mines, Sydney, this 2nd day of June, 1887, at the hour of 2 o'clock in the afternoon.

EDWARD FARR
(For the Registrar).

Copy

Copy of Lease issued to Messrs. Houghton and Palmer.

THIS indenture, made the 26th day of March, in the year of our Lord 1887, between Her Most Gracious Majesty Queen Victoria, of the one part, and Victor Thomas Sherbrooke Houghton, of Sydney, in the Colony of New South Wales, and Samuel Palmer, of Newcastle, in the Colony aforesaid (hereinafter called the lessees), of the other part, witnesseth:—That in consideration of the sum of £8 6s., paid by the said lessees on the 17th day of January, 1887, and of the rents and royalties hereinafter reserved, and of the covenants and provisos hereinafter contained, Her Majesty doth by these presents grant and demise unto the lessees, their executors, administrators, and transferees, all that piece or parcel of land containing by admeasurement 82 acres 2 roods 14 perches, and more particularly described and delineated in the Schedule hereto or in the plan hereunto annexed, and numbered 221, and all those mines, veins, seams, or deposits of coal, in, on, and under the said land (hereinafter called the said mine), together with all and singular the shafts, levels, drifts, works, ways, fixtures, erections, liberties, easements, advantages, and appurtenances which are now or at any time during the term hereby granted may be held, occupied, or enjoyed therewith, for the purpose of mining upon or under the said land for coal, and also with full power for the said lessees, their executors, administrators, and transferees, and his and their agents and workmen (including contractors, tributors and so forth), to dig, sink, drive, make, and use excavations, pits, shafts, levels, tunnels, water-courses, and other work necessary for winning and raising the coal in, on, or under the said land, and to take and appropriate the same during the term hereby granted, and to make and construct, on that portion of the surface of the said land, races, drains, dams, reservoirs, roads, and tramways, and also to erect, on that portion of the surface of the said land, all buildings, engines, furnaces, pumps, machinery, and appliances necessary for the purpose of winning and obtaining the coal in, on, or under the said land, and for effectually carrying on the works of the said mine, and also to erect, on that portion of the surface of the said land, such offices, cottages, and dwelling-houses, for the use of the agents, workmen, and persons employed in the said mine and works, as the said lessees, their executors, administrators, and transferees shall think proper; to hold the said land, mine, and premises, with the appurtenances (subject nevertheless to such rights and interests as may be lawfully subsisting therein at the date of these presents), unto the said lessees, their executors, administrators, and transferees, from the date hereof, for the term of twenty years, for the purpose of mining therein or thereon, for working or winning the said coal, and for no other purpose,—Yielding and paying therefor unto Her Majesty, her heirs and successors, yearly and every year during the said term, the yearly rent of £8 6s., in advance, or in lieu thereof a royalty equal to 6d. for every ton of coal raised during the year, the first year's rent having been paid as aforesaid on the 17th day of January, 1887, the next payment being the rent of the said land at the rate of 2s. per acre per annum to the 25th day of March, 1889, shall be made to the Colonial Treasurer in Sydney, on or before the 26th day of March, 1888, and thereafter on or before the 26th day of March, in each and every year, the yearly rent aforesaid shall be paid to the Colonial Treasurer aforesaid, clear of all rates, taxes, and assessments to which the said land, mine, and premises are now, or at any time during the said term may be, subject or liable: Provided that if the royalty upon the coal raised during any year of the said term, computed at the rate aforesaid, shall exceed the rent paid for such year, such royalty, after deducting therefrom the rent paid for such year, shall be paid to the Colonial Treasurer at the expiration of the year or within one month thereafter; but if such royalty in any year amount to less than the rent paid for such year no royalty shall be demanded in respect of the coal raised during that year: Provided always, and it is hereby agreed, that if the said yearly rent or royalty shall be in arrear for thirty days after the same shall have become payable, whether such rent or royalty shall have been legally demanded or not, any officer appointed or authorised thereto by the Secretary for Mines may, by himself or his agent, enter upon the said land, and seize and distrain all minerals, metals, and ores actually got and raised from the said mine; and all machinery, apparatus, tools, waggons, carts, carriages, engines, plant, and all other goods, chattels, and effects whatsoever in, upon, and about the said land and premises; and on every distress thus made may take away, sell, and dispose of as in cases of distress for rent reserved in common leases, and out of the moneys arising thereby retain so much as shall be sufficient to satisfy the said arrears, and which shall at the time of such sale be unpaid; and all expenses incurred by him or them in or in respect of such seizure, distraint, removal, and sale; and if there be any surplus such officer shall pay the same to the said lessees, their executors, administrators, or transferees; and the acceptance or receipt of rent or royalty by or on behalf of Her Majesty, after breach of any covenant hereinafter contained, shall not be or be deemed a waiver of the right of Her Majesty, or of the Secretary for Mines, or other officer on behalf of Her Majesty, to enforce observance of such covenant. And if the said lessees, their executors, administrators, or transferees, shall mine for and win from the said land, mine, and premises, any gold, or any earth, rock, stone, quartz, clay, sand, gravel, or soil containing gold, or any mineral or metal with which gold is associated or combined, without the express sanction first had and obtained of the Secretary for Mines for the time being, the Governor, with the advice of the Executive Council, may declare these presents void, and thereupon all the right, title, and interest of the lessees, their executors, administrators, and transferees under these presents shall cease and determine both at law and in equity. And the said lessees do hereby, for themselves, their heirs, executors, administrators, and transferees, covenant with Her Majesty, her heirs and successors, in the manner following, that is to say:—

1. That the said lessees, their executors, administrators, and transferees, shall and will during the said term pay unto Her Majesty, her heirs and successors, the rent or royalty hereby reserved, at the times and places hereinbefore appointed for payment thereof, clear of all deductions.

2. And shall and will, after the expiration of six months from the date of delivery hereof, upon and during all lawful working days, except when prevented by inevitable accident or during the execution of repairs, work the said land, mine, and premises, or the land, mine, and premises adjoining thereto and proposed to be worked in connection therewith, in the best and most effectual manner, and to the best advantage, without interruption, and shall and will with reasonable expedition make and construct all necessary works with a view to diligently explore and search for coal in, on, and under the said land, mine, or premises, by employing thereon not less than two men for the first three years of the term.

3. And shall and will, after the expiration of the said three years, or after the underground works shall have reached the said land, employ in the construction of the works, or in mining operations on or under the said land, during the said term, and during the usual hours of labour, four able and competent workmen and miners at the least; unless prevented by inevitable accident or during the execution of repairs: Provided that the lessee, or if there be more than one lessee, each lessee who shall work as aforesaid, shall count as and be deemed for the purposes of these presents to be a workman or miner employed as aforesaid.

4. And shall and will during the said term effectually drain the said mine, and pump all water likely to cause injury thereto, or which would prevent or interfere with the working thereof; and if the said mine shall be affected, or be liable to be affected, by the same flow or body of water as any other mine or mines contiguous thereto, shall and will, if and whenever requested so to do, contribute with the lessee or lessees or owner or owners of such other mines, a reasonable proportion of the machinery and labour necessary to free and keep such mine or mines free from water to a workable extent: or if the said mine shall be kept free from water to a workable extent either wholly or partially by means of the machinery and labour of a contiguous mine or mines, or by reason of any works constructed or money expended by the lessee or lessees, owner or owners, of such contiguous mine or mines,—then shall and will pay to such lessee or lessees, owner or owners, as aforesaid, a reasonable proportion of the cost of such machinery, labour or works, or a reasonable proportion of the money so expended; and the Secretary for Mines for the time being may, if and whenever he shall think fit, depute some efficient person, who shall have access to and inspection of all such mines, to determine when the said mine is so freed or kept wholly or partially free from water, and what are the reasonable proportions of such expenses aforesaid, and to whom and when the same are to be paid,—such decision to be final and conclusive on all parties.

5. And shall and will make such provision for the disposal of the detritus, dirt, waste, or refuse of the said mine that the same shall not be an inconvenience, nuisance, or obstruction to any roadway, river, creek, or private or Crown lands, or shall not in any manner occasion any public or private damage or inconvenience.

6. And shall and will erect, and keep erected, during the said term, a post, painted white, at each angle of the said land, and at such points along the boundary lines as shall be necessary, so as plainly and accurately to define the boundary lines and angles of the said land; and each such post shall be fixed firmly in the ground, and shall project above the surface thereof not less than 3 feet.

7. And shall and will keep proper books, or a book, in which shall be entered the quantity of coal raised each day from the land hereby demised, and shall enter therein as soon as known the value of such coal, and permit any officer of the Department of Mines at all times to inspect the same, and as often as required so to do during the term make and deliver to the Secretary for Mines for the time being, or any officer appointed or instructed to collect, obtain, or receive the same, all such true and proper plans, sections, returns, statements, and statistics of the workings and operations of the said mine, made up to the last day of the preceding month (the truth and accuracy of which shall be verified by the statutory declaration of the lessee for the time being, or the manager or other officer having the charge, control, and direction of the works of the said mine), as the Secretary for Mines shall from time to time direct, or as shall be required by any regulation, and shall and will, whenever required by the Secretary for Mines so to do, deliver to any officer appointed or instructed as aforesaid samples of the minerals, metals, and ores, or any of them, found in or upon such mine and lands.

8. And shall and will during the said term make proper and reasonable compensation to the occupier or occupiers, lessee or lessees, from the Crown of any adjoining land in respect of any damage which may be sustained by him or them, by reason of the working of the said mine, or the carrying on of the works thereof or connected therewith, such compensation to be determined by the Secretary for Mines, or by some person authorised by him so to do.

9. And shall and will permit any mining surveyor, or other person duly authorised in that behalf, with all proper or necessary assistants, at all reasonable times, during the said term, quietly to enter into and upon the said land, mine, and premises, to survey and examine the state and condition thereof, and for the purposes aforesaid, to descend all pits and shafts, and to enter into and use all adits, levels, galleries, drives, and excavations, and to use all roads, ways, engines, ropes, machinery, gear, appliances, materials, labour, and other things in or on the said land and mine, which shall be by him deemed necessary, without making any compensation for the same, so nevertheless that in so doing no unnecessary interference is caused with the carrying on of the said mining works.

10. And further, shall and will at all times during the said term keep and preserve the said mine and premises from all avoidable injury or damage, and also the levels, drifts, shafts, water-courses, roads, ways, works, erections and fixtures therein and thereon, in good repair and condition, except such of the matters and things last aforesaid as shall from time to time be considered by a mining surveyor or other proper officer authorised by the Secretary for Mines to inspect and report upon such matters and things to be unnecessary for the proper working of the said mine or any contiguous mine, and in such state and condition shall and will at the end or sooner determination of the said term deliver peaceable possession thereof, and of all and singular the premises hereby demised to Her Majesty, her heirs and successors, or to the Warden or other officer authorised to receive possession thereof. Nevertheless, the Secretary for Mines may, if he think fit, permit the lessees, their executors, administrators, and transferees, within six months after possession shall have been received as aforesaid, to enter upon the said land, and to remove therefrom such machinery, plant, and apparatus as shall have been erected and fixed upon such land, and such earth, rock, ore, mineral, or metal as shall have been won from and raised to the surface of such mine.

11. And shall not nor will use or occupy, or permit to be used or occupied, the said land, or any part thereof, for other than mining purposes, or for pasturage, or as sites for dwellings, or garden ground for the persons employed in, on, or about the said mine.

12. And shall not nor will mine in or upon the said mine, land, and premises, for any mineral, metal, or ore other than coal, without the express sanction of the Secretary for Mines.

13. And shall not nor will transfer, underlet, or part with possession of the said land, mine, and premises, or any part thereof, or mortgage, charge, or encumber the same, without the license first had and obtained of the Secretary for Mines for the time being: Provided always that no such license shall be necessary in cases where, by operation of law or otherwise, a sale of the said land, mine, and premises, or any part or parts thereof, is made by any person or persons entitled to sell the same for the benefit of the creditors or a creditor of the lessees or their transferees, or in cases where the lessees or their transferees desire to let the said mine and premises, or any part thereof, to be worked on tribute.

14. And shall not nor will close up or obstruct any adit or adits to or from any contiguous mine or mines whereby fresh air is admitted or ventilation promoted.

15. And shall not nor will plead acceptance of rent or royalty by or on behalf of Her Majesty as a waiver of the right of Her Majesty, or of the Secretary for Mines, or other officer on behalf of Her Majesty, to enforce observance of the covenants herein contained, or of the right of the Governor, with the advice of the Executive Council, to declare these presents void for breach of any such covenant: Provided always, and it is hereby agreed and declared in manner following:—

16. That it shall be lawful for Her Majesty, her heirs, successors, and assigns, to make and use in, on, or under the said land, any levels, drifts, leads, shafts, water-courses, adits, roads, ways, and passages for freeing and keeping free any other lands or mines from water, or for conveying water to any other lands or mines for mining purposes, or for supplying any other mines with fresh air, or for effectually working any other mines, or for any public purpose whatsoever, causing as little damage, obstruction, or interference as possible to or with the said mine and the works thereof. And if, at any time during the term hereby created, any part or parts of the land hereby demised, or any part or parts of the surface thereof, shall be required for the purpose of any township, village, railway, road, canal, water-course, reservoir, or for any other public purpose, it shall be lawful for the Governor for the time being, with the advice of the Executive Council, on giving three months' notice of his intention so to do, to cause to be set out the part or parts of the said land or of the surface thereof which shall be so required; and as soon as the same shall be so set out such part or parts of the said land, or of the surface thereof, shall cease to be included in the land hereby demised, and the lessees, their executors, administrators, or transferees shall not be entitled to any abatement of rent or royalty, or any compensation whatever in respect thereof.

17. And if the said lessees, their executors, administrators, or transferees shall prove to the satisfaction of the Secretary for Mines for the time being that the said mine is unworkable, or cannot be profitably worked, from any cause whatsoever, or that the lessees, their executors, administrators, or transferees is or are unable, by reason of sickness or other sufficient cause, to work in such land or mine, or that the supply of water is insufficient to allow the working of the said land, mine, and premises to be profitably carried on, the said Secretary for Mines may grant permission to suspend work therein or thereon, for any period not exceeding six months, without the lessees, their executors, administrators, or transferees incurring in respect thereto any forfeiture or penalty for breach of any covenant herein contained.

18. And, lastly, that if the lessees, their executors, administrators, or transferees shall at any time during the said term fail to use such land *bona fide* for the purpose for which it has been demised, or if and whenever the said rent or royalty shall be in arrear for thirty days after the time appointed for payment thereof, whether the same shall have been legally demanded or not, or if and whenever there shall be a breach of or non-compliance with the covenants and provisos herein contained by the lessees, their executors, administrators, or transferees, and the lessees, their executors, administrators, or transferees shall not have obtained from the Secretary for Mines for the time being permission to suspend work as aforesaid, in case the breach shall have been for non-compliance with the covenants for the employment of workmen or miners, or for the working of the mine, the Governor, with the advice of the Executive Council, who alone shall finally judge and determine the matter upon the evidence or reports submitted by the Secretary for Mines for the time being, may declare these presents void, and upon publication in the *Government Gazette* of notice of such declaration, all the right, title, and interest of the lessees, their executors, administrators, and transferees under these presents shall cease and determine both at law and in equity; and the production of a copy of the *Government Gazette*, containing a notice purporting to be signed by the Secretary for Mines, declaring the lease void, shall be conclusive evidence in all courts whatsoever in the Colony of New South Wales of a breach of or non-compliance with the covenants and provisos herein contained sufficient to authorise and sustain such declaration having been lawfully made, and that the interest created hereunder has been lawfully determined; and thereupon it shall be lawful for Her Majesty, her heirs and successors, or her or their agents or officers, or for any bailiff or other person duly authorised thereto, or for any holder of a mineral license who has the permission of the Secretary for Mines for the time being, without any previous demand whatsoever, to enter forthwith into and upon the said land and premises hereby granted, and the same to repossess and enjoy as fully and effectually to all intents and purposes as if these premises had not been made, and the said lessees, their executors, administrators, and transferees to expel and remove, without any legal process, and as effectually as the Sheriff might do in case judgment in ejectment had been obtained and a writ of *habere facias possessionem* had been issued on such judgment; and in case of such entry and any legal proceeding taken in respect thereof

thereof, the defendant or defendants in any such proceeding may plead leave and license in bar thereof; and these presents shall be conclusive evidence of such leave and license by the lessees, their executors, administrators, and transferees, or other the person or persons, plaintiff or plaintiffs, in such proceedings, for such entry or other matters complained of in such proceedings.

In witness whereof, His Excellency the Right Honorable Charles Robert, Baron Carrington, a Member of Her Majesty's Most Honorable Privy Council, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies, hath, on behalf of Her Majesty the Queen, caused the Seal of the said Colony to be affixed to this grant, and also set his hand, at Government House, Sydney, in the said Colony, the day and year first above written, and the lessees have also set their hands and seals, the 28th day of March, 1887.

CARRINGTON.

Signed, sealed, and delivered by the within-named Victor Thomas Sherbrooke Houghton and Samuel Palmer, in the presence of,—
STEPHEN T. BURCHER.

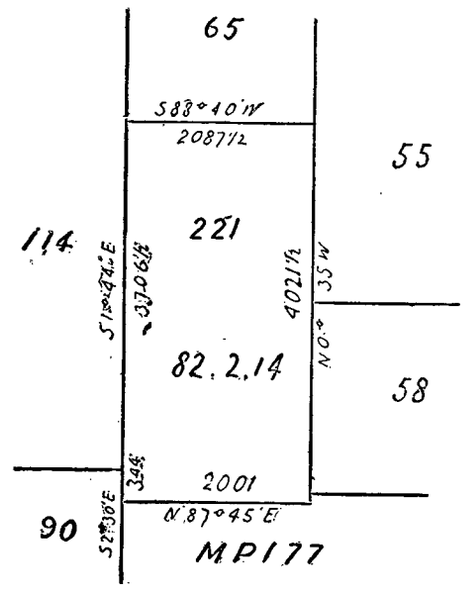
VICTOR THOMAS SHERBROOKE HOUGHTON.
SAMUEL PALMER.

FRANCIS ABIGAIL.

Schedule.

82 acres 2 roods 14 perches. County of Northumberland, parish of Kahibah, portion 221: Commencing at the south-east corner of portion 65; and bounded thence on the north by the south boundary of that portion bearing south 88 degrees 40 minutes west 20 chains and 87½ links; on the west by part of the east boundary of portion 114 and part of the east boundary of portion 90, bearing respectively south 1 degree 44 minutes east 3 chains and 6½ links, and south 2 degrees 30 minutes east 3 chains and 44 links; on the south by a north boundary of portion M.P. 177, bearing north 87 degrees 45 minutes east 20 chains and 1 link; and on the east by a west boundary of that portion, the west boundary of portion 58, and part of the west boundary of portion 55, in all bearing north 35 minutes west 40 chains and 21½ links, to the point of commencement.

Plan.



Registered in the Department of Mines, at Sydney, this 28th day of March, A.D. 1887, at the hour 12 o'clock noon, and numbered in the Register 216.

EDWARD FARR
(For the Registrar).

Transfer from V. T. Sherbrooke Houghton and Samuel Palmer of their interest in mineral lease No. 216. to the Scottish Australian Mining Company (Limited). Registered by me, in the Department of Mines, Sydney, this 2nd day of June, 1887, at the hour of 2 o'clock in the afternoon.

EDWARD FARR
(For the Registrar).

[Plan.]

Sydney: Charles Potter, Government Printer.—1892.

Extract from
4th Edition

PARISH OF KAHIBAH

COUNTY OF NORTHUMBERLAND

NEWCASTLE LAND DISTRICT
Eastern Division .N.S.W.

Scale
0 20 40 80 120 CHAINS

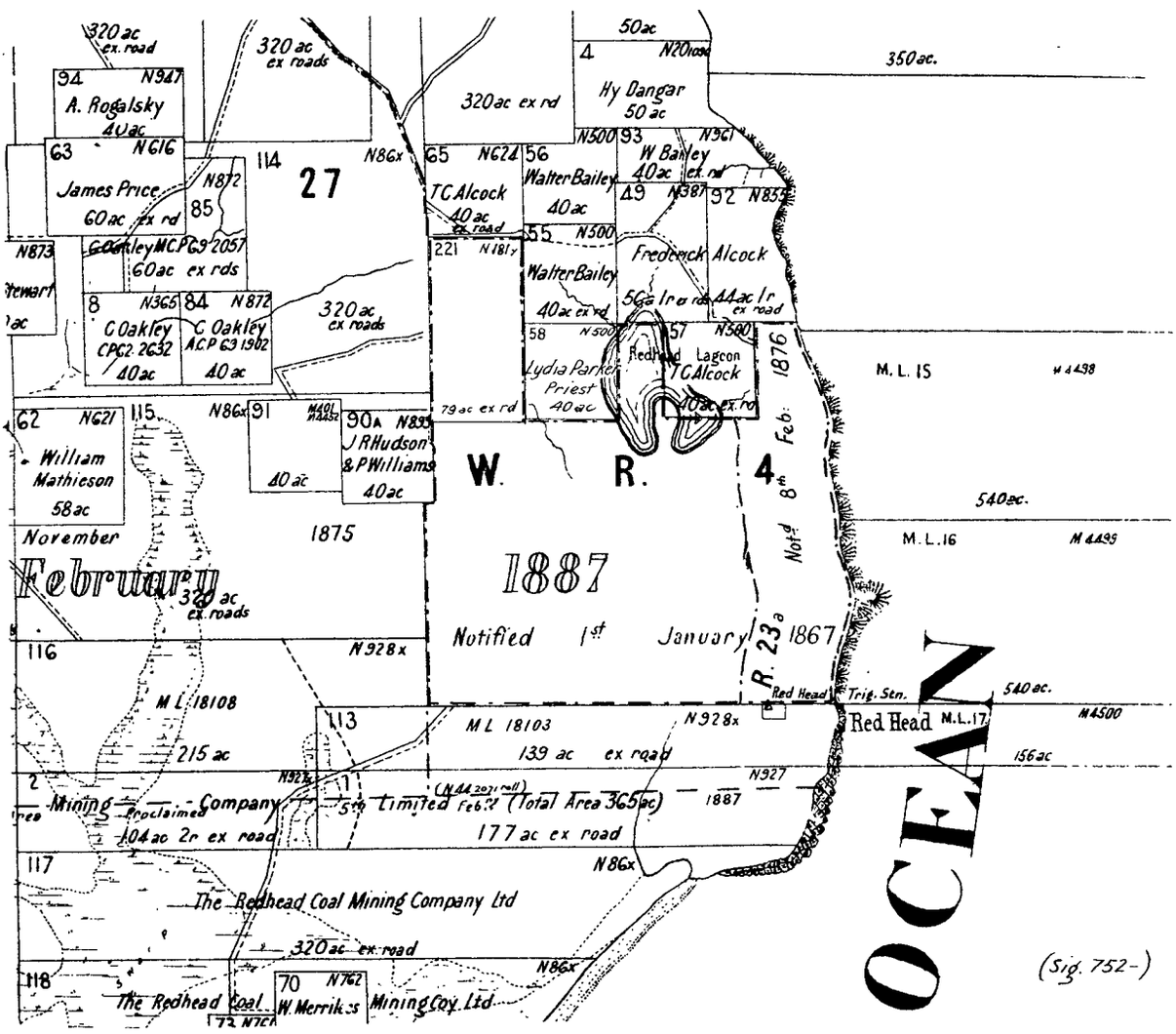


PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES.

1891-2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON THE

CONDITIONAL PURCHASE BY ZACHARY BENN, RICHMOND RIVER DISTRICT;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
22 *February*, 1892.

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.

1892.

[3*d*.] 765—

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 77. MONDAY, 1 FEBRUARY, 1892.

15. CONDITIONAL PURCHASE BY ZACHARY BENN, RICHMOND RIVER DISTRICT:—Mr. Ewing moved, pursuant to *amended* Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the conditional purchase of Zachary Benn in the district of the Richmond River, recommended for forfeiture by the Casino Land Board.
(2.) That such Committee consist of Mr. Brunker, Mr. Barbour, Mr. Copeland, Mr. Lees, Mr. McCourt, Mr. Stevenson, Mr. Danahey, Mr. Murphy, and the Mover.
(3.) That the Report from the Select Committee of Session 1889 be referred to such Committee.
Debate ensued.
Question put and passed.

VOTES No. 89. MONDAY, 22 FEBRUARY, 1892.

5. CONDITIONAL PURCHASE BY ZACHARY BENN, RICHMOND RIVER DISTRICT:—*Mr. Barbour*, on behalf of Mr. Ewing, Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, the Select Committee for whose consideration and report this subject was referred on 1st February, 1892.
Ordered to be printed.

* * * * * *

CONTENTS.

1891-2.

CONDITIONAL PURCHASE BY ZACHARY BENN, RICHMOND RIVER DISTRICT.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 1st February, 1892, "*with power to send for persons and papers, to inquire into and report upon the Conditional Purchase of Zachary Benn, in the district of the Richmond River, recommended for forfeiture by the Casino Land Board,*" and to whom was referred, on 1st February, 1892, "*the Report from the Select Committee on the same subject during the Session of* 1889, *together with the Minutes of Proceedings, and Evidence,*"—have agreed to the following Report:—

Your Committee having carefully considered the evidence referred to them, taken before the Select Committee on 26th and 30th July, 1889, and also reviewed the correspondence, which is voluminous, in connection with the case, find as follows:—

That on 24th July, 1884, Zachary Benn conditionally purchased 202½ acres of land in the county of Richmond, parish of Shannon, which land was subsequently forfeited on the ground of non-residence by the conditional purchaser.

That such forfeiture appears to your Committee to be against the weight of evidence.

That the evidence before your Committee, together with statutory declarations contained in the papers referred to them by your Honorable House, prove that the said Zachary Benn did reside upon his land.

Your Committee are, therefore, of opinion that the said conditional purchase should not have been recommended for forfeiture, and recommend the case to the favourable consideration of the Government.

THOS. EWING,
Chairman.

No. 2 *Committee Room,*
Sydney, 18*th February,* 1892.

PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 18 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Barbour,	Mr. Ewing,
Mr. Murphy,	Mr. Stevenson.

Mr. Ewing called to the Chair.

Entry from Votes and Proceedings appointing the Committee, and referring the Report from the Select Committee of Session 1889 on the same subject to the Committee, *read* by the Clerk.

Printed copies of the Report referred, before the Committee.

Committee deliberated.

Chairman submitted Draft Report.

Same read, amended, and *agreed to*.

Chairman to report to the House.

Sydney: Charles Potter, Government Printer.—18

1891-2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON THE

CONDITIONAL PURCHASE MADE BY ANNE NASH O'BRIEN, AT COROWA;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND

APPENDIX.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,

15 *March*, 1892.

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.

1892.

[1*s.* 3*d.*] 772—A

1891-2.

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 28. TUESDAY, 15 SEPTEMBER, 1891.

10. CONDITIONAL PURCHASE MADE BY ANNE NASH O'BRIEN, AT COROWA:—Mr. Barbour moved, pursuant to Notice,—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the conditional purchase and additional conditional purchase of Anne Nash O'Brien, Corowa, made August, 1885.
(2.) That such Committee consist of Mr. Brunker, Mr. McFarlane, Mr. John Wilkinson, Mr. Crick, Mr. Gormly, Mr. Gough, Mr. Hugh Taylor, Mr. Alfred Allen, Mr. Nobbs, and the Mover.
Debate ensued.
Question put and passed.

VOTES No. 101. TUESDAY, 15 MARCH, 1892.

6. CONDITIONAL PURCAHSE MADE BY ANNE NASH O'BRIEN, AT COROWA:—Mr. Barbour, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee for whose consideration and report this subject was referred on 16th September, 1891, a.m., together with Appendix.
Ordered to be printed.

CONTENTS.

1891-2.

CONDITIONAL PURCHASE MADE BY ANNE NASH O'BRIEN, AT COROWA.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 16th September, 1891, a.m.—"*with power to send for persons and papers to inquire into and report upon the conditional purchase and additional conditional purchase of Anne Nash O'Brien, Corowa, made August*, 1885,"—have agreed to the following report :—

Your Committee, having examined the witnesses named in the list,* whose evidence will be found appended hereto, find as follows :— * See list, page 5.

1. That the selector, Anne Nash O'Brien, at the time of making her conditional purchase was of the tender age of sixteen years ; that the land selected was apparently intended as a family selection, and was taken up with the object of working it in conjunction with the holding of her father (now deceased). Although it is shown by the evidence that the land in question is situated some distance from her father's original selection, it is also clear that it was the nearest portion available at the time it was purchased.

2. Your Committee are of opinion, notwithstanding the occasional absence of the selector from her selection, that the conditions of residence were, to all intents and purposes, virtually fulfilled, and if any apparent failure existed it is covered by the provisions of the Act of 1889; and the circumstance of the tender age of the selector explains fully the more frequent visits to the home of her parents without evincing any desire to commit a breach of the conditions.

3. That, having carefully considered the evidence and all the surroundings of the case, your Committee strongly recommend it to the Minister for Lands for his most favourable consideration, and respectfully suggest that, as there are no conflicting interests, the conditional purchases might be either reinstated or validated.

ROBT. BARBOUR,
Chairman.

No. 1 *Committee Room,*
Sydney, 15 *March*, 1892

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PROCEEDINGS OF THE COMMITTEE.

WEDNESDAY, 17 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Barbour, | Mr. McFarlane,
Mr. Gormly, | Mr. Nobbs.

Mr. Barbour called to the Chair.
Entry from Votes and Proceedings, appointing the Committee, *read* by the Clerk.
[Adjourned till to-morrow at *Two* o'clock.]

THURSDAY, 18 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Barbour, | Mr. Gormly.

In the absence of a quorum the meeting called for this day lapsed.

MONDAY, 22 *FEBRUARY*, 1892.
(10 o'clock a.m.)

MEMBER PRESENT:—
Mr. Barbour.

In the absence of a quorum the meeting called for this morning lapsed.

MONDAY, 22 *FEBRUARY*, 1892.
(2 o'clock p.m.)

MEMBERS PRESENT:—
Mr. Barbour in the Chair.

Mr. Gormly, | Mr. McFarlane.

Patrick O'Keefe called in, sworn, and examined.
Witness withdrew.
William Cahill called in, sworn, and examined.
Witness withdrew.
Alfred Salwey (*Head of the Conditional Sales Branch*), Department of Lands, called in, sworn, and examined.
Witness handed in a copy of the evidence taken by the Land Board at Mulwala, on the 19th December, 1889, *re* condition of residence of Anne Nash O'Brien. (*Appendix* A.)
Witness withdrew.
[Adjourned till Tuesday, 2nd March, at *Two* o'clock.]

TUESDAY, 1 *MARCH*, 1892.
MEMBERS PRESENT:—
Mr. Barbour in the Chair.

Mr. Brunker, | Mr. Gormly,
Mr. McFarlane.

John Sydney McPhillamy called in, sworn, and examined.
Witness withdrew.
Edward Beazley called in, sworn, and examined.
Witness withdrew.
[Adjourned till Thursday at *Two* o'clock sharp.]

THURSDAY, 3 *MARCH*, 1892.

The House continuing to sit till the hour named for the meeting of the Committee no meeting could be held.

MONDAY, 7 *MARCH*, 1892.
MEMBERS PRESENT:—
None.

In the absence of a quorum the meeting called for this day lapsed.

TUESDAY,

TUESDAY, 8 *MARCH*, 1892.

MEMBERS PRESENT :—

None.

In the absence of a quorum the meeting called for this day lapsed.

THURSDAY, 10 *MARCH*, 1892.

MEMBERS PRESENT :—

None.

In the absence of a quorum the meeting called for this day lapsed.

TUESDAY, 15 *MARCH*, 1892.

MEMBERS PRESENT :—

Mr. Barbour in the Chair.

Mr. Gormly, | Mr. McFarlane.

Chairman submitted Draft Report.
Same read and *agreed to*.
Chairman to report to the House.

LIST OF WITNESSES.

7

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON THE

CONDITIONAL PURCHASE MADE BY ANNE NASH O'BRIEN AT COROWA.

MONDAY, 22 *FEBRUARY*, 1892.

Present:—

MR. BARBOUR, | MR. McFARLANE,
MR. GORMLY.

R. BARBOUR, ESQ., IN THE CHAIR.

Patrick O'Keefe called in, sworn, and examined:—

P. O'Keefe.
22 Feb., 1892.

1. *Chairman.*] Where do you reside? At Prairie, Narrow Plains, near Corowa.
2. What are you? Selector and farmer.
3. How long have you been there? I selected in 1885.
4. How much land have you got? Just about 1,000 acres.
5. You keep a lot of sheep? Yes; and I am renting a lot of country.
6. How many sheep have you? About 1,500, and a good few cattle and horses.
7. Do you know Anne Nash O'Brien? Yes.
8. Did she select some land in your neighbourhood? Yes, within three-quarters of a mile of my property where I reside.
9. Do you know her father? Yes, I did know him; he is dead.
10. He died a few months ago? Yes.
11. How far is Miss O'Brien's selection from her father's residence? Between 16 and 17 miles.
12. At the time when she selected this land, was there any land available for selection near her father's place? There was not.
13. This was the nearest to her father's place? Yes. She selected the same day as I did.
14. Being neighbours, then, you have often seen her and her selection? Yes, very often.
15. Is she a bona-fide selector? She is as much a bona-fide selector as any man I ever knew.
16. She is as much a bona-fide a selector as she can be? Yes, as much as she can be.
17. Were you often in the habit of seeing her at her selection? Yes; I was renting land on both sides of her.
18. Are you a carrier? Yes.
19. And your horses often used to stray into the neighbourhood of her land? Yes. My property is on one side of her selection, and the rented ground on the other.
20. On such occasions, did you see her there? Yes.
21. That was when you were going to look for your horses? Yes. I saw her on the ground sometimes, and I used to go and speak with the girls and boys that were with her.
22. She had companions? Yes.
23. Who were they? Her sisters and brothers.
24. Had she a regular home on the selection? I reckon that it was.
25 Did you ever have a drink of tea with them at the selection? I have had meals with them there.
26. You and her family used to visit each other? Yes; she has been at my place often, and members of my family have been at her place.
27. Generally speaking, she made that place her home? Yes; I reckon that she did.
28. Occasionally, I suppose, she would be absent visiting her parents? No doubt.
29. Would she be away any length of time? I do not think she ever was.
30. How long might she be away at one time? A fortnight or three weeks.

P. O'Keefe
22 Feb., 1892.

31. But not more than that? Not more than that.
32. Then if the Inspector happened to come at that time—when Miss O'Brien happened to be on a visit to her parents—he would not of course find her on the selection? No, certainly not.
33. Did she keep stock on the ground? Yes; there were sheep, horses, and cattle on the ground.
34. And she often had her brothers helping her? Yes.
35. You are a selector, and have been there since in 1885;—do you think that Miss O'Brien honestly performed the condition of residence on that selection? I reckon that she fulfilled the condition of residence as well as any minor in Australia ever did.
36. She was a minor? Yes.
37. And she could not be expected to be too long away from her parents? No.
38. And she was occasionally absent on that account? Yes.
39. How many times a year did you see her on her selection? I may have seen her ten or twenty times.
40. You have no doubt that she was a bona-fide selector? I am sure that she was.
41. *Mr. Gormly.*] You state that you were almost constantly in the habit of passing the selection of this young woman? Yes, I have been in the habit of passing the selection. It was on the road to Corowa, and I went that way to buy stock.
42. And you usually found the place occupied? Yes.
43. By the selector? Yes.
44. Then she had her brothers and sisters at times residing with her? Yes; she was never by herself.
45. *Mr. McFarlane.*] You say that it was in 1885 that you selected there? Yes.
46. And Miss O'Brien selected at the same time? Yes, we both selected on the same day.
47. How far was her selection from yours? About three-quarters of a mile.
48. You say that you frequently saw her on her selection? Yes.
49. Are we to understand that that was during the five years when she was supposed to be residing on the land? Yes.
50. That was the time when you saw her on the selection? Yes.
51. You stated that you were a carrier? I was not carrying then. I was a carrier when I first went there, but I have not been carrying since 1885.
52. Have you been most of your time on your selection? Yes, since 1885.
53. At the time you visited the selector's residence, did you notice whether the house was furnished—whether there were cooking-utensils there, and the ordinary articles used in the home of a selector? Yes, I saw cooking-utensils and other articles of domestic use.
54. Have you at any time been to the selection without seeing the selector? Yes.
55. That would be when she would be with her parents? Yes.
56. How far was her father's house from the selection? Between 16 and 17 miles.
57. *Mr. Gormly.*] You stated that you had seen Miss O'Brien ten or twenty times a year? It may have been twenty—I never used to notice how often I saw her.
58. Did that extend over the five years when she was performing the residence? Yes.
59. You stated in answer to a question asked by Mr. Barbour that you did not think the selector had been absent for more than three weeks at a time? I do not think she was.
60. You do not know that she had been absent from the selection during the five years more than two or three weeks at a time? ——
61. *Chairman.*] Being neighbours, Miss O'Brien used to come to your house, and you used to go to her house? Yes.
62. You have no doubt in you own mind that she honestly fulfilled the residence condition as much as it was possible for a minor to do? I consider that she fulfilled the condition of residence as well as any girl in Australia could do it.
63. *Mr. Gormly.*] I suppose the Inspector of Conditional Purchases did not very often visit that neighbourhood—how many times did he visit your place during the five years? I have seen him only once myself.
64. *Chairman.*] At the most not more than twice? He has been there twice, but I only saw him once.
65. *Mr. McFarlane.*] Was it possible for him to be there oftener without your seeing him? He did not come to the house.
66. In your opinion, someone would have been sure to see him if he had gone there more than twice? Yes.
67. *Mr. Gormly.*] You would have better opportunities of seeing whether Miss O'Brien had fulfilled the conditions than the Inspector had? Yes.
68. Do you remember whether the Inspector called on Miss O'Brien at the time he called upon you? I do not know.
69. You did not hear anything about it? No, I did not.
70. And I suppose it is quite likely that if he called and did not find her on the selection she would be on a visit to her mother? Yes; there is no doubt about it.

William Cahill called in, sworn, and examined:—

W. Cahill.
22 Feb., 1892.

71. *Chairman.*] Where do you reside? My place is Loughmore Farm, Narrow Plains, near Corowa.
72. How long have you been in that neighbourhood? I settled there in August, 1881.
73. You were farming? Yes.
74. Have you a quantity of sheep and cattle? Yes.
75. What is the total acreage of your holding? I have 2,008 acres, and my son has 200 acres.
76. Do you know Anne Nash O'Brien? Yes.
77. She is a young unmarried woman? Yes.
78. At the time she took up the selection, how old would she be? Nineteen or twenty, I think.
79. When did she make the selection? About 1885.
80. Has she, in your opinion, fulfilled all the conditions the law imposed upon a selector? She has.
81. Has she made the place a home? Yes, she has, to a great extent. I have been there several times, and always found her on the selection.
82. Were you often there? I was pretty often there. The road lay between her selection and my land.
83. A simple road? A 5-chain road.
84. Have you often seen her on her selection? I have.
85. Do you consider that she is a bona-fide selector? I am certain that she is a bona-fide selector.
86. And except visiting her people, has she had any other home than that? She has not. 87.

W. Cahill. 22 Feb., 1892.

87. And, in your opinon, how often was she absent in a year? That I could not say.
88. How long at a time do you think she would be absent? She would go away on a Saturday and come back on a Sunday evening.
89. You know that of your own knowledge? Yes.
90. Would she sometimes be two or three weeks away? She would go home on a Saturday evening, and when she came back she would bring her brothers and sisters with her.
91. She generally had someone living with her? Yes, her brothers and sisters.
92. So far as you had an opportunity of seeing her, she was there as a bona-fide selector? She was.
93. Did she keep any stock on the land? Yes. The place was always stocked with sheep, horses, and cattle.
94. Were they managed by her father? Yes.
95. Had she a comfortable house? She had a nice comfortable place. It contained two rooms, and a bedroom for herself, and another place outside where her brother slept on a sofa.
96. She had a bedroom for her sisters and herself, and the boy had a sofa which he slept on in the kitchen? Yes; and they had half an acre of land outside to catch a horse in.
97. Did she cook and have all the things necessary for living there? Yes; she always had bacon hanging up in the place.
98. Had she plenty of potatoes and bread and flour? Yes.
99. And cooking-utensils? Yes.
100. How far was her father's place from her selection? 12 or 14 miles.
101. That being the case, that was too far for her to go for food to her parents' selection? Yes.
102. Then all the food was cooked in the house on the selection? Yes, except that on returning from her father's she would often bring some supplies with her.
103. Do you think that she was a bona-fide selector? I do, indeed.
104. And that she resided on the selection as much as any young girl could be expected to do? She did.
105. Of course you know that she had to do that for five years? Yes.
106. Did she do it for the whole of the five years? Yes.
107. From August, 1885, down to 1890? Yes, and her father often used to be there, and I used to go down and have a yarn with him there.
108. Did you see her there? She was always there when I went.
109. Did she do the cooking for you? Yes, always.
110. Have you any reason to know that she was ever absent from the selection for any length of time continuously? She was not to my knowledge.
111. Except when she went for a week or two to visit her mother, she was always on the selection? Yes, and my daughter used to go and visit her.
112. Your daughter would often see her when you would not. Did your children always speak of having seen her on the selection? Yes; it was about three-quarters of a mile from our place.
113. Her father is now dead? Yes.
114. There is a pretty large family, is there not? Yes, ten children.
115. Do you know the age of the youngest? The youngest is about 12 or 15 months old.
116. I suppose they have no great means left—no more than is necessary for their requirements? Indeed they have not.
117. They are not very well provided for? They are not—as far as I know, they are very badly provided for.
118. *Mr. Gormly.*] You had frequent opportunities, I suppose, of judging whether this young woman was residing on her selection? Yes; I lived near the selection. I would sometimes go to see Mr. O'Brien, and if he was not there she would tell me when he would be there.
119. Did you go many times to her residence and find her out? I never found her out once.
120. You were in the habit during the whole of the time of visiting her selection? Yes. I used to visit at Mr. O'Keefe's place, and Miss O'Brien's selection was on the road.
121. And as you constantly resided on your own land you were not for any lengthened time absent from that neighbourhood? No.
122. During the five years that this young woman was performing the condition of residence, did the Inspector of Conditional Purchases often visit your neighbourhood? No, not often.
123. About how many times. Only on one occasion did he visit the place to my knowledge. He was there on another occasion, but I did not see him.
124. You had a better opportunity of judging whether she was performing the residence condition than the Inspector had? Yes, of course.
125. *Chairman.*] You know of the Conditional Purchase Inspector being there once? I never knew him to be there more than once during the five years. It appears that he was there a second time, but none of us knew it.
126. When he called, did he see you? Yes.
127. But you say that he had been there at other times? Before the Land Board he stated that he had been there three times, but I saw him there only once.
128. At the time when he called on you, had he called on Miss O'Brien? I think not, but I could not say for certain.
129. *Mr. Gormly.*] He was not in the habit of constantly visiting the neighbourhood? Yes, he was.
130. What do you call constantly—several times a year? He often used to be at the station near Momolong—I have seen him there.
131. How far away is that? 2½ or 3 miles from the selections.
132. But he only once visited you in his capacity of Conditional Purchase Inspector? I saw him only once.
133. Was he in the habit of constantly visiting the selections to see if the selectors were residing on them? I saw him only once.
134. Did you ever see the Inspector at Miss O'Brien's selection? No, I never did.
135. *Mr. McFarlane.*] You say that there is a 5-chain road between Miss O'Brien's selection and your property? Yes.
136. How far is your house from Miss O'Brien's residence on the selection? I should think about three-quarters of a mile.
137. Could you see the residence on the selection from your house? We could.
138. Then you could tell whether the selector was away or not? Not unless we went near to the road.
139. What use was made of Miss O'Brien's land—was any of it under cultivation? No; it was all grazing-land—they had horses and cattle

W. Cahill. 22 Feb., 1892.

140. Was it fenced-in paddocks? It was all in one paddock.
141. *Mr. Gormly.*] Except a small paddock which was kept for a horse? Yes.
142. If you went to see her, did you go to find her at the selection, or at her father's place? I should go to the selection.
143. You regarded that as her bona-fide residence? Yes.
144. You would go to her residence before anywhere else? Yes.
145. Was Miss O'Brien's the nearest residence to yours? She was the nearest to mine.
146. She was your nearest neighbour? Yes.
147. Then you would be able to judge better than anyone else as to her residence conditions being fulfilled? Yes.
148. Were you on good terms? Always.
149. Did you visit Miss O'Brien, and did Miss O'Brien visit you? Sometimes her mother used to come to our place.
150. You used to be on visiting terms? Yes.
151. Have you any doubt whatever that this girl fulfilled the usual conditions? I have no doubt whatever.
152. She was not continuously in her hut, but occasionally went to visit her family? Yes; she went to visit her father and mother.
153. She would go on a Saturday night, and return on Sunday evening or Monday morning? Yes.
154. The selection was her bona-fide home? Yes. She used to have her brothers and sisters with her, and my son used to visit her brother. My son is a boy 12 or 13 years of age, and Miss O'Brien's brother is about the same age.

Alfred Salwey called in, sworn, and examined:—

A. Salwey. 22 Feb., 1892.

155. *Chairman.*] You are in the Lands Department? Yes.
156. What is your position there? I am head of the Conditional Sales Branch.
157. Did Anne Nash O'Brien make a conditional purchase about August, 1885, at Corowa? Yes; on the 6th August, 1885, C.P. No. 85–14, Corowa.
158. What was the area? The area was 715½ acres.
159. Then there was an additional C.P. attached? Yes.
160. Will you tell us when that was made? The conditional purchase of 142¾ acres was made on the 19th November, 1885.—No. 85/60.
161. Were the conditions of the original C.P., so far as you know, fulfilled—do you know anything about the fulfilment of the conditions? I have the evidence that was taken before the Board and the report.
162. I believe there was a subsequent inquiry as to residence? I believe there were no improvements. It was a question of fencing, I think. I have no evidence as to that—that has not been touched.
163. Then the question that has engaged the attention of the Lands Department has been the question of residence. Yes.
164. As far as you know, the conditions of fencing have been fulfilled? I have no evidence on that. I cannot say anything about it.
165. Some steps were taken by the Department in reference to the selection? An inquiry was instituted by the Land Board on the 19th December, 1889, and it was found that the condition of residence had not been complied with, and there was a considerable amount of evidence taken, a copy of which I will supply to the Committee. [*Appendix A.*]
166. Evidence was taken, a copy of which you will hand in, to be attached to the Report? Yes.
167. Did the Minister act upon the recommendation of the Board? No; an appeal was made to the Land Court, but the appeal was dismissed. I will hand in another document which has some bearing on the case—an affidavit made by Edward Beazley
168. Who is he? He was groom for Mr. M'Phillamy, the Conditional Purchase Inspector.
169. What is the document—a statutory declaration? Yes, made before a Justice of the Peace.
170. *Mr. Gormly.*] I should like to know under what circumstances that document came to be amongst the papers? It was sent to the Under Secretary for Lands.
171. By Mr. M'Phillamy? I do not know.
172. This affidavit was not taken before the Court? No.
173. Beazley is not an officer of your Department? No, he is not.
174. *Mr. McFarlane.*] How did the affidavit come to be made? In the interests of justice. He says, "I have the honor to enclose herewith a sworn declaration as to what I know concerniug the residence of Anne Nash O'Brien on her conditional purchase."
175. *Chairman.*] Is there anything you would like to add to what you have stated? Nothing further. I will hand in the evidence taken before the Land Board.
176. And will you consult the Under Secretary as to whether he would like to have the person examined who made that affidavit? Yes.
177. *Mr. Gormly.*] Are there any reasons given for dismissing the appeal? No; they simply dismissed it.
178. No fresh evidence was taken? No; no application was made for fresh evidence to be taken.
179. Is there anything in the documents relating to the dismissal of the appeal that would give information to the Committee? The Registrar of the Land Court wrote to the Under Secretary to say that the appeal had been dismissed, and the Court had ordered the deposit to be refunded.

TUESDAY, 1 *MARCH*, 1892.

Present:—

Mr. BARBOUR,	Mr. GORMLY,
Mr. McFARLANE,	Mr. BRUNKER.

ROBERT BARBOUR, Esq., IN THE CHAIR.

John Sydney M'Phillamy called in, sworn, and examined:—

J. S. M'Phillamy. 1 Mar., 1892.

180. *Chairman.*] You are a Conditional Purchase Inspector? Yes, in the districts of Albury, Corowa, and Tumut.
181. Did one Anne Nash O'Brien make a selection in the Corowa district? Yes.

182.

J. S. M'Phillamy. 1 Mar., 1892.

182. Do you know the number of it? The selection was taken up in 1885, and confirmed the following year. It was No. 85–14.
183. And there was subsequently an additional conditional purchase? Yes. On the 4th November, 1886, the original conditional purchase was confirmed.
184. Have you in the course of your duties visited that selection? Yes.
185. Can you tell us when? I visited it about eight times in two years.
186. Do you recollect the first time you visited it? The first time was on the 7th October, 1887.
187. What did you find when you visited it? I met the selector and her brother on the road coming from the direction of her father's place. They were going to the selection on horseback. They rode in front of me, and I drove after them to the house on the selection.
188. The selector is a young unmarried woman? Yes. I think she was just turned 16 at the time she took up her selection.
189. Did she say she had been on a visit to her mother? She did not.
190. Did you ask her anything? I do not recollect.
191. Did it appear to you that the residence on the selection was permanently occupied? On that occasion it had a bedstead, bedding, and cooking-utensils in it, but it did not appear to be habitually occupied.
192. What was the size of the hut—did it contain one or two apartments? Two appartments, the dimensions of which were 21 feet by 12 feet.
193. Was there a sleeping-place in the kitchen? There was a bunk in the kitchen.
194. Was there a bed in the other room? Yes, and a double bedstead.
195. You say you saw cooking-utensils and everything necessary for a person residing there? Yes.
196. What was the cause of the doubt—was it as to whether the residence was permanently occupied? From my general knowledge of such matters, I thought so.
197. This was your first visit? Yes.
198. Did you see anything suspicious about the place? The selection was confirmed in November, 1886, and the selector need not have resided for three months afterwards. I visited the selection in October, but there could not then, if she lived there, have been much sign of residence in so short a time.
199. Do you think there was sufficient for the time? Yes, on my first visit. I gave her the benefit of any doubt, and reported favourably, with the view of revisiting the place and ascertaining if residence was being done.
200. Did you inspect the improvements at that time? Yes. The selection was fenced all round.
201. On your first visit? Yes, all except the additional conditional purchase. There was a road measured through that, and it cut through Miss O'Brien's fence.
202. As far as the improvements were concerned, they had been performed? Yes, with the exception of that road being enclosed.
203. Did you find stock on the land? Yes; there were sheep on it.
204. Did they belong to the selector or her father? I believe they belonged to her father.
205. They were not the sheep of the station? Oh, no. The selection was fenced in before it was confirmed.
206. And her father put sheep on it? Yes.
207. On your second visit, what occurred? On the second visit—that was on the 14th of May, 1888—no person was resident on the selection.
208. No person was then in the hut? No.
209. Had the hut any signs of being occupied as it was when you visited it in the first instance? It contained the same things, but did not appear to have been occupied for a length of time by anyone.
210. Did you see anybody at all on the selection? No, no one.
211. Who looked after the sheep and stock? I do not know of my own knowledge. I have heard that Mr. O'Brien used to come up occasionally. There was a good wire fence round the selection, and the gate had a lock on it.
212. Have you any idea where the selector was at that time? No.
213. You did not meet her on the road on that occasion? No.
214. Was it your impression that she only lived in the hut occasionally? That was my impression.
215. I suppose it would be quite natural for this young girl to visit her mother occasionally? Certainly.
216. How far was this hut from her mother's house? I should say 14 or 15 miles.
217. I think you said you did not see anyone at all on the selection? I saw no one.
218. When was your next visit? On the 26th of May I again visited the selection, and found it in the same state as when I first visited it.
219. Did you go there on purpose to visit it? No; I called there as I was returning home.
220. You visited the place as you were passing? Yes.
221. Did you form any opinion as to whether she had been there in the meantime? I do not think she had been.
222. Was the house locked up? Yes.
223. And you could only see through the windows? There were two windows, and there was a pane of glass out of each window, and I could put my head through.
224. When was your next visit? On the 21st of July following. No person was at the hut at that date.
225. Did anything strike you on that occasion? There was a kerosene-tin under the drip of the spout which had been removed. There had evidently been somebody there. The quilt on the bed was in a dusty state. There was a plague of mice at Riverina at that time, and the mice had attacked the bed, the contents of which were strewn on the floor.
226. Did you find anyone upon the selection at that time? No one.
227. But your impression was that someone had been there, whether lately or some time before you could not say? I think they had been there before my last visit.
228. Did you go again? Yes, on the 26th of October, 1888.
229. Did you find the selector there at that time? There were signs of someone having been there in the meantime. There were some chips off the woodwork of the building, and some had been taken to light the fire, as I thought. The hut was in the same state, as far as the furniture and cooking-utensils were concerned. The bed had been slept in, and it had not been made up. Some person had slept in the hut shortly before my visit, as far as I could see.
230. Did you visit the selection any more after that? I visited it on the 15th January, 1889, and I noticed at the front gate traces of a buggy having been up to the hut.

J. S. M'Phillamy. 1 Mar., 1892.

231. Did you find anyone on the selection then? No.
232. Did you see any further traces than the marks of the buggy wheels? The bed was made up on that occasion, but I think that everything else was in the same state as before.
233. Were the sheep still in the paddocks? I could not say for certain. There was some stock in the paddocks.
234. Did you make any further visits? On the 11th March, 1889, I again visited the conditional purchase. The gate was locked, and there were no signs of recent traffic through it. The hut was locked, and appeared to be in the same state as on the last visit, except that I noticed some candles and a bottle of limejuice in the bedroom, and also a new bucket. I noticed a coil of wire outside which I did not see on my previous visit.
235. Did you visit the selection any more? Yes; on the 18th September I again visited the conditional purchase, and the gate was locked, and there were no fresh tracks.
236. Did you go there any more after that? That was my last visit.
237. Did you find anyone on the selection? There was no one on the selection at that time.
238. Did you find indications of persons having been there since you were there before? There was a small ash-heap outside which had been made since my previous visit.
239. Was it an accumulation, or was it a place where a fire had been lit? A small heap of ashes had been thrown there, and some thistles were growing up through it.
240. I suppose that would have occurred quickly if there had been rain? Yes.
241. Then, how many days' ashes would there be there? There would be a bucketful or two there.
242. Then, on that occasion, did you see any person there? No, no one.
243. The selector is a very young girl, is she not? Yes; she was 16 in 1885.
244. What was your impression—had she gone to her mother's? I believed her to be living with her parents.
245. Your impression is that she was only there occasionally? Yes; she used to visit the selection occasionally.
246. I suppose you have no fault to find with the other conditions? No, except as to the fence enclosing the road. The Minister, however, has waived forfeiture in cases of that sort.
247. Did you ever see any of the neighbours about when you visited that place? Mr. Cahill is the nearest neighbour.
248. Did you ever speak to him about the thing? I think I told him that I was not satisfied with the residence.
249. Did he say that you might be satisfied? No; he seemed to agree with me. He said that O'Brien was foolish to run the risk of losing the land through not having the residence condition complied with.
250. You seem to have shown more than ordinary attention to this selection? No, I did not.
251. You paid eight visits—do you pay eight visits to every selection? I do to some, when they are conveniently situated—when they are on the roads on which I travel. I used to go to the end of my district, and return by the road passing Miss O'Brien's selection. It is on the main road between Jerilderie and Corowa.
252. You were in the habit of passing that selection? Yes.
253. *Mr. McFarlane.*] Did you notice that there were several selections adjoining O'Brien's? Mr. Cahill's is the nearest, and his residence is 1½ mile from it, but his selection is on the other side of the 3-chain road.
253½. There is no other selection adjoining? The nearest one except Cahill's is O'Keefe's.
254. How far away is his place? To go across the country it is not much further than Cahill's, but to come round the distance would be 2½ or 3 miles.
255. Would not those neighbours have a fair opportunity of knowing whether this selector lived on her selection? I do not think they would see her very often. I do not think they would have gone to the selection to find Miss O'Brien.
256. If they have stated that they went there to see her, would that be untrue? I would not care to say that, but I do not think they would have gone to the selection to find her.
257. You say that you saw the selector one day with her brother coming from the direction of her father's place? Yes.
258. What day of the week was that? I could not tell.
259. Was it on a Sunday? No; I think it was on a Monday, because on the previous Saturday I asked her brother if Miss O'Brien was at home, and he said she was at Victoria Park, her father's place.
260. A number of selectors are in the habit of staying the whole week at their selections and going away on Saturday and returning on Monday? Yes; it is a common thing.
261. Possibly that was her case? If that were the case the hut would have shown more signs of occupation. I do not report persons non-resident because they do not happen to be at the selection when I visit it. I have had sufficient experience to know that if a person resides on a selection sufficiently to comply with the Act there must be signs of residence.
262. In this case the selector and her brother, who is a small boy, would not leave much trace of residence on the selection if they did reside, would they? Well, they would have a place to catch water in, they would have a wood-heap, and nearly every selector has domestic animals.
263. Even some of those who do not reside on their selections at all? Yes.
264. You say that there was a plague of mice, and that you found the mattress destroyed? Yes.
265. How long would it take for that to happen—would it take some weeks for the mice to do that damage? They were so numerous at that time that they could do it in a week or two. In some places they killed the mice at the rate of 4,000 a night.
266. Perhaps the whole of this damage was done in a day or two? Yes, very likely.
267. In that case it would not be very good evidence that the selector had been a considerable time away from the selection? No; I do not know how long it took.
268. You did not see the selector at all on any of your visits to the selection? Only on the first visit.
269. What was your opinion, judging by the traces of residence that you saw;—does it come up to a fair average of the selections that you have visited? No.
270. *Mr. Brunker.*] How long have you been Inspector of Conditional Purchases? Fifteen years.
271. Do you know the selections of this selector's father? Yes.
272. What area has he selected? He took up 640 acres, and his mother-in-law, I think, took up 500 acres. He has 1,100 acres at Victoria Park.

273.

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273. Just under the maximum? Yes.
274. Is the selection of Anne Nash O'Brien adjoining? No; it is 14 or 15 miles away.
275. It would not have been competent for O'Brien himself to have taken up a large selection under the law? No.
276. Can you say from your experience whether the conditions of residence as required by law were complied with in this case? I should say that they were not.
277. Did you find the place locked when you went there? The hut was always locked, but I could see into it through the window.
278. When you visited the selection you were sometimes accompanied by a man named Beazley? Yes, I was. He left my employment three years ago.
279. Do you know of your own knowledge that any offer was made to this man Beazley in regard to this selection? No.
280. With regard to improvements—were there any improvements on the selection other than the small building and the fences? There was a small paddock round the house, with a wire fence round it called the house-paddock, and there was a little ring-barking round the house.
281. Your impression was that there had been no habitual residence at the selection. I want to know whether from the surroundings you thought that it was a continuous home? No, it was not. There were no buildings of any kind on the land except the hut.
282. *Chairman.*] Is this girl's father now dead? He died in Sydney, I believe.
283. Lately? Within six months, I think. I believe he died since this Committee was moved for. He died in the hospital.
284. What are the circumstances of the widow and family? I believe there are in poor circumstances.
285. Have the people in the neighbourhood got up a petition to the Minister? Yes; there is great sympathy for the widow and children in the district.
286. Do you know what the prayer of the petition is? I believe it is to ask the Minister to waive forfeiture.
287. Was the pastoral tenant adverse to this selection at first? Only as to the improvements, there being a dispute as to the value of them.
288. What is his attitude towards it now? I believe he went round with a petition to get it signed.
289. On behalf of the widow and family? Yes.
290. Do you know if his name appears as the first on the petition? No; I have not seen the petition.
291. But you know that he has exerted himself in the matter? He went round the district with the petition to get it signed.
292. And the object of the petition is to ask the Minister to waive forfeiture? That is the object, as far as I can learn.
293. And is there a general sympathy with the widow and the family? Yes, there is a very general sympathy with them in the district.
294. Is there a feeling that the selection ought to be forfeited? During Mr. O'Brien's lifetime there was.
295. What is the feeling now? The feeling is that the widow was left very poorly off. I did not know until Mr. O'Brien's death that they were so poorly off.
296. Had the selection been lying alongside the father's land, is there not provision in the Act of 1889 under which she might have been spared the necessity of residing on the land away from her parents? Yes, if it adjoined.
297. Had there been any Crown lands adjoining her father's selection available for selection for a great many years? No, none. There was a reserve, but he lost it at the ballot. There was no Crown lands near.
298. And none at the time she took up the selection? No, none.
299. The probability is that she would have selected alongside her father's selection had she been able to do so? Yes.
300. And then, under the law, she need not have resided on the selection? Not under the Act of 1889.
301. *Mr. Brunker.*] Can you say from what you know that although this selection was separate from the home of the O'Briens it really formed part of the home of the family? Yes.
302. *Mr. Gormly.*] I suppose that the lessee of Narrow Plains took the petition round out of sympathy for the family? Yes.
303. Not from any interest that he had in the selection? No.
304. *Mr. Brunker.*] When I asked if the selection was part of the home of the family, I meant to ask if any other person had any interest in it? No one else had any interest in it whatever.
305. *Chairman.*] Have you anything else that you would like to tell the Committee affecting this selection? No. I should like you to compare the evidence of the two witnesses with the evidence given before the Land Board.
306. *Mr. Brunker.*] There are no conflicting interests? No. It is simply a matter between the Crown and Miss O'Brien.

Edward Beazley called in, sworn, and examined:—

E. Beazley. 1 Mar., 1892.

307. *Chairman.*] What are you? A cab-driver at Albury.
308. Were you at one time coachman for Mr. M'Phillamy? I was for seven years.
309. Did you ever go with him to the selection of Anne Nash O'Brien? Yes, seven times.
310. Did you see the selector there? I saw her on one occasion. One out of the seven.
311. Who was with her at that time? She and her brother passed us on the road as we were going to the selection.
312. And you followed them to the selection? Yes.
313. Was there any conversation between M'Phillamy and the boy and girl? Not till they got to the selection.
314. Then what occurred? Mr. M'Phillamy went inside.
315. Did he say anything to the selector? I do not know. I was holding the horse outside.
316. Any conversation that took place was not in your hearing? No.
317. Did you remain long on the selection? I suppose we remained nearly half an hour.

E. Beazley. 1 Mar., 1892.

318. Did they make you a cup or tea? No.
319. Were there any cooking-utensils in the hut? Yes; I saw them on the second visit. When we made the first visit I never left the buggy.
320. The second visit was when you were returning? I think it was.
321. Did you see anybody at the selection then? No.
322. It was then that you saw the cooking utensils and other necessary articles at the house? Yes.
323. Were there beds there? Yes, there was a double bed in the bedroom.
324. Was there anything of the kind in the kitchen? There was a sofa in the front room.
325. Did you hear anything about who slept in the back place? No.
326. Did you think anybody slept there? It did not seem as if it had been occupied.
327. When you left the hut after your first visit, did you leave the selector and her brother there? Yes.
328. When you went there twelve days afterwards they were not there? They were not.
329. Had they been sleeping there at any time when you saw them on the first occasion? I do not think so.
330. On what occasion when you passed, except the first, did you see the girl residing there? I never did.
331. Where did you understand she was living? At Victoria Park.
332. Was that where her father lived? Yes.
333. Was the selector a young girl? Yes, 18 or 19 years of age.
334. Do you know whether the selection is part of the family property—are they all interested in it? I could not say.
335. Did you not hear that they were? No.
336. When the selector stayed at the selection, did she stay by herself, or were her brothers or sisters with her? I could not say.
337. Do you know anything else about this matter? Nothing more.
338. You passed the place in company with Mr. M'Phillamy seven times, and on one of those seven occasions the selector was living on the land? On six occasions she was not there.
339. Did you see any ashes in the yard? None at all on any of my visits.
340. I suppose that if Mr. M'Phillamy said that there were ashes there there would be ashes there? Yes.
341. *Mr. Brunker.*] Did you ever have a conservation with Mr. O'Brien about this selection? Yes.
342. What was it? He wanted me to go against Mr. M'Phillamy.
343. What do you mean by that? I mean his saying that we had been at the selection often and what we saw. He wanted me to say that every time Mr. M'Phillamy visited the selection we saw his daughter there.
344. How did he put it to you—what did he say? I forget now how he put it to me.
345. *Chairman.*] Give us his words as near as you can recollect? I do not recollect.
346. *Mr. Brunker.*] You drove him to the train? Yes.
347. And you had a conversation with him? Yes.
348. You said at one time that he cornered you off Yes.
349. What did Mr. O'Brien say to you? He told me I could get him out of this scrape, but I said I did not know how I could get him out of it.
350. Did he suggest any way of getting out of it? No.
351. Did he say anything about paying you anything? He said he would make it worth my while if I could do him any good in the matter. I told him that I really could not do anything at all in the matter.
352. *Mr. Gormly.*] There was no court of inquiry about that time, was there? No. Mr. O'Brien was coming to Sydney.
353. *Chairman.*] Did he ever ask you to tell a lie about the matter? Not to my recollection.
354. He did not say he would give you money if you would tell a lie to get him out of it? He said he would make it worth my while if I would try to do anything in his favour. He did not say anything about money.
355. If you could do anything to help him out of it? Yes.
356. *Mr. McFarlane.*] What did you understand from that? I do not know.
357. Surely you would take some meaning out of it? No, I could not.
358. *Mr. Gormly.*] There was no court of inquiry that he wished you to go before and make a false statement? No.
359. You say in your declaration: "On Sunday, 12th April, 1891, John O'Brien called at the 'Albury Hotel,' where I stay, and asked for me. I was out, and he waited with some other man till I returned. He then accosted me, saying, 'You are just the man I want.' He then commenced talking about his daughter's selection. He said he wanted me to help him, and he would pay me well. He said, 'You know what I want. The case is coming before a Committee of the House, and you are the man that can pull me through.' I tried to shake him off, but he persisted in his endeavour to get me to say something. He then commenced to bounce me, and said he would have me as a witness, and would make me speak the truth."—Is that true? Yes, that is true.
360. *Chairman.*] Is Mr. O'Brien still living? No; I have heard that he is dead.
361. Has he died lately? I could not say.
362. Do you know anything of the the circumstances of the family? No; I have not been down there since I left the service of Mr. M'Phillamy three years ago.
363. *Mr. Brunker.*] I suppose it is possible that there may have been ashes about the house without you seeing them? There might be.
364. They could have been there in a small quantity without you seeing them? They would have to be a good way off. I walked round the house.
365. I suppose you walked round with Mr. M'Phillamy? I did.
366. *Chairman.*] Do you know whether this was a family selection? I could not say.
367. *Mr. Brunker.*] Having had some experience in travelling with Mr. M'Phillamy, do you think that the residence on the selection was continuous? I do not think so.
368. *Chairman.*] Your main duty was to attend to the horses? Yes.
369. A heap of ashes might have been there and you might not have seen them? There might have been some, but I did not see them.

CONDITIONAL PURCHASE MADE BY ANNE NASH O'BRIEN, AT COROWA.

APPENDIX.

[*To Evidence of Alfred Salwey, 22 February*, 1892.]

A

Enclosure C.S. 90, 1,611 Departmental; Land Board District No. 9,890, 23 Dec., 1889, Head Office, Wagga Wagga.

John Sydney M'Phillamy, Inspector of Conditional Purchases, sworn, saith:—On 7th October, 1877, I visited Anne Nash O'Brien's conditional purchase, 85-14 of 715½ acres, portions 102, 103, 56, and 60, parish Narrow Plains, County Denison, confirmed 4th November, 1886; I was on the road leading from Bull Plain to Momolong; I met the selector, with her brother, riding towards the selection; I drove to the residence on the selection, and found the selector and her brother there; on the previous day, the 6th of October, 1887, I was inspecting selector's uncle's selection or lease, adjoining her father's selection, and met one of her brothers; I visited the hut, which contains two rooms, and was furnished in bush style; on 14th May, 1888, I again visited the selection; no person was residing there; the entrance-gate to the selection from the main Jerilderie road had a chain and lock to it; there was no defined track from the gate to the house; the house was a weatherboard and iron building, 21 x 12 feet, containing two rooms; the chimney was made of weatherboards, and soldered up inside; the door of the house was locked with chain and padlock; these were in a rusty state; there were two glass windows to the house; the bed-room contained a double bedstead, bedding, washstand fixture in the corner of the room, and shelf-table a fixture in the corner; the bed did not appear to have been disturbed; there was an old skirt and jacket hanging up; towel, tin dish, soap and brush dish empty; the table had on it an old brush and comb, part of a looking-glass—the glass, not the frame; one pane of the glass looking into the bed-room was out; the other room of the hut contained table, two chairs, bunk bed, food-bag, two cups and saucers, three plates, a candlestick, and two tin billies; there were signs of fire in the fireplace; I could see no food in the house; outside and around the house there were the chips from the material used in the building lying; a kerosene-tin, used as a bucket, with water in, evidently filled from the drip from the roof; there was also a ladder, tin can, and fruit and fish tins, empty, outside; there was no tank at the house; the house was fenced round into a small paddock about 22 panels square; this paddock was entered by slip-rails, and showed no signs of traffic; grass was growing up pretty well outside the place; there was no ash-heap or wood-heap, no fowls or other domestic animals about the place; on 26th May, 1888, I again visited the selection; the house appeared then to be in exactly the same state as on my previous visit, on 14th May, 1888; on 21st July, 1888, I again visited the selection; the slip-panels at the house paddock were in the same state as on my previous visits, and no visible signs of traffic through them; outside the building everything appeared to be in the same state; the door of the dwelling was locked, and no person was residing there; the bed-room appeared to be in about the same state as on my last visit except that it was in a very dusty and untidy state, the mattresses had been attacked by mice, and the straw was strewn about on the floor; in the other room the only difference I found was another bag hanging in it, and one of the billies was on the wire at the fireplace; there was no ash-heap or wood-heap outside; on the 26th October, 1888, I again visited the conditional purchase; the front entrance-gate to the selection showed signs of one buggy-track to and from, also the slip-panel of house paddock; there was no beaten track from this gate to the dwelling; I noticed the kerosene-tin bucket had been removed since my last visit, on 21st July, 1888, but recently some of the chips in front of the house appeared to have been used for firewood; there were two straw bottle letters, a ladder, and some timber also outside; the house was locked up, and no person was residing there; the bed in the bed-room had been used and not made up; this was the only alteration I noticed in the room since my previous visit; in the other room I noticed a frying-pan and kettle; these were not there on my previous visit; the fireplace showed signs of a recent fire having been there; grass was growing up and around the place; there was no ash-heap outside; on 15th January, 1889, I again visited the conditional purchase; the front gate to it was locked; there were tracks of a buggy to and from; the slip-panels at the house paddock also showed were a buggy had been through; everything outside the house was in the same state as on my previous visit; the door of the house was locked, and no person was residing there; the only difference since my previous visit in the bed-room was that the bed had been made up; the other room appeared to be in the same state as when I last saw it; on 11th March, 1889, I again visited the conditional purchase; the track through the main entrance showed no sign of recent traffic, nor did the slip-panels at the house paddock; the house was locked, and no person was residing there; the only difference I noticed since my last visit in the bed-room was that there were candles there and a bottle labelled limejuice, and in the other room a new bucket; there was no ash-heap outside; on 18th September, 1889, I again visited the conditional purchase; the entrance-gate was locked, and there was no sign of traffic through; the slip-panels were in the same state; outside the house everything appeared to be in the same state, with the exception that there appeared to be a small ash-heap, which had evidently not been there very long, as the grass and thistles which it covered were springing up through it; the house was locked, and no person was residing there; the bed-room appeared to be in the same state; in the other room I noticed a bag containing flour hanging up; there was also a piece of very dry bacon and a leg of mutton bone hanging up; there were no outbuildings of any kind whatever; there was, about eight chains away from the house, on the A.C.P., a tank, but there was no beaten track from the house to that tank; the house is fully 1½ to 2 miles from any other habitation; the father of selector lives about 14 or 15 miles away from the selection under inquiry; selector has no brother or other members of the family living in the locality.

By Mr. Bamber: It might take me about half an hour each time to inspect the place; on all the occasions I inspected the selection it was between 9 o'clock in the morning and 5 o'clock in the evening; if I were starting from Momolong in the morning it would be about 9 o'clock or thereabouts; if I started for Momolong in the afternoon it would be in the evening that I visited there; on each of my visits I found the house locked; I could see through the window, one of the panes of which was out; the table was pretty well in the centre of the room; I noticed a sofa under the window; this is what I called a bunk; there might have been a few articles there that I could not see through the window; on one occasion I saw a bag containing what I believed to be flour; there was white stuff outside the bag which looked like flour; I noticed ashes in the fireplace, but not large quantities; it was only on my last visit I discovered the ash-heap; it could not have been there long; I knocked some of the ashes over, and the grass underneath was not rotten; I know that it had not been there long; I looked all round the place and did not notice any other ash-heaps; people do not usually carry the ashes a distance away from the house; I saw empty fruit and fish tins each time I was there; there was about half a dozen on my visit on 14th May, 1888; I did not notice any increase in the numbers of the empty tins on my other visits; I know that the selector is a spinster; the place did not appear to have been habitually used by any person; it may have been occupied at times; I looked carefully, and on two occasions I only noticed buggy-tracks; I did not notice the tracks of horses; the track appeared to be that of a buggy, and not a dray-wheel; it was a small wheel track; I noticed a frying-pan and kettle on one occasion; on the other occasions I visited there they were not visible to me; on the occasion of my visit, on 26th October, 1888, I noticed that the kerosene-tin bucket had been recently removed; I could tell from the traces where it stood that it had been only recently removed; there was no beaten track to the dwelling; it is a very rare occasion when there is not a beaten track from the main road to a selector's house; it is not absolutely necessary that there should be a beaten track to the house to prove that a person is residing; the mattress on my visit on 21st July, 1888, had been attacked by mice; on my next visit the place had been cleared up; at that particular time there was a great mice plague throughout the district; I noticed that the bed was very dusty and the room untidy on one of my visits; the floor was boarded; it looked very dusty; I did not turn the bed down; I was only looking through the window; on 26th May, 1888, as far as I could see everything in and around about the place appeared to be in the same state as on my previous visit; I could not see any difference in the place; I did not notice a kettle on that occasion; I never saw any fowls, cats, or other domestic animals about the place; I always look upon any of these animals about a place as a sign of residence; the kerosene-

tin

tin bucket appeared to have caught the water dripping from the roof; on 14th May, 1888, the bed looked as if it had not been disturbed; it looked very solid; I cannot swear that it had not been made that day; the padlock and chains did not appear to have been constantly used; on 7th October, 1887, I found selector on her selection; this was the only occasion of all my visits I found her there.

Taken and sworn before us, at Mulwala, the 19th December, 1889,— J. S. M'PHILLAMY.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

John O'Brien, farmer, of Victoria Park, Bull Plain, sworn, saith:—I am the father of Anne Nash O'Brien, the selector of the land under inquiry; I know the selection; I know when it was confirmed; up to the date of confirmation she was residing occasionally with me; she was residing on the land prior to its being confirmed; since the date of confirmation occasionally resided with me; on one occasion, in consequence of one of her brothers having lost one of his arms, and when her mother was away, she kept house for me for about one month; this was, I think, early in 1887; I swear that she has made the selection her continuous and bona-fide residence since the date of confirmation, and up to the present she has no other home; she has left my home to go to her selection; I base my opinion of that the selection is her bona-fide residence in view of my living a distance of 12 miles away; by the fact that I am her father, I supply her with rations; I have visited her from two to four days a week; this would not be for every week; some member of the family has always been there with her in my absence; on some of my visits I have found her absent from the selection visiting some of her neighbours; I know that she slept in the house of a night; she frequently visits her mother, and there being a large family she frequently takes sewing for her mother to the selection; I have supplied her with rations and everything necessary for her living there; I have also supplied her with books; there are several ash-heaps about the place; my daughter has a buggy and pair of ponies, which are kept wherever she is, principally at her own place, and the places where she goes visiting; she has been a good deal away in Melbourne visiting; when she goes away on long visits she leaves the ponies at my place; she has also a riding-horse and saddle of her own; there is a fairly-defined track between her selection and my place; in wet weather different tracks have to be taken; my place is about 12 miles away from my daughter's selection; it takes about 1½ hours to ride or drive between my place and her selection; this last winter it used to take about three hours to go between the places; she used to visit my place once a week to get rations and change of clothing, sewing, and to see her mother; there is a double iron bedstead value about £8 in her house on the selection, with curtains and hangings, two chairs, sofa, ordinary dining-table, cooking-utensils, and a fair library of books.

By Mr. M'Phillamy: I have a comfortable homestead at Victoria Park; it is up to my requirements; up to the time of my daughter's application, my daughter resided with me at my homestead; she was over 16 years of age at the time she made application; she had finished her education at the time of confirmation of her application; I have not kept a governess or tutor since the date of confirmation of her application; she used to visit my homestead about once a week since date of confirmation; on those occasions she would stay at my place sometimes one day and sometimes two days; within the last two years she has not visited my place so frequently and stayed; on an average from the date of confirmation, and up to the present time, she has visited my place once a week; frequently she goes away from my place the same day; she went to Melbourne with me on one occasion and stayed there about a month or six weeks; I visited her selection on an average once a week since date of confirmation, and I have frequently stayed a week with her on the selection; I have stayed with her on the selection altogether six or nine months; a great portion of my time was lost in visiting her selection; during my absence at the selection I had to pay men to do work at my own place; while on the selection I was repairing fences and doing odd jobs there; selector's brothers and sisters have been in the habit of living on the selection with her, and occasionally her mother and aunt; my daughter has a buggy and pair of ponies, and wherever she went she took the buggy and ponies with her; I have two buggies; I sometimes use the buggy myself; I have six or eight pairs of ponies like the two my daughter uses; her ponies are a cream and a bay; she has had the buggy and ponies with her on the selection; she has a tarpaulin to cover over the buggy; I cannot say that she always kept the buggy and ponies on the selection with her, as she would sometimes be away visiting her neighbours about the locality and at Murray Hut; I have sometimes used her ponies when they have become too fresh for her to use; there is a yard around the house; my daughter or her sisters used to cook on the selection; when I was with her on the selection either her or myself used to do the cooking; all her supplies were obtained from my place at Victoria Park; the house on the selection has an iron roof; it is not ceiled; it being well covered no ceiling is required; the bedstead was a full-tester, and had the ordinary bed-hangings; it was a two-roomed house, with no verandah, and no out-buildings of any kind; there was water kept inside the hut in a bucket; there was also water kept outside in the kerosene-tin bucket; the water inside was kept in an ordinary iron bucket; there have been several buckets there; it is not usual to remove any of the utensils from there to my place; no milking-cow was kept at the selection; my daughter does not drink tea; she only drinks water; she is not a delicate girl; potatoes and other articles were kept under the sofa that was under the window, and which you could not see; the window of the bed-room had a pane of glass broken out—this has not been repaired; I broke the pane for your special use; this glass remained out during the winter months; there was a pane of glass in that opening once; my daughter's clothes were not all kept at the house on the selection—some of her clothes were kept in boxes under the bed, and some in boxes under the sofa, and some under the mattresses; the sofa is an ordinary bush-sofa; I made it myself; I made use of it to sleep on when I was there; the boys also made use of it to sleep on when they were there; there was chaff kept on the selection sometimes; it was kept sometimes in the yard over near the tank, and at the time the mice were so bad it was hung in trees; I saw several ash-heaps about the place; I cleared the fireplace out at times myself; in the summer-time I cautioned them not to throw out any hot ashes.

By the Board: John, who is 16 years of age, stayed with my daughter on the selection off and on up to the time he went to Melbourne to school; George, aged 10, also stayed off and on; these are the only two brothers who stayed with her; her sisters, Margaret at the present time aged 18, and Harriett aged 12, stayed with her off and on also; when I stayed on the selection with my daughter I slept on the sofa in the front room; I sometimes drove over and sometimes rode to the selection from my place; the iron bedstead was in the house before the date of confirmation, and other things were put there as they were required, but everything necessary was there from the start; the place was stocked with sheep, and if a thousand sheep crossed a buggy-track there would be no sign of it five minutes afterwards, as the wind sweeps the ground on the plain as clean as possible; this would account for there being only the trace of buggy-wheels, as found by Mr. Inspector M'Phillamy on his visits; I have frequently at harvest-times rode over to the selection of a night after my day's work was done to see that the children were all right—and that they were—and then return to my own place in the morning.

J. O'BRIEN.

Sworn by the deponent, J. O'Brien, this 19th day of December, 1889, before us, at Mulwala,—

J. W. WATT, J.P., Chairman,
J. H. WOOD, J.P., Member Local Land Board.

Anne Nash O'Brien, selector, of Jubilee Downs, sworn, saith:—I remember about the time of confirmation of my conditional purchase 85–14, the subject of inquiry; I went to reside on the land before it was confirmed, and have been residing there ever since; I have never been residing away from the selection for any length of time since date of confirmation; I was once away on a visit to Melbourne for about five weeks in November, 1887; I was away about a month when my little brother was hurt; I was at my father's place; this was before my trip to Melbourne; these are the two longest times I have been away; I used to go to my father's place about once a week; I have no fixed day of the week for going to my father's place; I went there for rations and for anything else I wanted; my father, two brothers, and two sisters have been residing on the selection with me on and off at different times, my brothers were named John and George, and sisters Margaret and Harriett; I cooked my meals on the selection; I have a pet iguana about the place; I have a cat, but no dog; I have a buggy and ponies and saddle-horse; in going about I ride a good deal; in going to my father's place, riding or driving, I usually go through the front gate; no other road can be taken but through that gate; the buggy is kept in the shade of trees, but not always in the one place, covered with a tarpaulin; it has never been kept a hundred yards from the house; different tracks are used in going from the gate to the house; there is a well-defined track there now; previously we did not always use the one track; the ground being swampy we always took the best track; I kept my clothes some under the table and some under the beds; the place was dusty, and good clothes would spoil being hung up; I kept my best clothes in the boxes under the table and under the bed; I only saw Mr. Inspector M'Phillamy once on the selection; at other times when he visited my land

land I might have been out riding; I did not always stay on the selection through the day; I had no usual time for getting my breakfast; sometimes I had my breakfast at 8 o'clock and sometimes at 9 o'clock; I am frequently riding in the paddocks and visiting; my nearest neighbours are Mr. O'Keeffe, about 2 miles away, and Mr. Cahill, about 1½ mile away; I often go to see Mrs. O'Keeffe; I also go to Mr. Sandraal's place about 5 miles away; I only used to stay a few hours at any of these places; when Mr. M'Phillamy called I was probably riding about the paddocks or visiting the neighbours I have named; I have a fenced-in enclosure; it is around the house; it is wire; there is a tank close by; I have a fire in the house every day; I throw the ashes out; for a long time the ashes were kept in the fire-place; I had no way of taking them out; there was a large pile of them; they were then taken out and thrown about; the ashes are always strewn about outside; I have visitors frequently; they ride and drive; I do not think, on an average, there would be one buggy there a week, but anyone coming there could find the track leading from the gate to the house; my mother used to send me rations from her place; sometimes I went for them myself, and sometimes they were brought to me; in the bed-room there is a four-post bedstead, a washstand and table in the corner, a looking-glass without the frame on the table, soap-dishes and basin, chair, and toilet soap; in the other room there is a table, in the centre of the room two chairs, sofa, tub, and bucket, two saucepans, fryingpan, a cupboard, and safe hung up; all these things have been in the house over a year; most of them have been there from the start; it took me until about a year after confirmation to furnish the house with the articles I have mentioned; I used the kerosene-tin for a bucket before I got a proper bucket; my residence on the selection has been continuous and bona-fide from the first.

By Mr. M'Phillamy: The front gate of the selection was always locked; I kept the key of the lock myself; persons coming there would have to find me before they could get through; I kept the key with me mostly; my father stayed a few days with me on the selection now and again since date of confirmation; I cannot say how long he stayed with me altogether since that date; he did not come and stay weekly, but he used to visit me frequently; my sister Margaret stayed with me for most of the time; my aunt has stayed with me; it is sometime ago; she used to visit me; she was staying with my father; she only visited me once and stayed all night; my brother John, before he went to school, lived with me most of the time; he went to school about a year and nine months ago to a boarding-school; my brother George also stayed with me at times; my father's stock ran on the land; the safe, hanging up, is a three-bushel bag, with a piece of a board in the bottom; the new bucket, mentioned by you, I have had a good while; up to the time I got that bucket I used the kerosene-tin for a bucket; I used to catch my ponies in the corner of the paddock; only the paddock around the house has been used as a yard; the house is a comfortable one; I employ my time in darning and sewing (I do all the sewing for my mother) and reading; I cook for myself; I was not taking lessons from a governess in my father's employ since date of confirmation; when absent in Melbourne, and during the time I was keeping house for my father, when my brother was hurt, none of the things were removed from the house on the selection; the house was simply locked up; the only reason I can give for there being so little signs of residence is that there were only two of us at a time there, and we did not go much outside the place; I did not keep all my things at the selection; I used to visit my father's place once a week when I went about rations or to go to Corowa; I would go from my father's place to Corowa, and return from Corowa to his place, and then on to my selection; I used to stay a night at my father's place; when visiting Mrs. O'Keeffe, Mr. Cahill, Mr. Sandraal, at Momolong, my mother, father, brothers, and sisters have gone with me at different times; my mother only went two or three times with me; I was not in the habit of only visiting these places once a month; I cannot say how long my father has stayed with me on the selection during the last two or three years, but he was often with me; I used to keep the harness in the house, as also the saddle; I used to get my mails once a week from Bull Plain.

By the Board: Whenever I went to my father's place my sisters used to go with me; I sometimes rode and sometimes drove; when I rode my sister used also to ride with me; when going from my father's place, and riding to the selection, we would ride taking the saddles from his place, and keep them at the selection until we rode in again; I was 16 years of age when I took up the selection; my sister Margaret is 18 years of age at the present time, and my sister Harriett 13 years; we were never afraid of living there by ourselves.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— ANNE N. O'BRIEN.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

John Joseph Curley, Roman Catholic clergyman, of Cootamundra, sworn, saith:—I was at one time located in the Corowa district; part of my duties consisted of visiting different selectors through the district; I knew Miss Anne Nash O'Brien; I remember calling at her house in December, 1888; this was the only occasion on which I was there; it was on the selection under inquiry; I saw Miss O'Brien there; I had been holding service at Miss O'Brien's father's place, and at its termination, having to go on to Myall Plain to hold service there, Miss O'Brien and her brothers accompanied me and called at the selection.

Taken and sworn before us, at Mulwala, this 19th December, 1889, JOHN J. CURLEY.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Margaret O'Brien, sworn, saith:—I am a sister of Anne Nash O'Brien; I live at Jubilee Downs with her; I have been living there about twelve months; during that time I have lived continuously on the land with my sister; we have visited my father's place occasionally, sometimes once a week, sometimes we would not go there for a month at a time; we have visited our neighbours Mr. O'Keeffe, Mr. Sandraal, Mr. Cahill, and a good many others whose names I cannot remember at present; we employ our time in going out riding, reading, and sewing; we would always be back before 5 o'clock; I do not remember ever sleeping at any other place but the selection and at our father's place; I think we slept one night at Mr. Sandraal's place.

By Mr. M'Phillamy: I have a selection of my own on Bull Plain; I have resided with my sister during the last twelve months and up to date; I cannot remember how long my father stayed with us, but he very often visited us; he used to come and go away again; he had stock on the land; we used to catch the horses by running them into a corner on foot; up to within the last two or three months a great part of the selection was under water; we used to take off our boots and socks and go through it to catch the horses; the main entrance-gate was under water; we visited a good deal during the wet season; my sister always taught me at the selection while I was there; my father had no governess then; during the time we only visited my father's place once a month; we always had sufficient supplies there; we had flour and mutton; it was salted and brought up to us; my clothes were kept at the selection; they were kept under the matresses and in the boxes under the table and bed; this was during the mice plague; some of our clothes were destroyed; I have not been taking music lessons off anybody during the last twelve months.

By the Board: When we went to my father's place we sometimes rode and drove, we had two side-saddles; they were always kept under the sofa in the house; they were there from the first; I rode the buggy ponies; they would both carry a lady.

Sworn at Mulwala, this 19th day of December, 1889,— MARGARET O'BRIEN.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

John O'Brien, junior, sworn, saith:—I live with my father at Victoria Park; I have been a year and nine months at a boarding-school in Melbourne; before I went to school I was living at Victoria Park; my sister, Anne Nash O'Brien, was then living at Jubilee Downs; I was living with her there; I was living with her nearly the whole of 1887 and part of 1888; my brother George would come there whenever I went to my father's place; if he did not come one of my sisters would come; I was living with my sister nearly fifteen months; during that time my sister Anne was constantly residing on her selection; I used mostly drive backwards and forwards to my father's place; I used sometimes drive; we used to get rations from my father's place.

By Mr. M'Phillamy: I am 16 years of age; during the fifteen months I lived with my sister I was not attending any school; I used to take my books out to my sister's place; my father had not a governess at that time; I can swear that my father had

had not a governess during that fifteen months; a young lady who boards with my father teaches some of my brothers and sisters, together with other people's children, in a house belonging to my father, about ½ mile away from my father's place; whenever I was away from the selection during the fifteen months my father would come and stay with my sister; he would stay there sometimes a week; I was staying with my sister on the selection on an average four days out of the week during the fifteen months; when I was not there at other times my brothers George, aged 10, and William, aged 8 at the present time, and my sisters used to come and stay there.

By the Board: There are two rooms in the house, one of which I call the kitchen; my brothers and myself slept on a stretcher in the kitchen, and my sisters in the other room called a bedroom.

Sworn at Mulwala, this 19th day of December, 1889, before us,— J. C. O'BRIEN.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Harriett O'Brien, sworn, saith:—I am 13 years of age; I live at Victoria Park with my father; I know my sister Anne's selection; I have been there; I go there to keep her company; I cannot tell how often I have been there.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— H. O'BRIEN.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Marie Sandraal, sworn, saith:—I live with my father at Fontainbleau; I know Miss Anne Nash O'Brien; I have been to her selection; it is close to our place; I have been there once; Miss O'Brien was there then; I went with her to the selection from my place; she had not been staying with me; she had come to my place that day, and we both went to the selection: Margaret O'Brien was also with us; no one was at the house on the selection when we arrived there.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— MARIE SANDRAAL.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Terence O'Shaughnessy, Catholic clergyman, residing at Corowa, sworn, saith:—I know Miss Anne Nash O'Brien; I have been to her selection; when returning from holding Mass at Myall Plains I got lost, and meeting Mr. John O'Brien he directed me to the right road, and in passing I called at the selection of Miss O'Brien and saw her there.

By the Board: When I met Mr. O'Brien Miss O'Brien was not with him; she was at the house on the selection when I called; I was only at the selection on one occasion; I never had occasion to pass by there but on this occasion; the nearest I have been to the selection outside this was about a mile distant; when I called at the selection Miss O'Brien was there with her father only; it came on to rain; Mr. O'Brien went on by himself, and Miss O'Brien came into my hooded buggy, and we drove to Mr. O'Brien's homestead, where I held Mass; I believe that no one but Mr. O'Brien was at the selection with Miss O'Brien.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— TERENCE O'SHAUGHNESSY.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Prosper Sandraal, farmer, of Narrow Plains, sworn, saith:—I know Anne Nash O'Brien's selection; I have been there; I saw her there; she was residing; Miss O'Brien has often visited me.

By the Board: I was at the selection once; I was there on 2nd September, 1888; this was not at the time my daughter visited there; at the time I called I saw Miss O'Brien, Mr. O'Brien, and a younger daughter; the reason why I went to the selection was that two or three days before the second eldest daughter of Mr. O'Brien had sprained her wrist, and Mrs. Sandraal asked me to go over and see how she was.

Sworn at Mulwala, this 19th day of December, 1889, before us,— P. SANDRAAL.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Patrick O'Keeffe, farmer, Narrow Plains, sworn, saith:—I know Miss Anne Nash O'Brien's selection; I have visited it; I found Miss O'Brien there on several occasions; I often pass there; sometimes I might pass there and she would not be there; I saw Miss O'Brien and Mr. O'Brien there; I have seen Miss O'Brien's sisters there; Miss O'Brien has often called at my place when I have been at home; I cannot fix the number of times I have been to Miss O'Brien's selection; I have been going backwards and forwards past there for the last three years.

Mr. M'Phillamy: It is my nearest point to the cleared road to go close to Miss O'Brien's selection; I called at her selection about a fortnight ago about a dog, and found her and her sister Margaret there; I have been in the habit of going backwards and forwards past the selection; it would be about 10 chains away from the house; during the three years I have been about half a dozen times to the selection; there is only one entrance to the selection; I never went through that entrance with a vehicle.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— P. O'KEEFE.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

William Cahill, farmer, of Narrow Plains, sworn, saith:—I know Miss Anne Nash O'Brien's selection; I have visited there, and saw Miss O'Brien there; I have been there a good many times extending over a period of nearly three years.

Taken and sworn before us, at Mulwala, this 19th day of December, 1889,— WM. CAHILL.

F. W. WATT, J.P., Chairman.
J. H. WOOD, J.P., Member Local Land Board.

Sydney: Charles Potter, Governmen Printer.—1892

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

LAND REVENUE OF THE COLONY.

(STATEMENT SHOWING THE, UNDER VARIOUS HEADS, FROM 1877 TO 1891.)

Ordered by the Legislative Assembly to be printed, 21 *January*, 1892.

STATEMENT showing the Land Revenue under various Heads from 1877 to 1891.

LAND REVENUE.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.
Sales :—	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Auction Sales	1,967,043	1,059,419	698,981	437,964	566,401	707,594	179,403	95,772	116,014	112,972	172,553	207,052	160,695	169,664	146,871
Improved Purchases	133,357	239,944	156,471	245,095	491,423	175,852	116,558	305,455	413,936	259,253	166,117	85,914	43,202	41,827	17,792
Newcastle Pasturage Reserve Sales ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,392
Deposits on Conditional Purchases ...	424,954	399,437	231,116	290,587	592,966	621,617	424,968	381,550	120,860	112,331	90,520	102,905	111,134	204,306	167,504
Instalments and Interest on Conditional Purchases	10,782	23,775	87,293	113,535	129,547	129,921	137,136	183,081	437,399	514,136	561,496	578,960	607,206	649,924	701,874
Balance on Conditional Purchases ...	61,071	47,182	37,030	41,911	92,009	109,677	58,404	61,466	68,864	74,530	97,085	100,980	105,760	91,177	102,184
Miscellaneous Purchases	243,993	145,710	4,809	48,294	*357,633	†422,853	42,273	9,975	5,559	3,233	10,914	22,069	10,794	13,896	2,757
Total, Sales ... ... £	2,841,200	1,915,467	1,215,700	1,177,386	2,229,982	2,167,514	958,742	1,037,299	1,162,632	1,076,455	1,098,685	1,098,880	1,038,791	1,170,794	1,163,374
Interest on Land Conditionally purchased	126,657	160,545	170,986	204,640	253,357	287,527	310,727	326,184	151,725	129,968	123,091	113,403	110,380	104,864	107,142
Pastoral Occupation :—															
Pastoral Leases (Runs)	229,857	165,775	158,776	166,262	221,149	343,333	273,486	268,155	140,436	131,883	644,279	526,447	512,481	362,048	402,225
Conditional Leases	.....	.....	.....	.....	.....	.....	.....	.....	37,592	59,645	67,974	87,896	101,416	138,699	147,047
Annual Leases...	.....	50,176	51,650	55,433	63,968	65,417	66,167	60,694	15,872	17,745	17,648	22,554	26,474	27,088	33,236
Occupation Licenses	.....	.....	.....	.....	.....	.....	.....	.....	294,686	153,470	329,010	252,121	214,166	191,045	185,666
Homestead Leases	.....	.....	.....	.....	.....	.....	.....	.....	15,801	10,751	20,167	27,266	35,888	41,463	59,738
Snow Leases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	941
Quit-rents	249	141	407	930	886	494	477	507	202	1,402	456	906	566	545	209
Total, Pastoral Occupation £	230,106	216,092	210,833	222,625	286,003	409,214	340,130	329,356	504,589	374,896	1,079,534	917,190	890,991	760,888	829,062
Mining Occupation :—															
Mineral Leases	5,493	5,134	5,569	9,573	7,088	7,119	8,174	15,363	20,647	19,199	26,754	62,904	27,603	36,380	24,889
Mineral Licenses	405	302	368	1,434	1,187	1,304	1,611	2,780	2,278	1,507	2,250	5,427	1,973	2,380	2,176
Leases of Auriferous Lands	2,040	2,740	3,290	2,417	4,775	5,168	2,602	4,111	3,012	4,492	7,878	15,647	13,951	13,128	12,080
Miner's Rights...	2,810	3,029	4,211	6,051	6,398	5,856	4,563	4,215	4,228	4,653	5,453	7,678	6,965	7,537	6,882
Business Licenses	461	457	495	776	835	801	798	1,611	1,250	1,451	1,626	3,690	2,892	3,145	3,556
Royalty on Minerals	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,709
Residential Leases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	224	165
Total, Mining Occupation £	11,209	11,662	13,933	20,251	20,283	20,248	17,748	28,080	31,415	31,302	43,961	95,346	53,384	62,794	53,457
Miscellaneous :—															
Timber Licenses, &c.	4,335	5,035	6,320	6,498	8,197	8,688	9,895	16,900	13,162	13,001	11,352	18,497	16,794	14,717	16,177
Fees on Transfer of Runs and Leases	1,256	1,180	964	1,366	2,242	1,678	1,042	1,184	946	667	836	765	602	1,042	1,039
Fees on Preparation, &c., of Title-deeds	14,349	9,656	6,129	5,294	9,689	9,009	3,957	4,505	3,863	4,300	4,127	3,858	3,858	4,623	3,900
Survey Fees	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	103,106	74,520
Other Receipts	7,165	6,075	7,159	8,375	11,236	10,486	13,827	9,836	8,120	13,428	17,408	20,313	22,763	20,211	17,941
Total, Miscellaneous ... £	27,105	21,946	20,572	21,533	31,364	29,861	28,721	32,425	26,091	31,396	33,723	43,433	44,017	143,699	113,577
TOTAL, LAND REVENUE £	3,236,277	2,325,712	1,632,024	1,646,435	2,820,989	2,914,394	1,656,068	1,753,344	1,876,452	1,644,017	2,378,994	2,268,252	2,137,563	2,243,039	2,266,612

* Includes £351,885, selections after auction, 1881. † Includes £417,715, selections after auction, 1882.

The Treasury, New South Wales,
Sydney, 5 January 1892.

JAMES J. HINCHY,
For Accountant.

Sydney: Charles Potter, Government Printer.—1892.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CROWN LANDS.

(CORRESPONDENCE RELATING TO THE SALE OF A RESERVE IN THE PARISH OF LITTLE BILLABONG, COUNTY OF GOULBURN, TO MESSRS. ROSS BROTHERS.

Ordered by the Legislative Assembly to be printed, 24 *March*, 1892.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 13th January, 1892, That there be laid upon the Table of this House,—

"Copies of all papers and correspondence in reference to the sale of a "reserve of 628 acres in the parish of Little Billabong, county of Goulburn, "to Messrs. Ross Brothers, proprietors of an adjoining station."

(Mr. O'Sullivan.)

SCHEDULE

869—A

[870 copies—Approximate Cost of Printing (labour and material), £14 16s. 0d.]

CROWN LANDS.

No. 1.

W. J. Lyne, Esq., M.P., to The Under Secretary for Lands.

Dear Sir, 7, Norwich Chambers, 28 September, 1889.

The enclosed letter is in reference to a reserve upon which the homestead of Hillside stands. If any way exists by which the owners can get the homestead I certainly think they should do so.

Yours, &c,
WILLIAM JOHN LYNE.

The reserve referred to is reserve 493, notified 3rd August, 1866, situated in the parish of Little Billabung, county of Goulburn, and forms part of the leasehold area of Hillside holding, No. 266 eastern. It is not a reserve from lease. I think it probable the District Surveyor at Wagga Wagga has already had a report on the reserve.—J.T.K., 16/10/89.

Mr. DeLow,—Will the District Surveyor please report.—R.H.D. (for the Under Secretary), 17/10/89. The District Surveyor at Wagga Wagga—R.H.D. (for the Under Secretary), B.C., Lands, 17/10/89–315. Surveyor Barlow has now been asked to inspect and report. May await his reply.—W.O., District Surveyor, 18/10/89.

[*Enclosure.*]

Sir, Kinross, Germanton, 25 September, 1889.

I beg to request that you would revoke reserve No. 493, notified 3rd August, 1866, and bring the same to public auction.

The homestead of my Hillside Station, No. 266, Eastern Division, is situated upon this reserve, and as the improvements consist of house, garden, dams, huts, yards, and the usual erections to work the station are of the value of considerably over £1 per acre for the whole reserve, I would respectfully request that you would add the value of improvements to upset price, in order that if any other person than myself should purchase that such value should be paid to me.

The reserve in question is upon leasehold area, but I would, as lessee, give my consent for it to be sold by auction before expiry of lease, 11th July, 1890, in order that it would not be open to conditional purchase. If it is not submitted to public auction till after expiry of lease, I beg to suggest that the date of sale may be so arranged with the revocation that no Thursday would intervene otherwise some person would probably select the homestead, or else leave out the improvements, but select so as to ruin the station.

I am, &c.,
JANET ROSS.

The Honorable the Minister for Lands.

No. 2.

Office Memorandum.

District Surveyor's Office, Wagga Wagga.

Mr. Surveyor Barlow is requested at his early convenience to inspect and report as to whether there is any necessity for retaining reserve No. 493, notified 3rd August, 1886, situated in the parish of Little Billabung, county of Goulburn, or whether the whole or any part of it may be revoked without injury to the public estate.

In the event of revocation being recommended, he is requested to report fully as to the nature, position, date of erection and ownership of the improvements existing on the land, an application having been made by the lessee Janet Ross for the submission of the land to auction.

This report is obtained notwithstanding the fact that the land is situated on the leasehold area.

The value of the land, and the cost of inspection and report should also be stated.

The improvements above referred to comprise the Hillside Home Station, and it is desirable that a report be obtained as early as possible.

Mr. Barlow's duties may, however, prevent him attending to this matter soon, and, if so, he will be good enough to forward a memo., in order that I may avail myself of any other opportunity for obtaining a report that might occur.

WILLIAM ORR,
District Surveyor,
18th October, 1889.

Mr. Surveyor Barlow.

Reported on by my letter, No. 90-3, of 9th January.—M. Barlow, Surveyor.

No. 3.

Mr. Surveyor Barlow to Mr. District-Surveyor Orr.

Sir, Albury, 9 January, 1890.

In accordance with your instructions, No. 89–126, of 18th October, requesting me to report as to any necessity for retaining reserve No. 493, parish of Little Billabung, county of Goulburn, I have the honor to transmit herewith a sketch, showing the position of improvements on the above reserve, and to state that the revocation of the whole or any part of this reserve will not be prejudicial to public interests, as it is not situated on any main track, and is not required for stock purposes.

Vide plan.

The reserve is situated within the leasehold area of the Hillside holding, No. 266, and includes the Hillside homestead.

The greater portion of the reserve consists of rough slate hills, timbered with stringy bark and stunted box, but there is some fairly good land immediately on either side of the creek, which runs through the reserve.

The

The western half of reserve is well improved, the greater portion of the improvements having been effected prior to July, 1876, but the eastern half of the reserve is not improved in any way, and is poor country.

The improvements on the land with their values are as follows :—

	£	s.	d.
Dwelling-house, slate and weatherboard, eight rooms, boarded, lined, and papered, galvanised-iron roof, four brick chimneys, verandah on two sides	300	0	0
Kitchen, slab roof, partly bark and partly iron, two brick chimneys, store and bedroom attached, stone cellar	100	0	0
Garden and orchard, trees in full bearing, also vines, 1 acre trenched ...	30	0	0
Paling fence	25	0	0
Slab stable, buggy shed, and hay yard	50	0	0
Pig-sty...	1	0	0
Horse yard, calf pen, and bale	10	0	0
Well, built up with stones; pump and tank	20	0	0
Iron piping laid under ground, conveying water from well to house ...	16	10	0
Old well near creek, slabbed...	5	0	0
Men's hut, slab and bark	8	0	0
Dam, 1,400 cubic yards, at 1s.	70	0	0
12 acres cleared, under cultivation, at £2 an acre	24	0	0
72 acres, partly cleared and burnt off, at 7s. per acre	25	4	0
125 acres, ringbarked and twice scrubbed, at 5s. per acre...	31	5	0
50 chains (about) old 6-wire split fence	19	0	0
NOTE.—The above improvements were all effected prior to July, 1876, but the dwelling-house and out buildings have been repaired from time to time.			
40 chains new 7-wire fence, erected 1878	22	10	0
	£757	9	0

These improvements are now the property of the lessee of the Hillside holding, Janet Ross.

I value the western half of reserve at £2 per acre, but the eastern half is poor stony stringy-bark country, not worth more than 25s. an acre.

I would therefore suggest that if it is intended that the lessee should be allowed to purchase the land containing the improvements, that the reserve be cancelled and subdivided by a line north from the north-eastern corner of portion 63, of 270 acres 2 roods, and that the western portion be submitted to auction with the value of improvements added, and that the eastern half be thrown open to selection at the expiration of the present lease.

The time occupied by me in dealing with this case was one day in field, 23rd November, 1889, and three-quarters of a day office work, 9th January, 1890.

I have, &c.,
MAURICE BARLOW.

Re proposed subdivision of reserve 493, parish of Little Billabung, county of Goulburn. This report indicates that the retention of reserve 493, in the parish of Little Billabung, county of Goulburn, is no longer necessary in the public interest. I therefore recommend its revocation after subdivision, with a view to the land being proclaimed a special area, and thrown open to alienation on the determination of the leasehold area of the Hillside holding, and if not selected within reasonable time that the land be submitted to auction, with the value of the improvements added for the protection of the owners. The eastern portion of the reserve is so inferior in quality that, if measured separately, it is not likely to be taken up, and for this reason I recommend that the land be subdivided by a line east and west, instead of north and south, and the 1-chain road should be reserved through both areas. I am of opinion that the land so subdivided is worth £1 13s. an acre.—WILLIAM ORR, District Surveyor, Wagga Wagga, 14/1/90. The Under Secretary for Lands.

Submitted the land be measured and made a special area at 35s. per acre.—R.H.D., 20/1/90. F.H.W. (for the Under Secretary), 20/1/90. Approved.—J.N.B., 23/1/90. District Surveyor, Wagga Wagga.—R. H. DELOW (for the Under Secretary), B.C., Lands, 25/1/90–35. For measurement, 28/1/90. Mr. Licensed-Surveyor Smith has now been instructed to measure; may await survey.—W.O., 6/2/90. The Chairman. Resubmit, April, 1890.—A.B.C., 7/2/90. District Surveyor, Wagga Wagga.—J.O'D. (for the Under Secretary), B.C., Lands, 6/5/90–232. As to whether survey has been carried out. Survey has not been carried out yet; see my memorandum of 2nd May, 1890, herewith.—W.O., District Surveyor, Wagga Wagga, 9/5/90. The Under Secretary for Lands.

No. 4.

Office Memorandum.

District Surveyor's Office, Wagga Wagga.

MR. Licensed Surveyor Smith is requested at his early convenience to subdivide reserve No. 493, in the parish of Little Billabung, county of Goulburn, into two blocks of about 320 acres each, in accordance with design shown in red on accompanying tracing. *Vide* plan

WILLIAM ORR,
District Surveyor,
6/2/90.

Dealt with by survey under cover of my letter, No. 90-121.—IRWIN SMITH, Licensed Surveyor 22/12/90.

No. 5.

No. 5.

Mr. District-Surveyor Orr to I. Smith, Esq.

2 May, 1890.

MR. LICENSED-SURVEYOR SMITH will be good enough to postpone the survey of the subdivision of reserve 493, parish of Little Billabung, county of Goulburn, dated 6th February, 1890, pending consideration of an amendment of design submitted to the Under Secretary for Lands this day.

WILLIAM ORR,
District Surveyor,

I shall postpone the survey accordingly.—IRWIN SMITH, Licensed Surveyor, 5/5/90.

No. 6.

Mr. District-Surveyor Orr to The Under Secretary for Lands.

Hillside Home Station, parish of Little Billabung, county of Goulburn.

2 May, 1890.

Vide plan. WITH reference to the design approved, enclosed, Mr. Alexander Ross informs me that the Minister has promised, in view of the fact that the home station was erected some twenty or thirty years ago, to offer the land on which the station stands at auction.

On examining the design it will be seen that I have divided the land in such a manner that all the improvements are not on one portion. My reason for doing so is set forth in my previous minute of the 14th January (Ms. 90-1,056) and need not be repeated herein.

The survey has not yet been carried out, and if it is desirable to include the whole of the improvements in one portion as previously designed by Surveyor Barlow (the road in the centre forming the division instead of the east and west line through the centre), I have the honor to request instructions to that effect.

If, however, there is no objection to offering the land at auction in two portions as designed by myself I think it would be desirable to make the survey in that form.

I wish to add that there is no written promise of the Minister's with the papers to offer the land at auction.

I have, &c.,
WILLIAM ORR,
District Surveyor.

Ask the District Surveyor to return the papers.—J.O'D., 12/5/90. District Surveyor asked, 16 May, 1890. Submitted. This case is now complete, and the papers do not disclose that the Minister has made any promise as regards auction sale.—J.O'D., 11/7/90.

No. 7.

Mr. A. Ross to The Secretary for Lands.

Sir, Kinross, Germanton, 18th July, 1890.

In reference to the erection of the improvements on reserve from sale 493, Hillside Run, Eastern Division, I beg to inform you that the said improvements were put on the land a long time previous to July, 1876. In part they have been on considerably over twenty years, and I would suggest that the land could be offered in one block, so as to save the cost of subdivision.

I have, &c.,
ALEX. ROSS.

On the 14th January last Mr. District-Surveyor Orr recommended that water reserve No. 493, county of Goulburn, be revoked after subdivision, with a view to special area if not selected within a reasonable time to be submitted to auction with the value of the improvements added, for the protection of the owners. Mr. Orr further pointed out that the eastern portion of the reserve is so inferior in quality, that if measured separately it is not likely to be taken up, and, for that reason, he recommended that the land be subdivided by a line east and west instead of north and south, and the 1-chain road reserved through both areas (90–1,056). It was thereupon decided that the land be measured and made a special area at 35s. per acre. Instructions for measurement were then issued, but the District Surveyor returned the papers with a report to the effect that Mr. Alexander Ross had informed him that the Minister promised, in view of the fact the home station was erected some twenty or thirty years ago, to offer the land on which the station stands at auction. Mr. Orr reports that the survey has not yet been carried out, and if it is considered desirable to include the whole of the improvements in one portion (the *Vide* plan. road in the centre forming the division instead of a line east and west through the centre, *vide* tracing) he requests instructions to that effect. The papers do not disclose that the Minister has made any promise as regards auction sale. Application is now made by Mr. Alexander Ross to have the land offered at auction in one block. He states that the improvements have been on the land more than twenty years. The local surveyor values the improvements at £757 9s., and states that (with the exception of wire fencing to the value of £22 10s. erected in 1878) they were effected prior to July, 1876 (90–1,056). The case is submitted, as the Minister may, perhaps, have made some verbal promise to Mr. Ross, but if not, it would appear advisable to adhere to the decision on 90–1,056.—J. O'D., 24/7/90.

Special.—R.H.D., 28/7/90. Special.—F.H.W. (*pro* Under Secretary), 28/7/90. The land may go to auction in one block at an upset price of 35s. per acre; the value of the improvements to be added for Ross's protection.—J.N.B., 23/9/90. The District Surveyor, Wagga Wagga, for survey.—J.O'D. (for the Under Secretary), B.C. Lands, 23/9/90-505.

No. 8.

No. 8.

Mr. District-Surveyor Orr to Mr. Licensed-Surveyor Smith.

Memorandum.

26 February, 1890.

HAVING regard to instructions No. 6, dated 6th March, 1890, to Mr. Smith, for subdivision of reserve No. 493, in the parish of Little Billabung, county of Goulburn, on which Mr. Smith was requested to delay action pending further instruction, Mr. Smith is now requested to measure the whole area in one block, taking care, however, to reserve the road north and south through the portion, as shown on the design forwarded with the instruction. *Vide* plan.

WILLIAM ORR,
District Surveyor.

No. 9.

Mr. Licensed-Surveyor Smith to Mr. District-Surveyor Orr.

Sir,

Camp, 22 December, 1890.

I have the honor to transmit herewith the plan of one portion of land, containing 628½ acres, numbered 90, in the parish of Little Billabung, in the county of Goulburn, measured by me on the 12th December, 1890, in accordance with instructions No. 90-6, dated 6th February.

I have to report that at the time of survey, improvements upon the land consisted of :—

	£	s.	d.
Dwelling-house, slab and weatherboard, eight rooms, boarded, lined, and papered, galvanized iron roof, four brick chimneys, verandah on two sides	300	0	0
Slab kitchen, roof partly bark and partly iron, two brick chimneys, store and bedroom attached, with stone cellar	100	0	0
Garden and orchard, trees and vines in full bearing; one acre trenched	30	0	0
Paling fence	25	0	0
Slab stable, buggy shed, and hay yard	50	0	0
Pig-sty...	1	0	0
Horse yard, calf pen and bale	10	0	0
Well, built up with stones ; pump and tank	20	0	0
Iron piping laid underground, conveying water from well to house ...	16	10	0
Old wells near creek slabbed	5	0	0
Men's hut, slab and bark	8	0	0
Dam, 1,400 cubic yards, at 1s.	70	0	0
12 acres cleared and under cultivation	24	0	0
72 acres partly cleared and burnt off	25	4	0
125 acres ringbarked and twice scrubbed	31	5	0
About 50 chains old 6-wire split-fencing	19	0	0
About 40 chains new 7-wire fence, erected in 1878	22	10	0
	£757	9	0

These improvements are now the property of the lessee of the Hillside holding (Janet Ross), and all except the last item were effected prior to July, 1876, but the dwelling-house and out-buildings have been repaired from time to time.

This portion is situated about 25 miles from Germanton, and there is a practicable road leading to it.

The land is very rough, small patches only being fit for cultivation. The area (about one-third of the whole) which has been improved produces a fair amount of grass, but the remainder is very inferior country, heavily timbered with stringy-bark, box, gum, and apple.

The climate is healthy, and there is a good supply of permanent water upon the land.

I am of opinion that on the whole this portion is not worth more than 25s. per acre.

There are no natural boundaries.

I have, &c.,
IRWIN SMITH,
Licensed Surveyor.

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1. G. 2,868–1,475. Reserve 493, parish of Little Billabong, county of Goulburn. Plan approved, 6th February, 1891. The land embraced within reserve No. 493, parish of Little Billabong, county of Goulburn, has now been measured in one block, containing 628½ acres, with a view to the portion being offered at sale at an upset price of 35s. per acre, with the value of improvements added, in accordance with Ministerial approval on Miscellaneous 90–10,924 enclosed. The improvements are valued at £759 9s. A description is enclosed for the revocation of the reserve.—WILLIAM ORR, District Surveyor, 6/3/91. The Under Secretary for Lands.

Mr. O'Dwyer,—Approval of auction sale has already been given on Miscellaneous 90–10,924. Now for action as regards the reserve. The land should probably be reserved from sale other than auction.—E.A.B., 16/3/91.

In view of the decision on 90–10,924 Miscellaneous, the land should probably be reserved from sale other than auction sale only. Submitted.—J.O'D., 1/4/91. I take it such was the Minister's intention.—R.H.D., 3/4/91. Submitted.—F.H.W. (for the Under Secretary), 6/4/91. Yes.—J.N.B., 6/4/91. Please supply description.—J.O'D., 8/4/91. Mr. M'Lean,—Description enclosed.—J.N.P., (for R.M.), 23/4/91. Executive Council Minute,—Inform applicants Miscellaneous 90–10,924.—W.H.H., 2/6/ . Applicant, with slips.—(P.), 4/6/91. Crown Land Agent, with slips.—(P.), 4/6/91.

No. 10.

No. 10.

Minute Paper for the Executive Council.

Recommending the Revocation of Reserves from Sale, &c.

Department of Lands, Sydney, 30 April, 1891.

It is recommended to His Excellency the Governor and the Executive Council that the temporary reservation of the portions of land within described and particularised in the annexed schedule be now revoked under the provisions of the 39th section of the Crown Lands Act of 1889, and that, in terms of that section, the herein defined area of 628½ acres, viz., portion 90, in the parish of Little Billabung, county of Goulburn, be reserved from sale other than auction sale only.

JAMES N. BRUNKER.

His Excellency the Governor and the Executive Council.

Schedule.

Registration number Misc., Aln. 91-2,392; No. of reserve, 493; county of Goulburn; parish of Little Billabung; area to be cancelled, about 640 acres; date of notification of reserve, 3rd August, 1866.

The Executive Council advise that the recommendation in each case herein set forth be approved.—Alex. C. Budge, Clerk of the Council, 5/5/91. Min. 91-20. Approved.—Jersey, 5/5/91. Confirmed, 12/5/91.

No. 11.

Gazette Notice.

Department of Lands, Sydney, 23 May, 1891.

Revocation of Temporary Reserves.

It is hereby notified, for general information, that His Excellency the Governor, with the advice of the Executive Council, has been pleased to revoke, under the provisions of the 39th section of the Crown Lands Act of 1889, the temporary reservation from sale of the portions of land hereinafter described,—the land not to be sold till after the expiration of sixty clear days from this date.

JAMES N. BRUNKER.

Eastern Division—Land District of Albury.

Within Hillside holding, resumed area No. 266a.

No. 493, notified 3rd August, 1866. County of Goulburn, Little Billabong, near the main Melbourne Road, 640 acres: Commencing at a tree marked R over 52 bearing north 68 degrees 40 minutes east, distant 102 chains from the north-east corner of Thomas Lunt's conditional purchase of 41 acres; bounded on part of the west by a line thence bearing north 10 chains; on the north by a line east 1 mile; on the east by a line south 1 mile; on the south by a line west 1 mile; and again on the west by a line north 70 chains, to the point of commencement.

Reserve 13,807 from sale other than auction sale only, notified this day, includes the above.

[Aln. 91-2,392.]

No. 12.

Gazette Notice.

Department of Lands, Sydney, 23 May, 1891.

Reserve from Sale other than Auction Sale only.

His Excellency the Governor, with the advice of the Executive Council, directs it to be notified that, in pursuance of the provisions of the 39th section of the Crown Lands Act of 1889, the land specified in the schedule appended hereto shall be and is hereby reserved and exempt from sale other than auction sale only.

JAMES N. BRUNKER.

Eastern Division—Land District of Albury.

Within Hillside holding, resumed area No. 266a.

No. 13,807. County of Goulburn, parish of Little Billabung, containing an area of 628½ acres. The Crown lands within the boundaries of measured portion 90, of 628 acres 2 roods,—as shown on plan catalogued G. 2,868-1,475.

Includes reserve 493, cancelled this day.

[Aln. 91-2,392.]

No. 13.

J. Gormly, Esq., M.P., to The Secretary for Lands.

Sir, Parliament House, 29 July, 1891.

I have the honor to enclose a letter I received, and would respectfully request that an inquiry be made into the matter referred to. The writer of the letter is a person whose statement I can trust.

Yours, &c.,

JAMES GORMLY.

Application protesting against the sale of portion 90 by auction at Albury on the 23rd September, 1891. On the 12th December, 1890, Mr. Licensed-Surveyor Smith measured portion 90, and found that it contained improvements to the value of £757 9s. On the 6th April the Minister approved that the portion should be reserved from sale other than auction, Alienation 91-2,392, and on Miscellaneous 90-10,924 decided that the land should be offered at auction at 35s. per acre, with the value of the improvements

improvements added to the upset price, for Ross's protection. Submitted whether the sale shall proceed, as gazetted, in view of the surveyor's report as to the value of the improvements.—E.A.B., 4/8/91.

For special consideration in view of the statement conveyed in letter from L. Cox, of the 10th ultimo.—W.H.C., 5/8/91. Send to District Surveyor for report upon Cox's letter.—J.N.B., 10/8/91. The District Surveyor at Wagga Wagga.—E.A.B. (per Under Secretary), 10/8/91. J. Gormly, M.P., informed, 10/8/91.

[*Enclosure.*]

Dear Sir, Ti Tree Creek, 10 July, 1891.

Knowing that you take a keen interest in the settlement on the lands by conditional purchase as against auction sales, I beg to bring under your notice the following facts. Reserve No. 493, county of Goulburn, parish of Little Billabung was revoked by *Gazette* No. 319, 23rd of May, 1891. On the same date 628 acres, portion of above, was reserved from sale other than auction. This is the first case that has come under my notice where the right to conditionally purchase land has been absolutely prohibited. I trust therefore you will see fit to bring this case under the special notice of the Honorable the Minister for Lands, and ask for an explanation on the subject. I have no doubt it will be found that representations have been made to the Department of Lands that this portion of land contains the homestead and improvements connected with the working of the station—such, however, is not the case. I can testify to the fact that the old homestead is now enterely abandoned as a station residence, and a large part of the improvements removed to other parts of the run. Trusting that you will use your best endeavours to prevent the sale of the land in the manner specified.

I have, &c.,

James Gormly, Esq., M.L.A. LAURENCE COX.

No. 14.

The Under Secretary for Lands to J. Gormly, Esq., M.P.

Sir, Department of Lands, Sydney, 10 August, 1891.

I have the honor to acknowledge receipt of your letter of the 29th ultimo, respecting the sale by auction at Albury of portion No. 90, Little Billabong, and to inform you that the same has been forwarded to the District Surveyor at Wagga Wagga for report upon Cox's letter.

I have, &c.,

WILLIAM HOUSTON,
Under Secretary.
(*Per* E.A.B.)

No. 15.

Mr. District-Surveyor Orr to Mr. Surveyor A. H. Chesterman.

[Very Urgent.] 12 August, 1891.

Re Hillside Station:—The Minister for Lands has directed that a statement made by Mr. Laurence Cox, to the effect that the old homestead at Hillside is now entirely abandoned as a station residence, &c., should be investigated. I have to request Surveyor Chesterman to make an inspection, and report by wire if necessary, should the statement have any foundation.

The homestead referred to is about 12 miles (in a direct line) south-west from Humula, and about 2 miles south-east from Luntsville Post Office, on the Sydney Road.

The helios. attached will serve to show Mr. Chesterman if any improvements have been removed since survey, and his report will be required on this point also.

If Mr. Chesterman is unable to attend to this case personally, his assistant may be deputed. Under any circumstances prompt action is desirable.

WILLIAM ORR,
District Surveyor.

Being very busily engaged upon other work, I deputed my field assistant, Mr. G. W. Orr, in accordance with last paragraph of instruction, to visit Hillside Station. He reported that he found the dwelling house unfurnished, the kitchen padlocked, the homestead untenanted, and in fact abandoned as a station residence. Upon making inquiries in the locality he was informed that Mr. and Mrs. Ross are now residing at Lunt's Vale, from which place the run is worked. All improvements on reserve at time of survey by Mr. Licensed-Surveyor Smith were found to be in existence. Mr. L. Cox, in his letter of 10th July (alienation 91-6,893), was referring to some bark-roofing, &c., said to have been removed from an old wool-shed nearly adjoining the western boundary of the reserve. The foregoing information was transmitted by wire from Kyamba on 19th instant.—A. H. CHESTERMAN, No. 69, 21/9/91.

The papers were received from Surveyor Chesterman this day, and refer to the matter of the occupation of the Hillside Home Station, which was reported upon in my letter addressed to the Under Secretary for Lands, dated 22nd August, 1891, No. 705.—WILLIAM ORR, District Surveyor, Wagga Wagga, 26/8/91. The Under Secretary for Lands.

No. 16.

Mr. District-Surveyor Orr to The Under Secretary for Lands.

Re occupation of Messrs. Ross Brothers, Hillside Homestead.

Sir, District Surveyor's Office, Wagga Wagga, 22nd August, 1891.

Having regard to Mr. Laurence Cox's statement respecting the removal of improvements and abandonment of the Hillside homestead, situated on portion No. 90, parish of Little Billabung, county of Goulburn, as set forth in his letter submitted to the Honorable the Minister for Lands by James Gormly, Esq., M.L.A., I have the honor to report that the flooded state of the country and the impassable condition of the roads between here and Hillside rendered it impossible for me to make a personal inspection without cancellation of my previous arrangement to represent the Department in the matter of appraisements at Cootamundra.

As Surveyor Chesterman was working within a distance of 12 miles of the locality, and as he was not one of the surveyors who had previously inspected the ground, I deemed it advisable, in view of the fact that the Minister had written personally a minute on the papers directing prompt action, to instruct that officer (Surveyor Chesterman) to make the necessary investigation without any delay.

Surveyor

Surveyor Chesterman telegraphed the report now enclosed, from which it appears that Mr. Ross does not reside at Hillside at present, the property being worked from Lunt's Vale, about 2 miles distant. The improvements, however, are still intact, and though the residence there may not be in use just now, I have every reason to believe they were effected for the beneficial occupation of the country, as they were in use to my own personal knowledge over twenty years ago.

The valuable character of these improvements must, I think, operate as a bar to *bonâ fide* conditional purchase in the event of it being decided to throw the area open to that class of settlement.

In connection with this matter it may not be deemed out of place to give the following further explanation:—"Hillside" is near the old Sydney-Melbourne road; and many years ago, before the construction of the Great Southern Railway, when the traffic along the road was considerable, an hotel was built at the roadside nearly 2 miles distant. The building is a large and substantial one, but it ceased to be used as an hotel in March last, and the landlord (Lunt), remaided only a short time after. On his removal the place was unoccupied for some time, and, like all untenanted buildings, soon began to show signs of ill usage and decay; the owner of Hillside removed his residence to the hotel to protect his property.

It is, perhaps, hardly necessary to mention that a building such as the hotel mentioned, viz., Lunt's Vale, abutting immediately upon the main Southern Road, is not suitable for the requirements of a head station; and, moreover, hotel improvements are not, as a rule, adapted to station conditions.

Mr. James Ross resides on the Hillside property, but he happened to be away from Lunt's Vale when Surveyor Chesterman inspected the land. Mr. John Ross, however, called at this office this morning, and informed me that his brother had returned to Hillside immediately after Mr. Chesterman's visit, when he learned that his non-residence was likely to injuriously affect the auction sale of the portion.

In view of the foregoing facts in connection with this case I would respectfully submit that, seeing that the auction sale has been advertised to take place on the 23rd September next, it should be allowed to proceed, or, at all events, that Ross Bros. should be afforded an opportunity of showing causes against its withdrawal.

I regret to report that the papers have not yet reached me from Mr. Chesterman's hands, and it cannot be estimated with any certainty when they will reach me, owing to the bad state of the roads.

The papers will be returned to Head Office immediately after they are received here, and in the meantime I beg to enclose copies of the correspondence as far as I am able to do so, for reference.

I have, &c.,
WILLIAM ORR,
District Surveyor.

[*Enclosure.*]

Telegram from Mr. Staff Surveyor Chesterman to Mr. District-Surveyor Orr.

Kyamba Station, 19 August, 1891.

Re Hillside homestead; no one living there now; house unfurnished; Ross lives now at Luntsville; run worked from there; all improvements at time of survey still standing.

A. H. CHESTERMAN,
Staff Surveyor.

Re Hillside Station.

THE Minister for Lands has directed that a statement made by Mr. Laurence Cox to the effect that the old homestead at Hillside is now entirely abandoned as a station residence, &c., should be investigated, I have to request Surveyor Chesterman to make an inspection and report by wire, if necessary, should the statement have any foundation.

The homestead referred to is about 12 miles (in a direct line) south-west from Humula, and about 2 miles south-east from Luntsville Post Office on the Sydney Road.

The helio. attached will serve to show Mr. Chesterman if any improvements have been removed since survey, and his report will be required on this point also.

If Mr. Chesterman is unable to attend to this case personally, his assistant may be deputed. Under any circumstances prompt action is desirable.

WILLIAM ORR,
District Surveyor.

[*Enclosure.*]

Telegram from Mr. District-Surveyor Orr to Mr. Staff Surveyor Chesterman.

Kycamba, 19 August, 1891.

PLEASE return Hillside papers at once with report. All papers sent in error. One only intended. Wire, if papers returned.

WILLIAM ORR,
District Surveyor, Wagga Wagga.

No. 17.

Ross Brothers to The Secretary for Lands.

Sir, Kinross, Germanton, 24 August, 1891.

Mis. 91-4120, Dep., Reserve 13,807, from sale other than auction sale only. Portion 90, of 628¼ acres, county Goulburn, parish Little Billabong.

Referring to the land described on the margin, which is to be sold by auction at Albury on 23rd September next, and about which Laurence Cox has lodged a complaint that the improvements have been removed, and that it has ceased to be resided on, or used as the head station of the holding, we beg to state that no improvements have been removed, and it has not been abandoned as the head station. Our manager recently removed to a building on the side of the main road that had previously been let for an hotel. The tenant had gone out of it a few months ago, and it was being injured by travellers in its untenanted state.

The removal, however, was only temporary, and he has now returned to the old station.

It was not intended to remove the station permanently to the old hotel, it being too near the main road, and quite unsuitable.

Our manager was not at home when Mr. Chesterman, of the Survey Department, called last week, or he would have explained all particulars to him, and that arrangements had been made to return to the old station, which has since been carried out.

The

The action of Mr. Laurence Cox is prompted by personal ill-feeling, which he has lately taken every opportunity of displaying, and were the land in question thrown open for conditional purchase it would only be a prey to speculators to blackmail us afterwards. We confidently trust to the Department honorably fulfilling their promise to sell this land by auction as now advertised.

We may add that the land would have been measured sooner, and sold ere this, had we not told the surveyor we were not in a hurry, and he had better measure selector's land, who were waiting to go into occupation.

Yours, &c.,
ROSS BROTHERS.

Presented by Messrs. Lyne and Hayes, Ms.P., and J. Abbott, 27/8/91.

On Miscellaneous, 90–10,924, the Minister decided that this land should be offered for sale by auction, with the value of the improvements added for Mr. Ross' protection. On Alienation, 91–2,392, it was decided to reserve the land from sale other than auction sale. The approved upset price was 35s. per acre, exclusive of £757 9s., the value of the improvements. On 29th July, Mr. Gormly, M.P., forwarded a letter from Mr. Cox, protesting against the sale by auction under the conditions referred to above, and stating that the homestead had been abandoned, and part of the improvements had been removed. Ross Brothers now state that although for a short time the homestead was not occupied it is in use again now. Mr. District-Surveyor Orr's report bears out this statement, and he also reports that the improvements have not been removed, and recommends that the sale by auction be allowed to proceed. Ross Brothers state that Mr. Cox's letter is the result of some ill-feeling existing between them. In view of the District-Surveyor's report perhaps the sale may be proceeded with.—E.A.B., 27/8 91.

For approval.—W.H.C., 27/8/91. Submitted.—W.H., 27/8/91. In view of the report of the District Surveyor I see no reason for disturbing my previous decision.—J.N.B., 28/8/91. Inform.—E.A.B., 28/8/91. J. Gormley, M.P., and Ross Brothers informed, 28/8/91.

No. 18.

The Under Secretary for Lands to Messrs. Ross Brothers.

Gentlemen, Department of Lands, Sydney, 28 August, 1891.

In reply to yours of 24th instant, respecting the land referred to in the margin, I am directed by the Secretary for Lands to inform you that he sees no reason for disturbing his previous decision. The land will, therefore, be offered for sale, as already advertised.

628 acres 2 roods, portion 90, parish of Little Billabung, county of Goulburn.

I have, &c.,
WM. HOUSTON,
Under Secretary.
(*Per* W. H. Capper.)

No. 19.

The Under Secretary for Lands to J. Gormly, Esq., M.P.

Sir, Department of Lands, Sydney, 28 August, 1891.

Referring to your letter of 29th ultimo, covering a communication from Mr. L. Cox, protesting against the sale by auction of the land, noted as per margin, I am directed by the Secretary for Lands to inform you that in view of the District Surveyor's report, after a careful consideration of the matter, he can see no reason for disturbing the decision already arrived at, viz., to send the land to auction, with the value of the improvements added, for the protection of Ross Brothers.

628 acres 2 roods, portion 90, parish of Little Billabung, county of Goulburn.

I have, &c.,
WM. HOUSTON,
Under Secretary.
(*per* W.H.C.)

No. 20.

Application by Messrs. Ross Brothers for refund of value of improvements.

Crown Lands Acts, Regulation No. 198.

We, Alexander Ross and John Ross, hereby apply that the value of certain improvements on the following lands, Land District of Albury, parish of Little Billabong, county of Goulburn, being portion 90, advertised for sale at Albury, on the 23rd September, 1891, may be remitted or refunded to us in pursuance of the provisions of the Crown Lands Acts. Particulars of the said improvements are specified in the schedule attached hereto. The said lands are now held by , of , as .

Our application is based on the following facts:—These improvements were effected prior to July, 1876, and consist of the homestead of the run Hillside, No. 266, Eastern Division.

Signed this 1st day of September, 1891.

ALEX. ROSS,
JOHN ROSS,
Kinross, Germanton.

To the Under Secretary for Lands.

[*Enclosure.*]

Schedule.

Nature of Improvement:—House, outbuildings, orchard, fencing, wells, iron piping, dam, ringbarking, &c.; value, £757 9s.

No. 21.
Declaration.

We, Alexander Ross and John Ross, of Kinross, Germanton, do solemnly and sincerely declare that the improvements to the value of £757 9s. are upon portion 90, parish of Little Billabong, county of Goulburn, and that they are still our property. And we make this solemn declaration conscientiously believing the same to be true, and in virtue of the provisions of an Act made and passed in the ninth year of the reign of Her present Majesty, intituled "An Act for the more effectual abolition of Oaths and Affirmations taken and made in various departments of the Government of New South Wales, and to substitute Declarations in lieu thereof, and for the suppression of voluntary and extra-judicial Oaths and Affidavits."

Made and signed before me, at Germanton, this 1st day of September, 1891,—

ALEX. ROSS.
JOHN ROSS.

Chas. Rooke, J.P.

No. 22.
Minute for the Executive Council.

Subject: Remission of value of improvements under the 61st section of the Crown Lands Act of 1884.

Department of Lands, Sydney, 8 September, 1891.

It is recommended to His Excellency the Governor and the Executive Council that, in accordance with the provisions of the 61st clause of the Crown Lands Act of 1884, the sum specified in the schedule be remitted to the person mentioned therein, should the portion quoted be purchased at auction, such sum being the value of the improvements thereon, added to the upset price for the benefit of the owner.

JAMES N. BRUNKER.

His Excellency the Governor and the Executive Council.

Schedule referred to.

Papers, Alienation 91-8,112; portion 90; parish of Little Billabung; county of Goulburn; value of improvements added to upset price, £757 9s.; names of owners, Alexander Ross and John Ross.

The Executive Council approve of the remission of the value of the improvements referred to as proposed.—Alex. C. Budge, Clerk of the Council, 15/9/91. Min. 91-52. Approved.—Jersey, 15/9/91. Confirmed, 22/9/91. Auditor-General informed, 25/9/91. Mr. Crowley, 25/9/91. Sale list noted, 28/9/91. Portion 90 sold to Alexander Ross and John Ross, and £757 9s., value of improvements thereon, remitted on day of sale.—C.W.C., 28/9/91.

No. 23.
Gazette Notice.

Sale at the Lands Office, Albury, on Wednesday, the 23rd day of September, 1891, country lots.

No. of portion.	Area.	Upset price per lot.	County.	Parish.	Situation.	Remarks.
	a. r. p.	£ s. d.				
592	1 0 20	32 0 0	Goulburn ...	Albury	Within the population area of Albury, about three-quarters of a mile northerly from the town, fronting the left bank of Bungambrawatha Creek, lying to the north of P. J. Frauenfelder's portion 46, and to west of the general cemetery. Ms. 91-4,504 Dept.; G., 2,882-1,475.	
		Upset price per acre.				
90	628 2 0	2 19 0	do	Little Billabung.	About 52 miles north-easterly from Albury, adjoining Buchanan and Mort's portion 67 on the west and north; F. Manning's conditional purchase, portion 63, on the north and east; and A. W. Manning's conditional purchase, portion 72, on the east and south; and being reserve 13,807 from sale other than auction sale only. Ms. 91-4,120 Dept.; G. 2,868-1,475.	Upset price includes £757 9s., value of improvements

No. 24.
The Under Secretary for Lands to The Auditor-General.

Sir,

Department of Lands, Sydney, 25 September, 1891.

Portion 90, parish Little Billabung, county Goulburn.

I have the honor to inform you that His Excellency the Governor, with the advice of the Executive Council, has approved of the sum of £757 9s., value of improvements added to the upset price of the land noted in the margin, being remitted to Alexander and John Ross, who became the purchasers thereof at the sale of Crown Lands, advertised to be held at Albury, on 23rd September, 1891.

I have, &c.,
WM. HOUSTON,
Under Secretary.
(*Per* W.H.C.)

[Four plans.]

Sydney: Charles Potter, Government Printer.—1892.

[1s. 9d.]

L B D 30.12891

Alienation Land
31. 2392
Enclosure to No 8.

PLAN OF PORTION 90

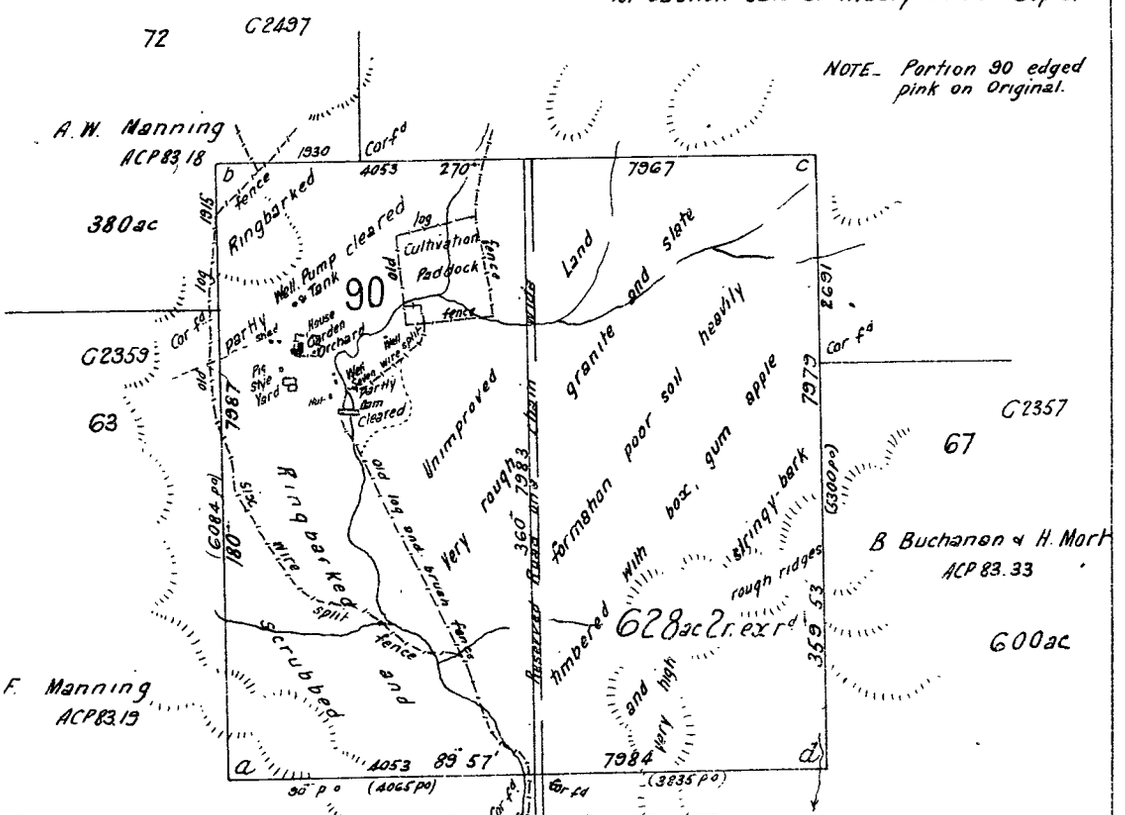
County of Coulburn Parish of Little Billabung

LAND DISTRICT OF ALBURY LAND BOARD DISTRICT OF WAGGA WAGGA

Resumed Area No 266A Hillside Pastoral Holding. Eastern Division.

For Auction sale at Albury on 23rd Sep 91

NOTE- Portion 90 edged pink on Original.



Examd (16d) plan 18 2 91

270 ac. 2r.

600ac

Improvements. Dwelling House £300, Kitchen store & cellar £100,
Garden & Orchard £30, Paling fence £25, Stable
buggy-shed & hay yard £50, Pig Stye £1, Horse
Yard Chaff pen & bale £10, Well, Pump & Tank £20,
Iron Piping from Well to House £16.10.0
Old Wells £5, Men's Hut £8 Dam £70
Clearing £24, Partly cleared £25.4.0
Ringb'g and scrubbing £31.5.0 Old Wire
Fencing £19, New Wire Fencing £22.10.0
Total £757, 9. 0

Reference to Corner

Corner	Bearing	From	Links	No on Tree
a	178° 50'	Stump	37	63. 90
b	6° 20'	Stg Bark	75	72. 90
c	30° 38'	Gum	14½	90
d	303° 45'	Box	12	67 90

Voucher 30.119
Bound. 3191?
Road 7983
Cert. 1 new 3 others
35% local increase

I hereby certify that I in person made and on the 12th Dec 1890 completed the survey represented on this plan on which are written the bearings and lengths of the lines measured by me and I declare that the survey has been executed in accordance with the regulations published for the guidance of Licensed Surveyors and the practice of the Department of Lands.

(Signed) Irwin Smith
Licensed Surveyor.

Transmitted to the District Surveyor with my letter of 22nd Dec

Voucher No 30.119 Passed 4th Feb Y. 91
Calculation Book No 380 Passed 25
Checked and Charted S.B Moses 3.2.91
Examined A. R. Gall 4.2.91
Plan approved 6. 2. 1891

C2868 1475

(Signed) William Orr
District Surveyor

(Sig 869)

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES.

Mis Lands
90.105C
Enclosure

APPENDIX B.

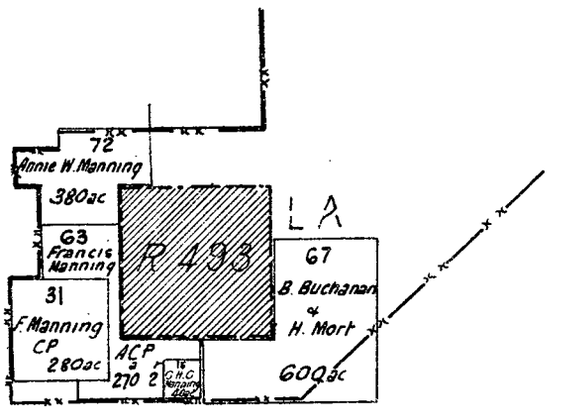
Enclosure to No 2

Tracing showing by green tint R493 Notified 3rd Aug.t 66

Parish of Little Billabung County of Goulburn

NOTE :— Green tint on original shown by hatching, thus ////////

"HILLSIDE"
R. A.



(Sig 869-)

D. S. O.
Ex d/c W. 18th Oct 89
Wagga Wagga

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES

APPENDIX C.

L B D. N° 297 Wagga Wagga
90

Enclosure to N° 3.

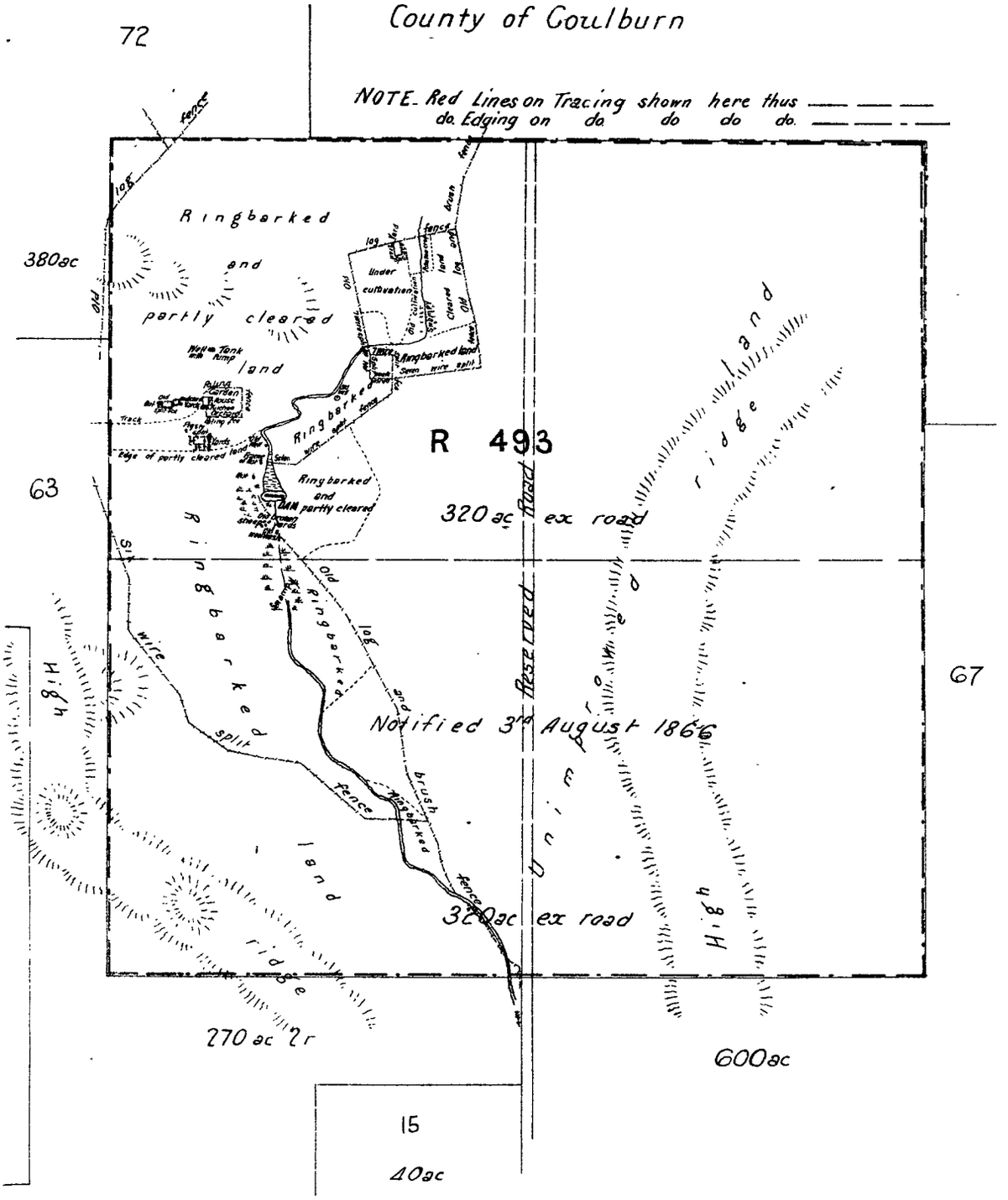
SKETCH

shewing Position of Improvements on Reserve 493

Parish of Little Billabong

County of Coulburn

NOTE. Red Lines on Tracing shown here thus —— —— ——
do. Edging on do do do do. —— —— ——



(Sig 869.) Transmitted to the District Surveyor with my letter of the 8th January N°80/3

(Signed) Maurice Barlow
Surveyor

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE
SYDNEY NEW SOUTH WALES

D.S.O. Exam'd 5th Feb 90
Wagga. Wagga

APPENDIX D.

Enclosure to No 7.

TRACING

Showing by Red Lines design for subdivision of R. No 493

Parish of Little Billabong
County of Coulburn

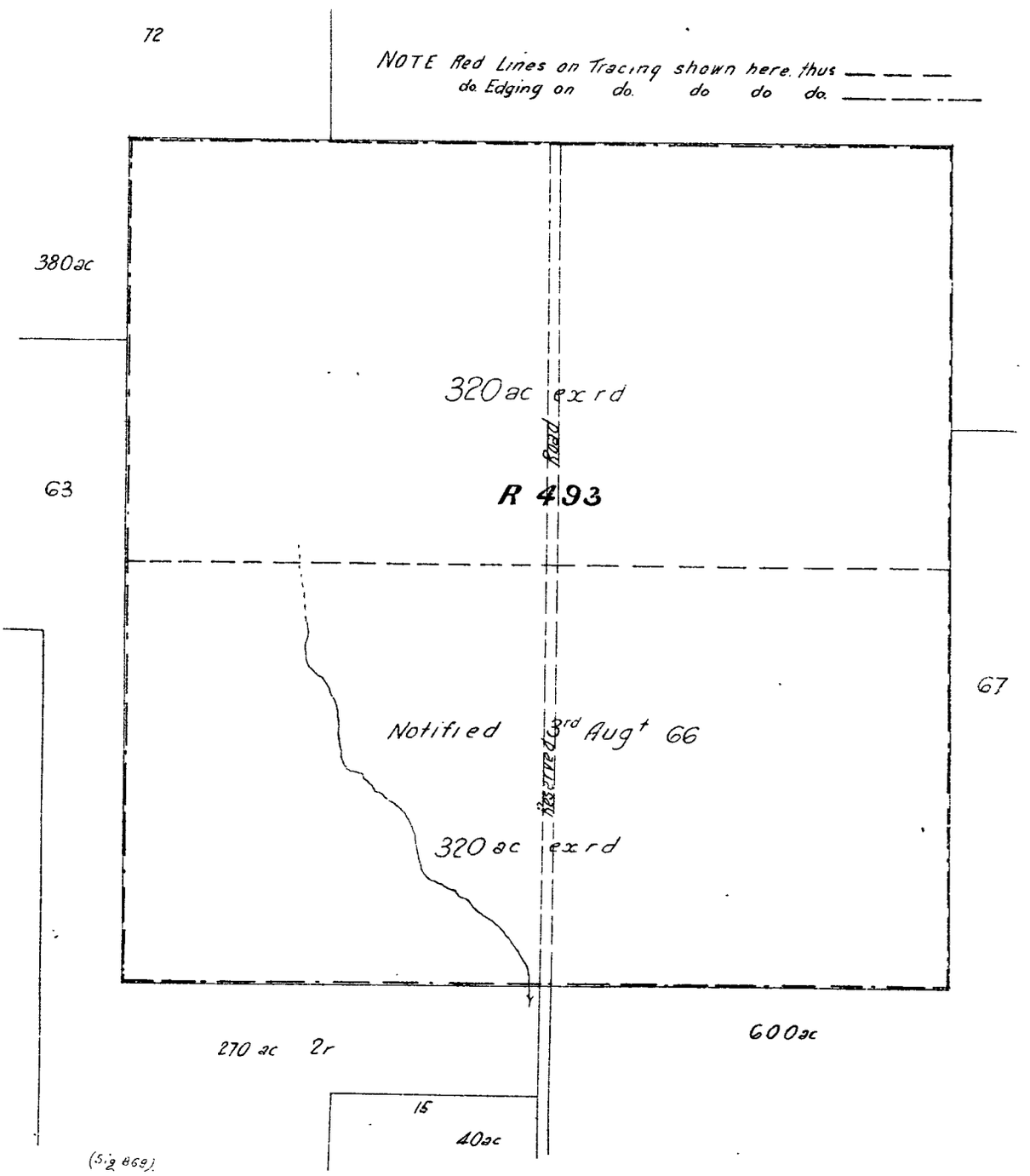


PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY NEW SOUTH WALES

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CROWN LANDS.

(RETURN RESPECTING RESERVES IN LAND DISTRICTS OF FORBES, PARKES, AND CONDOBOLIN.)

Ordered by the Legislative Assembly to be printed, 31 *March*, 1892.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 19th August, 1891, That there be laid upon the Table of this House,—

> "A Return showing the number and kind of reserves in the leasehold and "resumed areas of the several pastoral holdings in the respective Land "Districts of Forbes, Parkes, and Condobolin; such Return to give the "dates of notification of each reserve, the acreage of each reserve, and the "purposes for which such reserves have been made; and also the number "and kind of reserves that have been revoked and thrown open for "settlement in such land districts since the year 1885."

(*Mr. Hutchinson.*)

898—A

[870 copies—Approximate Cost of Printing (labour and material), £60 1s. 0d.]

Return of Reserves in existence in the Land District of Parkes on 31st December, 1891.

No	Date of Notification.	County	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
1464	17 Oct., 1881	Flinders	Balgay Umang	The Overflow		Water reserve	640 0 0	
1405	6 July, 1881	do	Budtha	Canonbar		do	640 0 0	
13005	29 Nov., 1890	do	do Myall, Cowall Red Gilgais Merilba Wicklow Coolabah	do Buddabudah		Travelling stock route	10,598 0 0	Extends into Cobar East Land District.
		Kennedy	Merilba					
5	3 Aug., 1885	Flinders	Currajong Red Gilgais Talgong	The Overflow		Timber reserve	15,048 0 0	
2034	7 April, 1884	do	Delby and Kinnear	The Overflow		Water reserve	2,350 0 0	
1674 Ext.	25 April, 1881	do	Delby and Overflow	do		Camping reserve	720 0 0	
15	30 Oct., 1874	do	Grahway Nangerybone The Overflow	do Nangerybone	The Overflow	Water reserve	4,872 0 0	Extends into Cobar East Land District.
2083	7 July, 1884	do	Grahway		The Overflow	Camping reserve	250 0 0	
11106	29 Mar., 1890	do	do		Nangerybone	Travelling stock route	317 0 0	
83	23 Oct., 1865	do	Merilba	Canonbar		Water reserve	2,494 0 0	
		Kennedy	do	Buddabudah				
1619a	14 May, 1883	Flinders	do Widgeland	Canonbar		Camping & travelling stock	2,500 0 0	
2084	7 July, 1884	do	Nangerybone		Nangerybone	Camping reserve	507 0 0	Balance in Cobar Land District.
4	29 July, 1885	Flinders	Minalong	Orange Plains	Orange Plains	Forest reserve	8,480 0 0	
		Kennedy	Meruyla Hartington					
2084 (See Sh. 7)	7 July, 1884	Flinders	Nangerybone		Nangerybone	Camping reserve	507 0 0	Balance in Cobar East Land District.
1379	11 April, 1881	do	do		do	Travelling stock route	598 0 0	Extends into Condobolin Land District.
1379 Ext.	10 Mch., 1884	do	do		do	do	486 0 0	
P.W.P. 30 8727	16 Mch., 1889	do	do		do	do Camping reserve from lease	640 0 0	
P.W.P. 30 8728	16 Mch., 1889	do	do		do			
7973	8 Dec., 1888	do	do		do	Travelling stock route	270 0 0	
T.L. 30 4150	6 April, 1889	do	do		do	From sale for travelling stock and camping.	640 0 0	
T.L. 30 8729	6 April, 1889	do	do		do	From lease for travelling stock and camping.		
1674	28 Mch., 1881	do	The Overflow	The Overflow		Water reserve	100 0 0	
1675	28 Mch, 1881	do	do	do		Reserve from sale	961 0 0	
386	21 Mch, 1873	do	Umang Wharfdale	Balgay		Water reserve	2,560 0 0	
1255	28 June, 1880	do	Wicklow Widgeland	Canonbar		Water reserve	3,203 0 0	Partly in T.S R. 1619a, and also extends into Cobar East Land District.
2090	16 July, 1884	Ashburnham	Beargamil Currumbenya	Warraberry and St. Giles	Goobang Warraberry and St. Giles	Railway reserve	13,443 0 0	3200 in reserve from C P. of 29th August, 1885.
1235	19 April, 1880	do	Beargamil and Goobang Currumbenya	Goobang Warraberry and St. Giles	Goobang	Travelling stock route	268 0 0	8968 in R R. 2090 and reserve from C.P. of 29th August, 1885.
1651	8 Jan., 1883	do	Beargamil		do Flagstone Greek	do		Within R.R. 2090, T.S.R. 1235, and reserve from C P. of 29th August, 1885.

1652	8 Jan., 1883	Ashburnham...	Currumbenya	Warraberry and St. Giles	Goobang	Travelling stock route.....	.....	Within R.R. 2090.
1647	8 Jan., 1883	do ...	do	do	.....	Camping and water reserve	78 0 0	Balance in R.R. 2090 and T.S.R 1235.
1648	8 Jan., 1883	do ...	do	.....	Goobang	do ...	.....	Within T.S.R. 1235.
249	4 July, 1883	do ...	Beargamil.....	....	do	Prospecting reserve ...	.....	Within R.R. 2090 and reserve from C.P. of 29th August, 1885.
1649	8 Jan., 1883	do ..	do	... .	do	Camping and water reserve	.....	Within R.R. 2090 and T.S.R 1235.
1947	19 Dec., 1883	do ..	Beargamil and Goobang ..	... .	.....	Railway reserve	26,782 0 0	Within R.R. 2090, T.S.R. 1235. and C. and W.R. 1,649, and, reserve from C.P. of 29th August, 1885, also extends into Dubbo Land District.
		Kennedy ...	Houston .. .	... .	.....			
		do ...	Davison...	Goobang	Goobang			
		do	Burrill	Genanagie	Bulderudgera			
		do	Mickibri	....	New Wyregall.....			
		Narromine ...	Hervey	... .	... .			
			Mingelo	....	....			
6882	10 July, 1888	Ashburnham...	Goobang	....	Goobang	do	7 0 0	Balance in R.R. 1,947.
3	18 Aug, 1885	Kennedy	Mickibri	... .	Bulderudgera	Water reserve	800 0 0	
78	21 Sept., 1881	do ...	Mickibri and Burrill	.. . .	do	do	359 0 0	do
1621	2 July, 1883	do	Burrill	... .	do	Travelling stock route ...	122 0 0	do
9972	26 Oct., 1889	Narromine .	Mingelo and Hervey ..	Genanagie	do	Forest reserve	... .	Within R.R. 1947 and T.S.R. 1621.
		Kennedy ...	Burrill	... .	Newyregall			
612	16 July, 1875	do ...	do	....	... .	Reserve for refuge from flood.	836 0 0	Balance in R R. 1947 and T.S.R. 1621.
		Narromine .	Mingelo...	... .	Newyregall			
9079	8 June, 1889	Kennedy	Burrill .	... .	Bulderudgera	Reserve from sale	10 0 0	
9080	8 June, 1889	do ...	do	.. ..	do	Reserve from lease, &c. ..		
9084	.....	do ..	do '	... .	do	School site, dedicated 2nd July, 1889.	2 0 0	
12506	13 Sept., 1890	Narromine ...	Mingelo.....	....	do	Cemetery and plantation...	19 2 0	
32	5 June, 1886	Ashburnham .	Beargamil	.. . .	....	Water reserve	83 0 0	
6946	18 July, 1888	do	do	.....	... .	Reserve from sale for access	40 0 0	
Site, Church and Parsonage, dedicated.	31 Dec., 1878	do ..	Bunbury	... .	East Billabong	Site, church and parsonage	1 2 0	
1682	17 April, 1882	do ...	Beargamil	.. ..	Goobang	Church and School purposes, &c.	130 0 0	
1645	20 Mar., 1882	do ...	do and Bindagandri	East Billalong	....	Water reserve	640 0 0	
345	26 Aug., 1870	do ...	Bindagandri.....	do	... .	do	140 0 0	
846	22 Dec, 1877	do ..	Kamandra	do	.....	Camping reserve	60 0 0	
148	22 Dec, 1877	do ...	do	do	....	From lease		
10632	22 Feb., 1890	do	Bindagandri..... .. .	... .	East Billabong..... .	Travelling stock route..	380 0 0	
10637	22 Feb., 1890	do	do	... .	do	Camping reserve	336 0 0	
1063	2 June, 1879	do ..	do	Flagstone Creek	... .	Water reserve	640 0 0	
10631	22 Feb., 1890	do ..	do	....	East Billabong	Travelling stock route .. .	1,787 0 0	
			Bunbury	....	.....			
1403	1 Aug., 1881	do ..	Bindagandri..... ..	Flagstone Creek	... .	Timber reserve	9,519 0 0	Extends into Molong Land District.
			Bunbury	do	East Billabong.....			
			Coonambra	do	Maura			
1737	4 Sept., 1882	do ...	Bindagandri	do	.....	Railway reserve	510 0 0	Extends into Forbes Land District.
			Coonambro	... .	.....			
1787	6 Nov., 1882	do ..	do	....	East Billabong	Reserve from sale	40 0 0	
208	6 Nov., 1882	do ..	do	... .	do	Reserve from lease		
703 Ext.	25 Oct., 1880	do ..	Bralgan	Brogan Plains	. .....	Water reserve	40 0 0	
972	24 Feb., 1879	do ..	do and Warregal ..	do	Warregal	do	318 0 0	Balance in Billabong, G. F. Extended Reserve from C P.
13169	3 Jan., 1891	do ..	Bralgan	....	do	Sale for access	... .	
			Goobang	....	Bocabegal	Reserve from conditional purchase.	74,330 0 0	25,762 acres; balance in Forbes Land District.
			Currajong	Bartley's Creek	Brogan Plains			
Res. from C.S., Billabong G. E. Ext.	19 Nov., 1883	do ...	Parkes, Brolgan	Billabong West	Warregal			
			Martin, Mugincable	....	Billabong West			
Res. from C.P.	29 Aug., 1885	do ...	Beargamil	. . ..	Goobang	do do	3,200 0 0	
Do	29 Aug, 1885	do ..	Goobang	... .	do	do do	2,680 0 0	Within R.R. 1,947; partly do from C.P. of 29 August, 1885.
24f	14 July, 1885	do ...	do	....	do	Prospecting reserve..... ..	....	
1442	10 Oct., 1881	do ..	Goonimbla	....	Billabong West	Camping reserve	910 0 0	Balance in T.S R. 6,114.

Return of Reserves in Existence in the Land District of Parkes on 31st December, 1891—*continued.*

No	Date of Notification	County	Parish	Leasehold Area of	Resumed Area of	Purpose of Reserve.	Area.	Remarks.
							a. r. p.	
6414	26 May, 1888	Kennedy	Limestone	Coradgery	Camping Reserve	Travelling stock route	6,967 0 0	Extends into Parkes L. D, also within Billabong G. F. extended reserve C P., and T S R. 6414.
		Ashburnham	Goonimbla					
		do	Currajong					
956	4 Nov., 1878	Kennedy	Limestone	Coradgery		Trigonometrical reserve	10 0 0	
1148	3 Nov., 1879	do	do	do		Water reserve	40 0 0	
33	5 June, 1886	Ashburnham	Currajong		Gunningbland	do	169 0 0	Balance in Billabong G. F extended reserve from C. P
Cemetery dedicated	16 Jan., 1880	do	Bunbury		East Billabong	Cemetery	6 3 0	
1938	10 Dec, 1883	do	Brolgan and Parkes		Brogan Plains	Travelling stock route		Within do
					Billabong West			
10164	16 Nov., 1889	do	do		do	Railway reserve	1,648 0 0	
1959	30 June, 1884	do	Parkes		do	Travelling stock route		Within do, and T S R, 1938
1947	19 Dec., 1883	do	Parkes and Martin	Bartley's Creek		Railway reserve		Within Billabong G F extended reserve from C P, and extends into Forbes district.
				Billabong West				
1960	30 June, 1884	do	do	do		Camping and village reserve		Within Billabong G. F. extended reserve C P, and also within R R 1947.
298	6 Nov., 1891	do	do	do		From occupation under miner's right.		do
1961	30 June, 1884	do	Martin	Bartley's Creek	Warregal	Travelling stock reserve		do
1064	12 Mar., 1879	do	do	do	do	Water reserve		do and also extends into Forbes land district
13392	7 Feb., 1891	do	do	do		Timber reserve		Within R R 1947, and Billabong G. F. extended reserve from C. P.
32c	27 Nov, 1885	do	do	do		Prospecting reserve		do do
24d	24 July, 1885	do	do	do		do		do do
1065	12 May, 1879	do	do	do		Water reserve		Within Billabong G.F., reserved from C P.
13170	3 Jan, 1871	do	do		Warregal	do	479 2 0	
1058	22 June, 1879	do	Warregal	Nelungaloo		do	960 0 0	
			Nelungalong	Warregal				
13381	7 Feb, 1891	do	Warregal	do		Travelling stock & camping	326 0 0	
13380	7 Feb., 1891	do	do	do		Water reserve	640 0 0	
2168	14 Aug, 1886	do	do		Bocabigal	do	210 0 0	
7756	17 Nov., 1888	do	do	Warregal		Sale for access	3 2 0	
988	26 Nov, 1878	do	do	Nelungaloo		Water reserve	568 0 0	Extends into Forbes L D.
1121	27 Oct., 1879	do	do	do		do	744 0 0	Balance in Forbes L D and Billabong G.F, reserved from C P
			Nelungalong	do				
32b	27 Nov, 1885	do	Mugincoble	Bartley's Creek	Bartley's Creek	Prospecting reserve		Within Billabong G F, reserved from C.P.
32d	27 Nov, 1885	do	do	do	do	do		
1739	4 Sept, 1882	do	do		do	Railway reserve	1,920 0 0	
1025	21 April, 1879	do	Mugincoble and Cookamidgera.		do and Flag Creek.	Village reserve	2,705 0 0	Balance in T.S.R. 1,641, and Forbes land district.
662	25 Jan., 1876	do	Mugincoble	Bartley's Creek		Travelling stock route	33 0 0	
Prospecting reserve	24 July, 1886	do	do	do		Prospecting reserve		Within Billabong G F extended, reserved from C P.
1641	20 Mar, 1882	do	do		Bartley's Creek and Flagstone.	Travelling stock reserve	801 0 0	Partly in V.R. 1025, and extends into Forbes Land District.
			Cookamidgera					
			Kamandra					
7650	27 Oct, 1888	do	do		Bartley's Creek and Flagstone.	Camping reserve	430 0 0	Balance T.S.R. 1641, and V.R. 1025.
10319	4 Jan, 1890	do	do		Flagstone Creek	Railway reserve	182 0 0	

2665	5 Oct., 1889	Ashburnham ..	Kamandra	. ...	Bartley's Creek				
9664	5 Oct., 1889	do ..	do	... .	Flagstone Creek	Travelling stock route ...	104	0	0
1708	19 July, 1882	do	do	..... .	do	do do ...	13	0	0
7285	29 Sept., 1888	do	do	. . ..	do	Camping reserve	166	0	0
7286	29 Sept., 1888	do	do ...	... .	do	do	72	0	0
School Site Ded.	14 Oct., 1881	do	Bindogandri	Flagstone Creek	do	Travelling stock route.....	83	0	0
8513	25 Jan., 1889	do	Parkes	... ...	....	Public school site	2	0	0
1730	4 Feb., 1882	do	Bunbury . .	....	Billabong West	From sale for rubbish depot	20	0	0
1725	7 May, 1883	do ...	do	... .	East Billabong	Timber reserve.....	2,830	0	0
					do	Travelling stock route.....	280	0	0
4166	17 Sept., 1887	do	do	... .	do	Police paddock..... .	83	2	0
1586	2 July, 1883	do ..	do	....	do	Travelling stock & camping	616	2	0
1485	24 Oct., 1881	do	do	....	do	Camping reserve	180	0	0
1330	8 Nov., 1880	do	do	.. ..	do	Public School purposes ...	10	0	0
1147	3 Nov., 1879	do . .	Gunningbland	. .. .	Gunningbland	Timber reserve...	3,500	0	0
(T.L 152) 3929	13 Aug., 1887	do ...	do	... .	do	Travelling stock route.....	585	0	0
2474	7 Oct., 1886	do	do and Milpose	... .	....	do do	5,100	0	0
		Kennedy	Werridgery	Gunningbland	Gunningbland				
		Cunningham	Milpose.....	Blowclear West	Coradgery.....				
		do ...	Gunningbland	. ...	....				
1122	27 Oct., 1879	Ashburnham...	do .	Gunningbland	. ...	Water reserve	1,530	0	0
			Milpose	do	. .....				
2473	2 Oct., 1886	do	do	do	....	Camping reserve	384	0	0
1702	26 June, 1882	do ...	do	do	. .....	Travelling stock route	850	0	0
1702 Ext	10 Mar., 1884	do ..	Gunningbland	do	. .. .	do do ...	486	0	0
			Milpose	... .	. ... ..				
2593	30 Oct., 1886	do	Nelungalong	Gunningbland	.. .	do do ...	40	0	0
10633	22 Feb., 1890	do ..	Kamandra	... .	Flagstone Creek	do do ...	80	0	0
10636	22 Feb., 1890	do .	do	... .	do	Camping reserve	5	2	0
10635	22 Feb., 1890	do ..	do	.. ..	do . .	do	377	0	0
10634	22 Feb., 1890	do	do	. ...	East Billabong	do	260	0	0
759	29 Dec., 1876	do .	do	... .	do	Water reserve	540	0	0
					Flagstone Creek				
846	22 Dec., 1876	do	do	.. ..	Partly in East Billabong ..	From sale for camping ...	60	0	0
148	22 Dec., 1876	do ..	do	... .	do do	From lease for camping ...			
848	5 April, 1878	do ..	do	.. .	Flagstone Creek	Water reserve	6	0	0
2472	2 Oct., 1886	do .	Milpose	.....	Gunningbland	Camping reserve	640	0	0
1327	25 Oct., 1880	do ..	do	Gunningbland	....	Water reserve	160	0	0
1839	11 June, 1883	do	Nelungalong.....	do	.....	Travelling stock route ...	720	0	0
1839 Ext.	10 Mar., 1884	Cunningham	Gunningbland	Barrawang	..... .	do do . .	640	0	0
1812	3 Jan., 1883	Ashburnham...	Nelungalong...	Gunningbland	..... .	do do .	88	0	0
1811	3 Jan., 1883	do ...	do	do	. ...	do do ...	703	0	0
				Nelungaloo	... .				
703	10 May, 1876	do ...	do	do	... .	Water reserve	.....		Within T.S.R. 1811.
1071	2 June, 1879	do ...	do	Gunningbland	.....	do	1,280	0	0
1579	2 July, 1883	do ...	do	do	... .	Travelling stock route ...	.....		Within W.R. 1071.
6645	23 June, 1888	Cunningham...	Botfields	Barrawang	Barrawang	do do ..	7,400	0	0
			Gunningbland	....	....				
			Trundle	. ...	... .				
6613	23 June, 1888	do ...	Botfields	. .	Barrawang	Camping reserve	260	0	0
5355	11 Feb., 1888	do .	do	. . ... .	do ..	Access to water	96	0	0
2971	22 Jan., 1887	do ...	Byang	. ...	do	Water reserve	334	0	0
8664	2 Mar., 1889	do ...	Cookey's Plains	. .... .	do	Timber reserve.....	11,520	0	0
			Gunningbland	. ...	. ...				
950	12 Aug., 1878	do ...	Cookey's Plains, Monomie	Barrawang	....	Water reserve	2,878	0	0
1910	23 July, 1883	do ...	Cookey's Plains	do . . .	.... ..	Driftway reserve	218	0	0
			Kars	. .	. ...				
8948	11 May, 1889	do ...	Cookey's Plains	Barrawang	....	Water reserve	1,280	0	0
			Gunningbland	do	....				
955	14 Oct., 1878	do ...	do	do	... .	Access to water	2,520	0	0
			Dulhunty	do ...	....				

Return of Reserves in Existence in the Land District of Parkes on 31st December, 1891—*continued.*

No	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
9066	8 June, 1889	Cunningham...	Gillenbine			Travelling stock route	9,000 0 0	
			Plevna	The Trapps	Gillenbine ..			
		Kennedy ..	Gobondery	Gillenbine	Gobandry			
			Tant	Gobandry				
			Gillenbine ...					
4029	3 Sept , 1887	Cunningham...	Gunningbland ...	Gunningbland ...		Water reserve	1,239 0 0	Balance in T. S. R. 6645.
				Barrawang				
7754	17 Nov., 1888	do ...	do	do		Camping reserve	400 0 0	
7751	17 Nov., 1888	do ...	do	do		Travelling stock route .	475 0 0	
7752	17 Nov., 1888	do ...	do	Bardawang		Camping reserve	540 0 0	
7753	17 Nov., 1888	do ...	do	do		do	600 0 0	
1110	15 Sept., 1879	do .	do	do		Water reserve	979 0 0	
5919	14 April, 1888	do .	do	do		Camping reserve	.....	Within W. R. 1110.
3268	2 April, 1887	do ...	do and Monomie	do		Travelling stock route... .	2,890 0 0	
949	12 Aug., 1878	do ..	Monomie	do		Water reserve	720 0 0	Balance in T. S. R. 3268.
961	11 Nov., 1868	do .	do	do		do	640 0 0	
41	13 May, 1878	do ..	do	do		From sale for public purposes	610 0 0	
1141	24 Dec , 1879	do .	do	do		Water reserve ..	2,202 0 0	
School Site Ded.	11 Jan., 1889	do ...	Trundle	.....	Barrawang	School site	2 0 0	
Cemetery Ded.	9 Oct., 1891	do ..	do		do	Cemetery	5 3 14	
4373	5 Nov , 1887	do .	do	.....	do	Camping and travelling stock .	633 0 0	
4374	5 Nov., 1887	do ..	do	.....	do	do	631 0 0	
6646	23 June, 1888	do	do	.....	do	Travelling stock route	1,260 0 0	
6444	23 June, 1888	do ...	do	.....	do	Camping reserve	550 0 0	
5905	14 April, 1888	do	do	.....	do	Public School paddock	10 0 0	
684	22 Mar., 1876	Kennedy	Albert, Dandaloo ..	Bulbodney	Bulbodney	Travelling stock route... .	13,132 0 0	Extends into Condobolin Land District.
			Tabratong, Babathnel	.....	Albert Waterhole			
			Braalchy, Sarsfield	.....	.....			
			Boona, Mickimill.....	.....	.....			
663	25 Jan., 1876	do .	Albert	.....	Albert Waterhole ...	Water reserve	5 0 0	
10230	23 Nov., 1889	do .. .	Dandaloo	.....	Tyrie	Travelling stock route ..	320 0 0	
			Tabratong...	.....	.....			
688	5 July, 1880	do	Albert	.....	.....	Camping & travelling stock	1,995 0 0	
			Tabratong	Albert Waterhole	Tyrie			
			Hawarden	.....	.....			
1686	8 May, 1882	do	do	Albert Waterhole	Tyrie	Travelling stock route	75 0 0	Balance in T S Rs 684 and 688.
4188	1 Oct., 1877	do .	Albert and Hawarden	.....	Albert Waterhole ...	Timber reserve ..	18 0 0	Balance in T S Rs 1686, 684 & 688.
1687	8 May, 1882	do	do	.....	do	Camping & travelling stock	876 0 0	Balance in T.S.R. 684.
10229	23 Nov., 1889	do	Albert	.....	do	Travelling stock route ...	45 0 0	
1688	8 May, 1882	do	Albert and Hawarden	Kerriwah	do	Camping & travelling stock	827 0 0	Balance in T S Rs. 684 and 7430.
7430	13 April, 1889	do	Albert	Woodlands	.....	Travelling stock route	7,835 0 0	Balance in T.S.R. 684.
			Babathnil	Kerriwah	Burra Burra			
			Sarsfield	Burra Burra	Bulbodney			
			Mickimill	.....	.....			
			Somerset	.....	.....			
			Fitzroy	.....	.....			
			Gillenbine	.....	.....			
1254	28 June, 1880	do	Albert	.....	Kerriwah	Water reserve	40 0 0	
395	1 July, 1873	do	Albert, Dandaloo	Tyrie	do	Travelling stock route.....	7,144 0 0	Extends into Dubbo Land District.
			Derribong	Derribong	Tyrie			
7432	13 April, 1889	do	Babathnil	Kerriwah	.....	Camping reserve	65 0 0	Balance in T S.R. 684.
686	22 Mar., 1876	do	do	do	.....	Travelling stock route.....	2,467 0 0	
			Bulbodney	Bulbodney	.....			
402	7 Nov., 1873	do	do	do	.....	Water reserve	.....	Within T.S.R. 686.
1813	8 Jan., 1883	do	Beaconsfield.....	Orange Plains	.....	do	2,560 0 0	

			Tabrabong						
			Carolina						
			Moodana South						
1162	31 May, 1880	Kennedy	Belardery	Bulgrandamine	Wallanbillan	Travelling stock route	14,270	0	0
			Genanaguy	Mungery West	Bulgrandamine				
			Mungeree Strahorn	Wallanbillan	East Derribong				
			Graddle		Mungery West				
			Wallanbalang						
			Ossary						
			Derribong						
1441	10 Oct, 1881	do	Belardery						
			Cookopie	Genanagie		Camping reserve	2,090	0	0
1846	21 May, 1883	do	Bentinck						
			Ormonde		Mungery West	Water reserve	1,920	0	0
7445	6 Oct, 1888	do	Bentinck		do	Sale for access	100	0	0
1845	21 May, 1883	do	do			Water reserve	1,920	0	0
			Somerset		Mungery West				
			Stanley		Burra Burra				
8718	23 Nov, 1889	do	Bulbodney	Kerriwah		Camping reserve	263	9	0
8719	23 Nov, 1889	do	do			Travelling stock reserve	7,180	0	0
			Minalong	Kerriwah	Kerriwah				
			Talingaboolba	Melrose	Woodlands				
			Wilmatha						
13859	30 May, 1891	do	Bulbodney and Minalong	Woodlands	Woodlands	Timber reserve	4,425	0	0
1131	6 Oct, 1879	do	Burdenda						
			Moodana	Burdenda		Water reserve	2,110	0	0
1097	4 Aug, 1879	do	Burdenda	do		Access to water & camping	40	0	0
795	27 June, 1877	do	do	do		Water reserve	640	0	0
795 Ext	22 July, 1878	do	do	do		do	1,920	0	0
2093a	17 Nov, 1884	do	Carolina	Tabratong West	Burdenda	Timber reserve	2,400	0	0
7	1 May, 1886	do	do	do	do	do	1,200	0	0
11031	10 Mar, 1879	do	Cookapie	Genanagie		Water reserve	1,280	0	0
11045	4 Mar., 1890	do	do	do		do	22	0	0
1032	10 Mar, 1879	do	do			do	640	0	0
		do	Wombin	Genanagie					
1705	26 June, 1882	do	Coradgery	do		Water reserve	467	0	0
		do	Wombin	Coradgery					
1791	13 Nov, 1882	do	do	do	Coradgery	Water reserve	530	0	0
1445	24 Oct, 1881	do	Dandaloo	Tyrie		do	1,000	0	0
1	29 June, 1885	do	do	do		do	640	0	0
395 W. Ext'n	17 Feb, 1874	do	Derribong	do		Travelling stock route	930	0	0
1866	18 June, 1883	do	Davison	Goobang		do do	147	0	0
395	17 Feb., 1877	do	Derribong	Derribong		do do	704	0	0
1801	18 Dec, 1882	do	do		Derribong	Camping reserve	900	0	0
10443	21 Dec, 1889	do	do	Derribong	do	Travelling stock route	780	0	0
10442	21 Dec, 1889	do	do	do	do	From sale for access	200	0	0
1840	14 May, 1883	do	do		do	Water reserve	124	0	0
1517	9 Jan, 1882	do	do	Tyrie		Water and camping	20	0	0
7430	13 April, 1889	do	Fitzroy		Burra Burra	Camping reserve	640	0	0
9206	5 June, 1889	do	Gillenbine and Tant	Burra Burra	Melrose	Reserve from C.P.	4,014	0	0
922	29 July, 1878	do	Graddle	Wallanballan		Water reserve	1,810	0	0
		do	Wallanbalang						
1623	2 July, 1883	do	Graddle	Wallanballan		Travelling stock route	552	0	0
6973	28 July, 1888	do	do		Mungery West	Camping reserve	640	0	0
4739	19 Nov., 1887	do	do		do	Sale for access	270	0	0
6	13 Feb., 1886	do	do		do	Reserve from sale	200	0	0
2	13 Feb., 1886	do	do		do	Reserve from lease			
76a	22 Dec., 1865	do	do		do	Water reserve	68	0	0
1623	2 July, 1883	do	do and Strahorn		do	Travelling stock route	676	0	0
5	13 Feb., 1886	do	do		do	Water reserve			

Return of Reserves in Existence in the Land District of Parkes on 31st December, 1891—*continued*:

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
3	13 Feb., 1886	Kennedy	Wallanbilla		Water reserve	Reserve from Lease	460 0 0	
661	23 Jan., 1878	do	Willanbalang	Wallanbillan		From sale, for crossing	8 0 0	
170	13 Sept., 1880	do	do	do		Reserve from lease	39 0 0	Balance in T.S.R. 1162
1326	25 Oct., 1880	do	do	do		Reserve from sale		
14752	31 Oct., 1891	do	Hartington		Woodlands	Timber reserve	576 0 0	
1809	12 Feb., 1883	do	Hastings	Opposite Derribong		From sale, for crossing	71 0 0	do.
12692	11 Oct., 1890	do	Houstan	Goobang		Temporary common	1,235 0 0	Balance in RR. 1947.
10129	14 Dec., 1889	do	do	do		Water reserve	30 0 0	
146	24 Sept., 1889	do	do	do		Reserve from occupation		
14761, part of	14 Nov, 1891	do	do	do		Reserve from lease		
14760	14 Nov., 1891	do	do	do		Water reserve	40 0 0	
146 ext,	15 Oct., 1889	do	do	do		Reserve from occupation		
14761, part of	14 Nov., 1891	do	do	do		Reserve from lease		
10427	14 Dec, 1889	do	do	do		Police purposes	7 0 0	
14762	14 Nov, 1891	do	do	do		Reserve from lease. do		
Cemetery dedication	15 Sept, 1891	do	do	do		Cemetery	5 0 0	
12579	18 Oct, 1890	do	do	do		From sale, for plantation to cemetery.	3 2 0	
		do						
12580	18 Oct, 1890		do	do		From lease, for plantation to cemetery.		
		do						
721	31 May, 1876		Hawarden	Woodlands		Water reserve	56 0 0	
2418	4 Sept., 1886	do	Kadina		Bulderudgera	do	510 0 0	
9077	8 June, 1889	do	do		do	Reserve from sale	10 0 0	
9078	8 June, 1889	do	do		do	Reserve from lease		
School site ded.	2 July, 1889	do	do		do	Public school	2 0 0	
1063	4 Jan, 1890	do	do		do	From sale for cemetery	8 0 0	
1064	4 Jan, 1890	do	do		do	do lease do		
1440	10 Oct, 1891	do	Limestone and Wombin	Coradgery		Camping reserve	2,560 0 0	
2528	9 Oct, 1886	do	do and Werridgery	do	Coradgery	Water reserve	340 0 0	
1091	28 July, 1879	do	do and Wombin	do		Travelling stock route	3,647 0 0	Partly in C.R. 1441, 1 W.R. 1705.
1033	10 Mar., 1879	do	Wombin	do		Warer reserve	254 0 0	Balance in T.S.R. 1091.
2471	2 Oct, 1886	do	do	do		Camping reserve	340 0 0	
1791	15 Nov., 1882	do	do	do		Water reserve	530 0 0	
14816	28 Nov, 1891	do	Moodana South	Orange Plains		Timber reserve	1,920 0 0	
1627	2 July, 1883	do	Mungerie	Mungary		Travelling stock route		Within T.S.R 1162
1160	9 Feb., 1880	do	do		Bulgandramine	Village reserve	936 0 0	Extends into Dubbo Land District
1628	2 July, 1883	do	do		do	Travelling stock & camping		Within V.R. 1160, and Dubbo Land District.
10471	11 Jan, 1890	do	do		do	Reserve from sale	5 0 0	
10172	11 Jan, 1890	do	do		do	Reserve from lease		
8748	23 Mar., 1889	do	Ossary			Travelling stock & camping	285 0 0	
8749	23 Mar., 1889	do	do			do do	420 0 0	
8747	23 Mar., 1889	do	do			Reserve from sale for Access	30 0 0	
1284	5 July, 1880	do	do	Wallanbillan	Wallanbillan	Water reserve	1051 0 0	Balance in T S. and C.R, 1624 and T.S.R., 1162.
1624	2 July, 1883	do	Ossary			Travelling stock & camping reserve.	748 0 0	Balance in T S R, 1162, and C.P.L., 1468.
			Wallanbalang	Wallanbillan	Wallanbillan			
614	16 July, 1875	do	Strahorn	Mungary West		Refuge from flood	460 0 0	
2092	25 Aug, 1884	do	do	do		Timber reserve	3,000 0 0	
8651	23 Feb., 1889	do	do			From sale for access	60 0 0	
10686	8 Feb., 1890	do	Werridgery		Coradgery	Camping reserve	640 0 0	
357	19 Dec., 1871	do	Wilmatha	Melrose		Water reserve	80 0 0	
2457	2 Oct, 1886	Narromine	Hervey		Bulderudgera	do	500 0 0	
1468	17 May, 1890	do	Mingelo	Genanagie		do	240 0 0	
7490	6 Oct., 1888	Ashburnham	Currajong		Billabong West	School paddock	8 0 0	

School Site dedicated.	11 June, 1889	do	do		do	Public school site	2 0 0			
5892	7 April, 1888	do	do		do	Parkes temporary common.	8,424 0 0			
6413	26 May, 1888	do	do		do	Travelling stock route		Within Temporary Common.		
5728	10 Mar., 1888	do	do		do	do do		do do		
1914	27 Aug., 1883	do	do		do	School paddock	10 0 0			
7287	29 Sept., 1888	do	do		do	Travelling stock route	365 0 0			
747	7 Oct., 1876	do	Goobang		Flagstone Creek	Water reserve	600 0 0			
			Kamandra		Billabong West					
			Beargamil							
32d	27 July, 1885	do	Goobang			Prospecting reserve		Within W.R. 747 and T.S.R. 7287.		
			Kamandra		Flagstone Creek					
			Beargamil							
742	30 Aug., 1876	do	Currajong			Travelling stock route	35 0 0	Partly in W.R. 747 and T.S.R. 7287 and Parkes Tem. Common.		
			Goobang		Billabong West					
1643	20 Mar., 1882	do	Currajong		do	do	38 0 0	do do		
14695	24 Oct., 1891	do	do		do	do		Within Parkes Tem. Common.		
339	7 Sept., 1869	do	Goobang		do	Water reserve	14 0 0			
1112	15 Sept., 1879	do	Currajong			Camping reserve		do do		
			Parkes		Billabong Creek					
4960	31 Dec., 1887	do	do		do	Plantation for cemetery	28 0 0			
Cemetery dedicated	24 Oct., 1882	do	do		do	Cemetery	7 2 0			
8050	15 Dec., 1888	do	do		do	Camping reserve		do do		
1935	17 Oct., 1883	do	do		do	Water reserve		do do		
5846	24 Mar., 1888	do	do		do	Travelling stock route		do do		
School site dedicated	14 Nov., 1879	do	Village Martin			Public school site	2 0 0			
3170	12 Mar., 1887	do	do			School reserve	1 2 4			
1043	7 April, 1879	do	do			do	0 3 6			
School site dedicated	18 Jan., 1884	do	Currajong		Billabong Creek	School site	2 0 0			

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Return of Reserves in existence in the Land District of Condobolin on 31st December, 1891.

P.W.P. 7419 / 34 7421	27 Oct., 1888	Cunningham	Baratta and Mowabla	Mowablaa		T. S. and C. R	640	
1264	5 July, 1880	do	Jerula Emu Plains	Boona West	Boona West	Travelling stock route	3,795	
			Murda Baratta	Condobolin Mowablaa				
7437	3 May, 1890	do	Mowabla Baratta	Mowablaa	Condobolin	do do	4,500	
			Murda and Condobolin					
14187	1 Aug., 1891	do	do		Condobolin	Timber reserve	15	Balance in T. S. R. 7437.
3264	2 April, 1887	do	Wollongong Derriwong	Borambel		Travelling stock route	4,000	
			Berewombenia	Barrawang				
3271	2 April, 1887	do	Berewombenia	do		Camping reserve	400	
13686	18 April, 1891	do	Berewombenia & Derriwong	do		Timber reserve	978	Balance in T. S. R. 3264.
3270	2 April, 1887	do	do	do		Camping reserve	563	
1109	1 Sept., 1879	do	Berewombenia	do		Water reserve and access.	640	Balance in T. S. R. 3264 and C. R. 3271.
1910	23 July, 1883	do	Beremombenia and Kars	do		Driftway reserve	1,594	Balance in T. S. R. 3264 and Parkes LD.
2527	9 Oct., 1886	do	Bunbella			Water reserve	350	
8903	27 April, 1889	do	do			do	160	
11	12 June, 1886	do	Bunbella and Kiargathur			do	460	
4502	14 Jan., 1888	do	Bomobbin	Barrawang		Travelling stock route	5,840	
			Wollongong & Mulgutherie	Borambel				
4399	14 Jan., 1888	do	Bomobbin	Burrawang		Camping reserve	220	
368	30 July, 1872	do	Bomobbin and Derriwong	do		Water reserve	741	Balance in T. S. R. 4502.
1036	10 Mar., 1879	do	Bomobbin	do		do	550 0 0	

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Return of Reserves in Existence in the Land District of Condobolin on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
1378	11 April, 1881	Cunningham...	Boona East	Melrose	Melrose	Travelling stock route.....	8,800 0 0	Extends into Parkes Land District.
			Boona West	Boona West	.....			
			Corella Jerula	.....	.....			
			Melrose, Ellerslie.....	.....	.....			
1378 Extension	10 Mar., 1884	do	do	Boona West	Melrose	do do ...	8,716 0 0	
8719	23 Nov., 1889	do	Melrose, Boona West	Melrose	do	do do ...	23,520 0 0	do do
2007	18 April, 1884	do	Gulgo, Kalinga	Gulgo	Gulgo	do do ...	16,270 0 0	Extends into Hillston Land Dist.
			Kiargathur	Kiacatoo	Condobolin			
			Condoublin	.....	.....			
			Micabil	.....	.....			
3186	19 Mar., 1887	do	do	.....	.....	do do ...	.....	Included in T.S.R. 2007.
1415	28 Nov., 1881	do	Condoublin	.....	Condobolin	Camping & travelling stock	167 0 0	
5899	21 Mar., 1888	do	do	Borambil	do	Camping reserve	250 0 0	
2050	26 May, 1884	do	Condoublin & Wollongong	do	do	Travelling stock route.....	1,360 0 0	
684	22 Mar., 1876	do	Corella	Melrose	.....	do do ...	7,603 0 0	Extends into Parkes Land District.
			Ellerslie and Jerula.....	Melrose Block D	.....			
733	14 June, 1876	do	Corella	do	.....	do do ...	1,280 0 0	Balance in T.S.R. 684.
9065	8 June, 1889	do	do	do	Melrose Block D	From sale for access	100 0 0	
3266	2 April, 1887	do	Derriwong.....	.....	Barrawang	Travelling stock route.....	600 0 0	
685	22 Mar., 1876	do	Emu Plains & Mawabla...	Condoublin	Boona West	do do ...	2,160 0 0	Balance in T.S.R. 1264.
685 Extension	5 July, 1880	do	Emu Plains	do	.....	do do ...	80 0 0	
4061	29 Sept., 1888	do	do	do	.....	From sale and lease.....	590 0 0	
1815	5 Mar., 1883	do	do	do	.....	Driftway reserve	820 0 0	
1816	5 Mar., 1883	do	do	do	.....	do	640 0 0	
9593	31 Aug., 1889	do	do	do	.....	Timber reserve	927 0 0	Balance in T.S.R. 7437.
7435	21 Sept., 1889	do	Gindoono	.....	Melrose	Travelling stock route.....	4,000 0 0	
			Melrose	.....	Boona West			
			Mount Nobby	.....	.....			
4154	17 Sept., 1887	do	Gindoono	.....	Melrose	Travelling stock & camping		
8909	27 April, 1889	.....	.....	.....	.....	do from lease	636 0 0	
T.L. 32	.....	.....	.....	.....	.....	Tank lease		
4155	17 Sept., 1887	Cunningham ..	Gindoono	.....	Melrose	Travelling stock & camping		
8910	27 April, 1889	.....	.....	.....	.....	do from lease	640 0 0	
P.W.P. 32	.....	.....	.....	.....	.....	Public watering-place		
9204	22 June, 1889	Cunningham...	Gindoono	.....	Melrose	Reserve from C.P.	1,100 0 0	
4156	17 Sept., 1887	do	Gindoono and Tinda	.....	do	Travelling stock & camping	640 0 0	
1379	11 April, 1881	do	Gindoono and Oxley South	Nangerybone	Nangerybone	Travelling stock route.....	7,316 0 0	Extend into Parkes land district.
1379 Ext.	10 Mar., 1884	do	Oxley North and Wicklow	.....	Melrose	do	7,908 0 0	
4153	17 Sept, 1887	do	Oxley North and Oxley	Nangerybone	.....	Travelling stock & camping		
8908	27 April, 1889	.....	South, and Walker.	.....	.....	do from lease	579 0 0	
T.L. 31	.....	.....	.....	.....	.....	Tank lease		
1713	26 July, 1882	Cunningham...	Oxley North.....	Nangerybone	.....	Water reserve and access..	104 0 0	Balance in T.S.R. 1379.
P.W.P. 31-8074	15 Dec., 1888	do	Oxley South.....	do	.....	Travelling stock and camp-		
8075	15 Dec., 1888	do	do	do	.....	ing from sale.		
8076	15 Dec., 1888	.....	.....	.....	.....	do from lease	643 0 0	
8077	15 Dec, 1888	.....	.....	.....	.....	do do		
1948a	21 Jan., 1884	Cunningham...	Jerula	Melrose Block D	.....	Camping and water reserve	136 0 0	Balance in T.S.R. 1378 and extension.
1166	5 July, 1880	do	do	Boona West	.....	Travelling stock route ...	656 0 0	Balance in T.S.R. 1264.
7	3 Aug., 1885	do	Inlandery	Kiacatoo	.....	Water reserve	640 0 0	
967	14 Oct., 1878	do	do	do	.....	do	640 0 0	
2001	28 April, 1884	do	Inlandery and Kalinga ...	do	.....	do	1,136 0 0	Balance in T.S.R. 2007.
2002	28 April, 1884	do	do ...	do	.....	do	1,782 0 0	
1397	6 June, 1891	do	Kars	Barrawang	.....	do	88 0 0	
14605	10 Oct., 1891	do	Kiargathur	Kiacatoo	.....	Travelling stock route.....	640 0 0	
3181	19 Mar., 1887	do	Micabil	.....	.....	do	350 0 0	

2004	28 April, 1884	do	do			Water reserve	1,606 0 0	
3182	19 Mar., 1837	do	do		Gulgo	Travelling stock route		Embraced in T.S.R. 2007.
5	3 Aug, 1885	Cunningham	Mamre	Palisthon	Melrose	Water reserve	2,560 0 0	
(T.L. 33) 4151	17 Sept, 1887	do	Mount Nobby		Boona West	Camping and trav. stock	640 0 0	
P.W.P. 33) 4152	17 Sept., 1887	do	do		do	do do	640 0 0	
7436	3 May, 1890	do	do			Travelling stock route	3,724 0 0	
			Taratta, Mowabla	Mowablaa	Melrose, Boona West			
1985	21 Jan., 1884	do	do		do and do	Forest reserve	2,923 0 0	Balance in T. S. Reserves, 7435 and 7436, &c.
(T.L. 34) 7420	21 Oct., 1888	do		Mowabla		Trav. stock and camping	640 0 0	
(P.W.P. 34) 7419	21 Oct., 1888	do	Mowabla and Baratta	do		do do	640 0 0	
1984	21 Jan., 1884	do	Tarratta and Mowabla		Melrose and Boana West	Timber reserve	3,700 0 0	
4496	14 Jan., 1888	do	Mulgutherie	Burrawang		Camping do	31 0 0	
1548	20 Mar., 1882	do	do	do		Water do	736 0 0	
4498	14 Jan., 1888	do	do	do		Camping do	430 0 0	
7677	3 Nov., 1888	do	do	do		Timber do	210 0 0	
1269	21 June, 1880	do	Murda		Condobolin	Forest do	3,300 0 0	
8652	23 Feb., 1889	do	do		do	Trig. reserve	40 0 0	
9206	5 June, 1889	do	Murga	Burra Burra	Murrumbogie	Reserve from C. P.	2,686 0 0	Balance in Parkes Land District.
2027	10 Mar,, 1884	do	Oxley North	Nangeribone		Travelling stock route	1,884 0 0	Balance in Hillston North Land District.
			Oxley South					
15	30 Oct., 1874	do	Oxley North and Wicklow		Nangerybone	Travelling stock route	1,360 0 0	
4	3 Aug., 1885	do	Palisthan	Palisthon		Water reserve	1,260 0 0	
9491	10 Aug , 1889	do	Taratta		Poona West	From sale for access	560 0 0	
8904	27 April, 1889	do	Tinda and Tollingo		Melrose	Timber reserve	800 0 0	
12957	5 Nov., 1890	do	Tollingo		do	Reserve from C. P.	2,176 0 0	
6	3 Aug., 1885	do	Willama		Melrose and Palisthon	Water reserve	1,092 0 0	
1073	16 June, 1879	do	Wollongong	Borambil	Barrawang	Camping reserve	300 0 0	
3269	2 April, 1887	do	do	do	do	do do	400 0 0	
829	19 Oct., 1877	do	do	do		Travelling stock route	1,000 0 0	
829 Ext.	12 Sept., 1881	do	do	do		do do	700 0 0	
5898	21 Mar., 1888	do	do	do	Condobolin	Camping reserve	120 0 0	
828	19 Oct., 1877	Cunningham	Wollongong	do		Access to water	21 0 0	
1258	21 June, 1880	do	do	do		Water reserve and access	50 0 0	
4501	14 Jan., 1888	do	do	do		Camping reserve	466 0 0	Balance in T.S.R. 4502, and 82 and 829 Ext.
1594	7 April, 1879	Dowling	Beaumont and Curriba	Bygalore		Travelling stock route	4,373 0 0	
				Wooyeo				
507	23 Aug., 1872	do	Curriba	do		Water reserve		Within T.S.R. 1594.
14282	22 Aug., 1891	do	Brotheroney	Wardry	Back Wardry	Timber reserve	1,440 0 0	
		Gipps	Goobothery	Back Wardry	Wardry			
1879	12 Jan., 1880	Dowling						
		Gipps	Goobothery		Wardry	Trig. reserve	80 0 0	
6417	26 May, 1888	Dowling	Curriba	Bygalore	Wollongough	Travelling stock route	8,960 0 0	
		Gipps	Bygalore					
		do	Wollongough					
		do	Bibbyolee					
1559	14 Feb , 1879	Dowling	Curriba	Bygalore		Trig. reserve	284 0 0	
		Gipps	Bygalore					
2076	30 Aug., 1880	Dowling	Curriba	Wooyeo		do	160 0 0	
2076 Ext.	18 July, 1881	do	do	do		do	108 0 0	
361	5 July, 1867	do	Guagong and Whyaddra		Yaddra	Water reserve	1,600 0 0	
3901	16 July, 1887	do	Whyaddra		do	Camping reserve		Embraced in W.R. 361
3902	16 July, 1887	do	do		do	Travelling stock route		
484	8 Sept., 1871	do	Gumbagunda		Wooyeo	Village reserve	500 0 0	
1926	19 April, 1880	do	do		do	Water reserve	640 0 0	
3185	19 Mar., 1887	do	do		do	From sale for access	1,070 0 0	
8867	12 Oct., 1889	do	do		do	Camping reserve	400 0 0	
8870	12 Oct., 1889	do	do		do	Travelling stock route	470 0 0	
8868	12 Oct., 1889	do	do		do	Camping reserve	460 0 0	
8869	12 Oct., 1889	do	do		do	Travelling stock route	410 0 0	
2188	6 Dec., 1880	do	Narden	Dundoo Hills		Water reserve	1,280 0 0	
2116	4 Oct., 1880	do	Narden and Tibeando	do		do	1,600 0 0	

Return of Reserves in Existence in the Land District of Condonolin on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of	Purpose of Reserve.	Area a.	r.	p.	Remarks
(R 314) 2406	21 July, 1881	Dowling	Trigalong		Wooyeo	From sale and lease	260	0	0	
788	31 Aug., 1875	do	Wardry	Wardry		Water reserve	1,200	0	0	
2509	9 Jan., 1882	do	do	do		do	63	0	0	
3055	4 Aug, 1884	do	do	do		Water and camping	36	0	0	
3943	13 Aug, 1887	do	do	do		From sale	8	0	0	Public School paddock.
3944	13 Aug, 1887	do	do	do		From lease				
Portion 34	School Site, dedicated 10 Jan, 1888	do	do	do		School site	2	0	0	
14281	22 Aug, 1891	do	do	do		Timber reserve	640	0	0	
307	5 July, 1867	do	Wardry and Whyaddra	Yaddra		Water reserve	3,200	0	0	
1022	18 July, 1876	do	do do	do		do	192	0	0	Balance in water reserve 307.
2436	27 July, 1881	do	Yarran	Wargambegal		Water reserve and access	890	0	0	
2437	27 July, 1881	do	Yarran and M'Kellar	do		do do	1,788	0	0	
831	19 Nov., 1875	do	Gulooma		Monument Flats	Water reserve	640	0	0	
		Gipps	Bygalore							
1280	1 Dec, 1887	do	Banar	South Condobolin		do	1,400	0	0	
529	18 July, 1873	do	Cookaburragong							
			Banar	South Condobolin		do	1,300	0	0	
529 Ext.	13 July, 1875	do	Cookaburragong	Cookaburragong		do	480	0	0	
1954	14 June, 1880	do	Banar	South Condobolin		do	210	0	0	
961	13 April, 1876	do	do	Borambil	Borambil	Travelling stock reserve	18,720	0	0	
			Ilgindore	South Condobolin	South Condobolin					
			South Condobolin	Euglo						
			Euglo, South							
			Euglo Yarnel							
			Cookaburragong							
			Ungaree Mildil							
			Wollangough							
			Murrengreen							
3235	26 May, 1887	do	Bena Euglo, South		Euglo	Travelling stock route	2,500	0	0	
			Livingstone							
3234	26 May, 1887	do	Livingstone and Ugalong		Euglo	Water reserve	409	0	0	
944	22 Mar, 1876	Gipps	Bena Manna		Lake Cowal	Travelling Stock Route	9,980	0	0	
			Wamboyne	Lake Cowal	Bogandillon					
			Towyal, Nerang, Cowal	Cadow						
			Corringle							
6418	26 May, 1888	do	Bibbyalee	Wollangough		do	5,493	0	0	Extends into Hillston Land Dist.
			Balagamy	Youngara Creek	Balagamy					
				Murrengreen						
2962	5 May, 1884	do	Bibbyalee			do	4,408	0	0	
			Udah	Wollangough	Ungaree					
			Younga Plain	Younga Plain	Billabong					
			Bimbeen							
			Ungarie							
			Balagamy							
7364	20 Oct, 1888	do	Bibbyalee	Wollangough		Reserved from sale	2	0	0	
1406 Ext	20 May, 1885	do	do	Murrengreen		Water Reserve	555	0	0	
1406	12 Aug, 1878	do	Murrengreen	do		do	1,544	0	0	
11597	21 May, 1890	do	Bibbyalee	do		Reserved from cond. sale	700	0	0	
1161	21 May, 1890	do	do	do		do lease				
949	22 Mar, 1876	do	do	do		Water Reserve	440	0	0	Extends into Hillston Land Dist.
1876 Ext	28 Nov., 1811	do	do	Youngara Creek		do	89	0	0	
1876	12 Jan, 1880	do	do	do		do	315	0	0	do do
6420	26 May, 1888	do	Wollangough	Wollangough		Camping reserve	6.0	0	0	
			Bibbyalee							
10572	25 Jan., 1890	do	Bimbeen		Ungaree	Water reserve	619	0	0	

2963a	12 Dec, 1885	do	Bimbeen, Cowal	Lake Cowal	do	Travelling Stock route	6,710	0	0	
			Blow Clear, Corringle		Lake Cowal					
1326	22 Feb, 1878	do	Blow Clear	Lake Cowal		Water reserve	640	0	0	
2565	26 April, 1882	do	Bogandillon	Bogandillon	Borambil	do	7,440	0	0	
869	5 Jan, 1876	do	do	do		Reserve for refuge from flood.	1,103	0	0	Balance in W.R. 2565.
9058	8 June, 1889	do	do	do	Borambil	From sale for access	120	0	0	
1104	29 Dec, 1876	do	do	do	do	Water reserve	646	0	0	do
1289	5 Dec, 1877	do	Bogandillan	Borambil		Water reserve	838	0	0	Balance in W.R. 2565.
582	6 Mar, 1874	do	do	Bogandillon		do	425	0	0	
2239	21 Feb., 1881	do	do	do and Cadow		do	37	0	0	
1479	30 Sept, 1878	do	do	do do		Travelling stock route	3,042	0	0	
			Manna Moonbia	Borambil						
			South Borambil							
1381	8 July, 1878	do	Bogandillon		Borambil	Camping reserve	122	0	0	
9613	8 Nov, 1890	do	Balagamy		Balagamy	Travelling stock route	242	0	0	
1253	29 Sept, 1877	do	do	Balagamy		Water reserve	312	0	0	Balance in T.S.R. 1461.
2933	3 Mar, 1884	do	do	do		Water reserve and access	960	0	0	
1461	14 Aug, 1878	do	Udah and Balagamy	do	Billabong	Travelling stock route	6,839	0	0	Extends into Grenfell Land Dist.
6416	26 May, 1888	do	Murrengreen and Balagamy		Balagamy	do do	331	0	0	Extends into Hillston Land Dist
14279	22 Aug., 1891	do	Balagamy		do	Police purposes	40	0	0	
3184	19 Mar., 1887	do	do		do	Water reserve	198	0	0	
1252	29 Sept., 1877	do	do	Balagamy		do	1,440	0	0	
1559	14 Feb., 1879	do	Bygalore	Bygalore	B	Timber reserve	217	0	0	
1327	22 Feb, 1878	do	Clear Ridge	Lake Cowal		Water reserve	640	0	0	
1352	19 Mar., 1878	do	do							
			Cowal	Lake Cowal		do	1,280	0	0	
4167	17 Sept, 1887	do	Cookaburragong	South Condobolin		do	200	0	0	
4	18 Nov, 1885	do	do	Milby	Bygalore	Timber reserve	7,670	0	0	
			Crown Camp		Crown Camp					
			Merribooka							
			Wilga							
14202	8 Aug, 1891	do	Carringle		Lake Cowal	Reserve from C.P.	326	0	0	
960	7 April, 1876	do	do		do	Water reserve	424	0	0	Balance in T.S R. 2963a.
1580	10 Mar., 1879	do	do		do	Timber reserve	392	0	0	do do
2060	30 Aug, 1880	do	Cowal		do	Travelling stock route	60	0	0	
1328	22 Feb, 1878	do	do		do	Water reserve	1,869	0	0	Extends into Forbes Land District.
959	7 April, 1876	Gipps	Cowal		Lake Cowal	Water reserve	2,560	0	0	
786	31 Aug, 1875	do	Crown Camp	Crown Camp		do	880	0	0	
6415	26 May, 1888	do	Currah, Ugalong	Four-bob Camp		Travelling stock route	5,760	0	0	
			Euglo South	Euglo						
1288	15 Dec, 1877	do	Euglo	do		Water reserve	2,472	0	0	
672	11 Sept, 1864	do	Euglo South	do		do	4,879	0	0	Balance in T. S. R's, 6415 and 961.
6419	26 May, 1888	do	Ugalong		Euglo	Travelling stock route	40	0	0	
8107	22 Dec, 1883	do	Goobothery		Wardry	Camping reserve	360	0	0	
8112	22 Dec, 1888	do	do		do	do	170	0	0	
8108	22 Dec., 1888	do	do		Micabil	do	560	0	0	
8111	22 Dec, 1888	do	do		do	do	60	0	0	
3150	5 Mar, 1887	do	do		Wardry	Water reserve	300	0	0	
1878	12 Dec, 1880	do	Pulligal		Bygalore	Trig. reserve	90	0	0	
3128	1 Dec, 1884	do	Ilgindrie and South Condobolin	Borambil	Condobolin	Driftway reserve	900	0	0	
819	19 Oct, 1875	do	Ilgindrie	do		Water reserve	640	0	0	
918 Ext.	13 Jan, 1877	do	do	do		do	92	0	0	
819 Ext	23 July, 1883	do	do	do		do	400	0	0	
287	5 July, 1867	do	Ilgindrie and Borambil	do		do	3,200	0	0	
287 Ext.	13 Jan., 1877	do	Ilgindrie	do		do	1,280	0	0	
1124	5 Jan, 1877	do	do	do		do	194	0	0	
1289 Ext.	23 July, 1877	do	do	do		do	265	0	0	
1125	8 Jan, 1877	do	do	do		do	23	0	0	
1065	7 Oct, 1876	do	Kalingan, Livingston	Ungaree		do	640	0	0	

Return of Reserves in Existence in the Land District of Condobolin on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
2072	16 Aug., 1880	Gipps	Kalingan and Ungarie	Ungarce		do	2,380 0 0	
367	1 Oct., 1867	do	Livingstone	do		Water Reserve	40 0 0	
2706	8 Jan., 1883	do	Manna	Cadow		Travelling Stock Route	500 0 0	
754	23 April, 1875	do	do	do		Water Reserve	800 0 0	
865	30 Dec., 1875	do	Merribooka	Milbey West		do	2,880 0 0	
2752	5 Feb., 1887	do	Merrimeratherie	Gulgo South		do	525 0 0	
			South Gulgo					
11598	21 May, 1890	do	Merrimeratherie	Milbey		From Sale	300 0 0	
11602	21 May, 1890	do	do	do		From Lease		
1198	28 May, 1877	do	do	do		Trig. Reserve	640 0 0	
12574	27 Sept., 1890	do	Milbee	do	Milbey	do	100 0 0	
1360	10 June, 1878	do	Moonbia	Moonbia or Bogandillon		Travelling Stock Route	34 0 0	
1481	30 Sept., 1878	do	do	do		do	152 0 0	Balance in T.S.R., 1,479.
1181	16 May, 1877	do	do	do		Water Reserve	94 0 0	
14780	14 Nov., 1891	do	do	do		Camping Reserve	208 0 0	
2662	9 Oct., 1882	do	do	Partly in Bogandillon		Forest Reserve	3,300 0 0	
313	5 July, 1867	do	do	do		Water Reserve		
650	5 July, 1874	do	do	do		do	1,280 0 0	
1219	20 July, 1877	do	do	Borambil		Trig. Reserve	20 0 0	
14041	11 July, 1891	do	Nerang, Cowal	Moonbia and Bogandillon		Camping Reserve	256 0 0	
1067	7 Oct., 1876	do	South Borambil	Borambil		do	99 0 0	
1123	5 Jan., 1877	do	do	do		Water Reserve	86 0 0	
1129	13 Jan, 1877	do	do	do		do	60 0 0	
1138	5 Jan., 1877	do	do	do		do	101 0 0	
1127	13 Jan, 1877	do	do	do		do	25 0 0	
1128	13 Jan., 1877	do	do	do		do	20 0 0	
1126	5 Jan., 1877	do	do	do		do	63 0 0	
347	5 July, 1867	do	do	do		do	1,154 0 0	
190	8 Feb., 1878	do	do	do		From Lease		
776	27 July, 1875	do	South Condobolin		South Condobolin	From Sale	390 0 0	
144	18 July, 1876	do	do		do	From Lease		
3330	1 Dec., 1884	do	do		do	Camping and Water	750 0 0	
819 Ext.	1 Dec., 1884	do	do		do	Water Reserve	500 0 0	
8109	22 Dec., 1888	do	South Gulgo	Gulgo South		Camping Reserve	540 0 0	
326	5 July, 1867	do	do	Gulgo and Micabel		Water Reserve	1,914 0 0	
8110	22 Dec., 1888	do	do	Gulgo South		Camping Reserve	350 0 0	
1029	15 Aug., 1876	do	do	do		Water Reserve	127 0 0	
1027	15 Aug., 1876	do	do	do		do	185 0 0	
1028	15 Aug., 1876	do	do	do		do	9 0 0	
8113	22 Dec., 1888	do	South Gulgo	Gulgo South		Camping reserve	940 0 0	
2323	30 May, 1881	do	do	do		Water reserve	1,140 0 0	
1055	23 Sept., 1876	do	South Micabil	Micabil		do	103 0 0	
1057	23 Sept., 1876	do	do	do		do	517 0 0	
1014	21 June, 1876	do	do	do		Access water reserve	75 0 0	
1056	21 Sept., 1876	do	do	do		do	345 0 0	
1054	21 Sept., 1876	do	South Wallaroi	do		Water reserve	375 0 0	
13849	30 May, 1891	do	Udah		Billabong	Sale for access	260 0 0	
2967	5 May, 1884	do	do		do	Camping reserve	100 0 0	
1	12 Dec., 1885	do	do		do	do	378 0 0	
2071	16 Aug., 1880	do	Ugalong		Euglo	Water reserve	1,676 0 0	
			Livingstone					
14954	19 Dec., 1891	do	Ugalong		Euglo	Plantation to cemetery	3 0 0	
1083	21 Oct., 1876	do	Ungaree	Ungaree		Water reserve	2,178 0 0	Balance in T.S.R. 961.
948	22 Mar., 1876	do	do	do		do	658 0 0	
917	10 Mar., 1876	do	Wallaroi	Micabil		do	2,840 0 0	
1955	14 June, 1880	do	do	do		do	60 0 0	
1579	10 Mar., 1879	do	Wambayne		Lake Cowal	Trig. reserve	640 0 0	

1874	12 Jan., 1880	do	do		do	Water reserve	240	0	0	
1287	15 Dec., 1877	do	Yarnel and Weelah	Borambil		Forest reserve	3,840	0	0	
1875a	12 Dec., 1885	do	Wambayne		Lake Cowal	do	2,875	0	0	
13848	30 May., 1891	do	Wollangough		Wallangough	do	1,605	0	0	
1380	8 July, 1878	do	Yarnel and Ilgindrie	Borambil		Travelling stock route	785	0	0	
1379	8 July, 1878	do	do	do		do	385	0	0	
423	21 Sept., 1869	do	do		Euglo	Water reserve	108	0	0	
2968	5 May, 1884	do	Yamiga Plain	Yamigee Plain		Trig. reserve	113	0	0	
1461	5 April, 1880	do	Wyalong	Upper Wyalong		Trig. and travelling stock reserve.	55	0	0	Balance in T.S.R. 1461.
Permanent common dedicated.	6 Dec., 1867	do	South Condobolin		South Condobolin	Permanent common	640	0	0	
Condobolin rededicated	15 Aug., 1871	do								
Recreation reserve	16 Jan., 1880	Cunningham	Condobolin		Condobolin	Recreation reserve	160	0	0	
Condobolin temporary common.	13 April, 1869	Cunningham, Gipps	Condoublin South Condoublin.		South Condoublin Condoublin	Temporary common	1,174	0	0	
1227	5 April, 1880	Cunningham	Condoublin		do	Pound site	20	0	0	
Show ground	23 Nov., 1886	do	Town, Condobolin			Show ground	27	11	20	
327	24 April, 1868	do	do			Access from common to water.	57	0	0	
1320	16 May, 1881	do	do			Public park and recreation	38	0	0	Balance in W.R. 327 and Show Ground.
1318	25 Oct., 1880	do	do			Trav. stock and camping	30	0	0	
1318 Extension	17 Jan., 1881	do	do			Travelling stock route	4	0	0	
201	1 April, 1890	do	do			From occupation under Miners' Right, &c.	4	2	0	
1383	16 May, 1881	do	do			Water reserve and public purposes.	3	0	0	
1808	12 Feb., 1883	do	do			Pound purposes	22	0	0	
1384	16 May, 1881	do	do			Public purposes	5	0	0	
1389	16 May, 1881	do	do			do	4	0	0	
1300	23 Aug., 1880	do	do			do	1	0	0	
1210	9 Feb., 1880	do	do			do	1	0	16	
203	1 April, 1890	do	do			From occupation under Miners' Right, &c.	1	3	9	
202	1 April, 1890	do	do			do do	0	3	0	
206	1 April, 1890	do	do			do do	2	2	0	
205	1 April, 1890	do	do			do do	1	2	32½	
Site, Town Hall, dedicated.	6 Jan., 1891	do	do			Site, Town Hall	0	2	0	
Site, church and parsonage, Church of England, dedicated.		do	do			Site, church and parsonage	1	1	32½	
Site, School of Arts, dedicated.	16 Jan., 1880	do	do			Site, School of Arts	0	2	0	
Site, Presbyterian manse, dedicated.		do	do			Presbyterian manse	1	0	0	
1385	16 May, 1881	do	do			Public buildings	6	2	0	
1388	16 May, 1881	do	do			do	10	0	0	
10162	16 Nov., 1889	do	do			Railway reserve	32	0	0	
1382	16 May, 1881	do	do			Reserve for Cemetery	1	2	0	
204	1 April, 1890	do	do			From occupation under Miners' Right, &c.	5	0	0	
Public recreation dedicated.		do	do			Public recreation	20	0	0	
Hospital site	15 Jan., 1886	do	do			Hospital site	5	0	0	
Do	25 Mar., 1887	do	do			do	5	0	0	
10161	16 Nov., 1889	do	do			Railway reserve	10	0	0	
10163	16 Nov., 1889	do	do			do	42	0	0	
8628	23 Feb., 1889	do	do			Trig. reserve	15	0	0	
General cemetery dedicated.		do	Condoublin		Condobolin	General cemetery	7	2	0	
Public School site dedicated.	18 Jan., 1884	do	Town, Condoublin			Public School site	2	0	0	

Return of Reserves in existence in the Land District of Forbes on 31st December, 1891.

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
3265	2 April, 1887	Cunningham...	Yarrabundi	Burrawong	.. . .	Travelling stock route ...	663 0 0	
1982	14 Jan., 1884	do ...	do	do	... .	Quarry and trig. reserve...	1,020 0 0	
950	12 Aug. 1878	do ...	Goobang	do	....	Access to water	560 0 0	Balance in Parkes Land District.
1362a	21 Feb., 1881	do ...	do	do	....	Water reserve	2,604 0 0	
3272	2 April, 1887	do ...	do	do	.....	Camping reserve	558 0 0	
3267	2 April, 1887	do ...	do	do	. ...	Travelling stock reserve ..	673 0 0	
1272	21 June, 1880	do ...	do	. ... .	.....	Water reserve	746 0 0	
			Carrobablin	Burrawong	.....			
4503	18 Feb., 1888	do ...	Burrawong	....	... .	Travelling stock route ...	3,320 0 0	
			Monwanga	do	. ...			
4497	18 Feb., 1888	do ..	Burrawong	do	... .	Camping reserve	144 0 0	
4495	18 Feb., 1888	do ..	do	... .	....	do	480 0 0	
			Monwanga	Burrawong	... .			
1281	5 July, 1880	do ...	Burrawong	do	....	Access to water	400 0 0	
4028	3 Sept., 1887	do ...	Monwonga	do	....	For access to water	4,400 0 0	
4089	18 Feb., 1888	do ...	do	do	. .. .	Travelling stock route ...	.....	Within reserve 1,023.
4494	18 Feb., 1888	do ...	do	do	....	Camping reserve	.....	do.
8	19 Dec., 1885	do ...	do	... .	.. ... .	Travelling stock route ..	2,084 0 0	
			Badjerribong	Burrawong	... .			
1930	5 Agril, 1884	do ...	do	do	..... .	Water reserve		
3	29 July, 1885	do ..	do	do	... ...	Public school purposes ...	10 0 0	
Schedule site, ded.	15 Jan., 1886	do ..	do	do	... ...	Public school site	2 0 0	
4493	18 Feb , 1888	do ...	do	do	... .	Camping reserve	600 0 0	
755	15 Sept., 1877	do ...	do	do	....	Public school paddock ...	8 0 0	
School Site App.	16 Mar., 1877	Cunningham...	Badjerribong	Burrawong	.. ..	School site	2 0 0	
Cemetery dedicated.	25 Mar., 1887	do ...	do . ..	do	....	Cemetery	8 0 0	
2305	28 Aug., 1886	do	do	do	. ...	From sale for cemetery ..	8 0 0	
1138	20 Oct., 1879	do .	do	do	.. ... .	Water reserve	838 0 0	
4500	18 Feb., 1888	do ...	do . .	do	..... .	Camping reserve	350 0 0	Balance in W.R. 1138.
4492	18 Feb., 1888	do .	do ...	do	....	Travelling stock route.....	426 0 0	do do
1	16 Jan., 1886	do ..	do	do	....	Forest reserve	161 0 0	
1138 Ext.	26 Nov., 1883	do ..	do	do	. . ..	Water reserve	149 0 0	
189	26 Jan., 1880	do ...	Caraboblin	do	. ...	Camping reserve	156 0 0	
1946a	21 Jan., 1884	do .	do	do	....	Quarry reserve	830 0 0	
1538	13 Feb., 1882	do . .	Gunning . ..	do	. .. .	Timber reserve...	4,400 0 0	
1137	13 Oct., 1879	do ...	do . .	.. ..	.... .	Travelling stock and water	3,200 0 0	
		Ashburnham ..	Yarragong	Gunning East	....			
		Cunningham...	Corridgery	... .	....			
7969	8 Dec., 1888	do ...	do . .	Burrawong	... .	Forest reserve	342 0 0	Balance in T.S. and W.R., 1137.
				Gunning East	....			
1546	7 May, 1883	do ..	Gunning	Burrawong	. .. ...	Camping reserve	13 0 0	
1547	7 May, 1883	do ...	do	do	... ...	Camping and water	380 0 0	
4484	18 Feb , 1888	do ..	Corridgery ...	....	.. ..	Travelling stock route	1,320 0 0	
		Ashburnham...	Carrawabbity	Burrawong	... .			
4485	18 Feb., 1888	do ...	do	do	... .	do . .	560 0 0	
4488	18 Feb., 1888	do ..	do ..	d)	..... .	Camping reserve	250 0 0	
4490	18 Feb , 1888	do ..	do ..	d) ...	. . ..	Travelling stock route ...	760 0 0	
4491	18 Feb., 1888	do ..	do ...	do .	. . ..	do	130 0 0	
790	16 May, 1877	do ...	Yarragong ...	Gunning East	....	Water reserve	480 0 0	
1121	27 Oct., 1879	do ..	do	.....	Nelungaloo	do	216 0 0	Balance in Parkes Land District.
11596	21 May, 1890	do ...	do	Bocabigal	... .	Reserve from sale	285 0 0	
			Mumbidgle	... ..	... .			
11600	21 May, 1890	do ...	do	Bocabigal	. .. .	Reserve from lease		
1585	2 July, 1883	do ...	Carrawabbity	....	....	Camping and travelling stock .	1,500 0 0	

13312	24 Dec., 1890	do ...	Carrawabbity	... .	... .	Reserve from Lease and license	....		Part of T.S.R's 1588, 8901, 4485, 4488.
1570	2 July, 1883	do .	Bocobidgle	....	. ...	Travelling stock route...	466	0 0	
428	31 Mar, 1874	do .	do	... .	.. .	Water reserve	243	0 0	Balance in T.S.R. 1570.
4486	11 April, 1891	do .	do	... .	. .. .	Travelling stock route	55	0 0	Balance in W.R. 428.
8901	27 April, 1889	do	Carrawabbity	....	.....	do	50	0 0	
718	31 May, 1876	do ...	Bocabidgle	Bocabigal	....	Water reserve	202	0 0	
718 Ext.	22 Nov., 1880	do . .	do	do	. ...	do	30	0 0	
School site ded.	23 July, 1889	do ..	do	do	.. ..	School site.....	2	0 0	
8706	9 Mar., 1889	do ..	do	do	... .	From sale, school paddock	8	0 0	
8707	9 Mar., 1889	do ...	do	do	... .	From lease, do do			
736	3 July, 1876	do ..	do	do	....	Water reserve	1,180	0 0	
1569	2 July, 1883	do ..	do	do	....	Travelling stock & camping			Within W.R. 736.
198	5 June, 1882	do ..	do	do	. ...	Reserve from lease			
4487	18 Feb., 1888	do ..	do	do	....	Travelling stock route.....	740	0 0	
Racecourse ded.	14 Feb., 1872	do ..	do	do	....	Forbes Racecourse	184	2 0	
1838	14 May, 1883	do ...	do	do	. ...	From sale for access	43	0 0	
939	9 Sept, 1878	do ..	do	do	....	Water reserve	17	0 0	
10492	20 Dec., 1889	do .	Mumbidgle and Forbes		Back Daroubalgie, Bocabigal	Reserve from C.P.	7,800	0 0	
1947	19 Dec., 1883	do ...	do do	. ...	. .. .	Railway reserve	.....	.....	7,552 acres within Billabong G.F. extended reserve from C.P.
			Dowling	. .. .	Back Daroubalgie, Bocabigal				
Reserve from C.P., Billabong G.F., ext. res. from C.P.	19 Nov., 1883	do .	Mumbidgle	Back Daroubalgie	Back Daroubalgie	Reserve from C P.	25,762	0 0	
			Forbes	... ...	Bocabigal.				
			Wangajong	.. ..	... .				
			Troubalgie	. .. .	. . . .				
			Dowling	... .	... .				
1962	30 June, 1884	Ashburham ...	Mumbidgle	... ...	Back Daroubalgie	Camping and water	... .		1,528 acres in Billabong G F., extended reserve from C.P, and R.R. 1947.
3783	11 June, 1887	do ...	do	....	do	Travelling stock and camping.	.....	.....	100 acres in Billabong G.F extended reserve from C.P.
9044	1 June, 1889	do ...	do and Forbes	... .	do	Travelling stock route	553	0 0	1,535 acres do do.
1124	27 Oct., 1879	do ..	Troubalgie and Dowling ..	Upper Daroubalgie	... .	Water reserve	.	.....	640 acres do do.
2048	12 May, 1884	do ...	Troubalgie and Wise	Back Yamma	Eugowra	Forest reserve	16,300	0 0	
2146	3 Dec., 1884	do ...	Forbes, Dowling	Upper Daroubalgie	Yamma. Upper Daroubalgie	Railway reserve	11,759	0 0	6,690 acres in Billabong G F. extended reserve from C.P, and F.R 2048.
			Troubalgie, Wise.....	Lower do	Lower do				
			Eugowra, Wangan	Eugowra and Yamma...	Yamma and Back Yamma				
429	31 May, 1874	do ...	Troubalgie	Yamma	... .	Water reserve	.....	.....	Within R.R. 2146.
682	22 Mar., 1876	do ..	Wise	do	. . ..	Refuge from flood	.....	.....	do do.
1046	7 April, 1879	do .	Wangan and Wise	do	... .	Water reserve	616	0 0	Balance in F R. 2048.
633	5 Nov., 1875	do ...	Troubalgie	Lower Daroubalgie .	....	Travelling stock route	651	0 0	
1116	8 Sept., 1879	do ...	do	do	....	do	800	0 0	
2679	6 Nov., 1886	do ...	do	Upper Daroubalgie	. .....				
School site ded.	9 July, 1886	do ..	do	... .	Yamma	Camping reserve	250	0 0	
6	12 Dec., 1885	do . .	do	. ...	do	School site	2	0 0	
9868	12 Oct., 1889	do ...	Wangan, Wise	... .	do	School paddock	10	0 0	
			Troubalgie	Yamma	do and Eugowra ..	Travelling stock route ..	4,753	0 0	Balance in R.R. 2146.
2030	10 Mar., 1884	do ...	Wangan	.. ..	... .				
12495	20 Sept., 1890	do . .	do	Yamma	....	Forest reserve	190	0 0	
12496	20 Sept., 1890	do ...	do	... .	Eugowra	Refuge from flood	49	0 0	
14185	1 Aug., 1891	do . .	do	....	do	Forest reserve	320	0 0	
835	25 Jan., 1878	do ...	do	.....	do	Sale for access	100	0 0	
9869	12 Oct., 1889	do ...	do	Eugowra	. ...	Water reserve	171	0 0	Extends into Molong L.D.
14842	5 Dec., 1891	do ..	do and Eugowra...	do	. ...	Travelling stock route ..	120	0 0	
14843	5 Dec., 1891	do ...	do	... .	. ...	From sale for temporary common.	1,265	0 0	
1505	14 Nov., 1881	do ..	do ..	Eugowra ... ... do	... .	From lease do ... Water reserve	.	. .....	Within R.R. 2146 & T.S.R. 9868.

Return of Reserves in Existence in the Land District of Forbes on 31st December, 1881—*continued.*

No.	Date of Notification.	County.	Parish	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
1641	20 Mar, 1882	Ashburnham	Cookamidgera ... / Wise and Eugowra ...		Eugowra / Back Yamma / Flagstone Creek / Bartley's Creek	Travelling stock route	4,768 0 0	Balance R.R. 2146.
1564	13 Feb, 1882	do	Wise		Eugowra	Water reserve	552 0 0	Balance in T.S.R. 1641.
9386	20 July, 1889	do	Eugowra		do	From sale for Aboriginals.	80 0 0	
9387	20 July, 1889	do	do		do	From lease for Aboriginals		
12386	23 Aug, 1890	do	do		do	From sale for access to Public school.	4 0 0	Balance ded. for school site.
12387	23 Aug, 1890	do	do		do			
School site ded.	15 Sept, 1891	do	do		do	School site	2 0 0	
1912	20 Aug, 1883	do	do	Eugowra		Water reserve	37 0 0	
6781	14 July, 1888	do	do	do		Camping reserve	96 0 0	
Cemetery Ded	11 Mar., 1881	do	do	do		Cemetery	7 2 0	
31	7 April, 1886	do	Wanera		Eugowra	Water reserve	40 0 0	
1194	26 Jan., 1880	do	do		Gonimbla	From sale, Public School	2 0 0	
1439	3 Oct, 1881	do	do		do	Water reserve	51 0 0	
1439 Ext	2 July, 1883	do	do		do	do	75 0 0	
1025	2 April, 1879	do	Mugincable / Cookamidgera		Flagstone Creek / Bartley's Creek	Village reserve	2,075 0 0	Balance in T.S.R. 1641, and Parkes Land District.
10317	4 Jan, 1890	do	Cookamidgera		do	Railway reserve	1,020 0 0	
1738	4 Sept, 1882	do	do		do	do	1,800 0 0	
1028	21 April, 1879	do	Coonambro	Flagstone Creek		Water reserve	960 0 0	
1943	26 Nov., 1883	do	do		Moura	do	360 0 0	Extends into Molong Land District.
1737	4 Sept., 1882	do	do	Flagstone Creek		Railway reserve	590 0 0	
1150	24 Feb, 1877	Gipps	Cadow	Cadow		Water reserve	185 0 1	
1151	24 Feb, 1877	do	do	do		do	245 0 0	
1152	24 Feb, 1877	do	do	do		do	50 3 0	
1153	24 Feb, 1877	do	do	do		do	881 0 0	
1175	13 Mar., 1877	do	do	do		Forest reserve	164 0 0	Balance in W.R's. 1151 & 1153.
1148	24 Feb, 1877	do	do	do		Trigonometrical reserve	4 0 0	
1145	24 Feb., 1877	do	do	do		Driftway reserve	196 0 0	
1147	24 Feb., 1877	do	do	do		Trigonometrical reserve	70 0 0	
1518	25 Nov., 1878	do	Warroo, Tawyal / Manna, Cadow / Ina	Tawyal / Warroo / Cadow	Geeron / Warroo	Travelling stock route	1,390 0 0	
3211	26 Mar, 1887	do	Cadow		Cadow	Timber reserve	2,800 0 0	
3746	21 May, 1887	do	do		do	Water reserve		Within T.R. 3211.
2238	21 Feb, 1881	do	do	Geeron		Public purposes	3 0 0	
1303	8 Feb, 1878	do	Ina		Cadow	Forest reserve	412 0 0	
1303 Ext.	19 Aug, 1878	do	Manna and Ina	Cadow	do	do	245 0 0	
2980	28 Oct, 1884	do	Manna	do		Camping and water	18 0 0	
1551	14 Feb., 1879	do	do	do		Water reserve	296 0 0	
6	3 April, 1886	do	Moora Moora / Nerang Cowal	Moonbi or Bogandillon		Timber reserve and refuge from flood.	1,560 0 0	
353	5 July, 1867	do	Warroo	Warroo		Water reserve	2,853 0 0	
9367	20 July, 1889	do	do	do		Travelling stock and camping.	347 0 0	
3086	29 Sept., 1884	do	do / Wilberbray		Warroo	Driftway reserve	460 0 0	
School Site ded.	25 Mar, 1887		Warroo	Warroo		School site	3 0 0	
662	29 July, 1874	do	Wilberbray	do	Warroo	Water reserve	960 0 0	
847	10 Dec., 1875	do	Tawyal	do / Tawyal		do	60 0 0	
1144	20 Jan., 1877	do	Wilberbray	Warroo		do	160 0 0	
1581	10 Mar., 1879	do	do / Towyal and West Plains	Tawyal / Warroo		Forest reserve	4,500 0 0	

1354	20 May, 1878	do	Gibrigal	Warroo	Warroo	Travelling stock route	585	0	0	
			Wilberbray	do		Public purposes	496	0	0	
1385	8 July, 1878	do	do	do		Refuge from flood	1,920	0	0	
877	25 Jan., 1876	do	Gibrigal	do		Public purposes	618	0	0	
1384	8 July, 1878	do	do			Water reserve	41,900	0	0	
2566	26 April, 1882	do	Lake Cowal	Lake Cowal		Water reserve	3,200	0	0	
864	30 Dec., 1875	Gipps	Gadalgulee	do		Refuge from flood	3,300	0	0	Balance in W.R. 964.
861	30 Dec., 1875	do	do	do		do	265	0	0	
832 Ext.	18 Aug., 1879	do	do	Trigalana						
832	19 Nov., 1875	do	do	do		do	640	0	0	
832 South Ext.	30 July, 1883	do	do	do		do	15	2	0	
1754	18 Aug., 1879	do	do	do		Camping reserve	40	0	0	
2160	25 Oct., 1880	do	do	do		Travelling stock route	46	0	0	
671	11 Sep., 1874	do	do and Marsden		Lake Cowal	Water reserve	640	0	0	
671 Ext.	18 Aug., 1879	do	Cadalgulee	do	do	do	408	0	0	
2744	7 May, 1883	do	Trigalana			Travelling stock route	2,970	0	0	
			Carrawandool	Trigalana						
2041	2 Aug., 1880	do	Marsden	do	Trigalana	do	3,650	0	0	
1066	7 Oct., 1876	do	do	do		Water reserve	5,276	0	0	
2689	8 Jan., 1883	do	do	do	Trigalana	Travelling stock route	384	0	0	
409	12 Jan., 1869	do	do	do	do	Reserve from sale }	69	0	0	
336	24 July, 1882	do	do	do	do	do lease }				
1062 South Ext.	7 April, 1879	do	do		do	Access to water	168	0	0	
1062	23 Sep., 1876	do	do		do	do	60	0	0	
1431	9 Aug., 1878	do	Trigalana	Trigalana		Public purposes	288	0	0	
1037	30 Aug., 1876	do	do	do		Camping reserve	287	0	0	
1908	16 Feb., 1880	do	Tirrana	Trigalana East		From sale for access	20	0	0	Balance in Grenfell L.D.
1909	16 Feb., 1880	do	do	Trigalana	Weelong	do	280	0	0	
			Trigalana							
13102	13 Dec., 1890	do	Tiranna	Trigalana	Trigalana	Quarry and trig. reserve	111	0	0	
1361	10 Jan., 1878	do	Carrawandool	Weelong		Forest reserve	10,200	0	0	
		Forbes	Tallabung							
			Currawang							
2261	28 Mar., 1881	Gipps	Carrawandool	Weelong		Public purposes	640	0	0	
1712	16 June, 1879	do	do			Travelling stock route	1,300	0	0	
		Forbes	Tallabung and Currawang	Weelong						
1584	10 Mar., 1879	Gipps	Cadalgulee	Lake Cowal		Driftway reserve	275	0	0	
			West Plains	Tawyal						
1582	10 Mar., 1879	do	do	do		From sale for camping }	103	0	0	
244	19 May, 1879	do	do	do		From lease for camping }				
1583	10 Mar., 1879	do	do	do		Travelling stock route	252	0	0	
1927	19 April, 1880	do	do	do		Water reserve	60	0	0	
1436	17 July, 1878	do	Tawyal	do		Timber reserve	345	0	0	
2488	31 Oct., 1881	do	do	do		Water reserve	760	0	0	
1437	19 Aug., 1878	do	do	do		Reserve from sale }	40	0	0	
208	19 Aug., 1878	do	do	do		Do lease }				
938	2 Mar., 1876	do	do	do		Water reserve	263	0	0	
3308	16 April, 1887	do	Jemalong West		Tawyal	Camping reserve	544	0	0	
3309	16 April, 1887	do	do		do	Travelling stock route	416	0	0	
639	22 May, 1874	Bland	Bumbella	Billabong		Water reserve	1,920	0	0	
1825	3 Nov., 1879	do	do	do		Forest reserve	928	0	0	Balance within water reserve 639 and Grenfell Land District.
1630	21 April, 1879	do	do	do		Water reserve	386	0	0	Extends into Grenfell L.D.
3	29 July, 1885	do	Brymur	do		do	76	0	0	
635	12 May, 1874	do	Bimbella	do		do	1,280	0	0	
1035	30 Aug., 1876	do	do	do		do	140	0	0	
1039	30 Aug., 1876	do	do	do		do	306	0	0	
2186	8 Nov., 1880	do	do	do		do	120	0	0	
486	17 Oct., 1871	do	do	do		do	640	0	0	
1631	21 April, 1879	do	do	do		do	560	0	0	
1328	22 Feb., 1878	do	do	do		do	481	0	0	Extends into Condobolin L.D.

Return of Reserves in Existence in the Land District of Forbes on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area. a.	r.	p.	Remarks.
1203	20 June, 1877	Bland	Berrigan		Tregalana	Police paddock	61	0	0	
2040	2 Aug., 1880	do	do		do	Travelling stock route	135	0	0	
611	30 Mar., 1874	Gipps	Caragabal		do	Water reserve	855	0	0	
2421	29 Aug, 1881	do	do		do	Travelling stock route	58	0	0	
1975	28 June, 1880	do	do		do	do do	55	0	0	Extends into Grenfell L.D.
9849	5 Oct., 1889	Forbes	Jemalong	Walla Walla & Carangatell		Timber reserve	225	0	0	
2600	30 Oct., 1886	do	do	do do		From sale for quarry	60	0	0	
2601	30 Oct., 1886	do	do	do do		From lease do				
1500	4 Nov, 1878	do	do	do do		From sale for road purposes	120	0	0	
3459	30 Oct., 1886	do	do	do do		From lease do				
1100	28 Nov., 1876	do	do and Tallabung	do do	Walla Walla & Carangatell	Water reserve	1,068	0	0	
1108	13 Jan., 1877	do	Jemalong	do do		Trigonometrical reserve	114	0	0	
5751	17 Mar., 1888	do	do	do do		Trav. stock and camping	440	0	0	
5750	17 Mar, 1888	do	do	do do		do do	320	0	0	
546	18 July, 1873	do	Waayanrigong	Wowingragong		Travelling stock route	923	0	0	
			Bundaburrah							
11744	28 June, 1890	do	Waayanrigong		Wowingragong	do	400	0	0	
			Wongajong							
725	19 Jan., 1875	do	Bundaburrah	Bundaburra		do	880	0	0	
			Tallabung	Weelong						
4	12 Dec., 1885	do	Bundaburrah	Wowingragong	Bundaburra	do	1,353	0	0	
			Waayanrigong							
2295	2 May, 1881	do	Bundaburrah		Bundaburra	Camping reserve	215	0	0	
931	31 May, 1876	do	do		do	Water reserve	22	0	0	
1415	9 Sept, 1878	do	do	Bundaburra		Refuge for flood	1,435	0	0	
				Weelong						
2707	15 Jan, 1883	do	do	Weelong		Travelling stock route	137	0	0	
7551	29 Sept., 1888	do	do and Braulin		Wowingragong	do	1,400	0	0	
531	18 July, 1873	do	Braulin		Wongajong					
			Boyd							
			Bundaburrah		Wongajong	do	2,400	0	0	
2610	25 Sept., 1882	do	do	Bundaburrah	Bundaburrah	do	213	0	0	
8207	5 Jan, 1889	do	Tallabung		Walla Walla & Carangatell	From sale for access	70	0	0	
530	18 July, 1873	do	Braulin Boyd	Pinnacle	Wongajong	Travelling stock route				
			Bundaburrah		Pinnacle					
			Mandry		Boyd and Ooma		4,162	0	0	Balance in T.S.R. 531 & R.R 2915.
198	2 April, 1878	do	Braulin Boyd			Reserve from lease, part of T.S.R 530.				
8206	5 Jan., 1889	do	Tallabung	Weelong		Travelling stock & camping	640	0	0	
2969	21 April, 1884	do	do	do		Refuge from flood	53	0	0	
2499	28 Nov., 1881	do	do	do		Trig. reserve	98	0	0	
1626a	30 June, 1884	do	do	Partly in Weelong and Bundaburrah.		Refuge from flood	1,328	0	0	
1627a	30 June, 1884	do	do	Weelong		Travelling stock reserve	105	0	0	
2254	14 Mar., 1881	do	do	Bundaburrah		Public purposes	444	0	0	
				Boyd						
2255	14 Mar., 1881	do	Boyd	do		Water reserve	187	0	0	
2256	14 Mar., 1881	do	do		Boyd	Driftway reserve	210	0	0	
13704	2 May, 1891	do	do	Boyd	do	From sale for access	90	0	0	
2763	7 May, 1883	do	do		do	Driftway reserve	186	0	0	Balance in Res. 9581 from C P.
60	24 Feb, 1883	do	do		do	Prospecting reserve				Within do
396	11 Mar, 1868	do	do		Pinnacle	Reserve from sale	280	0	0	Balance in T.S.R. 530.
340	21 Aug, 1882	do	do							
			Thurungle		Pinnacle	Reserve from lease				
13705	2 May, 1891	do	Boyd		Boyd	Res. from sale for mining	129	0	0	
9581	7 Sept, 1889	do	Boyd and Wheoga		Boyd, Pinnacle	do do	3,228	0	0	Balance in Grenfell Land Dist.
1675	2 April, 1879	do	Currawang	Boyd		Water reserve	377	0	0	

7571	6 Oct, 1888	do	do	. .	Pinnacle	From sale pending survey	240	0	0	
2915	19 Dec, 1883	do	Mandry, Thurungle Mulyandry	Ooma, Pinnacle Wandary Wongajong	Ooma	Railway reserve	9,123	0	0	
14840	28 Nov, 1891	do	Mandry	Pinnacle		Camping reserve	56	0	0	Balance in R.R. 2915
1688	5 May, 1879	do	do	do		Travelling stock route	.	..	...	Within R R. 2915.
1689	5 May, 1879	do	do	do	Oama	do	...		.	do
8842	13 April, 1879	do	do		do	Beserve from sale	13	0	0	Balance in R.R. 2915
8843	13 April, 1879	do	do		do	Reserve from lease				
156	27 Dec, 1865	do	Thurungle	Ooma		Water reserve	132	0	0	do
157	28 Dec, 1865	do	do		Oama	do	...		.	Within R.R. 2915.
179	8 Aug, 1877	do	do		do	Reserved from lease				
157 Ext	21 Feb., 1881	do	do		do	Water reserve	...		.	do
134	27 Dec., 1865	do	do	Ooma		do	332	0	0	Balance in R R. 2915.
134 Ext.	30 Aug., 1876	do	do	do		do	...		.	Within R.R. 2915.
1036	30 Aug, 1876	do	do	do		do	.	...		do
2128	27 Feb, 1871	do	do	do		do	188	0	0	Balance in R.R. 2915.
4526	12 Nov., 1887	do	do	do		Travelling stock & camping				
4528	12 Nov, 1887	do	do	do		Reserve from lease				Within R.R. 2915.
4527	12 Nov., 1887	do	do	do		Travelling stock & camping	58	0	0	Balance in R.R. 2915
4529	12 Nov, 1887	do	do	do		Reserve from lease				
1973	28 June, 1880	do	do	do		Travelling stock route	364	0	0	do
3782	2 July, 1887	do	Mulyandry	Wandary		Railway reserve	.		.	Within R.R. 2915
2171	8 Nov, 1880	do	do	do	Walla Walla	Driftway reserve	85	0	0	Balance in R R. 2915.
2708	12 Feb, 1883	do	Braulin	do		Travelling stock reserve	180	0	0	do
357	12 Feb, 1883	do	do	Wongajong do		Reserve from lease				
1777	15 Sept, 1879	do	Braulin, Wongajong	Wandary	Wandary	Travelling stock route	3,080	0	0	do
1045	30 Aug., 1876	do	Thurungle	Ooma		Water reserve	148	0	0	
2250	28 Feb, 1881	do	do	do		do	140	0	0	
1972	28 June, 1880	do	do	do		Travelling stock route	205	0	0	
11302	3 May, 1890	do	do	do	Boyd	From sale for access	549	0	0	
1621	21 April, 1879	do	Braulin	Wongajong		Water reserve	528	0	0	Balance in T S R. 2708
1776	15 Sept, 1879	do	do	do	Wongajong	Travelling stock route	1,410	0	0	
7	27 Mar., 1886	do	Waayanrigong Cumbyowa		Wandary	Camping reserve	450	0	0	
691	23 Sept, 1874	do	do and Wongajong		do	Travelling stock route				
8094	1 Dec, 1888	do	do		Walla Walla do	Reserved from lease part of T S R 691.	2,565	0	0	
School site dedicated	15 Jan, 1886	do	do		do	School site	2	0	0	
3102	13 Oct, 1884	do	do		do	do paddock	10	0	0	
55	24 Nov., 1865	do	do	Walla Walla		Water reserve	1,936	0	0	Balance, T S R, 691
1458a	26 Nov., 1883	do	do and Bandon	do		Travelling stock route	1,120	0	0	
2587	24 July, 1882	do	Mulgandry	Tomanbil Wandary	Walla Walla	From sale for access	100	0	0	
1685	7 April, 1891	do	do		do	Quarry reserve	56	0	0	
2802	23 July, 1883	do	do		do	Driftway reserve	210	0	0	
3	1 Sept., 1885	do	do		do	do	436	0	0	
3370	23 April, 1887	do	do and Ooma		do and Tomanbil	From sale for access	230	0	0	
4737	19 Nov, 1887	do	do		Tomanbil	do	8	0	0	
1350a	26 Nov, 1883	do	do		do	Forest reserve	2,880	0	0	Balance in D. R. 3.
54a	26 Nov., 1883	do	do		Walla Walla	Water do	2,720	0	0	
2974	28 April, 1884	do	Bandon Mulgandry	Tomanbil		Driftway do	111	0	0	
1306a	20 Oct., 1884	do	Erasa do	Tomanbil Walla Walla	Walla Walla	Forest do	3,705	0	0	
1350a	1 Sept, 1885	do	Mulgandra	Tomanbil	Tomanbil					
2964	31 Mar, 1884	do	Ooma, Erasa	Tomanbil		do do	30	0	0	
					Tomanbil	Water do	690	0	0	
2978	28 April, 1884	do	do	Bald Hills and Warraderry	Nanima	From sale for access	271	0	0	Extends into Grenfell L D

Return of Reserves in Existence in the Land District of Forbes on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish.	Leasehold Area of.	Resumed Area of.	Purpose of Reserve.	Area.	Remarks.
							a. r. p.	
2588	24 July, 1882	Forbes	Ooma, Erasa		Tomanbil	Water reserve	270 0 0	
2136	25 Oct., 1880	do	do		do Walla Walla	do	140 0 0	
2976	28 April, 1884	Forbes	Erasa		Nanima	Driftway reserve	135 0 0	
					Tomanbil			
2975	28 April, 1884	do	Erasa, Goonigal			do	183 0 0	
			Nanima		Nanima			
2183a	5 Mar., 1883	do	do		do	Water reserve	320 0 0	
2976 extended	1 Dec., 1884	do	do		Tomanbil	Driftway reserve	2 2 0	
920	10 Mar., 1876	do	Goonigal			Water reserve	344 0 0	Extends into Grenfell L. District.
691	23 Sept., 1874	do	Bandon, Nanima	Tomanbil	Bandon	Travelling stock route	2,758 0 0	do do
				Bandon, Nanima				
School site extended	12 April, 1889	do	Bandon		do	School site	2 0 0	
7196	15 Sept., 1888	do	do		do	School paddock	8 0 0	
7197	15 Sept., 1888	do	do		do	Reserve from lease		
3124	8 Dec., 1884	do	Nanima	Nanima	Nanima	Driftway reserve	58 0 0	
2676	13 Nov., 1882	do	do	do		Water reserve	296 0 0	
11551	31 May, 1890	do	do	do		Camping and water reserve	43 0 0	
139	27 Dec., 1865	do	do	do		Water reserve	500 0 0	
2677	13 Nov., 1882	do	do	do		Travelling stock route	1,208 0 0	
2253	28 Feb., 1881	do	do	do		From sale for crossing	161 0 0	Balance in T. S. R., 2677.
300	28 Feb., 1881	do	do	do		From lease for crossing		
1906	16 Feb., 1880	do	do	do		Water reserve	30 0 0	
3199	15 Dec., 1888	do	do	do		Travelling stock route		Within T. S. R. 691, and Grenfell L. District.
231	12 Nov., 1890	Ashburnham	Town Forbes			Reserve from occupation under miner's right, &c.	1 3 2	
9516	17 Aug., 1889	do	do			Water reserve	22 0 0	
5068	23 Dec., 1887	do	do			Railway reserve	22 0 0	
5060	23 Dec., 1887	do	do			do	2 3 0	
265	7 July, 1891	do	do			From occupation under miner's right, &c.	0 3 12	
5063	23 Dec., 1887	do	do			Railway reserve	3 3 22	
1242	19 April, 1880	do	do			do	15 0 0	
9514	17 Aug., 1889	do	do			For plantation	0 0 16	
3233	26 Mar., 1887	do	do			Recreation reserve	60 0 0	
9138	15 June, 1889	do	do			do	150 0 0	
5066	23 Dec., 1887	do	do			Railway reserve	5 0 0	
5062	23 Dec., 1887	do	do			do	3 0 0	
5067	23 Dec., 1887	do	do			do	18 0 0	
5065	23 Dec., 1887	do	do			do	4 0 22	
5061	23 Dec., 1887	do	do			do	3 0 0	
5064	23 Dec., 1887	do	do			do	4 0 0	
1818	19 Mar., 1883	do	do			Public buildings	2 0 0	
1820	19 Mar., 1883	do	do			do	8 3 22½	
1876	16 July, 1883	do	do				2 0 17½	
Site Presbyterian Manse		do	do			Presbyterian Manse site	1 0 20	
Wesleyan Ch. res., ded.	18 Feb., 1870	do	do			Wesleyan Ch. reserve	1 0 0	
Hospital res.	1 July, 1890	do	do			Hospital reserve	2 0 0	
9486	10 Aug., 1889	do	do			Public buildings	0 2 0	
1819	19 Mar., 1883	do	do			do	3 0 0	
	Not known	do	do			do	1 2 0	
School site	12 Mar., 1869	do	do			Public School site	2 0 0	
Recreation res., ded.	13 April, 1888	do	Forbes			Recreation reserve	10 0 0	
12332	16 Aug., 1890	do	do			Forbes tempy. Common	1,410 0 0	
12331	16 Aug., 1890	do	do			do	1,400 0 0	
12333	16 Aug., 1890	do	do			do	3,600 0 0	
Church England, ded.	14 Feb., 1873	do	Town Forbes			For Church England	1 1 28	

Post and Telegraph Office	.....	do ...	do	.....	.....	Post and Telegraph Office...	0	0 38	
Res. for Town Hall, ded.	24 Aug., 1877	do ...	do	.....	.....	Site for Town Hall	0	0 38	
Presbyterian Church, ded.	14 Feb., 1873	do ...	do	.....	.....	do Presbyterian Church	0	0 20	
Public recreation, approved	13 Nov., 1872	do ...	do	.....	.....	Public recreation	1	2 34	
Public buildings, ded.	18 Nov., 1870	do ...	do	.....	.....	Public buildings	2	0 26	
2515	17 Aug., 1889	Ashburnham...	Town Forbes	.....	.....	For plantation	4	0 0	
2147	22 Dec., 1884	do ...	do	.....	.....	Public buildings	0	2 0	
Wesleyan residence	18 Feb., 1870	do ...	do	.....	.....	Wesleyan residence.....	0	1 0	
3479	28 May, 1887	do ...	do	.....	.....	Public buildings	0	0 31	
960	11 Nov., 1878	do ...	do	.....	.....	Right of way	1	0 0	
9043	1 June, 1889	do ...	Parish Forbes	.....	.....	Travelling stock route.....	225	0 0	Balance in temp. common 12333.
13185	20 Dec., 1890	do ...	do	.....	.....	do	.....		Within do
2079	31 July, 1886	do ...	do	.....	.....	For trucking stock	684	0 0	Balance in T.S.R. 9044.
From occupation	26 July, 1889	do ...	do	.....	.....	From occupation under miner's right.	.....		Within temp. common 12333.
13183	20 Dec., 1890	do ...	do	.....	.....	Travelling stock route.....	40	0 0	Balance in do
14751	31 Oct., 1891	do ...	do	.....	.....	Gravel pit.....	5	2 0	
6705	30 June, 1888	do ...	do	.....	.....	Rifle range	22	1 31	
Show-ground ded.	20 July, 1877	do ...	do	.....	.....	Show-ground	56	3 39	
9594	31 Aug., 1889	do ...	do	.....	.....	Plantation to cemetery ...	2	3 4	
9595	31 Aug., 1889	do ...	do	.....	.....	Cemetery	12	1 15	
9596	31 Aug., 1889	do ...	do	.....	.....	do	9	0 6	
13182	20 Dec., 1890	do ...	do	.....	.....	Travelling stock route.....	65	0 0	Balance in R. 9596.
13186	20 Dec , 1890	do ...	do	.....	.....	Camping reserve	28	3 0	
13188	20 Dec., 1890	do ...	do	.....	.....	do	59	2 25	
13187	20 Dec., 1890	do ...	do	.....	.....	do	39	3 38	
13184	20 Dec., 1890	do ...	do	.....	.....	Travelling stock route.....	16	0 0	Balance in temp. common 12332.
1690	8 May, 1882	do ...	do	.....	.....	Reserve for road metal	.....		Within do
4335	5 Nov., 1887	do ...	do	.....	.....	Forest, travelling stock, and camping reserves.	.....		do do
From occupation	11 Aug., 1885	do ...	do	.....	.....	From occupation under miner's right.	.....		do do
Do	27 Feb., 1891	do ...	do	.....	.....	do ...	.....		do do
4410	5 Nov., 1887	do ...	Forbes	.....	.....	Water Reserve.....	}		
From occupation	11 Aug., 1885	do ...	do	.....	.....	From occupation, miner's right	} 8	2 0	
Do	11 Aug., 1885	do ...	do	.....	.....	From occupation under miner's right.	40	0 0	
9485	10 Aug., 1889	do ...	do	.....	.....	Hospital purposes	8	2 25	
2033	10 Mar., 1884	do ..	do	.....	.....	Public Pound	4	0 0	
769	13 Jan., 1877	do ...	do	.....	.....	Camping reserve	41	0 0	
Recreation Ground, ded.	19 July, 1881	do ...	do	.....	.....	Public recreation	35	0 0	
1903	27 June, 1883	do ...	do	.....	.....	Site for weir.....	18	0 0	
1821	19 Mar., 1883	do ...	do	.....	.....	Police purposes and public buildings	} 100	0 0	
14562	3 Oct., 1891	do ...	do	.....	.....				
4783	26 Nov., 1887	do ...	do	.....	.....	Water reserve	5	2 0	
5069	23 Dec., 1887	do ...	do	.....	.....	Railway do	.....		
From occupation	17 Feb., 1888	do ...	do	.....	.....	From occupation under miners' right.	60	0 0	
13181	30 Dec., 1890	do ...	do	.....	.....	Travelling stock route.....	28	0 0	Balance in R. R. 5069.
536	18 Nov., 1874	do ...	do	.....	.....	Water reserve	2	2 0	
5674	3 Nov., 1888	do ...	do	.....	.....	From sale for access	}		
14563	3 Nov., 1891	do ...	do	.....	.....	From lease do	} 4	0 0	
13189	20 Dec., 1890	do ...	do	.....	.....	Camping reserve	250	0 0	
From occupation	11 Aug., 1885	do ...	do	.....	.....	From occupation under miner's right.	.....		Within C. R. 13189.
5885	7 April, 1888	do ...	do	.....	.....	From sale for access	1	1 0	
9	6 Feb., 1886	do ...	do	.....	.....	Addition to Temporary Common.	} 1,718	1 26	
233	25 Nov., 1890	do ...	do	.....	.....	From occupation, &c.	}		
6983	30 July, 1888	do ...	do	.....	.....	Water reserve	33	0 0	
6647	23 June, 1888	do ...	do	.....	.....	Travelling stock route.....	1,920	0 0	

Return of Reserves in Existence in the Land District of Forbes on 31st December, 1891—*continued.*

No.	Date of Notification.	County.	Parish	Leasehold Area of	Resumed Area of.	Purpose of Reserve.	Area. a. r. p.	Remarks.
Racecourse, ded.	14 Feb., 1872	Ashburnham...	Bocabidgle			Racecourse	184 2 0	
13350	7 Feb., 1891	do	Forbes			Camping reserve	76 0 0	
School site, ded.	19 July, 1881	do	Bunbury		East Billabong	School site	2 0 0	
Cemetery, ded.	11 Mar., 1881	do	Eugowra	Eugowra		Cemetery	7 2 0	
6782	14 July, 1888	do	do	do		Travelling stock route	50 0 0	
1969	31 Dec, 1883	do	do			Access to water	6 0 0	
1972	31 Dec, 1883	do	Town Eugowra			Recreation reserve	4 1 14	
1966	31 Dec., 1883	do	do			Water reserve	7 0 0	
1967	31 Dec., 1883	do	do			Public purposes	2 0 0	
1973	31 Dec, 1883	do	do			Public buildings		Within T.S.R. 682.
1974	31 Dec., 1883	do	do			do	2 0 0	
5058	23 Dec., 1887	do	Parish Eugowra			Railway reserve	12 1 14	
1968	31 Dec., 1883	do	Town Eugowra			Recreation reserve	5 3 6	
1971	31 Dec., 1883	do	do			do	4 1 12	
1970	31 Dec., 1883	do	do			do	3 0 0	
1392	14 Oct., 1881	do	Parish Eugowra			Public school purposes	7 0 0	
2661	6 Nov., 1882	Bland	Village Marsden	Parish Berrigan		Public purposes	1 1 33	
2659	6 Nov., 1882	do	Parish Berrigan	Village Marsden		Public buildings	9 2 27	
2660	6 Nov., 1882	do	do	do		do	4 0 38	
Public Pound		do	do	do		Public pound	2 0 0	
Temporary Common..	18 April, 1883	do	do	do		Temporary common	840 0 0	
Cemetery, ded.	29 June, 1883	do	do	do		Cemetery	8 0 16	
13803	29 April, 1891	Ashburnham...	Forbes			From sale for access	7 0 0	
24a	14 July, 1887	do	do			Prospecting reserve	29 0 18	Balance in T S R. 13183 and C.
5	20 May, 1885	do	do			General cemetery	50 0 0	
Church site, Church of England, ded.	4 May, 1882	Village	of Eugowra.			Church site	1 0 0	
Parsonage, C E., ded.	4 May, 1882	do	do			Parsonage	0 2 0	
School site, ded.	13 Jan., 1882	Ashburnham...	Bocabidgle			School site	2 0 0	

Return of Reserves revoked and made available for settlement in the Land District of Forbes, from 1st January, 1885, to 31st December, 1891.

No.	Date of Notification of Revocation.	County.	Parish.	Resumed Area of.	Purpose.	Area a. r. p.	Remarks.
1866	3 Oct., 1891	Forbes	Goonigal	Tin Pot Alley (forfeited)	Water reserve	40 0 0	
13726	16 May, 1891	Ashburnham...	Forbes		Special area	207 0 0	Within Forbes population area.
13727	16 May, 1891	do	do		do	420 0 0	do do
2255	2 May, 1891	Forbes	Boyd	Boyd	Water reserve	4,265 0 0	Special area 13703.
1675	2 May, 1891	do	do	do	do		
9581	2 May, 1891	do	do	do	Reserve from C.P.		
1685	18 April, 1891	do	Mulyandry	Wallah Wallah	Quarry Reserve	144 0 0	
10492	20 Dec, 1889	Ashburnham...	Forbes		Reserve from sale pending survey	2 0 0	Within Forbes population area.
Reserved from C.P.	5 Mar., 1891	do	Dowling	Upper Daroubalgie	Reserve from C.P.	2,038 0 0	
10951	4 Oct., 1890	Within Forbes population area.			Special area	142 0 0	
12683	29 Sept., 1890	Suburban lands at Forbes.			do	35 0 0	
12681	29 Sept, 1890		do do		do	59 0 0	
12682	29 Sept, 1890		do do		do	15 0 0	
12684	29 Sept., 1890		do do		do	36 0 0	
12680	29 Sept, 1890		do do		do	52 0 0	
12677	29 Sept., 1890		do do		do	118 0 0	
12678	29 Sept., 1890		do do		do	21 0 0	
12679	29 Sept., 1890		do do		do	41 0 0	
12676	29 Sept., 1890		do do		do	57 0 0	

3746	27 Sept., 1890	Gipps ...	Cadow	Cadow	Water reserve	} 1,401	0	0	Special area 12543.
3740	27 Sept , 1890	do ..	do	do	do				
1133	20 Sept., 1890	Ashburnham.	Wangan	Eugoura	do	1.365	0	0	Special areas 12493, 12494.
1776	28 June, 1890	Forbes	Braulin	Wongajong	Travelling stock route	162	0	0	
11747	28 June, 1890	.. ..	Within Forbes	population area.	Special area	112	0	0	
1778	28 June, 1890	Forbes	Waayanrigong	Wowingragong . .	Water reserve	161	0	0	Special area 11746.
10245	12 July, 1890	... ...	Within Forbes	population area.	Special area	163	0	0	
2052	22 Mar., 1890	Ashburnham...	Wise	Eugowra	Water reserve	40	0	0	
9044	25 Jan., 1890	do . .	Mumbidgle	Back Daroubalgie	Travelling stock route	12	0	0	Special area 10645.
1947	18 Jan , 1890	do ..	do	do	Railway reserve	12	0	0	Special area 10644
1355	11 Jan., 1890	Gipps... ...	Moora Moora	Warroo	Refuge from flood	270	0	0	
Reserve from C.P.	2 Nov , 1889	Ashburnham..	Mumbidgle . .	Back Daroubalgie	Reserve from C.P.	7,600	0	0	
do	12 Oct , 1889	do	Eugowra	Eugowra	do	680	0	0	
			Wanera.....	. . ..	.. ..				
do	12 Oct , 1889	do	Wise	Eugowra	Reserve from C.P.	300	0	0	
do	12 Oct , 1889	do ..	Eugowra	do	do	80	0	0	
1439	28 Sept., 1889	do	Wanera	Gonimbla	Water reserve	29	0	0	
1134	28 Sept., 1889	do .	do	do	do	344	0	0	
Reserve from C.P	7 Sept , 1889	Forbes .	Boyd, Wheoga	Boyd	Reserve from C.P.	16,221	0	0	
3752	2 Mar., 1889	do	Thurungle . . .	Ooma	Water reserve	208	0	0	
1690	12 Jan , 1889	do	Mandry	do	do	714	0	0	
Reserve from sale	15 Dec , 1888	do .	Wheoga	Ooma and Pinnacle... . ..	Reserve from sale	299	0	0	
Reserve for access	10 Nov., 1888	do ...	Wongajong	Wongajong	Reserve for access	69	0	0	
7746	10 Nov., 1888	do .	do . .	do	Special area	550	0	0	
2999	20 Oct , 1888	Ashburnham..	Eugowra	Eugowra	Water reserve	40	0	0	
1111	28 July, 1888	do	Wanera	Gonimbla	do	400	0	0	
633 {	11 Sept., 1886 / 12 Dec., 1887	} do . .	Troubalgie	Yamma	Travelling stock route	123	0	0	
1566	10 Dec , 1887	do ...	do	do	do	46	0	0	
988	27 Nov., 1886	do ...	Mumbidgle	Bocabigal	Water reserve	240	0	0	
1550	11 Sept., 1886	do	Troubalgie	Yamma	Travelling stock route	40	0	0	
2146	3 July, 1886	do	Wise	Eugowra	Railway reserve	40	0	0	
6982	26 Sept., 1888	Forbes ..	Wongajong	.. ..	Special area	4,676	2	0	Within Forbes population area.
1775	10 Nov., 1888	do ..	do	.. ..	Water reserve	537	3	0	Special area 7746.
3774	28 July, 1888	Gipps	Jemalong West	Tawyal	do	1,312	0	0	
530	26 May, 1888	Forbes	Wongajong	. ...	Travelling stock route.....	270	0	0	Within Forbes population area.
1776	26 May, 1888	do ..	do	....	Travelling stock route	322	3	0	Within Forbes population area.
4187	10 Mar., 1888	do	Boyd	Pinnacle	Reserve from C.P.	559	1	0	
3751	19 Nov., 1887	do	Mulyandry	Tomanbil	Water reserve	160	0	0	
2	23 April, 1887	do	do	do	Reserve from sale	320	0	0	
3	23 April, 1887	do .. .	do	do	do do	72	2	0	
2087	23 April, 1887	do	Mulyandry and Ooma	Walla Walla	Water reserve	1,050	0	0	
Reserve from C P.	2 April, 1887	do	Boyd	Boyd	Reserve from C.P.	200	0	0	
55	22 Jan , 1887	do	Cumbyowa	Walla Walla	Water reserve	1,102	0	0	
752	20 Oct , 1886	Gipps.....	Moora Moora	Warroo	do	1,600	0	0	
752 West Ext.	20 Oct., 1886	do	do	do	do	530	0	0	
1303	31 July, 1886	do	Ina	Cadow	Forest reserve	2,110	3	0	
1361	31 July, 1886	do	Carawandool	Yerra Yerra...	Timber reserve	1,960	0	0	
876	10 July, 1886	do	Moora Moora	Warroo	Refuge from flood .. .	1,908	0	0	
731	10 July, 1886	do	Cadow	Geeran	Water reserve	1,540	0	0	
747	10 July, 1886	do	do	do	do	440	0	0	
860	27 Mar., 1886	Forbes	Cumbyowa	Warroo	Refuge from flood	863	0	0	
1581	6 Mar., 1886	Gipps.....	Tawyal	Tawyal	Timber reserve	8,300	0	0	
			West Plains	... ...	. ...				
			Jemalong West	. ...	... .				
137a	7 Feb., 1886	Forbes	Bandon	Nanima	Access to water	964	0	0	
			Erasa...	. ...	.. ..				
1651	23 Jan., 1886	do	Bundaburrah	Bundaburra	Access to water	40	0	0	
317	12 Dec., 1885	Ashburnham...	Wise	Eugowra	Water reserve	40	0	0	
318	12 Dec , 1885	do ...	Eugowra	do	do	40	0	0	
1035	23 Jan., 1886	do ...	Wanera.....	Currawabbity	Timber reserve	400	0	0	

Return of Reserves revoked and made available for settlement in the Land District of Parkes, from 1st January, 1885, to 31st December, 1891.

No.	Date of Notification.	County.	Parish.	Resumed Area of.	Purpose.	Area. a.	r.	p.	Remarks.
Reserve from C.P.	19 Dec., 1891	Ashburnham	Mugineable	Bartley's Creek	Reserve from C.P.	3,330	0	0	This reserve only partly cancelled.
do	19 Dec., 1891	do	do	do	do	1,920	0	0	do do
10638	14 Nov., 1891	do	Bindogandri	East Billabong	Railway reserve	100	0	0	
1894	31 Oct., 1891	do	Milpose	Gunningbland	Water reserve	56	0	0	
1131	26 Sept., 1891	Kennedy	Moodana	Burdenda	do	666	0	0	
10561	30 May, 1891	do	Minalong	Woodlands	Timber reserve	1,100	0	0	Special area 13901.
450	3 Jan., 1891	Ashburnham	Brolgan	Brogan Plains	Water reserve	40	0	0	
Reserve from C.P.	3 Jan., 1891	do	Currajong	Brogan Plains, Billabong West, &c.	Reserve from C.P.	17,793	0	0	Special area 13168.
1840	29 Nov., 1890	Kennedy	Derribong	Derribong	Water reserve	1,307	0	0	
928 Ext.	22 Feb., 1890	Ashburnham	Bindogandri	East Billabong	do	90	0	0	
1634	1 Nov., 1890	do	Currajong	Billabong West	Quarry reserve	160	0	0	
1947	4 Oct., 1890	do	Beargamil	Goobang	Railway reserve	782	0	0	This reserve is partly cancelled.
1061	6 Aug, 1890	do	Bindogandri	East Billabong	Water reserve	337	0	0	Special area 12559.
Reserve from C.P.	31 May, 1890	do	Beargambil	Goobang	Reserve from C.P.	640	0	0	
1443	26 April, 1890	do	Bindogandri	Occupation License 736	Water reserve	40	0	0	
1800	21 Dec., 1889	Kennedy	Derribong	Derribong (partly)	do	170	0	0	
1626	21 Dec, 1889	do	do	Derribong	Travelling-stock route	1,019	0	0	
1947	30 Nov., 1889	Narromine	Mingelo	Bulderudgera	Railway reserve				
1621	30 Nov., 1889	do	do	do	Travelling-stock route				
1612	30 Nov., 1889	do	do	do	Refuge from flood	49	0	0	
78	30 Nov., 1889	do	do	do	Water reserve				
1675	26 Oct., 1889	Flinders	The Overflow	The Overflow	Public purposes	640	0	0	
933	19 Oct., 1889	Ashburnham	Martin	Warregal	Travelling-stock route	320	0	0	
9663	5 Oct., 1889	Ashburnham	Kamandra	Bartley's Creek	Special area	209	0	0	Within population area of Parkes.
9662	5 Oct., 1889	do	do	Flagstone Creek	do	302	0	0	Almost wholly within population area of Parkes.
1855	24 Aug., 1890	do	Bunbury	East Billabong	Water reserve	360	0	0	
1403	(See Sheet A)	do	Bindogandri		Timber do				
9109	15 June, 1889	do	Currajong	Billabong West	Special area	80	0	0	Within population area of Parkes.
1180 Ext.	23 Mar., 1889	Kennedy	Ossory	Wallanbillan	Water reserve	61	0	0	
1180	23 Feb., 1889	do	do	do	do	3,200	0	0	
8	16 Mar., 1889	do	Coradgery	Coradgery	do	300	0	0	
1714	1 Feb., 1890	Flinders	Nangerybone	Nangerybone	do	66	0	0	
3749	2 Mar., 1889	Kennedy	Genanagie	Genanagie, forfeited	do	2,240	0	0	
1684	2 Mar., 1889	Ashburnham	Beargamil	Goobang	do	960	0	0	
8119	12 Jan., 1889	do	Currajong	Billabong West	Special area	640	0	0	do do
			Goobang						
5664	10 Nov., 1888	Kennedy	Gennaren	Gennaren	Reserved from sale for access	250	0	0	
1024	10 Nov., 1888	do	do	do	Water reserve	960	0	0	
1091	3 Nov, 1888	Ashburnham	Goonumbla	Goobang, Billabong West	Travelling stock route	764	0	0	This reserve is partly cancelled.
2087	27 Oct., 1888	Kennedy	Wellwood	Derribong, Middlefield	Timber reserve	3,200	0	0	
1866	3 Nov., 1888	Ashburnham	Currrajong	Goobang, Billabong West	Travelling stock route	733	0	0	do do
3748	15 Sept, 1888	Kennedy	Strahorn	Genanagie, forfeited	Water reserve	966	0	0	W. R. 3261 embraced within W. R. 3748, part of W. R. 3748, within the leasehold of Mungary West.
			Mingerong						
			Mungerie						
3261	15 Sept., 1888	do	Strahorn	Genanagie, forfeited	Water reserve				
3736	15 Sept., 1888	do	Mickibri	Bulderudgera	do	1,440	0	0	
442	25 Aug, 1888	Cunningham	Sebastopol	Barrawang	do	1,280	0	0	
989	28 July, 1888	Kennedy	Graddle	Mungary West	do	1,460	0	0	
3750	28 July, 1888	do	Werridgery	Gunningbland	do	640	0	0	
675 Ext.	21 July, 1888	Ashburnham	Kamandra	Flagstone Creek	do	223	0	0	
1091	26 May, 1888 / 19 Mar., 1887	do	Currajong	Billabong West	Travelling stock route	800	0	0	
1162	7 May, 1887	Kennedy	Ossory	Wallanbillan	do	150	0	0	

1846	12 Dec., 1885	Kennedy	Bentinck Ormonde		Water reserve	250	0	0	
1620a	12 Dec., 1885	do	Belardery	Mungary West Genanagie, forfeited	Travelling stock and camping	830	0	0	
Reserved from C.P.	Billabong,								
G.F. Ext.	18 Dec., 1888	Ashburnham	Currajong	Billabong West	Reserve from C.P.	55	3	0	
1378 Ext.	12 Dec., 1885 19 May, 1884	Cunningham	Gillenbine	Gillenbine and Gobandery	Travelling stock route	230	0	0	
436	23 Jan., 1886	Ashburnham	Milpose	Gunningbland	Water reserve	640	0	0	
2	6 Feb., 1886	Kennedy	Mickibri	Bulderudgera	do	960	0	0	
563	6 Feb., 1886	do	do	do	do	1,760	0	0	
146	13 Feb., 1886	do	Graddle	Mungary West	do	1,540	0	0	
613	13 Feb., 1886	do	do	do	Refuge from flood	480	0	0	
853	13 Feb., 1886	do	do	do	Water Reserve	1,950	0	0	
1091	26 May, 1888	Ashburnham	Goonumbla	Billabong West	Travelling stock route	106	1	0	
1403	27 Mar., 1886 13 July, 1889 20 June, 1891	do	Bindogandri	East Billabong	Timber reserve	361	3	0	
2093a	1 May, 1886	Kennedy	Carolina	Tyrie	do	1,245	0	0	
1625	30 Mar., 1889	do	Ossary	Wallanbillan	Travelling stock route	345	0	0	
678	2 April, 1887	Ashburnham	Beargamil Goobang	Goobang	Water reserve	200	0	0	
441	22 Jan., 1883	Cunningham	Kars	Barrawang	do	307	0	0	W.R. 2971, partly in lieu.
443	27 Nov., 1886	do	Byong	do	do	640	0	0	
989	17 July, 1886	Kennedy	Graddle	Mungary West	do	185	3	0	
1704	5 June, 1886	do	Weridgery Limestone	Coradgery	do	478	0	0	
753	5 June, 1886	Ashburnham	Currajong	Gunningbland	do	590	0	0	
758	5 June, 1886	do	Kamandra Beargamil	Occupation License 736	do	1,180	0	0	
755	5 June, 1886	Kennedy	Coradgery	Coradgery	do	420	0	0	
742	24 Mar., 1888	Ashburnham	Currajong	Billabong West	Travelling stock route	10	0	0	
1643	29 Sept., 1888	do	do	do	do	41	0	0	
459	18 Nov., 1885	Kennedy	Carolina	Burdenda, Tabratong	Water reserve	2,585	0	0	
428	18 Nov., 1885	Ashburnham	Bocabidgle	Carrawabbity Run	Water reserve	40	0	0	
221	12 Dec., 1885	do	Beargamil Goobang	Goobang	do	640	0	0	
1947	12 Dec., 1885	do	Goobang	do	Railway reserve	40	0	0	

Return of Reserves revoked and made available for settlement in the Land District of Condobolin, from 1st January, 1885, to 31st December, 1891.

14880	12 Dec., 1891	Cunningham	Condoublin		Special area	255	1	0	Within Condobolin population area.
Reserved from C.P.	23 Feb., 1891	Gipps	Cowal	Lake Cowal	Reserve from C.P.	240	0	0	
Part of 2963a	8 Nov., 1890	do	do	do	Travelling stock route	240	0	0	
3726	4 Oct., 1890	Cunningham	Micabil	Kiacatoo	Water reserve	1,171	1	0	
1194	13 Sept., 1890	Gipps	South Condoublin	South Condobolin	do	575	0	0	
3184	7 June, 1890	do	Bolagamy	Bolagamy	do	230	0	0	
1139	19 April, 1890	do	South Condoublin	South Condobolin	do	268	0	0	
3129	22 Feb., 1890	do	do Borambil		do	250	0	0	
1084	25 Jan., 1890	do	Bimbeen	South Condobolin Ungaree	do	1,941	0	0	
Part of 2963a	26 Oct., 1889	do	Cowal	Lake Cowal	Travelling stock route	131	0	0	
3954	21 Sept., 1889	Cunningham	Taratta	Boona West Melrose	do	40	0	0	
1711	21 Sept., 1889	do	Mount Nobby	Boona West	Water reserve	200	0	0	
1267	21 Sept., 1889	do	Mowabla	Melrose	do	320	0	0	
1266	21 Sept., 1889	do	Melrose	do	do	320	0	0	
445	31 Aug., 1889	do	Bundaburra	Burrawang	do	640	0	0	

Return of Reserves revoked and made available for settlement in the Land District of Condobolin, from 1st January, 1885, to 31st December, 1891.

No.	Date of Notification of Revocation.	County.	Parish.	Resumed Area of.	Purpose.	Area. a.	r.	p.	Remarks.
2073	24 Aug., 1889	Gipps	Youngareen	Youngara Creek	Water Reserve	2,200	0	0	
829	17 Aug, 1889	do	Bygalore	Monument Flats	do	540	0	0	
4258	27 July, 1889	do	Merimeratherie	Milby	do	2,040	0	0	
2006	27 April, 1889	Cunningham	Kiargathur		do	1,340	0	0	
			Bimbella	Kiacatoo					
1871	27 April, 1889	do	Tinda		Timber reserve	2,400	0	0	
			Tollingo	Melrose					
1190	13 April, 1889	do	Murda	Condobolin	Travelling stock route and water reserve.	1,350	0	0	
4000	13 April, 1889	do	Murda	Condobolin	Water reserve	280	0	0	
3031	13 April, 1889	Dowling	Gumbagunda	Wooyeo	Camping and water	2,050	0	0	
2037	13 April, 1889	Cunningham	Bundaburra	Condobolin	Travelling stock route	1,582	0	0	
Res. from sale & lease	23 Mar, 1889	Gipps	Ilgindrie	Borambil	Reserve from sale and lease	250	0	0	
1195	23 Mar, 1889	Cunningham	Murda	Condobolin	Travelling stock route	640	0	0	
3745	2 Mar., 1889	Gipps	Ilgindrie	Borambil	Water reserve	313	0	0	
3733	2 Mar, 1889	Dowling	Gumbagunda	Wooyeo	do	2,800	0	0	
3412	2 Mar., 1889	Gipps	Merimeratherie	Milby	do	260	0	0	
3495	16 Feb, 1889	do	Bolagamy	Bolagamy	do	2,127	0	0	
1897	22 Dec, 1888	do	Goobathery	Wardry	do	310	0	0	
3725	25 Aug., 1888	Cunningham	Micabil	Gulgo	do	1,200	0	0	
3727	25 Aug, 1888	do	Gulgo, Baratta	Condobolin	do	2,700	0	0	
1594	31 Nov., 1887	Dowling	Curriba		Travelling stock route	231	0	0	Part of completed I.P. in Wooyeo leasehold.
685	7 May, 1887	Cunningham	Emu Plains	Boona West	do	20	0	0	
1119	19 Mar, 1887	do	Micabil	Gulgo	Camping reserve	98	0	0	
353	2 Aug, 1886	do	Derriwong	Barrawang	Water reserve	230	0	0	
3451	22 Sept, 1888	Gipps	Goobathery	Micabil	do	2,523	0	0	
3	22 Sept, 1888	do	South Condobolin	South Condobolin	do	3,043	0	0	
			Ilgindrie	Borambil					
2323	26 Mar, 1887	do	South Gulgo	Gulgo South	do	2,000	0	0	
290 and 290 extension	26 Mar, 1887	do	Cadow	Cadow	do	400	0	0	
290 south extension	22 Mar, 1887	do	Cadow and Ina	do	do	800	0	0	
2	19 Mar, 1887	do	Bolagamy	Bolagamy	do	2,127	0	0	
787	5 Mar, 1887	do	Goobathery	Wardry	do	720	0	0	
948	5 Mar, 1887	do	Ungarie	Ungarie	do	540	0	0	
325	5 Mar, 1887	do	Goobathery	Micabil	do	2,840	0	0	
1979	5 Feb, 1887	do	South Gulgo	Gulgo South	do	2,300	0	0	
			Merimeratherie						
326	5 Peb., 1887	do	South Gulgo	do	do	700	0	0	
672	31 July, 1886	do	Euglo South	Euglo	do	900	0	0	
2070	31 July, 1886		Livingstone		Water reserve	4,320	0	0	
	26 Mar., 1887	Gipps	Ugalong, Euglo South	Euglo					
2071	31 July, 1886	do	Livingstone		do	4,880	0	0	
			Ugalong	Euglo					
1183	31 July, 1886	do	Yarnel	Borambil	do	1,739	0	0	
579 & 579 Ext.	31 July, 1868	do	Wambayne		do	2,300	0	0	
			Cowal	Lake Cowal					
2436	10 July, 1886	Dowling	Yarran	Wargambegal	do	420	0	0	
2437	10 July, 1886	do	do	do	do	360	0	0	
361	5 June, 1886	do	Whyaddra		do	1,600	0	0	
			Guagong	Yaddra					
830	5 June, 1886	Gipps	Bygalore	Monument Flats	do	640	0	0	
Reserve from C.P.	29 Dec, 1886	do	Cowal	Lake Cowal	Reserve from C P.	100	0	0	
1477	27 Mar, 1886	do	Moonbia		Refuge from flood	618	1	0	In the Island Run not divided
1994	27 Mar., 1886	do	Nerang, Cowal	Moonbi or Bogandillon	Public purposes	520	0	0	
3083	27 Feb., 1886	do	Milbee	Milby	Water reserve	640	0	0	
3084	27 Feb, 1886	do	Merribooka		do	640	0	0	
			Milbee	Milby					

[1s. 3d.]

Sydney : Charles Potter, Government Printer.—1892.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACT 48 VIC. NO. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION AND RE-DEDICATION OF CHURCH OF ENGLAND CHURCH AND PARSONAGE SITES AT LAMBTON.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to resume and rededicate the Church of England Church and Parsonage sites at Lambton, area 1 acre 2 roods, hereunder described, an amended plan of the land in question having been furnished.

[Ms. 90-18,510] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County of Northumberland, parish of Newcastle, Lambton, area 1½ acres: Commencing on the eastern boundary line of the Lambton Colliery Company's portion 14 of 320 acres, at a point 12 chains north from the south-eastern corner of that portion; and bounded thence on the west by part of that boundary line bearing north 3 chains; thence on the north by a line bearing east 5 chains; thence on the east by a line bearing south 3 chains; and thence on the south by a line bearing west 5 chains, to the point of commencement,—to include portions 317 of ½ acre and 318 of 1 acre,—as shown on plan catalogued C. 97-1,984.

Area proposed to be dedicated.

County of Northumberland, parish of Newcastle, Lambton, area 1½ acres: Commencing on the western side of Church-street, at the south-east corner of portion 124 of 30½ perches; and bounded thence on the east by the west side of Church-street bearing south 2 degrees 34 minutes 52 seconds east 3 chains 57 $\frac{7}{10}$ links to the north-east corner of portion 270 of 28 perches; thence on the south by the northern boundaries of portions 270, 269, and 266, bearing south 87 degrees 56 minutes west 4 chains 23 links to the eastern side of More-head-street; thence on the west by the eastern side of that street bearing north 1 degree 40 minutes 38 seconds west 3 chains 57$\frac{7}{10}$ links to the south-west corner of portion 43 of 25$\frac{3}{4}$ perches; and thence on the north by the southern boundaries of portions 43, 122, 123, and 124 aforesaid, bearing north 87 degrees 56 minutes east 4 chains 17$\frac{3}{5}$ links, to the point of commencement,—to include portion 2,365,—as shown on plan catalogued N. 2,165-2,111.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th December, 1890.

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Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF SITES FOR BENEVOLENT ASYLUM AND MECHANICS' INSTITUTE AT SCONE.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedications of the site for Benevolent Asylum at Scone, area 2½ acres, and the site for Mechanics' Institute, area 1 rood 19½ perches, both hereunder described, with a view to sale by auction or other appropriations under the Crown Lands Acts.

[Ms. 90-19,248] JAMES N. BRUNKER.

DESCRIPTIONS.

Benevolent Asylum Site.

County of Brisbane, parish of Scone, village of Scone, allotments 16, 17, 18, 19, and 20 of section 3. 2 acres 2 roods: Commencing at the north-west corner of the section; and bounded thence on the north by Liverpool-street easterly 5 chains; on the east by the western boundary-line of allotment 15 southerly, at right angles to Liverpool-street, 5 chains and ¼ link; on the south by the northern boundary lines of allotments 5, 4, 3, 2, and 1 westerly, parallel with Liverpool-street, 5 chains to Aberdeen-street; and on the west by that street northerly 5 chains and ¼ link, to the point of commencement. Plan S. 45-999.

Mechanics' Institute Site.

County of Brisbane, parish of Scone, village of Scone, allotment 3 of section 14, 1 rood 19½ perches: Commencing on the eastern side of Kelly-street, at south-western corner of allotment 2 of section 14, T. French's 3 roods; and bounded thence on the north by the southern boundary of that allotment bearing north 89 degrees 58½ minutes east 3 chains; on the east by part of the western boundary of portion 13, W. Dumaresq's 620 acres bearing south 1½ minutes east 2 chains 50 links; and on the south-west by part of a north-eastern side of the Great Northern Road, 1 chain 50 links wide, bearing north 50 degrees 13½ minutes west 3 chains 90½ links, to the point of commencement. Plan S. 47-999.

NOTE.—The above is in lieu of notice in the Government Gazette of the 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF LIBRARY SITE AT KIAMA, AND DEDICATION OF SITE FOR MECHANICS' INSTITUTE IN LIEU.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to resume the library site at Kiama, area 2 roods—viz., allotment 5 of section 3, hereunder described—with a view to its sale or other appropriation under the Crown Lands Acts, and to the dedication in lieu of allotment 19 of section 5, in the same locality, area 24 perches, for site for Mechanics' Institute.

[Ms. 90-4,765] JAMES N. BRUNKER.

DESCRIPTIONS.

Library site proposed to be resumed.

All that piece or parcel of land situate in the county of Camden, parish of Kiama, being allotment 5, section 3, of the town of Kiama, and containing by admeasurement 2 roods: Commencing on the south-eastern side of Manning-street, at the most western corner of allotment 4, dedicated as site for Church of England; thence by a line forming the south-western boundary of that allotment and allotment 3 bearing south 63 degrees east 5 chains; thence by a line forming the north-western boundary of the Reverend J. Barnier's allotment 10 bearing south 27 degrees west 1 chain; thence by a line forming the north-eastern boundaries of A. King's allotments 7 and 6 respectively bearing north 63 degrees west 5 chains to the south-eastern side of Manning-street aforesaid; and thence by that side of that street bearing north 27 degrees east 1 chain, to the point of commencement,—as shown on plan K. 32-1,091.

Site for Mechanics' Institute proposed to be dedicated.

County of Camden, parish of Kiama, area 24 perches: Commencing at a point on the north-western side of Manning-street bearing south 27 degrees west 2 chains 49 links from its intersection with the south-western side of Terralong-street; and bounded thence on the north-east by a line bearing north 63 degrees west 1 chain 50 links; thence on the north-west by a line bearing south 27 degrees west 1 chain; thence on the south-west by a line bearing south 63 degrees east 1 chain 50 links to the north-western side of Manning-street aforesaid; and thence on the south-east by that side of that street bearing north 27 degrees east 1 chain, to the point of commencement,—being allotment 19 of section 5, town of Kiama, as shown on plan K. 42-1,091.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th December, 1890.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT ARAKOON AND DEDICATION FOR THE SAME PURPOSE IN LIEU.

IT is hereby notified, for general information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the General Cemetery at Arakoon, area 8 acres 1 rood 8 perches, dedicated 11th Mareh, 1881, and hereunder described, with a view to reservation for preservation of graves or other appropriations under the Crown Lands Acts, and to the dedication in lieu of 13 acres 1 rood 32 perches in the same locality, also hereunder described, for General Cemetery,

[Ms. 90-19,251] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Macquarie, parish of Arakoon, area 8 acres 1 rood 8 perches: Commencing at a point bearing about south 7 degrees 6 minutes 30 seconds west 62 chains 21 links from the south-west corner of section 2, village of Arakoon; and bounded thence on the north by a line bearing east 8 chains; on the east by a line bearing south 10 chains 38 links; on the south by a line bearing west 8 chains; and on the west by a line bearing north 10 chains 38 links, to the point of commencement,—shown on plan C. 850-1,984.

General Cemetery proposed to be dedicated.

County of Macquarie, parish of Arakoon, at Arakoon, containing an area of 13 acres 1 rood 32 perches. The Crown Lands within the following boundaries: Commencing at a point bearing south 23 degrees 24 minutes west 36 chains 9 links from the northernmost south-east corner of reserve 217, notified 5th November, 1883; and bounded thence by a line east 11 chains; thence a line south 12 chains; thence a line west 11 chains; and thence a line north 12 chains, to the point of commencement,—as shown on plan catalogued Ms. 182, Gfn.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF ROMAN CATHOLIC CHURCH AND PRESBYTERY SITES AT MURWILLUMBAH, AND DEDICATION FOR GENERAL CEMETERY EXTENSION AND ROMAN CATHOLIC CHURCH PURPOSES IN LIEU.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the Roman Catholic Church and Presbytery sites at Murwillumbah, area 1 acre 2 roods, viz., allotment Nos. 2 and 3 of section 14, dedicated 23rd September, 1881, and hereunder described, with a view to dedication of an area of 3 acres and 30 perches, to include the above, for extension to General Cemetery, and an area of 1 acre 1 rood 22 perches, also hereunder described, for Roman Catholic Church purposes in lieu.

[Ms. 90-19,252] JAMES N. BRUNKER.

DESCRIPTIONS.

Roman Catholic Church and Presbytery sites proposed to be resumed.

County of Rous, parish of Murwillumbah, village of Murwillumbah, 1 acre 2 roods, allotments 2 and 3 of section 14: Commencing at the south-eastern corner of the section; and bounded thence on the south by Murwillumbah-street bearing west 6 chains; on the west by the eastern boundary of allotment 1 bearing north 2 chains and 50 links to a lane; on the north by that lane bearing east 6 chains to Polding-street; and on the east by that street bearing south 2 chains and 50 links, to the point of commencement,—shown on plan catalogued C. 861-1,984.

General Cemetery Extension proposed to be dedicated.

County of Rous, parish of Murwillumbah, village of Murwillumbah, containing an area of 3 acres 0 roods and 30 perches. The Crown Lands within following boundaries: Commencing at the intersection of the north side of Murwillumbah-street with the west side of Polding-street; thence by the west side of the latter street bearing north 5 chains 31 links to the south-east corner of show ground, portion 49; thence by part of the south boundary of that portion west 6 chains to the north-east corner of General Cemetery, dedicated 14th October, 1881; thence by the east boundary of the General Cemetery south 5 chains 31 links to the north side of Murwillumbah-street; and thence by part of that side of that street east 6 chains, to the point commencement,—being allotments 2, 3, 5, 6, 7, 8, of section 14 and intervening lanes,—as shown on plan catalogued Ms. 169 Grafton.

Area proposed to be dedicated for Roman Catholic Church purposes.

County of Rous, parish of Murwillumbah, village of Murwillumbah, containing an area of 1 acre 1 rood 22 perches: Commencing at the intersection of the north side of Murwillumbah-street with the eastern side of Waterloo-street; thence by the eastern side of the latter street north 44 degrees 35 minutes east 7 chains 45 links; thence south 5 chains 31 links to the north side of Murwillumbah-street aforesaid; thence by that side of that street west 5 chains 23 links, to the point of commencement, as shown on plan catalogued M. 11-2,112.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands.
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PUBLIC LIBRARY SITE AT SCONE.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the Public Library site at Scone, viz., allotment 1 of section 14, area 2¾ perches, dedicated 16th July, 1863, and hereunder described, with a view to the reservation of the area in question for trigonometrical purposes.

[Ms. 90-19,246] JAMES N. BRUNKER.

DESCRIPTION.

County of Brisbane, parish of Scone, village of Scone, allotment 1 of section 14, 2¾ perches: Commencing on the northern boundary of portion 15, R. Kelly's 1,920 acres, at the southern xtremity of the eastern side of Kelly-street; and bounded thence on the south by part of the northern boundary of portion 15 aforesaid bearing south 89 degrees 57¾ minutes east 65¾ links; on the north-east by part of a south-western side of the Great Northern Road, 1 chain 50 links wide, bearing north 50 degrees 13½ minutes west 85½ links and on the west by part of the eastern side of Kelly-street aforesaid, bearing south 1½ minutes east 54¾ links, to the point of commencement. Plan S. 46-999.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION AND REDEDICATION OF GENERAL CEMETERY AT FREDERICKTON.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to resume and re-dedicate the General Cemetery at Frederickton, dedicated 12th March, 1869, and hereunder described, an amended plan of the land in question having been furnished.

[Ms. 91-2,431 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Dudley, parish of Yarrabandini, area 7 acres 2 roods 1 perch: Commencing on the north side of a road 150 links wide, at the south-eastern corner of allotment 2 of section 2, 7 acres, within the suburban limits to the village of Frederickton; and bounded thence on the west by part of the eastern boundary of that allotment, being a line bearing north 8 chains, to the south-western corner of allotment 3; on the north by the south boundary of that allotment and that of allotment 4 of section 1, being a line bearing east 10 chains 38 links, to the western boundary of allotment 1, section 1; on the east by part of that western boundary, being a line bearing south 8 chains, to the north side of a road 150 links wide first mentioned; and thence by part of that side of that road, being a line bearing west 10 chains 38 links, to the point of commencement,—but exclusive of intervening road 100 links wide, as shown on plan catalogued C. 51-1,984.

General Cemetery proposed to be dedicated.

County of Dudley, parish of Yarrabandini, area 7 acres 2 roods: Commencing on the north side of a road 150 links wide, at the south eastern corner of allotment 2 of section 2, 7 acres, within the suburban limits to the village of Frederickton; and bounded thence on the west by part of the eastern boundary of that allotment, being a line bearing north 8 chains, to the south-western corner of allotment 3; on the north by the south boundary of that allotment and that of allotment 4 of section 1, being a line bearing east 10 chains 38 links, to the western boundary of allotment 1, section 1; on the east by part of that western boundary, being a line bearing south 8 chains, to the north side of a road 150 links wide first mentioned; and thence by part of that side of that road, being a line bearing west 10 chains 38 links, to the point of commencement,—but exclusive of intervening road 100 links wide, as shown on plans catalogued C. 51-1,984 and Ms. 193 Gfn.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF RECREATION RESERVE AT RAYMOND TERRACE, AND DEDICATION FOR TOWN HALL SITE AND PUBLIC RECREATION.

It is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Raymond Terrace, area 62 acres, dedicated 15th August, 1871, for public recreation, and hereunder described, with a view to the dedication of 1 acre 2 roods 16 perches thereof for Town Hall site, and the re-dedication of the remainder, 60 acres 0 roods 26 perches, for public recreation.

[Ms. 91-3,055 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Recreation reserve proposed to be resumed.

County of Gloucester, parish of Eldon, town of Raymond Terrace, area 62 acres: Commencing on a northern boundary of R. Windeyer's 664 acres, at the south-western corner of the reserve for a general cemetery; and bounded thence on the north-east by the south-western boundary of that reserve and its extension bearing north 50 degrees west in all 10 chains; on the south-east by a line bearing north 40 degrees east 8 chains 50 links; on the south-west by a line bearing south 50 degree east 9 chains 80 links to the north-east corner of the aforesaid reserve; on the east by a line dividing it from R. Windeyer's 664 acres aforesaid bearing north 1 degree 6 minutes west 7 chains 20 links to Kangaroo-street; again on the north-east by that street bearing north 50 degrees west 23 chains 30 links to Irrawang-street; on the north-west by that street bearing south 40 degrees west 38 chains 28 links; and on the south by a line dividing it from G. T. Graham's 640 acres and R. Windeyer's 664 acres aforesaid bearing north 89 degrees 54 minutes east 37 chains and 54 links, to the point of commencement,—exclusively of a road or street 1 chain 50 links wide from Kangaroo-street to Tod-street passing through this land along the north-west boundary of the cemetery reserve in a south-westerly direction, the area of which has been deducted from the total area.

Town Hall site proposed to be dedicated.

County of Gloucester, parish of Eldon, town of Raymond Terrace, area 1 acre 2 roods 16 perches: Commencing on the south-eastern side of Urawanga-street, at its intersection with the south-easterly prolongation of the north-eastern side of Glenelg-street, being a point bearing south 50 degrees east and 1 chain 50 links distant from the southern corner of John Coyle's allotment 10 of section 16; bounded thence on the north-east by a line bearing south 50 degrees east 6 chains 7 links to the north boundary of G. T. Graham's portion of 640 acres; thence on the south by part of the north boundary of that portion, being a line bearing south 88 degrees 54 minutes west 8 chains 6 links, to the south-eastern side of Urawanga-street aforesaid; and thence on the north-west by the south-eastern side of that street bearing north 40 degrees east 5 chains 31 links, to the point of commencement,—to include portion 6, as shown on plan catalogued G. 2,303-1,497.

Recreation reserve proposed to be dedicated.

County of Gloucester, parish of Eldon, town of Raymond Terrace, area 60 acres 0 roods 26 perches: Commencing at the intersection of the south-eastern side of Urawanga-street with the south-western side of Kangaroo-street, being a point bearing south 49 degrees 57 minutes east, and distant 150 links from the north-eastern corner of allotment 20 of section 14; bounded thence on part of the north-west by part of the south-eastern side of Urawanga-street aforesaid, being a line bearing south 39 degrees 54 minutes west 33 chains, to the northern corner of the site appropriated for Town Hall; thence on part of the south-west by the north-eastern boundary of that appropriation, being a line bearing south 50 degrees east and distant 6 chains 7 links, to the north boundary of G. T. Graham's 640 acres; thence on the south by part of that north boundary and that of R. Windeyer's 664 acres in all a line bearing north 88 degrees 42 minutes east and distant 29 chains 64 links, to the western extremity of the southernmost boundary of the General Cemetery at Raymond Terrace, dedicated 16th July, 1863; thence on part of the north-east by the south-western boundary of that cemetery, being a line bearing north 53 degrees west and distant 10 chains 10 links, to its westernmost corner; thence on the south-east by the north-western boundary of that cemetery, being a line bearing north 40 degrees 4 minutes east and distant 8 chains 50 links, to its northernmost corner; thence on the remainder of the south-west by the north-eastern boundary of the cemetery referred to, being a line bearing south 52 degrees 14 minutes east 9 chains 74 links, to the western boundary of J. Windeyer's 1,208 acres; thence on the east by part of that west boundary, being a line bearing north 1 degree 42 minutes west 6 chains 77 links, to the south-western side of Kangaroo-street first mentioned; and thence on the remainder of the north-east by part of that side of that street, being a line bearing north 49 degrees 57 minutes west and distant 23 chains 54 links, to the point of commencement,—but exclusive of a road 1 chain 50 links wide from Kangaroo-street to Tod-street, passing through this land along in a south-westerly direction, the area of which has been deducted from the total area, shown on plan catalogued G. 16-2,066.

NOTE.—The above is lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF SCHOOL OF ARTS SITE AT CARGELLICO.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the School of Arts site at Cargellico, area 2 roods, viz., allotment 3 of section 3, dedicated 6th October, 1882, and hereunder described with a view to the reservation of that area for site for Post and Telegraph Office,

[Ms. 91-2,449 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County of Dowling, parish of Gurrangully, village of Cargellico, allotment 3 of section 3, 2 roods: Commencing on the south-western side of Canada-street, at the eastern corner of allotment 1; and bounded thence on the north-east by that street south-easterly 2 chains; on the south-east by the north-western boundary line of allotment 4 south-westerly, at right angles to Canada-street, 2 chains and 50 links to a lane; on the south-west by that lane north-westerly, parallel with Canada-street, 2 chains; and on the north-west by the south-eastern boundaries of allotment 2 and aforesaid 1, in all north-easterly at right angles to Canada-street 2 chains and 50 links, to the point of commencement.

[Plan C. 9-2,209 Roll.]

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED REVOCATION OF PUBLIC SCHOOL RESERVE AT QUIRINDI AND DEDICATION FOR PUBLIC SCHOOL SITE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke Public School reserve 5,836, at Quirindi, area 1 rood 35 perches, viz, allotment 15 of section 19, proclaimed 24th March, 1888, and hereunder described, with a view to the dedication of that allotment and allotments 13, 14, and 16 of the same section, area 1 acre 3 roods 3 perches, for Public School site

[Ms. 91-3,713 Dep] JAMES N. BRUNKER.

DESCRIPTIONS.

EASTERN DIVISION.

LAND DISTRICT OF MURRURUNDI.

Public School Reserve proposed to be revoked.

No. 5,836 for Public School purposes County of Buckland, parish of Quirindi, town of Quirindi, containing an area of 1 rood 35 perches The Crown Lands within the following boundaries : Commencing on the east side of Hill street, at the south-west corner of allotment 14; and bounded thence on the west by that side of Hill street bearing south to the north-west corner of allotment 16, thence on the south by the north boundary of that allotment bearing east 4 chains 71½ links to the west side of a lane 30 links wide, thence on the east by part of that side of the lane bearing north to the south-east corner of allotment 14 aforesaid, and thence on the north by the south boundary of that allotment bearing west 4 chains 71½ links, to the point of commencement,—to include allotment 15 of section 19.

Public School Site proposed to be dedicated

County of Buckland, parish of Quirindi, town of Quirindi, area 1 acre 3 roods 3 perches Commencing at a point on the eastern side of Hill street, town of Quirindi, being the south-western corner of allotment 12, section 19, dedicated for Church of England parsonage on 15th April, 1879, and bounded thence on the north by the south boundary of that allotment, being a line bearing east 4 chains 71 links to the western side of a lane 30 links wide, bounded thence on the east by part of that side of that lane, being a line bearing south 3 chains 78 links to the north-east corner of allotment 17, same section, appropriated for Roman Catholic Church purposes, thence on the south by the north boundary of that appropriation, being a line bearing west 4 chains 71 links to the eastern side of Hill street first-mentioned, and thence on the west by part of that side of that street, being a line north 3 chains 78 links, to the point of commencement,—to include allotments 13, 14, 15, and 16 of section 19, as shown on plan catalogued Q 9 and Q 19-1,613.

NOTE —The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION AND RE-DEDICATION OF COOK'S SQUARE AND PARK, EAST MAITLAND.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of Cook's Square and Park, East Maitland, area 42 acres and 22 perches, dedicated 2nd April, 1887, for public recreation, and hereunder described, with a view to the reservation of 3 acres thereof for public pound, and the re-dedication of the remainder (39 acres and 22 perches) for public recreation.

[Ms. 91-3,907 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County of Northumberland, parish of Maitland, town of East Maitland, area 43 acres 0 roods 22 perches Commencing at the intersection of the north-western side of George-street with the north-eastern side of Flinders-street; and bounded thence by part of that side of Flinders-street, being a line bearing north 44 degrees 53 minutes west 7 chains 87 3 links; thence by a line bearing north 45 degrees 7 minutes east 5 chains 1 1 link, being the south-eastern side of a street 1 chain 25 links wide; thence by a line bearing north 44 degrees 53 minutes west 7 chains 25 3 links; thence by a line bearing south 45 degrees 7 minutes west 1 chain 42 8 links; thence by a line bearing north 44 degrees 38 minutes west 22 chains 86 links, being the north eastern side of Adams-street, thence by a line bearing south 88 degrees 46 minutes east 8 chains 27 5 links, thence by a line bearing north 1 degree 20 minutes east 1 chain 24 links, thence by a line bearing south 44 degrees 33 minutes east 5 chains 35 links to the north-western side of Banks street; thence by part of that side of that street, being a line bearing north 45 degrees 27 minutes east 5 chains, to the south-western side of Rous-street; thence by part of that side of that street, being a line bearing south 45 degrees 19 minutes east 8 chains 77 5 links, to the south-eastern side of William street, thence by part of that side of William-street, being a line bearing north 45 degrees 32 minutes east 9 chains 1 8 link, to the south-western side of Park-street; thence by that side of that street being a line bearing south 44 degrees 50 minutes east 12 chains 62 5 links, thence by a line bearing south 45 degrees 32 minutes west 14 chains 19 links and forming the north-western side of Park-street, thence by a line bearing south 44 degrees 20 minutes east 6 chains 25 links to the north-western side of George-street first mentioned; and thence by part of that side of that street, being a line bearing south 45 degrees 34 minutes west 10 chains 29 3 links, to the point of commencement,—but exclusive of school site and intervening streets, as shown on plan catalogued N 52-2,071 Roll

Area proposed to be dedicated.

County of Northumberland, parish of Maitland, town of East Maitland, area 9 acres 0 roods 22 perches Commencing at the intersection of the south-eastern side of Glebe-street with the north-eastern side of Adams street, and bounded thence by that side of Adams-street, being a line bearing north 44 degrees 38 minutes west 22 chains 86 links thence by a line bearing south 88 degrees 46 minutes east 8 chains 27 5 links, thence by a line bearing north 1 degree 20 minutes east 1 chain 24 links, thence by a line bearing south 44 degrees 33 minutes east 5 chains 35 links to the north western side of Banks street, thence by part of that side of that street, being a line bearing north 45 degrees 27 minutes east 5 chains to the south-western side of Rous-street, thence by part of that side of that street, being a line bearing south 45 degrees 19 minutes east 8 chains 77 5 links, to the south-eastern side of William-street, thence by part of that side of that street, being a line bearing north 45 degrees 32 minutes east 9 chains 1 8 links, to the south-western side of Park-street, thence by that side of that street, being a line bearing south 44 degrees 50 minutes east 12 chains 62 5 links, thence by a line bearing south 45 degrees 42 minutes west 14 chains 0 6 link, and forming the north-western side of Park-street, thence by a line and the south-western boundaries of lots 1, 2, 3, 4, and 5, section 11, bearing south 44 degrees 20 minutes east 6 chains 25 links to the north western side of George-street; thence by part of that side of that street, being a line bearing south 45 degrees 34 minutes west 6 chains 8 links, to the eastern corner of an area of 3 acres appropriated for public pound, thence by the north-eastern boundary of that appropriation, being a line bearing north 13 degrees 55 minutes west 6 chains 8 links, to its north corner, thence by a line bearing south 45 degrees 7 minutes west 7 chains 34 links to the north-eastern side of Flinder's-street, thence by part of that side of that street, being a line bearing north 44 degrees 53 minutes west 2 chains 69 3 links, thence by a line bearing north 45 degrees 7 minutes east 5 chains 1 1 link, and forming the south-eastern side of a street 1 chain 25 links wide, thence by a line and the north-eastern boundaries of lots 1 and 6 section 6, bearing north 44 degrees 53 minutes west 7 chains 25 3 links, and thence by a line bearing south 45 degrees 7 minutes west 1 chain 42 8 links, and forming part of the north west boundary of lot 1, section 6, to the point of commencement,—but exclusive of school site and intervening streets, as shown on plan catalogued N 52-2,071 Roll.

NOTE —The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF RECREATION RESERVE AT WEST KEMPSEY

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of that part of the recreation reserve at West Kempsey, area 90 acres, hereunder described, with a view to the reservation of that area for Temporary Common.

[Ms. 91-3,049 Dep] JAMES N BRUNKER.

DESCRIPTION.

90 acres County of Dudley, parish of Yarravel, near West Kempsey Commencing on the north western side of North-street, town of West Kempsey, on the southern corner of allotment 6 of section 29a, in the town of West Kempsey, and bounded thence on the south-east by that street bearing south 55 degrees west 21 chains, on the south by a line bearing westerly 15 chains 68 links, on the west by the eastern boundary of portion 145 of 90 acres 2 roods bearing north 37 chains 44 links, on the north by a line bearing easterly 15 chains 88 links, and on the east and north-east by lines dividing it from allotment 6 aforesaid bearing northerly 1 chain 29 links, and thence south 35 degrees 12 minutes east 29 chains 50 links, to the point of commencement Plan catalogued D. 938 1,505.

NOTE —The above is in lieu of the notice in the Government Gazette of the 10th November, 1886, and 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION AND REDEDICATION OF GENERAL CEMETERY AT NUNDLE.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the General Cemetery at Nundle, area 7½ acres, dedicated 16th July, 1863, and hereunder described, with a view to rededication with an area of 8 acres.

[Ms. 91-3,711 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Parry, parish of Nundle, area 7 acres 2 roods, dedicated 16th July, 1863: Commencing on the west side of a road 1 chain wide at the north-east corner of portion 22 of 71 acres 3 roods 24 perches, in the parish of Nundle; and bounded thence on the east by that road bearing north 10 chains to another road 1 chain wide; on the north by that road bearing west 8 chains to the eastern side of a road 1 chain wide; on the west by that side of that road, being a line bearing south 10 chains; and on the south by part of the north boundary of portion 22 above mentioned, being a line bearing east 8 chains, to the point of commencement; but exclusive of a road 50 links wide passing through this Cemetery,—as shown on plan catalogued C. 814-730.

General Cemetery proposed to be dedicated.

County of Parry, parish of Nundle, area 8 acres: Commencing on the west side of a road 1 chain wide at the north-east corner of portion 22 of 71 acres 3 roods 24 perches, in the parish of Nundle; and bounded thence on the east by part of that side of that road, being a line bearing north 10 chains, to the south side of another road 1 chain wide; on the north by part of that side of that road, being a line bearing west 8 chains, to the east side of a road 1 chain wide; on the west by that side of that road, being a line bearing south 10 chains, to the north side of portion 22 of 71 acres 3 roods 24 perches above mentioned; and thence on the south by part of that side of that portion, being a line bearing east 8 chains; to the point of commencement,—shown on plan catalogued C. 814 730.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT WEST BALLINA AND DEDICATION OF PART THEREOF FOR SHOW GROUND.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at West Ballina, area 7 acres 2 roods 23 perches, dedicated 4th February, 1876, for general cemetery, and hereunder described, with a view to the dedication of 5 acres 3 roods 9 perches thereof for show ground, and to the appropriation or sale of the remainder as provided in the Crown Lands Acts.

[Ms. 91-3,905 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Rous, parish of Ballina, area 7 acres 2 roods 23 perches: Commencing at the intersection of the north-western side of Cherry-street with north-eastern side of Skinner-street, town of West Ballina; and bounded thence on the south-west by part of that side of Skinner street first mentioned, being a line bearing north 71 degrees 45 minutes west 8 chains; on the north-west by a line bearing north 18 degrees 15 minutes east 5 chains; on part of the north-east by a line bearing south 71 degrees 45 minutes east 4 chains 12½ links: on part of the south-east by a line bearing south 18 degrees 15 minutes west 3 chains 87 links; on the remainder of the north-east by a line bearing south 71 degrees 45 minutes east 3 chains 87½ links to the north-west side of Cherry-street first mentioned; and thence by part of that side of that street, being a line bearing south 18 degrees 15 minutes west 1 chain 13 links, to the point of commencement.

Again commencing at the intersection of the north-western side of Cherry street with the south-western side of Skinner-street, town of West Ballina; and bounded thence by part of that side of Cherry-street, being a line bearing south 18 degrees 15 minutes west 5 chains; on the south-west by a line bearing north 71 degrees 45 minutes west 10 chains 43 links; on the north-west by a line bearing north 18 degrees 15 minutes east 5 chains to the south-west side of Skinner-street first mentioned; and thence by part of that side of that street, being a line bearing south 71 degrees 45 minutes east 10 chains 42 links, to the point of commencement,—shown on plan catalogued C. 481-1,984.

Show Ground proposed to be dedicated.

County of Rous, parish of Ballina, town of West Ballina, containing an area of 5 acres 3 roods 9 perches. The Crown Lands within the following boundaries: Commencing at the intersection of the eastern side of Moon-street with the northern side of Fox-street, being a point bearing north 16 degrees 15 minutes east, and distant 1 chain 50 links from the north-western corner of portion 199 (site for hospital); thence by Moon-street north 16 degrees 15 minutes east 10 chains to the southern side of Skinner-street; thence by that street south 73 degrees 26 minutes east 1 chain 63 links to the road from Tintenbar to Ballina; thence by that road south 23 degrees 30 minutes east 13 chains and 7 links to the northern side of Fox-street; thence by that street bearing north 73 degrees 26 minutes west 9 chains 99 links, to the point of commencement,—being portion 203, as shown on plan catalogued R. 4,613-1,759.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF RESERVE FOR RECREATION AND PASTURAGE AT DUBBO AND DEDICATION FOR ADDITION TO SHOW GROUND.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to resume that part of the reserve for recreation and pasturage at Dubbo, within the boundaries of measured portion 206 of 8 acres and 10 perches, parish of Dubbo, county of Lincoln, hereunder described, with a view to the dedication of that area for addition to show ground.

[Ms. 91-4,517 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

CENTRAL DIVISION.

LAND DISTRICT OF DUBBO.

County of Lincoln, parish of Dubbo, 8 acres 0 roods 10 perches, portion 206: Commencing on the eastern side of Fitzroy-street, at the south-west corner of portion 310 of 15 acres, show ground, dedicated 22nd April, 1886; bounded thence on the north by the south boundary of that portion, bearing north 89 degrees 59 minutes east 12 chains 30½ links to its south-east corner; thence south 6 chains 55 links; thence north 89 degrees 57 minutes west 12 chains and 30½ links to the eastern side of Fitzroy-street aforesaid; and thence on the west by that side of that street bearing north 6 chains 53½ links, to the point of commencement,—as shown on plan catalogued L. 1,736-1566.

NOTE.—The above is in lieu of the notice in the Government Gazette of 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF PUBLIC ROAD AT WHITE BAY.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the part of the public road at White Bay, Balmain, dedicated 18th January, 1884, hereunder described, with a view to the completion of an exchange under the 69th section of the Act quoted.

[Ms. 91-5,358 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

All that piece or parcel of land situated at White Bay, Balmain, parish of Petersham, county of Cumberland, containing by admeasurement 6 perches: Commencing at a point where the north-western side line of Mansfield-street meets the north-eastern side line of a reserved road 40 feet wide, leading from Reynolds-street along the foreshore of White Bay to Mansfield-street; and bounded thence on the south-east by part of the north-western side line of Mansfield-street, bearing north 59 degrees east 16$\frac{4}{10}$ links to the southernmost corner of 4$\frac{6}{10}$ perches approved to be alienated to King and Sullivan under 10th section; on the north-east by the south-western boundary of that area bearing north 14 degrees 42 minutes west 234$\frac{1}{10}$ links; on the north-west by a line bearing south 77 degrees 27 minutes west 15$\frac{5}{10}$ links to the said reserved road, 40 feet wide; and on the south-west by a north-east side line of that road bearing south 14 degrees 42 minutes east 239 links, to the point of commencement.

NOTE.—The above is in lieu of the notice in the Government Gazette of 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF RECREATION RESERVE AT GUNDAGAI NORTH, AND DEDICATION FOR RACECOURSE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Gundagai North, area 123 acres, dedicated on the 12th March, 1869, for public recreation, and hereunder described, with a view to the dedication in lieu of 268 acres in the same locality, to include the above, for racecourse.

[Ms. 91-2,594 Dep.] JAMES. N. BRUNKER.

DESCRIPTIONS.

Recreation Reserve proposed to be resumed.

County of Clarendon, parish of Gundagai, 123 acres, at Gundagai: Commencing on the left bank of a lagoon, at a point bearing south 79 degrees 20 minutes east and distant 10 chains 86 links from the southern corner of allotment 2 of section 31, in the town of Gundagai; and bounded thence on the south-west by Sheridan street bearing east 16 degrees 17 minutes south 9 chains 14 links; thence by Johnson-street bearing south 16 degrees 17 minutes west 11 chains and 50 links to Landon-street; again on the south-west by that street bearing east 16 degrees 17 minutes south 33 chains to Thackeray-street; on the south-east by that street bearing north 16 degrees 17 minutes east 33 chains to Hanley-street; on the north-east by Hanley-street bearing west 16 degrees 17 minutes north 37 chains and 77 links to the aforesaid lagoon; and on the north-west by that lagoon downwards, to the point of commencement,—as shown on plan G. 27-1,028.

Racecourse proposed to be dedicated.

County of Clarendon, parish of North Gundagai, containing an area of 268 acres. The Crown Lands within the following boundaries: Commencing on the right bank of the Murrumbidgee River, at a point where the eastern extremity of the south side of Neptune-street intersects it; and bounded thence by part of the south side of Neptune street bearing west 14 chains and 41 links; thence by a line bearing south 25 degrees 19 minutes west 22 chains 64 links; thence by a line bearing south 46 degrees 22 minutes west 5 chains 4 links to the north-eastern side of Sheridan-street; thence by part of the north-eastern side of that street bearing south 73 degrees east 7 chains 52 links to the south-eastern side of Johnson-street; thence by part of the south eastern side of that street bearing south 17 degrees west 11 chains 50 links to the north-eastern side of Landon-street; thence by part of the north-eastern side of that street bearing south 73 degrees east 11 chains 50 links to the south-eastern side of Maturin-street; thence by the south-eastern side of that street bearing south 17 degrees west 13 chains to the right bank of the Murrumbidgee River; thence by the right bank of that river upwards, to the point of commencement, being portion 253, as shown on plan catalogued C. 2,944-1,578 Roll.

NOTE.—The above is in lieu of the notice in the Government Gazette of the 22nd May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT BRELSFORD, (COFF'S HARBOR), AND DEDICATION FOR THE SAME PURPOSE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the general cemetery at Brelsford, area 9 acres 1 rood 38 perches, dedicated 20th December, 1887, and hereunder described, with a view to that area being included in a proposed extension of the village, and to the dedication in lieu of 11 acres, also hereunder described for general cemetery.

[Ms. 91-5,359 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Fitzroy, parish of Coff, area 9 acres 1 rood 38 perches: Commencing on the north-eastern side of a road in the south-easterly prolongation of the south-western boundary of section 14, village of Brelsford, at the intersection with the south-eastern side of a road, the north-western side of which forms the south-eastern boundary of portion 14 aforesaid at a peg bearing north 58 degrees 28 minutes west and distant 66·3 links from a bloodwood-tree marked broad-arrow cemetery; and bounded thence on the north-west by part of the south-eastern side of the road aforesaid bearing north 8 degrees 30 minutes east 10 chains 58·7 links; thence on the north-east by a line bearing south 49 degrees east 13 chains 70⅛ links; thence on the south-east by a line bearing south 29 degrees 30 minutes west 6 chains 69·7 links to the north-eastern side of the road first-mentioned; thence on the south-west by part of that side of that road being lines bearing respectively north 69 degrees 30 minutes west 2 chains 93·6 links, and north 60 degrees 30 minutes west 6 chains 73¼ links, to the point of commencement.

To include allotments 1 to 7, plan catalogued C. 1,122-1984.

General Cemetery proposed to be dedicated.

County of Fitzroy, parish of Coff, village of Brelsford, containing an area of 11 acres. The Crown Lands within the following boundaries: Commencing at a point on the northern side of Coff-street bearing south 66 degrees 49 minutes east and distant 13 chains 64 links from the north-east corner of allotment 6 of section 5, village of Brelsford; thence north 9 degrees 57 minutes east 4 chains 60 links; thence north 29 degrees 30 minutes east 8 chains 18½ links; thence south 60 degrees 30 minutes east 9 chains 14 links; thence south 29 degrees 30 minutes west 12 chains 51 links to Coff-street aforesaid; thence by part of the northern side of that street north 60 degrees 30 minutes west 7 chains 60 links, to the point of commencement,—as shown on plan catalogued Ms. 217 Gfn.

NOTE.—The above is in lieu of the notice in the Government Gazette of the 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF TAMWORTH COMMON EXTENSION AND REDEDICATION OF PART THEREOF FOR GENERAL CEMETERY.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of that part of the extension to Tamworth permanent common, area 47 acres 1 rood, dedicated 16th November, 1886, hereunder described, with a view to the dedication of 13 acres 3 roods 24 perches thereof for general cemetery, and to the reservation of the remainder—33 acres 1 rood 16 perches—for plantation and cemetery extension.

[Ms. 91-4,156 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County of Inglis, parish of Tamworth, area 47 acres 1 rood: Commencing on the west side of a road 150 links wide, at a point bearing south 1 degree 36 minutes west, and distant 17 chains 83·7 links from the south-east corner of portion 59, Joshua Dawes' 35 acres 2 roods; and bounded thence on the east by a line bearing south 21 chains 79 links; on the south by a line bearing west 21 chains 79 links; on the west by a line bearing north 21 chains 79 links; and on the north by a line bearing east 21 chains 79 links, to the point of commencement,—as shown on plan catalogued Ms. 111 Th.

General Cemetery proposed to be dedicated.

County of Inglis, parish of Tamworth, area 13 acres 3 roods 24 perches: Commencing at a point bearing south 13 degrees 32 minutes west, and distant 23 chains 48 links from the south-east corner of portion 59, Joshua Dawes' 35 acres 3 roods; and bounded thence on the east by a line bearing south 11 chains 79 links; on the south by a line bearing west 11 chains 79 links; on the west by a line bearing north 11 chains 79 links; and on the north by a line bearing east 11 chains 79 links, to the point of commencement,—shown on plan catalogued Ms. 111 Th.

NOTE.—The above is in lieu of the notice in the Government Gazette of the 10th July, 1891.

Department of Lands,
Sydney 31st July, 1891.

PROPOSED RESUMPTION OF PART OF PUBLIC SCHOOL RESERVE AT CUNNINGAR.

IT is hereby notified for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of that part of the land at Cunningar, dedicated 18th February, 1870, for Public School purposes, within the boundaries of measured portion 170 of 8 acres 3 roods 39 perches, parish of Cunningar, county of Harden, with a view to the reservation of that area for camping.

[Ms. 91-2,426 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

EASTERN DIVISION.

LAND DISTRICT OF YOUNG.

County of Harden, parish of Cunningar, containing an area of 8 acres 3 roods 39 perches. That part of Public School site, dedicated 18th February, 1870, within the boundaries of measured portion 170,—as shown on plan catalogued H. 5,340-1,716.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF RECREATION RESERVE AT ARAKOON, AND REDEDICATION FOR RACE-COURSE

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the land at Arakoon, area 60 acres, viz.: Portion 161, in the parish of Arakoon, county of Macquarie, dedicated 18th January, 1884, for public recreation, and hereunder described, with a view to the rededication of that area for racecourse.

[Ms. 91-4,339 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County of Macquarie, parish of Arakoon, area about 60 acres: Commencing at a point situated south 41 degrees 18 minutes east 37 chains 34 links from the south-east corner of allotment 3 of section 10, village of Arakoon; and bounded thence on part of the north by a line bearing west 10 chains; thence on the west by a line bearing south 30 chains; thence on the south by a line bearing east 20 chains; thence on the east by a line bearing north 30 chains; thence on the remainder of the north by a line bearing west 10 chains, to the point of commencement. To include measured portion 161,—as shown on plan catalogued M. 9-2,069.

NOTE.—The above is in lieu of the notice in the Government Gazette of 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT TAMWORTH.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication, with a view to sale by auction, of the land at Tamworth, area 7 acres 1 rood 30 perches, dedicated 15th March, 1865, for general cemetery, and hereunder described, it being intended to dedicate another site in lieu.

[Ms. 91-4,514 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County of Inglis, parish of Tamworth, area 7 acres 1 rood 30 perches: Commencing at a point on the eastern side of Janison-street, being the south-western corner of an area of 100 acres, dedicated 13th May, 1887, for recreation purposes; and bounded thence on the north by part of the southern boundary of that recreation reserve, being a line bearing east 10 chains; on the east by a line bearing south 8 chains to the north side of North-street; on the south by part of that side of that street, being a line bearing west 10 chains to the east side of Janison-street, first mentioned; and thence on the west by part of that side of that street, being a line bearing north 8 chains, to the point of commencement, but exclusive of intervening road 62 links wide. Plan catalogued C. 871-730 Roll.

NOTE.—The above is in lieu of the notice in the Government Gazette of 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF PERMANENT COMMON AT WEST KEMPSEY.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of that part of the permanent common at West Kempsey, area 70½ acres, hereunder described, with a view to that area being included in a reserve for Racecourse.

[Ms. 91-3,050 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

EASTERN DIVISION.

LAND DISTRICT OF KEMPSEY.

County of Dudley, parish of Yarravel, area about 70½ acres. That part of the Kempsey Permanent Common, dedicated 1st June, 1866, included within the following boundaries: Commencing at a point 15 chains east from the north-east corner of camping reserve 12,995, notified 22nd November, 1890; and bounded thence on the south by a line east 30 chains; thence north to Warwick Creek; thence by that creek upwards to a point due north from point of commencement; thence south to that point,—being that part of portion 166 of 90 acres within permanent common, shown on plan catalogued D. 1,243-1,505.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION AND REDEDICATION OF GENERAL CEMETERY AT HANGING ROCK.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the General Cemetery at Hanging Rock, area 3 acres 3 roods, dedicated 14th February, 1873, and hereunder described, with a view to rededication with an area of 4 acres and 5 perches.

[Ms. 91-3,712] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Parry, parish of Nundle, area 3 acres 3 roods, dedicated 14th February, 1873: Commencing at a point bearing north 61 degrees 4 minutes west and distant 3 chains 77 links from the south-western corner of R. L. Jenkins' 14 acres 1 rood; and bounded thence on the north-east by a line bearing north 40 degrees west 5 chains 66 links; on the north-west by a line bearing south 50 degrees west 7 chains 14 links; on the south-west by a line bearing south 40 degrees east 5 chains 66 links; and on the south-east by a line bearing north 50 degrees east 7 chains 14 links, to the point of commencement; exclusive of a road 50 links wide running through the cemetery,—as shown on plan catalogued C. 145-1,984.

General Cemetery proposed to be dedicated.

County of Parry, parish of Nundle, area about 4 acres 0 roods 5 perches: Commencing at a point bearing north 61 degrees 4 minutes west, and distant 3 chains 77 links from the south-western corner of R. L. Jenkins' 14 acres 1 rood; and bounded thence on the north-east by a line bearing north 40 degrees west 5 chains 66 links; on the north-west by a line bearing south 50 degrees west 7 chains 14 links; on the south-west by a line bearing south 40 degrees east 5 chains 66 links; and on the south-east by a line bearing north 50 degrees east 7 chains 14 links, to the point of commencement,—as shown on plan catalogued C. 145-1,984.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF CHURCH OF ENGLAND PARSONAGE SITE AT ARTHUR (TRUNKEY) AND DEDICATION FOR CHURCH OF ENGLAND CHURCH PURPOSES IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the Church of England Parsonage site at Arthur, area 2 roods, viz., allotment 19 of section 8, dedicated 15th August, 1871, and hereunder described, with a view to the reservation of that area for public buildings, and to the dedication in lieu of allotment 9 of section 11, village of Arthur, area 1 rood, for Church of England Church purposes.

[Ms. 91-5,360 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County of Georgiana, parish of Mulgunnia, village of Arthur, allotment 19 of section 8, area 2 roods: Commencing at the southern corner of the section; and bounded thence on the south-west by Forbes-street north-westerly 2 chains; on the north-west by the south-eastern boundary line of allotment 18 north-easterly, at right angles to Forbes-street, 2 chains 50 links to a lane; on the north-east by that lane south-easterly parallel with Forbes-street, 2 chains to Lloyd-street; and on the south-east by that street south-westerly 2 chains 50 links, to the point of commencement,—shown on plan catalogued C. 177-1,984.

Area proposed to be dedicated.

County of Georgiana, parish of Mulgunnia, village of Arthur allotment 9 of section 11, area 1 rood: Commencing at a point on the north-eastern side of Arthur-street, being the south-western corner of allotment 10 of section 11; and bounded thence on the north-west by the south-east boundary of that allotment, being a line bearing north 66 degrees 30 minutes east 2 chains 50 links; on the north-east by a line bearing south 23 degrees 30 minutes east 1 chain to the north-eastern corner of allotment 8, same section; on the south-east by the north-western boundary of that allotment, being a line bearing south 66 degrees 30 minutes west 2 chains 50 links to the north-eastern side of Arthur-street first-mentioned; and thence by part of that side of that street, being a line bearing north 23 degrees 30 minutes west 1 chain, to the point of commencement, shown on plan catalogued A. 4-2,032 Roll.

NOTE.—The above is in lieu of the notice in the Government Gazette of 10th July, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF SCHOOL OF ARTS SITE AT SAVERNAKE AND DEDICATION FOR MECHANICS' INSTITUTE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the School of Arts site at Savernake, area 2 roods, viz., allotment 10 of section 19, dedicated 24th June, 1890, and hereunder described (the land having been alienated prior to dedication), with a view to the dedication in lieu thereof of allotment 2 of section 22, area 2 roods, also hereunder described, for site for Mechanics' Institute.

[Ms. 91-2,427 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Site for School of Arts proposed to be resumed.

County of Denison, parish of Savernake: Commencing at the intersection of the south-eastern side of Hay-street with the north-eastern side of Corowa-street, town of Savernake; and bounded thence on the south-west by a line bearing south 50 degrees 6 minutes east 2 chains to the western corner of allotment 9 of 2 roods, section 19; bounded thence on the south-east by the north-western boundary of that allotment, being a line bearing north 39 degrees 54 minutes east 2 chains 50 links to the south-western side of a lane 31 links wide; thence on the north-east by part of that side of that lane, being a line bearing north 50 degrees 6 minutes west 2 chains, to the south-eastern side of Hay-street first-mentioned; and thence on the north-west by part of that side of that street bearing south 39 degrees 54 minutes west 2 chains 50 links, to the point of commencement,—being allotment 10 of section 19, and containing an area of 2 roods,—shown on plan catalogued Savernake 1.

Site for Mechanics' Institute proposed to be dedicated.

County of Denison, parish of Savernake: Commencing at the most eastern corner of allotment 1 of section 22, sold to Thomas Joseph and Edmund Daniel O'Dwyer; and bounded thence by the south-eastern boundary of that allotment, being a line bearing south 39 degrees 54 minutes west 2 chains 50 links, to a lane 31 links wide; thence by part of the north-eastern side of that lane bearing south 50 degrees 6 minutes east 2 chains to the most western corner of allotment 3 of section 22; thence by the north-western boundary of that allotment bearing north 39 degrees 54 minutes east 2 chains 50 links to the south-western side of Corowa-street; and by that side of that street bearing north 50 degrees 6 minutes west 2 chains, to the point of commencement,—being allotment 2 of section 22, containing an area of 2 roods, shown on plan catalogued Savernake 1.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th May, 1891.

Department of Lands,
Sydney, 31st July, 1891.

PROPOSED RESUMPTION OF PART OF COOTAMUNDRA WATER RESERVE.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of that part of the water reserve at Cootamundra, dedicated 12th March, 1869, within the boundaries of allotment No. 2 of section 32, area 3 roods 4 perches, hereunder described, with a view to the reservation of that area for market site.

[Ms. 90-16,783] JAMES N. BRUNKER.

DESCRIPTION.

EASTERN DIVISION.

LAND DISTRICT OF COOTAMUNDRA.

County of Harden, parish of Cootamundra, containing an area of 3 roods 9 perches. The Crown Lands within the following boundaries: Commencing at a point bearing south 30 degrees 30 minutes west 2 chains from the most eastern corner of section 32, town of Cootamundra; and bounded thence on the south-east by part of the north-western side of Parker-street bearing south 30 degrees 30 minutes west 2 chains 55 links; thence by a line bearing north 81 degrees 56 minutes west 2 chains 71 links; thence by a line bearing north 30 degrees 30 minutes east 3 chains 59 links; and thence by a line bearing south 59 degrees 30 minutes east 2 chains 50 links, to the point of commencement.

NOTE.—The above is in lieu of the notice in the Government Gazette of 15th December, 1890.

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

[6d.]

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACT 48 VIC. NO. 18.)

Presented to Parliament, pursuant to Act 38 Vic. No. 18, sec. 105.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF HOSPITAL SITE AT WALCHA AND DEDICATION FOR THE SAME PURPOSE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the land at Walcha, area 10 acres, viz., section 48, dedicated 2nd December, 1887, for hospital site, and hereunder described, with a view to sale thereof by auction, and to the dedication in lieu of allotment 1 of section 17, town of Walcha, area 5 acres 3 roods 39 perches, for site for hospital.

[Ms. 91-6,457 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

Area proposed to be resumed.

County of Vernon, parish of Walcha, area 10 acres, being measured section 48 in the town of Walcha. The Crown Lands within the following boundaries: Commencing at the intersection of the western side of Lagoon-street and the northern side of Jamieson-street; bounded on the south by the northern side of the last-mentioned street bearing west 10 chains; on the west by the eastern side of Middle-street bearing north 10 chains; on the north by the southern side of Plumb-tree-street bearing east 10 chains; and on the east by the western side of Lagoon-street aforesaid bearing south 10 chains, to the point of commencement,—as shown on plan catalogued W. 44-1,493.

Area proposed to be dedicated.

County of Vernon, parish of Walcha, town of Walcha, being allotment 1 of section 17, town of Walcha, area 5 acres 3 roods 39 perches: Commencing at the intersection of the east side of South-street with the south side of Croudace-street; and bounded thence by that side of the latter street bearing east 7 chains 92$\frac{4}{10}$ links to the north-west corner of allotment 7 of section 17 aforesaid; thence by the west boundaries of allotments 7 and 6 of said section bearing south 18 minutes west 7 chains 63$\frac{1}{10}$ links to the north side of Legg-street; thence by that side of that street bearing north 89 degrees 18 minutes west 7 chains 88$\frac{6}{10}$ links to the aforesaid east side of South-street; and thence by that side of that street bearing north 7 chains 53½ links, to the point of commencement,—as shown on plan catalogued W. 46-1,493.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION AND REDEDICATION OF ROMAN CATHOLIC CHURCH AND PRESBYTERY SITES AT CANONBA.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to resume and rededicate the Roman Catholic Church and presbytery sites at Canonba, area 1 acre and 32 perches, viz., allotments 1 and 2 of section 18a, dedicated 3rd May, 1878, and hereunder described, an amended survey of the land in question having been effected.

[Ms. 91-6,459 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County Gregory, parish of Canonba, town of Canonba, area 1 acre 0 roods 32 perches: Commencing on the right bank of Duck Creek, at a point where the north-western side of Mole-street meets that creek; and bounded thence on the south-east by part of that side of that street, being a line bearing north 43 degrees east 2 chains 50 links; on the north-east by Young-street bearing west 43 degrees north 6 chains; on the north-west by a line bearing south 43 degrees west and distant 1 chain to the right bank of Duck Creek first mentioned; and thence by that side of that creek upwards, to the point of commencement,—to include allotments 1 and 2 of section 18a, as shown on plan catalogued C. 613-1,984.

Area proposed to be dedicated.

County of Gregory, parish of Canonba North, town of Canonba, area 1 acre 0 roods 32 perches: Commencing at the intersection of the north-western side of Brown-street with the south-western side of Young-street: and bounded thence on the north-east by part of that side of Young-street, being a line bearing north 47 degrees west 589¼ links; on the north-west by a line bearing south 43 degrees west 162 links; on the south-west by lines bearing south 37 degrees 22 minutes and 47 degrees east, and distant 370½ links and 224 links respectively, to the north-west side of Brown-street first-mentioned; and thence on the south-east by part of that side of that street, being a line bearing north 43 degrees east and distant 224 links, to the point of commencement,—to enclose allotments 1 and 2 of section 18a,—as shown on plan catalogued C. 6-1,943

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF CHURCH OF ENGLAND SCHOOL SITE AT DENILIQUIN SOUTH.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication (with a view to sale by auction) of the Church of England School site at Deniliquin South, area 2 roods, viz., allotment 1 of section 7, dedicated 16th July, 1863, and hereunder described, the purpose of dedication having failed.

[Ms. 91-6,456 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County of Townsend, parish of South Deniliquin, town of South Deniliquin, allotment 1 of section 7, area 2 roods: Commencing at the intersection of the south-western side of George-street with the north-western side of Butler-street; and bounded thence on the north-east by part of that side of George-street being a line bearing north 45 degrees west and distant 2 chains 50 links to the north-eastern corner of allotment 2 adjoining; on the north-west by the south-eastern side of that allotment being a line bearing south 45 degrees west 2 chains to the north-western corner of allotment 5; on the south-west by the north-eastern boundary of that allotment being a line bearing south 45 degrees east 2 chains 50 links to the north-western side of Butler-street above-mentioned; and thence on the south-east by part of that side of that street being a line bearing north 45 degrees east 2 chains, to the point of commencement,—shown on plan catalogued D. 48-1,458.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF SHOW GROUND AT WALCHA.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 it is proposed to revoke the dedication of the land at Walcha, area 9 acres 2 roods 30 perches, viz., section 39, dedicated 30th November, 1877, for the use of the Southern New England Pastoral and Agricultural Association, and hereunder described, with a view to reservation of that area for Show Ground, for the use of the Walcha Pastoral and Agricultural Association.

[Ms. 91-6,575 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County Vernon, parish of Walcha, town of Walcha, section 29, area 9 acres 2 roods 30 perches: Commencing on the southern side of Jamieson-street, at its intersection with the western side of Pakington-street; and bounded thence on the north by Jamieson-street bearing west 10 chains; on the west by Derby-street bearing south 10 chains; on the south by North-street bearing east 10 chains; and on the east by Pakington-street bearing north 10 chains, to the point of commencement,—exclusive of a lane 30 links wide passing through this land in an easterly direction, the area of which has been deducted from the total area,—plan W. 34-1,493 Roll.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF TOWN HALL SITE AT WEST BALLINA.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the land at West Ballina, area 2 roods, viz., allotment 1 of section 22, dedicated 15th January, 1886, for Town Hall site, and hereunder described, with a view to the reservation of that area for public buildings, another site having been set apart for Town Hall in the locality in question.

[Ms. 91-6,915 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

County of Rous, parish of Ballina, town of West Ballina, allotment 1 of section 22, area 2 roods: Commencing at the western corner of the section; and bounded thence on the south-west by Swift-street bearing south 74 degrees east 2 chains; on the south-east by the north-western boundary of allotment 2 bearing north 16 degrees east 2 chains 50 links to a lane; on the north-east by that lane bearing north 74 degrees west 2 chains to Norton-street; and on the north-west by that street bearing south 16 degrees west 2 chains 50 links, to the point of commencement. Plan B. 6-1,612.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT GUNDURIMBA SOUTH AND DEDICATION AT GUNDURIMBA FOR THE SAME PURPOSE IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the General Cemetery at Gundurimba South, area 8 acres 2 roods 4 perches, dedicated 24th October, 1882, and hereunder described, with a view to the reservation of that area for public recreation and to the dedication of 14 acres at Gundurimba, also hereunder described for General Cemetery in lieu.

[Ms. 91-6,573 Dep.] JAMES N. BRUNKER.

DESCRIPTION.

Area proposed to be resumed.

County of Rous, parish of South Gundurimba, town of South Gundurimba, area 8 acres 2 roods 4 perches: Commencing on the south-western side of South-street, town of South Gundurimba, at a point bearing south 24 degrees west and distant 1 chain 50 links from the western corner of allotment 1 of section 2; and bounded thence on the north-east by part of that side of that street, being a line bearing south 66 degrees east and distant 9 chains 81 links to the north-western side of a road 1 chain 50 links wide dividing it from suburban portions 1 and 2; on the south-east by part of that side of that road being a line bearing south 20 degrees west and distant 8 chains 54 links to the north-east corner of an area of 5 acres 3 roods 27 perches, appropriated for police purposes; on the south-west by the north-eastern boundary of that appropriation being a line bearing north 66 degrees west and distant 10 chains 40 links to the south-eastern side of Johnson-street; and thence on the north-west by part of that side of that street being a line bearing north 24 degrees east and distant 8 chains 52 links, to the point of commencement,—as shown on plan catalogued C. 932-1,984.

Area proposed to be dedicated.

County of Rous, parish of South Gundurimba, area 14 acres. Commencing at a point bearing north 25 degrees east, and distant 4 chains 65 links from the most southerly south-east corner of reserve for plantation and extension; thence north 65 degrees west 13 chains 56 links; thence north 9 chains 92·7 links; thence south 65 degrees east 17 chains 75·4 links; thence south 25 degrees west 9 chains, to the point of commencement,—being the area shown as a cemetery on plan catalogued Ms. 195 Gfn.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION OF PART OF COMMON AND RECREATION RESERVE AT BATHURST.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of that part of the land at Bathurst, dedicated 10th January, 1865, for Permanent Commonage and Public Recreation, within the boundaries of measured portion 160 of 17 acres 2 roods 10 perches, parish of Bathurst, county of Bathurst, as shown on plan catalogued B. 3,347-2,009, with a view to the reservation of that area for Gaol reservoir.

[Ms. 91-6,458 Dep.] JAMES N. BRUNKER.

Department of Lands,
Sydney, 21st August, 1891.

PROPOSED RESUMPTION AND REDEDICATION OF MECHANICS' INSTITUTE SITE AT NYNGAN.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to resume and rededicate the Mechanics' Institute site at Nyngan, area 1 rood, viz., allotment 3 of section 31,—erroneously dedicated as 2 roods, and shown on plan catalogued Nyngan 8-2,282.

[Ms. 91-6,574 Dep.] JAMES N. BRUNKER.

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

[3d.]

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACTS 48 VIC. No. 18, AND 53 VIC. No. 21.)

Presented to Parliament, under Acts 48 Vic. No. 18, and 53 Vic. No. 21.

Department of Lands,
Sydney, 18th September, 1891.

PROPOSED RESUMPTION OF SCHOOL OF ARTS SITE AT WELLINGTON AND DEDICATION OF SITE FOR FREE PUBLIC LIBRARY IN LIEU.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Wellington, area 11 perches, viz., allotment 21 of section 77, dedicated 22nd March, 1878, for site for School of Arts, and hereunder described, with a view to sale thereof by auction or other appropriations under the Crown Lands Acts, and to the dedication in lieu of allotment 13 of section 2, town of Wellington, also hereunder described, for site for Free Public Library.

[Ms. 91-7,556 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

School of Arts site proposed to be resumed.

County of Wellington, parish of Wellington, town of Wellington, area 11 perches: Commencing on the southern side of Warne-street, at the north-western corner of allotment 14 of section 77; and bounded thence on the north by that street bearing west 1 chain; on the south-west by a line bearing south 31 degrees east 1 chain and 16½ links; on the south by part of the northern boundary of allotment 16 bearing east 40 links; and on the east by the end of a lane 30 links wide and the western boundary of allotment 14 aforesaid, in all bearing north 1 chain, to the point of commencement, to include allotment 21 of section 77,—as shown on plan catalogued W. 44-1,281.

Free Public Library site proposed to be dedicated.

County of Wellington, parish of Wellington, town of Wellington, area 2 roods 9 perches: Commencing at a point on the western side of Lee-street, being the south-eastern corner of allotment 14 of section 2, containing 1 rood 22 perches; and bounded thence on the north by the south boundary of that allotment, being a line bearing north 89 degrees 40 minutes west and distant 3 chains 69 links to the eastern side of a lane 31 links wide; on the west by part of that side of that lane, being a line bearing south 18 minutes west, and distant 1 chain 50·3 links to the north side of Gisborne-street; on the south by part of that side of that street, being a line bearing south 89 degrees 37 minutes east 3 chains 69 links to the western side of Lee-street first mentioned; and thence on the east by part of that side of that street, being a line bearing north 18 minutes east and distant 1 chain 51 links, to the point of commencement, to include allotment 13 of section 2, and shown on plan catalogued W. 57-1,281.

Department of Lands,
Sydney, 18th September, 1891.

PROPOSED RESUMPTION OF CATTLE SALE-YARDS AT TAMWORTH, AND REDEDICATION OF PART THEREOF FOR THE SAME PURPOSE.

IT is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Tamworth, area 4 acres 3 roods 37 perches, dedicated 29th April, 1884, for cattle sale-yards, and hereunder described, with a view to the reservation of 1 rood 32 perches thereof for public pound, and to the rededication of the remainder, 4 acres 2 roods 5 perches, for cattle sale-yards.

[Ms. 91-7,558 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

Area proposed to be resumed.

County of Inglis, parish of Tamworth, town of Tamworth, 4 acres 3 roods 37 perches: Commencing on the north-eastern side of a road 1 chain 50 links wide, at the south-eastern corner of James Dwyer's portion 49 of 2 acres 1 rood 9 perches; and bounded thence on the south-west by that road dividing it from part of James Dwyer's portion 50 of 6 acres 3 roods 10 perches bearing south 53 degrees east 2 chains 97 links to Marius-street; on the south by that street bearing east 4 chains 13 links; on the east by a road 1 chain wide dividing it from James Dwyer's portion 47 of 3 acres 32 perches bearing north 8 chains; on the north by a road 1 chain wide dividing it from W. H. Russ' portion 39 of 6 acres 3 roods 5 perches bearing west 6 chains 50 links; and on the west by the eastern boundary of portion 49 aforesaid bearing south 6 chains 20 links, to the point of commencement,—plan catalogued I. 148-1,690.

Area proposed to be dedicated.

County of Inglis, parish of Tamworth, area 4 acres 2 roods 5 perches: Commencing on the north-eastern side of a road 1 chain 50 links wide, at the south-eastern corner of James Dwyer's portion 49 of 2 acres 1 rood 9 perches; and bounded thence on the south-west by part of that side of that road, being a line bearing south 53 degrees east and distant 2 chains 97 links to the north side of Marius-street; on part of the south by part of that side of that street, being a line bearing east 4 chains 13 links to the west side of a road 1 chain wide dividing it from James Dwyer's portion 47 of 3 acres 32 perches; on the east by part of that side of that road, being a line bearing north 8 chains to the south side of another road 1 chain wide; on part of the north by part of that side of that road, being a line bearing west 4 chains 50 links to the north-eastern corner of portion 119, site for public pound, and containing an area of 1 rood 32 perches; thence on part of the west by the eastern boundary of that site, being a line bearing south 2 chains 25 links; thence on the remainder of the north by the southern boundary of that pound site, being a line bearing west 2 chains to the eastern boundary of portion 49 first mentioned; and thence on the remainder of the west by part of that boundary, being a line bearing south and distant 3 chains 95 links, to the point of commencement, being portion 48,—as shown on plan catalogued I. 148-1,690.

Department of Lands,
Sydney, 18th September, 1891.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT KINGSGATE (RED RANGE), AND DEDICATION FOR THE SAME PURPOSE IN LIEU.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the General Cemetery at Kingsgate (Red Range), area 13 acres, dedicated 8th June, 1888, and hereunder described, with a view to that area being reserved for village purposes, and to the dedication in lieu of 12 acres 1 rood 28 perches in the same locality, also hereunder described, for General Cemetery.

[Ms. 91-7,557 Dep.] JAMES N. BRUNKER.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Gough, parish of Rusden, 13 acres: Commencing at a point bearing west 3 chains from the intersection of the northern side of High-street with the western boundary of the suburban lands of the village of Kingsgate, proclaimed 20th March, 1885; and bounded thence on the east by a line bearing north 11 chains; on the north by a line bearing west 13 chains; on the west by a line bearing south 11 chains; and on the south by a line bearing east 13 chains, to the point of commencement,—but exclusive of a road 1 chain wide,—shown on plan catalogued Ms. 4 A.E.

General Cemetery proposed to be dedicated

County of Gough, parish of Rusden, containing an area of 12 acres 1 rood 28 perches: Commencing at a point bearing north 45 degrees west and distant 2 chains $82\frac{8}{10}$ links from the south-east corner of reserve for plantation; and bounded thence by a line bearing west 13 chains; thence by a line bearing north 9 chains $1\frac{1}{2}$ link; thence by lines bearing north 79 degrees 0·6 minutes east 9 chains $51\frac{3}{10}$ links and north 69 degrees 26 minutes east 3 chains $90\frac{7}{10}$ links; and thence by a line bearing south 12 chains $18\frac{1}{2}$ links, to the point of commencement,—but exclusive of a road 1 chain wide.

Sydney: Charles Potter, Government Printer.—1891.

[3*d*.]

1891.
(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACTS 48 VIC. No. 18, AND 53 VIC. No. 21.)

Presented to Parliament, under Acts 48 Vic. No. 18 and 53 Vic. No. 21.

Department of Lands,
Sydney, 17th November, 1891.

PROPOSED RESUMPTION OF NATIONAL SCHOOL SITE AT BOGABRI.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the National School site at Bogabri, area 2 acres, viz., allotments 4, 5, 6, and 7, of section 17, dedicated 10th January, 1865, and hereunder described, with a view to the reservation of the area in question for public buildings.

[Ms. 91-8,654 Dep.] HENRY COPELAND.

DESCRIPTION.

County of Pottinger, parish of Bogabri, town of Bogabri allotments 4, 5, 6, and 7 of section 17, area 2 acres: Commencing at the south-western corner of the section; and bounded thence on the west by Laidlaw-street northerly 4 chains; on the north by a line forming partly the southern boundaries of allotments 8 and 3 easterly at right angles to Laidlaw-street 5 chains and 30 links to Lynn-street; on the east by that street southerly 4 chains to Brent-street; and on the south by that street westerly 5 chains and 30 links, to the point of commencement,—exclusively of the lane 30 links wide, which divides allotments 4 and 5 from allotments 6 and 7, passing through this land in a northerly direction, the area of which has been deducted from the total area,—plan N. 104-1,367.

Department of Lands,
Sydney, 17th November, 1891.

PROPOSED RESUMPTION OF HAY HOSPITAL SITE AND EXTENSION.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedications of the lands at Hay, areas 7 acres and 6 acres 0 roods 36 perches, dedicated 18th March, 1873, and 10th January, 1888, respectively, for hospital site and extension thereto, both hereunder described, with a view to sale by auction or other appropriations under the Crown Lands Acts, and to the reservation in lieu of an area of 10 acres 3 roods 4 perches, in the same locality, for hospital site.

[Ms. 91-8,252 Dep.] HENRY COPELAND.

DESCRIPTIONS.

County of Waradgery, parish of Hay, at Hay, on the Murrumbidgee River: Commencing on the western side of Hatty-street, at a point bearing south 73 degrees 8 minutes west 36 chains 25 links from the north-eastern corner of portion 26 of 3 acres, reserve for Court-house; and bounded thence on the east by that street bearing southerly 5 chains and 2½ links; on the south by a line bearing westerly 14 chains and 40 links to the Murrumbidgee River; on the west by that river downwards to a point bearing west 20 minutes north and distant 12 chains 55 links from the point of commencement; and on the north by a line bearing east 20 minutes south 12 chains 55 links to the point,—as shown on plan catalogued H. 18-1,694.

County of Waradgery, parish of Hay, town of Hay, area 6 acres 0 roods 36 perches: Commencing on the west side of Hatty-street, at the north-east corner of Hay Hospital site, shown on plan catalogued H. 18-1,694; and bounded thence on the east by part of the west boundary of Hatty-street bearing north 5 minutes 20 seconds west 4 chains 72·8 links to the point of intersection with the south boundary of Orson-street; thence on the north by part of the south boundary of Orson-street bearing south 89 degrees 57 minutes 40 seconds west about 11 chains 85 links to the right bank of the River Murrumbidgee; thence by the right bank of that river upwards to the north-west corner of the Hay Hospital site aforesaid; thence on the south by the north boundary of the aforesaid hospital site bearing north 89 degrees 54 minutes and 40 seconds east about 14 chains 33 links, to the point of commencement,—as shown on plan catalogued H. 27-1,694.

Department of Lands,
Sydney, 17th November, 1891.

PROPOSED RESUMPTION OF ROMAN CATHOLIC PRESBYTERY AND SCHOOL SITES AT BOWENFELS AND REDEDICATION FOR ROMAN CATHOLIC CEMETERY.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the Roman Catholic presbytery and school sites at Bowenfels, area 1 acre, viz., allotments 5 and 6 of section 3, hereunder described, with a view to the rededication of that area for Roman Catholic Cemetery.

[Ms. 91-8,465 Dep.] HENRY COPELAND.

DESCRIPTION.

County of Cook, parish of Lett, village of Bowenfels, allotments 5 and 6 of section 3, area 1 acre: Commencing at the north-western corner of allotment 7 of section 3, dedicated for Roman Catholic Church purposes; and bounded thence on the east by the west boundary of that allotment bearing south 5 chains to the nothern side of Bathurst-place; on the south by part of that side of Bathurst-place bearing west 2 chains; on the west by a line bearing north 5 chains; and on the north by the south boundary of John M'Lennan's allotment 13 bearing east 2 chains, to the point of commencement,—shown on plans catalogued B. 7-1,194 and C. 589-730.

Department of Lands,
Sydney, 17th November, 1891.

PROPOSED RESUMPTION OF RECREATION RESERVE AT BALRANALD AND REDEDICATION FOR RACECOURSE.

IT is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Balranald, area 300 acres, viz., portion 120, in the parish of Balranald, county of Caira, dedicated 1st June, 1880, for public recreation, and hereunder described, with a view to the rededication of the area in question for racecourse.

[Ms. 91-8,653 Dep.] HENRY COPELAND.

DESCRIPTION.

County of Caira, parish of Balranald, containing an area of 300 acres. The Crown Lands within the following boundaries: Commencing at a point bearing south 50 minutes east, and distant 2 chains from the south-western corner of portion 67 of 160 acres; and bounded thence on the north by a road 2 chains wide bearing north 89 degrees 10 minutes east 60 chains; on the east by a line bearing south 50 minutes east 50 chains; on the south by a line bearing south 89 degrees 10 minutes west 60 chains; and on the west by a line bearing north 50 minutes west 50 chains, to the point of commencement,—includes portion 120, as shown on plan catalogued C. 342-1,831.

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACTS 48 VIC. No. 18 AND 53 VIC. No. 21.)

Presented to Parliament, pursuant to Acts 48 Vic. No. 18 and 53 Vic. No. 21.

Department of Lands,
Sydney, 8th January, 1892.

PROPOSED RESUMPTION OF GENERAL CEMETERY AT TAMBAR SPRINGS, AND DEDICATION FOR THE SAME PURPOSE IN LIEU.

It is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the General Cemetery at Tambar Springs, area 7 acres 3 roods 34 perches, dedicated 18th January, 1884, and hereunder described, with a view to its being made available for conditional purchase, and to the dedication in lieu of 11 acres in the same locality, also hereunder described, for General Cemetery.

[Ms. 92-46 Ind.] HENRY COPELAND.

DESCRIPTIONS.

General Cemetery proposed to be resumed.

County of Pottinger, parish of Tamba, at Tambar Springs, area 7 acres 3 roods 34 perches: Commencing on the northern side of the road 3 chains wide from Tambar Springs to Quirindi and Murrurundi, at a point bearing about north 64 degrees 47 minutes west and distant 59 chains 72 links from the north eastern corner of portion 58 of 560 acres; and bounded thence by part of the road aforesaid bearing west 9 chains 96 links; thence by a line bearing north 8 chains; thence by a line bearing east 9 chains 96 links; and thence by a line bearing south 8 chains, to the point of commencement,—plan catalogued C. 968-1,984.

General Cemetery proposed to be dedicated.

County of Pottinger, parish of Tamba, area 11 acres: Commencing at a point 1 chain 50 links south from the south-east corner of portion 72 of 100 acres; and bounded thence by a line bearing west 12 chains 60 links; thence by a line bearing south 6 chains 12 links; thence by a line bearing east 18 chains; thence by a line bearing north 6 chains 12 links; and thence by a line bearing west 5 chains 40 links, to the point of commencement,—plan catalogued Tambar Springs 2.

Department of Lands,
Sydney, 8th January, 1892.

PROPOSED RESUMPTION OF PUBLC SCHOOL SITE AT MILONG.

It is hereby notified, for public information, that, in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the Public School site at Milong, area 2 acres, viz, portion 159, in the parish of Milong, county of Bland, dedicated 22nd January, 1886, and hereunder described, with a view to sale thereof by auction.

[Ms. 92-45 Ind.] HENRY COPELAND.

DESCRIPTION.

County of Bland, parish of Milong, area 2 acres, portion 159: Commencing on the southern side of a road 1 chain wide, at a point distant 1 chain southerly from the south-eastern corner of portion 83 of 275 acres 1 rood; and bounded thence on the north by that road dividing it from part of that portion bearing westerly 4 chains; on the west by a line and an eastern boundary of portion 160 of 38 acres, in all bearing southerly 5 chains; on the south by a northern boundary of that portion bearing easterly 4 chains; and on the east by a road 1 chain and 50 links wide dividing it from part of portion 144 of 640 acres bearing northerly 5 chains, to the point of commencement,—plan catalogued P. 1,462-1,978.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACTS 48 VIC. No. 18 AND 53 VIC. No. 21.)

Presented to Parliament, under Acts 48 Vic. No. 18 sec. 105, and 53 Vic. No. 21 sec. 41.

Department of Lands,
Sydney, 5th February, 1892.

PROPOSED RESUMPTION OF RECREATION RESERVE AT ATTUNGA, AND REDEDICATION OF PART THEREOF FOR SITE FOR MECHANICS' INSTITUTE.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the land at Attunga, area 3 acres, viz., portion 200, in the parish of Burdekin, county of Inglis, dedicated 7th January, 1879, for public recreation, and hereunder described, with a view to the rededication of 2 roods thereof for site for mechanics' institute, and to the sale or appropriation of the remainder under the Crown Lands Acts

[Ms. 92-371 Ind.] HENRY COPELAND.

DESCRIPTIONS.

Recreation reserve proposed to be resumed.

County of Inglis, parish of Burdekin, portion 200, area 3 acres: Commencing on the south-western side of a road 1 chain 50 links wide, at the north-eastern corner of portion 201 of 2 acres, site for Public School; and bounded thence on the north-east by that road bearing north 41 degrees 10 minutes west 5 chains 31 links; on the north by a line bearing west 5 chains 77 links; on the west by a line bearing south 4 chains; and on the south by a line and the northern boundary of portion 201 aforesaid, in all bearing east 9 chains 27 links, to the point of commencement. Plan I. 616–1,690.

Site for Mechanics' Institute proposed to be dedicated.

County of Inglis, parish of Burdekin, containing an area of 2 roods. The Crown Lands within the boundaries of measured portion 233 of 2 roods,—as shown on plan catalogued I. 1,235–1,690.

Department of Lands,
Sydney, 5th February, 1892.

PROPOSED RESUMPTION OF MARKET SITE AT DUBBO AND REDEDICATION THEREOF FOR PUBLIC RECREATION.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884 and the 41st section of the Crown Lands Act of 1889, it is proposed to revoke the dedication of the land at Dubbo, area 3 acres, dedicated 17th March, 1876, for market site, and hereunder described, with a view to the rededication of that area for public recreation.

[Ms. 92-370 Ind.] HENRY COPELAND.

DESCRIPTION.

County of Lincoln, parish of Dubbo, town of Dubbo, part of section 13, area 3 acres: Commencing at a point on the eastern side of Brisbane-street, being the north-west corner of allotment 1 of section 13; and bounded thence on south by the north boundary of that allotment and of allotment 6, section 13, bearing east 5 chains to the north-east corner of last-mentioned allotment; thence by part of the western boundary of allotment 4 and part of the western boundary of allotment 5 bearing north 6 chains to the south-east corner of allotment 3, same section; thence by the south boundary of that allotment and allotment 2 bearing west 5 chains to the eastern side of Brisbane-street aforesaid; and thence by that side of that street south, to the point of commencement,—as shown on plan catalogued D. 20–1,349.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(PROPOSED DEDICATION OF CERTAIN LANDS UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 105.

Department of Lands,
Sydney, 23rd February, 1892.

PROPOSED RESUMPTION OF RESERVE FOR CAMPING, PUBLIC BUILDINGS, AND OTHER PUBLIC PURPOSES, AT RIVERSTONE, AND REDEDICATION OF PART THEREOF FOR GENERAL CEMETERY.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedication of the land at Riverstone, area 25¾ acres, dedicated 22nd January, 1886, for camping, public buildings, and other public purposes, and hereunder described, with a view to the the rededication of 14 acres and 29 perches thereof for general cemetery, and to the reservation of the remainder, 11 acres 2 roods 11 perches, for access.

[Ms. 92-563 Ind.] HENRY COPELAND.

Descriptions.

Area proposed to be resumed.

All that piece or parcel of land situated in the parish of Saint Matthew, county of Cumberland, containing by admeasurement 25 acres 3 roods: Commencing on the left bank of Eastern Creek at the southernmost corner of S. Marsden's 140 acres grant; and bounded thence by the south-east boundary of that grant bearing south 70 degrees west 28 chains 26½ links to the north-east corner of G. M. Pitt's 53 acres grant; thence by the north-east boundary of that grant bearing south 19 degrees 27 minutes east 10 chains 55½ links to the north-west corner of J. Elder's 80 acres grant; thence by the north-west boundary of that grant bearing north 68 degrees 24 minutes east 27 chains 72¾ links to the aforesaid left bank of Eastern Creek; and thence by that bank of that creek downwards, to the point of commencement; but exclusive of the surveyed road 1 chain wide leading from the Blacktown Road to Riverstone, and a reserved road 1 chain wide leading from the aforesaid road to the north boundary of this land, the areas of which roads have been deducted from the total area,—shown on plan catalogued C. 64–2,063.

General Cemetery proposed to be dedicated.

County of Cumberland, parish of St. Matthew, area 14 acres 0 roods 29 perches: Commencing on the north-eastern boundary of G. M. Pitt's 53 acres, at the most western corner of James Elder's 80 acres; and bounded thence by the said north-eastern boundary bearing north 19 degrees 27 minutes west 10 chains 55 links to the south-western extremity of the south-eastern boundary of Samuel Marsden's 140 acres; thence by part of that boundary bearing north 70 degrees east 13 chains 79 links; thence by a line bearing south 20 degrees east 8 chains 80 links to the north-western side of the road from Blacktown Road to Riverstone; thence by the said road bearing south 34 degrees 1 minute west 2 chains 42 links to the north-western boundary of James Elder's 80 acres before mentioned; and thence by that boundary bearing south 68 degrees 24 minutes west 11 chains 94 links, to the point of commencement,—as shown on plan catalogued Ms. 509 Sy.

Department of Lands,
Sydney, 23rd February, 1892.

PROPOSED RESUMPTION OF PERMANENT COMMON AND GENERAL CEMETERY AT LIVERPOOL.

It is hereby notified, for public information, that in accordance with the provisions of the 105th section of the Crown Lands Act of 1884, it is proposed to revoke the dedications of the permanent common at Liverpool, area 296 acres 3 roods 5 perches, dedicated 30th May, 1884, and the general cemetery at that place, area 19 acres and 35 perches, dedicated 12th February, 1889, both hereunder described, with a view to the rededication of parts thereof for public recreation and for show ground, and to the sale or other appropriation under the Crown Lands Acts of the remainder.

[Ms. 92-564 Ind.] HENRY COPELAND.

Descriptions.

All that piece or parcel of land situate in the county of Cumberland, parish of St. Luke, area 296 acres 3 roods 5 perches: Commencing on the right bank of Cabramatta Creek, at the north-western corner of R. Cartwright's 30 acres; and bounded thence on the south-west by part of the north-eastern boundary of that land bearing south 34 degrees 41 minutes 15 seconds east, magnetic, about 17 chains 50 links to the north-western corner of Maria Rock's 40 acres; thence on the south by the north boundary of that land bearing north 89 degrees 21 minutes east, magnetic, 31 chains 68$\frac{3}{10}$ links to the north-eastern corner of that land; thence on the west by the eastern boundary of that land bearing south 49 minutes 51 seconds east, magnetic, 17 chains 11$\frac{2}{10}$ links to the north boundary of E. Bunker's 500 acres; thence again on the south by part of the north boundary of that land and part of the north boundary of E. Bunker's 400 acres bearing north 89 degrees 9 minutes 15 seconds east, magnetic, 22 chains 75$\frac{4}{10}$ links to the south-west corner of Thomas Chipp's 100 acres; thence on the east by the western boundary of that land bearing north 42 minutes 38 seconds west, magnetic, 25 chains 72½ links to the north-west corner of that land; thence again on the

south by part of the northern boundary of that land bearing north 89 degrees 17 minutes 15 seconds east, magnetic, 1 chain to the western boundary of the town of Liverpool, as aligned by plan catalogued L. 2–2,163; thence again on the east by that boundary of the town as aligned by said plan bearing north 42 minutes 15 seconds west, magnetic, 58 chains 38 links to the south-eastern boundary of John Mernagh's 100 acres; thence on the north-west by part of that boundary of that land bearing south 77 degrees west, magnetic, 4 chains 3½ links to a north-eastern corner of Joshua Holt's 100 acres, and by the south-eastern boundary of that land bearing south 24 degrees west 31 chains 49$\frac{9}{10}$ links to the south-eastern corner of that land; thence on the north-east by part of the south-western boundary of that land bearing north 66 degrees west, magnetic, 35 chains 29$\frac{2}{10}$ links to the north-eastern corner of Mary Greave's 30 acres; thence on the west by the eastern boundary of that land bearing south 48 minutes east, magnetic, 20 chains 5$\frac{1}{10}$ links to a south-eastern corner of that land; thence again on north-east by a south-western boundary of that land bearing north 59 degrees 20 minutes 45 seconds west, magnetic, 19 chains; thence again on the north-west by the south-eastern boundary of that land bearing south 37 degrees west, magnetic, about 5 chains 80 links to the aforesaid right bank of Cabramatta Creek; and thence again on the south-west generally by that bank of that creek upwards in a south-easterly direction, to the point of commencement; but exclusive of the Roads and Cemetery sites included within the above-described boundaries, the areas of which have been deducted therefrom,—as shown on plan catalogued C. 41–2,063.

The above was dedicated for permanent common, 30th May, 1834.

County of Cumberland, parish of St. Luke, town of Liverpool, area 19 acres 0 roods 35 perches: Commencing at a point bearing west 1 chain from the intersection of the north side of Scott-street with the east boundary of the Town Common for Liverpool; and bounded thence on part of the east by a line bearing north 40 minutes west 7 chains; thence on the north by a line bearing west 14 chains 7 links; thence on the west by a line bearing south 13 chains 60 links; thence on the south by a line bearing east 14 chains 23 links; thence on the remainder of the east by a line bearing north 40 minutes west 6 chains 60 links, to the point of commencement,—as shown on plan C. 894–1,984.

The above was dedicated for general cemetery 12th February, 1889.

Sydney: Charles Potter, Government Printer.—1892.

[3*d*.]

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES IN ACCORDANCE WITH THE 101ST, 109TH, AND 112TH, SECTIONS OF THE ACT 48 VICTORIA No. 18).

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-2851 Dep.	13810	109	Selwyn	Glenken	350 0 0	23 May, 1891	3937
2528 ,,	12718	,,	Gordon	Bolderogery, &c	375 0 0	,, ,,	,,
3553 ,,	13823	,,	Evelyn	Wirratcha	640 0 0	,, ,,	,,
,,	13822	,,	do	do	639 2 0	,, ,,	,,
2904 Dep.	13813	101	Bourke	Kindra	5 2 13	,, ,,	,,
2606 ,,	13836	,,	Yancowinna	Bolaira	320 0 0	,, ,,	,,
90-17625	13756	,,	Durham	Rowan	2 2 14	,, ,,	,,
,,	13754	,,	do	do	150 3 0	,, ,,	3938
91-2525 Dep.	11649	109	Gordon	Naragal	388 0 0	,, ,,	,,
90-16766	13816	,,	Clyde	Carinda	1,940 0 0	,, ,,	,,
,,	13817	,,	Leichhardt	Gidgerygah, &c.	295 0 0	,, ,,	,,
,,	13818	,,	do	Kidgar, &c	2,750 0 0	,, ,,	,,
,,	13819	,,	do	Youendah, &c.	3,550 0 0	,, ,,	,,
,,	13820	,,	do	Kidgar	100 0 0	,, ,,	3939
,,	13821	,,	do	Amos	540 0 0	,, ,,	,,
91-3300 Dep.	13811	,,	Burnett	Balfour	640 0 0	,, ,,	,,
2060	13814	101 & 112	Gough	Inverell	628 0 0	,, ,,	,,
90-17692	13812	112	Bourke	Kildary	330 0 0	,, ,,	,,
91-3372 Dep.	13815	101	Rous	Tyalgum, &c.	670 0 0	,, ,,	,,
1810 ,,	13809	,,	Roxburgh	Melrose	60 3 0	,, ,,	,,
4264 ,,	13924	,,	Baradine	Pilliga	165 0 0	27 ,, ,,	3979
,, ,,	13917	,,	Cook	Blackheath	35 0 0	,, ,,	,,
4381 ,,	13945	,,	Lincoln, &c.	Goonoo, &c.	260 sq. miles.	,, ,,	,,
					a. r. p.		
3509 ,,	13847	109	Fitzgerald	Rankin	3,200 0 0	30 ,, ,,	4046
3831 ,,	13864	101	Macquarie	Macquarie	35 0 0	,, ,,	4047
3732 ,,	13862	,,	King	Olney	8 2 0	,, ,,	,,
3511 ,,	13848	112	Gipps	Wollengough	1,920 0 0	,, ,,	,,
3599 ,,	13859	,,	Kennedy	Minalong	5,265 0 0	,, ,,	,,
2977 ,,	13805	101	Georgiana	Tuena	0 2 0	,, ,,	,,
3577 ,,	13850	,,	Bligh	Warung	16 0 0	,, ,,	,,
3512 ,,	13849	,,	Gipps	Udah	260 0 0	,, ,,	,,
520 ,,	13843	,,	Rous	Bungabbee	380 0 0	,, ,,	4048
3695 ,,	13860	,,	Brisbane	Castle Sempell	64 0 0	,, ,,	,,
3565 ,,	13856	,,	Rous	Boorabee	145 0 0	,, ,,	,,
3567 ,,	13857	,,	do	Warrazambil	60 0 0	,, ,,	,,
3765 ,,	13863	,,	do	Whean Whean	3,700 0 0	,, ,,	,,
2197 ,,	13844	,,	Caira	Balranald	5 2 20	,, ,,	,,
2527 ,,	13808	101 & 109	Gordon	Benya	500 0 0	,, ,,	,,
,, ,,	13842	,,	do	Dilga	230 0 0	,, ,,	,,
3603 ,,	13851	101	Stapylton	Holmes	480 0 0	,, ,,	4049
3814 ,,	13872	,,	Killara	Killara	325 0 0	,, ,,	,,
,, ,,	13871	,,	do	do	5 0 0	,, ,,	,,

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a r p		
Ms 91-3567 Dep	13858	101	Rous	Warrazambil	100 0 0	30 May, 1891	4049
3833 ,,	13865	,,	Northumberland	Branxton	1 0 33	,, ,,	,,
3940 ,,	13905	,,	Gough	Stonehenge	20 0 0	6 June, ,,	4245
3930 ,,	13903	,,	Clive	Taiban	80 0 0	,, ,,	,,
3946 ,,	13909	,,	Gowen	Biralbong	164 0 0	,, ,,	,,
4074 ,,	13910	,,	Bathurst	Neville	3 0 30	,, ,,	,,
4015 ,,	13894	,,	Cook	Nepean	320 0 0	,, ,,	,,
3955 ,,	13879	,,	Rous	East Gundurimba	10 3 20	,, ,,	,,
3281 ,,	13855	,,	Harden	Wallendon	16 3 0	,, ,,	,,
3958 ,,	13886	,,	Raleigh	Bowra	0 1 0	,, ,,	,,
90-18053 ,,	13881	,,	Argyle	Eden Forest	360 0 0	,, ,,	4246
91-3858 ,,	13878	109	Gough	Ross	290 0 0	,, ,,	,,
3962 ,,	13892	,,	Nicholson	Redbank, &c	640 0 0	,, ,,	,,
3964 ,,	13889	,,	Blaxland	Matakana South	220 0 0	,, ,,	,,
,, ,,	13890	,,	do	Mount Hope, &c	320 0 0	,, ,,	,,
3963 ,,	13893	,,	do	Uranaway	610 0 0	,, ,,	,,
3830 ,,	13877	112	Macquarie	Bullengarra, &c	3,600 0 0	,, ,,	,,
3864 ,,	13888	,,	Brisbane	Willis	630 0 0	,, ,,	,,
3801 ,,	13883	101	Wellington	Mudgee	1 2 10½	,, ,,	4247
,, ,,	13884	,,	do	do	0 3 17	,, ,,	,,
3803 ,,	13885	,,	do	do	3 1 22	,, ,,	,,
3521 ,,	13908	109	Burnett	Waraalda	1,480 0 0	,, ,,	,,
3404 ,,	13866	101	Rous	Jiggi	35 0 0	,, ,,	,,
,, ,,	13867	,,	do	do	370 3 0	,, ,,	,,
3801 ,,	13882	,,	Wellington	Mudgee	0 3 31	,, ,,	,,
3955 ,,	13880	,,	Rous	East Gundurimba	11 3 34	,, ,,	4248
3932 ,,	13891	,,	Arrawatta	Wandera	126 0 0	,, ,,	,,
Aln 91-2453	13826	,,	Goulburn	Coppabella	154 0 0	,, ,,	,,
Ms 91-3802 Dep	13887	,,	Wellington	Mudgee	0 2 15½	,, ,,	,,
3979 ,,	13941	109	Dowling &c	Carilla, &c	640 0 0	13 ,, ,,	4423
,, ,,	13940	,,	Blaxland, &c	Uranaway	640 0 0	,, ,,	,,
4104 ,,	13920	112	Caira	Glen Emu, &c	3,200 0 0	,, ,,	,,
3023 ,,	13876	101	Ewenmar	Killendoon	640 0 0	,, ,,	4424
3950 ,,	13930	,,	Raleigh	Never Never	480 0 0	,, ,,	,,
,, ,,	13931	,,	Fitzroy, &c	Fenton, &c	120 0 0	,, ,,	,,
,, ,,	13932	,,	do	Stewart, &c	40 0 0	,, ,,	,,
,, ,,	13933	,,	do	do	250 0 0	,, ,,	,,
,, ,,	13934	,,	do	Bligh, &c	40 0 0	,, ,,	,,
,, ,,	13935	,,	do	do	100 0 0	,, ,,	,,
,, ,,	13936	,,	do	Wonga Wanga, &c	600 0 0	,, ,,	,,
4149 ,,	13922	,,	Cowley	Cuppacumbalong	8 0 0	,, ,,	,,
4215 ,,	13937	,,	Narromine	Turribung	0 0 26	,, ,,	,,
869 Ind.	13938	,,	Kennedy	Houston	0 1 0	,, ,,	,,
4105 Dep	13921	,,	Courallie	Moree	140 0 0	,, ,,	4425
3729 ,,	13939	,,	Dampier	Noorooma	330 0 0	,, ,,	,,
4028 ,,	13918	,,	Wellington	Burrandong	960 0 0	,, ,,	,,
3610 ,,	13898	,,	Wynyard	Batlow	640 0 0	,, ,,	,,
4113 ,,	13942	,,	Argyle	Mangamore	360 0 0	,, ,,	,,
4101 ,,	13919	,,	Auckland	Bimmel	40 0 0	,, ,,	4426
4237 ,,	13915	,,	Harden	Cootamundra	20 3 10	,, ,,	,,
4384 ,,	13948	112	Wakool	Miranda	140 0 0	20 ,, ,,	4595
4005 ,,	14032	101	Wellington	Ironbarks, &c	5,600 0 0	,, ,,	4596
2074 ,,	13914	,,	Murray	Majura	26 2 30	,, ,,	,,
4026 ,,	13943	,,	Sandon	Armidale	0 1 24½	,, ,,	,,
Ms Ls 91 2733	14033	,,	Wellington	Muckerwa	1,400 0 0	,, ,,	4597
4551 Dep	13963	,,	Drake, &c	Tabulam, &c	4,500 0 0	,, ,,	,,
,,	13964	,,	Buller	Antimony	5,400 0 0	,, ,,	,,
,,	13965	,,	Drake	Tabulam, &c	1,700 0 0	,, ,,	,,
,,	13966	,,	Rous	Dyraaba	500 0 0	,, ,,	,,
3606 Dep	13961	,,	Clarendon ..	Ulandra	27 2 0	,, ,,	,,
3176 ,,	13960	,,	Macquarie	Wingham	57 2 23	,, ,,	,,
4255 ,,	13962	,,	Camden	Bumballa	10 0 0	,, ,,	4598
2074 ,,	13913	,,	Murray	Wamboin	10 3 0	,, ,,	,,
4051 ,,	13949	,,	Burnett	Adams	62 2 0	,, ,,	,,
5083 ,,	14059	,,	Denham	Pokataroo	2,300 0 0	24 ,, ,,	4655
4419 ,,	14002	109	Murchison	Delungra	400 0 0	27 ,, ,,	4872
,, ,,	14001	,,	Burnett	Balfour	460 0 0	,, ,,	,,
3959 ,,	13978	,,	Dowling	Carilla	640 0 0	,, ,,	,,
4653 ,,	14021	101	Northumberland	Newcastle	2 2 0	,, ,,	4873
4258 ,,	13979	,,	Macquarie	Mackay	257 1 0	,, ,,	4874
4419 ,,	14000	109	Burnett, &c.	Waraalda, &c	3,200 0 0	,, ,,	,,
4634 ,,	14020	,,	Maranoa	Willis	165 0 0	,, ,,	,,
4388 ,,	13982	101	Northumberland	Kincumber	32 2 12	,, ,,	,,
4540 ,,	13981	,,	St Vincent	Danjera, &c	160 0 0	,, ,,	,,
Ms 91-4547 ,,	13980	,,	Darling	Rangiri	43 2 0	,, ,,	,,
3959 ,,	13977	,,	Dowling	Carilla	72 0 0	,, ,,	,,
3972 ,,	13944	,,	Jamison	Dealwarildi	640 0 0	,, ,,	,,
3834 ,,	13976	,,	Northumberland	Gosford	14 0 0	,, ,,	4875
4570 ,,	14004	112	Buckland	Coeypolly	1,650 0 0	,, ,,	,,
3022 ,,	13958	,,	Bourke	Mandamah	1,624 0 0	,, ,,	,,
,,	13959	,,	do	do	960 0 0	,, ,,	,,
4394 Dep	13983	101	Bathurst	Malmsbury	8 0 0	,, ,,	,,
4395 ,,	13984	,,	do	do	95 0 0	,, ,,	,,
4397 ,,	13991	,,	Georgiana	Walbrook	74 0 0	,, ,,	,,
4225 ,,	13946	,,	Wakool	Bookit	1,210 0 0	,, ,,	4876
4556 ,,	14003	,,	Georgiana	Rockley	0 1 29½	,, ,,	,,
1952 ,,	14019	,,	Murray	Wamboin	0 2 28	,, ,,	,,
4001 ,,	13968	,,	Clive	Binny, Butterleaf, &c.	40,000 0 0	,, ,,	,,
4305 ,,	13969	,,	Culgoa	Barringun	1,120 0 0	,, ,,	4877

No. of Papers.	No of Reserve.	Section.	County.	Parish.	Area	*Government Gazette* in which the description is published	Folio.
					a. r. p.		
Ms. 90-8727 Dep.	14026	101	Durham	Dungog	0 2 32	4 July, 1891	5063
4718 ,,	14029	,,	Northumberland	Newcastle	0 18 0	,, ,,	,,
,, ,,	14030	,,	do	do	0 3 4½	,, ,,	,,
1345 Ind.	14027	,,	Nandewar	Narrabri	12 2 0	,, ,,	,,
4619 Dep.	14031	,,	Argyle	Quialigo	640 0 0	,, ,,	,,
4594 ,,	14028	109	Gough	Tent Hill	100 0 0	,, ,,	,,
8727 ,,	14025	,,	Durham	Dungog	1 2 0	,, ,,	5064
14942 ,,	14024	,,	Hardinge	Bundarrah	2 2 0	,, ,,	,,
91-5462 ,,	14113	,,	Raleigh	Valley Valley	320 0 0	8 ,, ,,	5185
5639 ,,	14158	,,	Vernon	Enfield	106 0 0	,, ,,	,,
4810 ,,	14111	,,	Sandon, &c.	Clevedon, &c.	33,000 0 0	,, ,,	5186
4823 ,,	14038	,,	Manara	Gordon, &c.	13,500 0 0	11 ,, ,,	5256
4982 ,,	14036	101	Denison	Barooga	12 1 39	,, ,,	,,
4287 ,,	11521	109	Wynyard	Umutbee	538 3 0	,, ,,	,,
4285 ,,	12696	,,	Bourke	Ellon	610 0 0	,, ,,	,,
4284 ,,	14047	,,	do	Quandary, &c.	207 0 0	,, ,,	,,
Aln. 91-4458	14045	101	Gloucester	Tinonee	1 2 0	,, ,,	,,
Ms. 91-4286 Dep.	11145	109	Mitchell	Tootool	129 0 0	,, ,,	5257
4715 ,,	14040	101	Taila	Euston	0 1 37¾	,, ,,	,,
Aln. 91-4458	14043	,,	Gloucester	Tinonee	0 3 0	,, ,,	,,
,,	14044	,,	do	do	0 3 33½	,, ,,	,,
Ms 91-4827 Dep.	14041	,,	Gipps	Nerang Cowal	256 0 0	,, ,,	,,
4290 ,,	14068	109	Monteagle	Wambanumba	170 0 0	18 ,, ,,	5490
5242 ,,	14081	101	Wellington	Carroll	2 1 0	,, ,,	5491
4290 ,,	14067	109	Monteagle	Wambanumba	580 0 0	,, ,,	5492
5072 ,,	14071	101	Durham	Rosamond	12 0 0	,, ,,	,,
5242 ,,	14078	,,	Wellington	Carroll	0 1 4¾	,, ,,	,,
,, ,,	14079	,,	do	do	0 2 2½	,, ,,	,,
,, ,,	14080	,,	do	do	1 0 0	,, ,,	,,
4464	14075	,,	Buller	Donaldson	225 0 0	,, ,,	,,
4219	14064	,,	Narromine	Turribung	14 0 25	,, ,,	,,
5242	14077	,,	Wellington	Tambaroora	1 1 0	,, ,,	,,
2003 Ind.	14073	,,	Northumberland	Branxton	1 1 39	,, ,,	5493
Aln 91-4720	14072	,,	Sandon	Armidale	1 0 24½	,, ,,	,,
Ms 91-5242 Dep.	14082	,,	Wellington	Carroll	55 0 0	,, ,,	,,
4464	14076	,,	Buller	Mearimb	600 0 0	,, ,,	,,
,,	14074	,,	do	Lindsay	126 0 0	,, ,,	,,
4770	14069	,,	Murchison	do	700 0 0	,, ,,	,,
4980	14070	,,	Wynyard	Blanch, &c.	41 2 0	,, ,,	,,
5401	14146	,,	Clarke	Bagot	40 2 0	25 ,, ,,	5816
5311	14109	,,	do	Chandler	40 0 0	,, ,,	,,
1228	14144	,,	Parry	Loftus	2 1 0	,, ,,	,,
5074	14103	,,	Macquarie	Camden Haven	10 0 0	,, ,,	,,
5426 Dep.	14134	,,	Gowen	Coonabarrabran	0 2 16	,, ,,	,,
5546	14163	,,	Camden	Wanganderry	5 0 0	,, ,,	5821
5426	14119	,,	Gowen	Coonabarrabran	0 1 20	,, ,,	5822
,,	14120	,,	do	do	0 2 0	,, ,,	,,
,,	14121	,,	do	do	0 2 0	,, ,,	,,
,,	14122	,,	do	do	0 2 0	,, ,,	,,
,,	14123	,,	do	do	0 3 0	,, ,,	,,
,,	14124	,,	do	do	1 0 0	,, ,,	,,
,,	14125	,,	do	do	1 0 0	,, ,,	,,
,,	14126	,,	do	do	1 0 0	,, ,,	,,
,,	14127	,,	do	do	1 1 0	,, ,,	,,
,,	14128	,,	do	do	1 2 0	,, ,,	,,
,,	14129	,,	do	do	1 2 0	,, ,,	,,
,,	14130	,,	do	do	2 1 0	,, ,,	,,
,,	14131	,,	do	do	3 1 0	,, ,,	,,
5019 Dep.	14093	,,	Gloucester	Gooloongolok	1,100 0 0	,, ,,	5823
2044 ,,	14094	,,	Harden	Cunningar	3 2 27	,, ,,	,,
5404 ,,	14148	,,	Lincoln	Dapper, &c.	73 sq. miles.	,, ,,	,,
					a. r. p.		
,,	14147	,,	do	Dubbo	130 0 0	,, ,,	5824
5426	14137	,,	Gowen	Coonabarrabran	0 2 0	,, ,,	,,
5237	14107	,,	Dudley	Uralgurra	6 2 22	,, ,,	,,
5261	14104	,,	Rous	Mullumbimby	2 3 24	,, ,,	,,
5386	14105	,,	Macquarie	Macquarie	5 3 27	,, ,,	,,
5370	12905	,,	Bathurst	Bathurst	4 3 37	,, ,,	5825
4836	14114	,,	Nicholson	Redbank	5 0 0	,, ,,	,,
5425	14118	,,	Dudley	Warbro	190 0 0	,, ,,	,,
5307	14108	,,	Buller	Kangaroo	120 0 0	,, ,,	,,
2044	14095	,,	Harden	Cunningar	1 0 0	,, ,,	,,
,,	14096	,,	do	do	4 2 22	,, ,,	,,
,, Dep.	14097	,,	do	do	5 2 30	,, ,,	,,
,, ,,	14098	,,	do	do	8 1 30	,, ,,	,,
,, ,,	14099	,,	do	do	8 2 16	,, ,,	,,
,, ,,	14100	,,	do	do	15 0 0	,, ,,	,,
3999	14149	,,	Sandon	Armidale	4 0 0	,, ,,	,,
5321	14110	,,	Ashburnham	Cargo	299 2 10	,, ,,	,,
4879	14162	112	Camden	Burragorang, &c.	11,620 0 0	,, ,,	5826
5445	14150	,,	Buller	Acacia, &c.	16,000 0 0	,, ,,	,,
5391	14157	,,	Murchison	Gouron, &c.	1,440 0 0	,, ,,	,,
4728	14156	,,	Boyd	Juranimbla	240 0 0	,, ,,	,,
5387	14145	,,	Blaxland	Illawong	1,200 0 0	,, ,,	,,
5475	14153	,,	Farnell	Alberta, &c.	360 0 0	,, ,,	,,
,,	14154	,,	do	do	400 0 0	,, ,,	,,
5473	14151	,,	Yancowinna	Mundi Mundi	150 0 0	,, ,,	5827
,,	14152	,,	do	do	170 0 0	,, ,,	,,
3069	14090	101	Goulburn	Cookardinia	125 0 0	,, ,,	,,

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					a. r. p.		
Ms. 91-5485	14160	101	Gloucester	Forster	240 0 0	25 July, 1891	5827
5426	14135	,,	Gowen	Coonabarrabran	1 2 11	,, ,,	,,
,,	14136	,,	do	do	1 3 30	,, ,,	,,
5640	14159	,,	White	Wee Waa	0 3 24	,, ,,	,,
5252	14161	109	Wallace	Seymour	250 0 0	,, ,,	,,
4885	14091	101	Gregory	Quabothoo	164 0 0	,, ,,	5828
4724	10649	109	Bland	Yeo Yeo	115 0 0	,, ,,	,,
4838	14155	,,	Urana	Broome, &c.	96 0 0	,, ,,	,,
4723	12610	,,	do	Crommelin, &c.	830 0 0	,, ,,	,,
5426	14138	101	Gowen	Coonabarrabran	1 2 0	,, ,,	,,
,,	14139	,,	do	do	2 0 0	,, ,,	,,
,,	14140	,,	do	do	5 0 0	,, ,,	,,
,,	14141	,,	do	do	10 0 0	,, ,,	,,
,, Dep.	14132	,,	do	do	1 0 0	,, ,,	5829
,,	14133	,,	do	do	1 0 0	,, ,,	,,
4836	14115	,,	Nicholson	Redbank	5 0 0	,, ,,	,,
5309	14106	,,	Gough	Balaclava	93 1 0	,, ,,	,,
5426	14142	,,	Gowen	Coonabarrabran	2 1 12	,, ,,	,,
,,	14143	,,	do	do	8 2 0	,, ,,	,,
4977	14092	,,	Phillip	Gulgong	200 0 0	,, ,,	,,

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

[3*d*.]

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES IN ACCORDANCE WITH THE 101ST, 109TH, AND 112TH, SECTIONS OF THE ACT 48 VICTORIA No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 101, 109, and 112.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-6256 Dep.	14268	112	Hawes	Coolcumta, &c.	50,000 0 0	29 July, 1891	5965
6337 ,,	14273	101	Goulburn	Coppabella	510 0 0	31 ,, ,,	5987
4877 ,,	14184	,,	Bathurst	Neville	1 2 0	1 Aug., ,,	6037
5746 ,,	14187	112	Cunningham	Murda, &c.	1,004 0 0	,, ,,	6039
4790 ,,	14087	101	Oxley	Ganalgang	1,790 0 0	,, ,,	6040
4998 ,,	14175	,,	Ashburnham, &c.	Edinburgh, &c.	4,870 0 0	,, ,,	,,
5405 ,,	14185	,,	do	Wangan	100 0 0	,, ,,	,,
4047 ,,	14164	,,	Cunningham	Trundle	3 1 34	,, ,,	,,
5562 ,,	14192	,,	Wellington	Carroll	6 0 0	,, ,,	6041
5556 ,,	14186	,,	Leichhardt	Tooloon	50 0 0	,, ,,	,,
2281 Ind.	14256	,,	Burnett	Cox	460 0 0	,, ,,	,,
Ms. 90-13045	14172	109	Finch	Gooraway	640 0 0	,, ,,	,,
91-2200 Ind.	14231	101	Townsend	Hartwood	632 0 0	,, ,,	,,
6494 Dep.	14293	,,	Drake	Sandilands	46 0 0	4 ,, ,,	6053
5618 ,,	12328	109	Cooper	Wyangan	320 0 0	8 ,, ,,	6176
5617 ,,	13072	,,	Bourke	Walleroobi	224 0 0	,, ,,	,,
5621 ,,	14224	,,	Clarendon	North Gundagai	90 0 0	,, ,,	6177
2974 ,,	14225	,,	Ashburnham	Mandagery	56 0 0	,, ,,	,,
,, ,,	14226	,,	do	Cudal	345 0 0	,, ,,	,,
,, ,,	14227	,,	do	do	390 0 0	,, ,,	,,
5613 ,,	14223	,,	Bucchuch	Bogong	284 3 0	,, ,,	,,
5654 ,,	14206	,,	Yantara	Herbert	640 0 0	,, ,,	,,
,, ,,	14205	,,	do	do	639 0 0	,, ,,	,,
,, ,,	14204	,,	do	do	15 1 0	,, ,,	,,
5400 ,,	14219	101	Buller	Wylie	0 0 16	,, ,,	,,
5811 ,,	14217	,,	Northumberland	Morriset	2 0 25	,, ,,	,,
5234 ,,	14232	,,	Sandon	Metz	4 0 0	,, ,,	6178
3835 ,,	14193	,,	Parry	Loftus	3 0 0	,, ,,	,,
5779 ,,	14214	,,	Yancowinna	Alma	12 0 0	,, ,,	,,
5015 ,,	14228	109	Bland	Euroka, &c.	226 0 0	,, ,,	,,
5518 ,,	14233	101	Leichhardt	Mourabie, &c.	2,000 0 0	,, ,,	,,
5515 ,,	14200	,,	Finch	Wee Warra, &c.	13,500 0 0	,, ,,	,,
5516 ,,	14201	,,	do	Birben	5,310 0 0	,, ,,	,,
5903 ,,	14234	,,	Durham	Tudor	20 0 0	,, ,,	6179
4459 ,,	14230	,,	Clarence	Ulmarra	0 2 0	,, ,,	,,
88- 174 ,,	14195	,,	Northumberland	Pokolbin	16 0 0	,, ,,	,,
91-5708 ,,	14199	,,	Murray	Yarrow	22 3 0	,, ,,	,,
5709 ,,	14212	,,	Cowley	Tharwa	2 0 0	,, ,,	,,
5740 ,,	14213	,,	Gordon	Ponto	6 0 16	,, ,,	,,
5681 ,,	14211	,,	King	Bango	40 0 0	,, ,,	,,
5650 ,,	14210	,,	Stapylton	Boggabilla	64 0 0	,, ,,	,,
5678 ,,	14202	,,	Gipps	Corringle	326 0 0	,, ,,	6180
5483 ,,	14387	,,	Northumberland	Newcastle	0 0 28	,, ,,	,,
5608 ,,	14194	,,	Parry	Nundle	0 0 15	,, ,,	,,
5670 ,,	14216	,,	Pottinger	Gulligal	184 1 0	,, ,,	,,
4566 ,,	14229	,,	Northumberland	Newcastle	1 1 5	,, ,,	,,
5748 ,,	14221	,,	Camden	Wollongong	2 0 3	15 ,, ,,	6337
6677 ,,	14370	,,	Inglis	Woolomol	10 0 0	,, ,,	6338

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					a. r. p.		
Ms. 91-6677 Dep.	14371	101	Inglis	Moonbi	10 0 0	15 Aug., 1891	6338
,, ,,	14372	,,	do	Tamworth	25 0 0	,, ,,	,,
,, ,,	14373	,,	do	do	57 0 0	,, ,,	,,
6526 ,,	14330	,,	Bathurst	Vittoria	400 0 0	,, ,,	,,
6132 ,,	14277	,,	Cumberland	Wattamolla	490 0 0	,, ,,	,,
6678 ,,	14341	,,	Ewenmar	Killendoon	640 0 0	,, ,,	6339
5419 ,,	14220	,,	Pottinger	Melville	6 0 0	,, ,,	,,
5194 ,,	14255	,,	Monteagle	Kikiamah	245 0 0	22 ,, ,,	6633
Aln. 91-5733 ,,	14188	,,	Leichhardt	Gidginbella	230 0 0	,, ,,	,,
Ms. 91-5734 ,,	14258	109	Clarke	Kangaroo	450 0 0	,, ,,	6638
,, ,,	14259	,,	do	Warner	150 0 0	,, ,,	6639
,, ,,	14260	,,	do	Doughboy	220 0 0	,, ,,	,,
,, ,,	14261	,,	do	do	580 0 0	,, ,,	,,
,, ,,	14262	,,	do	Rigney	420 0 0	,, ,,	,,
,, ,,	14263	,,	do	do	500 0 0	,, ,,	,,
,, ,,	14264	,,	do	Lagune	260 0 0	,, ,,	,,
,, ,,	14265	,,	do	do	400 0 0	,, ,,	,,
,, ,,	14266	,,	Sandon	Wentworth	230 0 0	,, ,,	,,
,, ,,	14267	,,	do	do	490 0 0	,, ,,	,,
6257 ,,	14284	,,	Tandora	Burwayto	297 2 0	,, ,,	,,
,, ,,	14285	,,	do	do	640 0 0	,, ,,	,,
5734 ,,	14257	,,	Sandon, &c.	Falconer, &c.	3,250 0 0	,, ,,	6640
6050 ,,	14242	101	Ashburnham	Collett	11 1 0	,, ,,	,,
81-23892 ,,	14279	,,	Gipps	Bolagamy	40 0 0	,, ,,	,,
Aln. 91-6728 ,,	14351	,,	Northumberland	Morrisset	10 0 0	,, ,,	6641
,, ,,	14352	,,	do	do	15 0 0	,, ,,	,,
Ms. 91-5415 ,,	14170	,,	Buckland	Temi	5 0 0	,, ,,	,,
6050 ,,	14248	,,	Bathurst	Canowindra	0 2 4½	,, ,,	,,
Aln. 91-6728 ,,	14360	,,	Northumberland	Morrisset	0 3 26	,, ,,	,,
,, ,,	14361	,,	do	do	1 3 38	,, ,,	,,
Ms. 91-6050 ,,	14249	,,	Bathurst	Canowindra	10 3 10	,, ,,	6642
Aln. 91-6728 ,,	14357	,,	Northumberland	Morrisset	12 0 22	,, ,,	,,
,, ,,	14358	,,	do	do	18 2 4	,, ,,	,,
Ms. 91-6260 ,,	14283	,,	Yancowinna	Picton	10 1 8	,, ,,	,,
6178 ,,	14278	,,	Auckland	Candelo	1 0 0	,, ,,	,,
6050 ,,	14243	,,	Bathurst	Canowindra	0 3 7	,, ,,	,,
,, ,,	14244	,,	do	do	1 3 8½	,, ,,	,,
,, ,,	14245	,,	do	do	4 3 36	,, ,,	,,
,, ,,	14246	,,	do	do	5 1 9	,, ,,	,,
,, ,,	14247	,,	do	do	7 1 30	,, ,,	,,
Aln 91-6728 ,,	14354	,,	Northumberland	Morrisset	0 2 19½	,, ,,	,,
,, ,,	14355	,,	do	do	2 1 0	,, ,,	,,
,, ,,	14356	,,	do	do	2 1 0	,, ,,	,,
,, ,,	14359	,,	do	do	17 0 33	,, ,,	,,
Ms. 91-6050 ,,	14250	,,	Bathurst	Canowindra	4 0 0	,, ,,	6643
,, ,,	14251	,,	do	do	6 1 0	,, ,,	,,
Aln. 91-6728 ,,	14362	,,	Northumberland	Morrisset	3 0 0	,, ,,	,,
,, ,,	14363	,,	do	do	5 0 0	,, ,,	,,
,, ,,	14364	,,	do	do	6 1 35	,, ,,	,,
,, ,,	14365	,,	do	do	850 0 0	,, ,,	,,
Ms. 91-5459 ,,	14191	,,	Sturt	Howlong	800 0 0	,, ,,	,,
6026 ,,	14281	112	Dowling	Wardry	640 0 0	,, ,,	,,
,, ,,	14282	,,	Gipps, &c.	Goobothery, &c.	1,440 0 0	,, ,,	,,
Aln. 91-6728 ,,	14353	101	Northumberland	Morrisset	76 2 0	,, ,,	6644
Ms. 91-5424 ,,	14183	,,	Darling	Belmore	46 0 0	,, ,,	,,
5805 ,,	14274	,,	Auckland	Wolumla	720 0 0	,, ,,	,,
3452 ,,	14235	,,	Gough	Wellington Vale	11,500 0 0	,, ,,	,,
5953 ,,	14276	,,	Burnett	Cox, &c.	4,200 0 0	,, ,,	6645
C.S 91-11991 ,,	14288	,,	Auckland	Puen Buen	40 0 0	,, ,,	,,
Ms. 91-6935 ,,	14289	,,	Clarence	Taloumbi	17 1 37	,, ,,	,,
,, ,,	14290	,,	do	do	63 3 0	,, ,,	,,
4796 ,,	14280	,,	Northumberland	Newcastle	0 1 0½	,, ,,	,,
6935 ,,	14292	,,	Clarence	Taloumbi	6 2 8	,, ,,	,,
6050 ,,	14241	,,	Bathurst	Canowindra	24 2 0	,, ,,	6646
6935 ,,	14291	,,	Clarence	Taloumbi	3 1 36	,, ,,	,,
6885 ,,	14420	,,	Gowen	Wingabutta	40 0 0	25 ,, ,,	6670

[3*d*.]

Sydney : George Stephen Chapman, Acting Government Printer.—1891.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 101, 109, and 112.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-6241 Dep.	14343	101	Gordon	Veech	665 0 0	29 Aug., 1891	6967
5911 ,,	14299	,,	Wellington	Wellington	0 1 0	,, ,,	6973
,, ,,	14300	,,	do	do	0 1 0	,, ,,	,,
,, ,,	14301	,,	do	do	1 2 0	,, ,,	,,
6599 ,,	14368	,,	Baradine	Culnooy, &c.	1,600 0 0	,, ,,	,,
5930 ,,	14295	,,	Northumberland	Newcastle	0 0 17	,, ,,	,,
6213 ,,	14309	,,	Pottinger	Wilson	0 2 0	,, ,,	,,
5911 ,,	14303	,,	Wellington	Wellington	0 2 0	,, ,,	,,
6357 ,,	14316	,,	Courallie	Gordon	5 1 0	,, ,,	,,
,, ,,	14317	,,	do	do	5 1 0	,, ,,	,,
,, ,,	14318	,,	do	do	5 1 0	,, ,,	,,
6356 ,,	14320	,,	Clarendon	Bethungra	1 2 0	,, ,,	6974
,, ,,	14321	,,	do	do	2 0 0	,, ,,	,,
,, ,,	14322	,,	do	do	6 0 0	,, ,,	,,
,, ,,	14323	,,	do	do	6 2 0	,, ,,	,,
,, ,,	14324	,,	do	do	16 2 38	,, ,,	,,
4717 ,,	14329	,,	Northumberland	Newcastle	10 2 8¼	,, ,,	,,
5911 ,,	14304	,,	Wellington	Wellington	1 1 0	,, ,,	,,
,, ,,	14305	,,	do	do	2 3 0	,, ,,	,,
,, ,,	14306	,,	do	do	10 0 0	,, ,,	,,
6357 ,,	14319	,,	Courallie	Gordon	5 1 0	,, ,,	,,
6070 ,,	14315	,,	Sandon	Merrigalah	0 2 11	,, ,,	,,
4709 ,,	14307	,,	Culgoa	Enngonia	0 2 0	,, ,,	,,
6241 ,,	14346	,,	Gordon	Burgoon	297 0 0	,, ,,	6975
6231 ,,	14327	,,	Argyle	Quialigo	2 0 2	,, ,,	,,
6527 ,,	14379	,,	Cook	Megalong	8 0 0	,, ,,	,,
6241 ,,	14345	,,	Gordon	Veech	665 0 0	,, ,,	,,
6396 ,,	14378	,,	St. Vincent	Nowra	90 0 0	,, ,,	,,
6331 ,,	14367	,,	Clive	Glen Lyon	145 0 0	,, ,,	,,
7154	14298	,,	Bland	Balabla	10 0 0	,, ,,	,,
Aln. 91-6401	14314	,,	Forbes	Bogolong	10 0 0	,, ,,	,,
Ms 91-5827 Dep.	14308	109	Hume	Henty	17 0 0	,, ,,	,,
6241 ,,	14344	101	Gordon	Ganoo and Veech	5,170 0 0	,, ,,	6976
,, ,,	14347	,,	do	Veech and Catombal	500 0 0	,, ,,	,,
7154 ,,	14297	,,	Bland	Balabla	254 0 0	,, ,,	,,
6528 ,,	14380	,,	Roxburgh	Thornshope	9 0 0	,, ,,	,,
5911 ,,	14302	,,	Wellington	Wellington	13 2 0	,, ,,	,,
5826 ,,	14313	109	Goulburn	Huon	200 0 0	,, ,,	6977
5619 ,,	14311	,,	Clarendon	Eurongilly	64 0 0	,, ,,	,,
,, ,,	14312	,,	do	do	93 0 0	,, ,,	,,
5464 ,,	14366	112	Darling	Gulligal	3,100 0 0	,, ,,	,,
5866 ,,	14377	,,	Inglis	Moonbi	344 0 0	,, ,,	,,
6232 ,,	14310	,,	Flinders	Panjee and others	10,240 0 0	,, ,,	,,
6480 ,,	14331	101	Roxburgh	Peel	430 0 0	5 Sept., ,,	7117
5512 ,,	14391	,,	Rous	Tuckombil	384 0 0	,, ,,	7118
,, ,,	14392	,,	do	Pimlico	456 0 0	,, ,,	,,
6627 ,,	14409	,,	Gowen	Ulungra	757 0 0	,, ,,	,,
4052 ,,	14410	,,	Benarba	Gunathera	970 0 0	,, ,,	,,
6358 ,,	14401	,,	Parry	Somerton	2 2 0	,, ,,	,,
,, ,,	14402	,,	do	do	2 2 0	,, ,,	,,
6537 ,,	14385	,,	Phillip	Guntawang	1 1 12	,, ,,	,,
6358 ,,	14404	,,	Parry	Somerton	2 0 0	,, ,,	,,
,, ,,	14405	,,	do	do	2 0 0	,, ,,	,,
,, ,,	14400	,,	do	do	35 0 0	,, ,,	7119
Ms. 91-2671 Ind.	14457	,,	Townsend	Tawarra	179 0 0	,, ,,	,,
6537 Dep.	14381	,,	Phillip	Guntawang	0 1 25½	,, ,,	,,
,, ,,	14384	,,	do	do	0 1 24	,, ,,	,,

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					a. r. p.		
Ms. 91-6762 Dep.	14414	101	Cook	Jamison	1 2 6	5 Sept., 1891	7119
6358 ,,	14407	,,	Parry	Somerton	540 0 0	,, ,,	,,
6792 ,,	14415	,,	Durham	Rowan	10 0 0	,, ,,	,,
Aln. 91-1376	14784	,,	Macquarie	Macquarie	5 2 9	,, ,,	7120
Ms. 91-6537 Dep.	14382	,,	Phillip	Guntawang	0 3 17	,, ,,	,,
,, ,,	14383	,,	do	do	0 0 37	,, ,,	,,
6358 ,,	14403	,,	Parry	Somerton	2 0 0	,, ,,	,,
,, ,,	14406	,,	do	do	4 2 35	,, ,,	,,
1051 ,,	14416	,,	Buckland	Carrabubula	1 2 0	,, ,,	,,
6855 ,,	14369	,,	Goulburn	Coocook	437 0 0	,, ,,	,,
6511 ,,	14408	,,	Gough	Macintyre	40 0 0	,, ,,	,,
4722 ,,	14386	109	Urana	Jerilderie South	150 0 0	,, ,,	,,
6625 ,,	14411	101	Northumberland	Gosford	25 0 0	,, ,,	,,
,, ,,	14412	,,	do	do	60 0 0	,, ,,	7121
,, ,,	14413	,,	do	Narara	130 0 0	,, ,,	,,
4722 ,,	14387	109	Urana	Coree South and others	4,500 0 0	,, ,,	,,
476 ,,	14424	101	Wentworth	Gol Gol	7 0 0	12 ,, ,,	7299
6809 ,,	14421	,,	Westmoreland	Bowverie, &c.	1,000 0 0	,, ,,	7300
6673 ,,	14399	,,	Darling	Wilson	45 0 0	,, ,,	,,
C.S. 91-15677 ,,	14445	,,	Jamison	Cubbaroo North	658 0 0	,, ,,	,,
Ms. 91- 476 ,,	14435	,,	Wentworth	Gol Gol	1 3 0	,, ,,	,,
,, ,,	14436	,,	do	do	2 0 0	,, ,,	,,
,, ,,	14437	,,	do	do	50 0 0	,, ,,	,,
,, ,,	14438	,,	do	do	8 0 0	,, ,,	,,
,, ,,	14439	,,	do	do	12 0 0	,, ,,	,,
4259 ,,	14440	,,	Bathurst	Worcester	0 0 26½	,, ,,	,,
6110 ,,	14441	112	Pottinger	Gunnedah	2,500 0 0	,, ,,	7301
6111 ,,	14442	,,	Nandewar	Yarrari, &c.	776 0 0	,, ,,	,,
6608 ,,	14419	101	Gough	Fletcher	100 0 0	,, ,,	,,
C.S. 91-15677 ,,	14446	,,	Jamison	Cubbaroo North	60 0 0	,, ,,	,,
Ms. 91-6673 ,,	14398	,,	Darling	Wilson	12 0 0	,, ,,	,,
476 ,,	14425	,,	Wentworth	Gol Gol	6 0 0	,, ,,	,,
6842 ,,	14443	,,	Cook	Megalong	14 0 0	,, ,,	,,
476 ,,	14426	,,	Wentworth	Gol Gol	2 2 0	,, ,,	7302
,, ,,	14427	,,	do	do	2 2 0	,, ,,	,,
,, ,,	14428	,,	do	do	5 0 0	,, ,,	,,
,, ,,	14429	,,	do	do	2 3 5	,, ,,	,,
,, ,,	14430	,,	do	do	5 0 0	,, ,,	,,
,, ,,	14431	,,	do	do	5 0 0	,, ,,	,,
,, ,,	14432	,,	do	do	55 0 0	,, ,,	,,
,, ,,	14433	,,	do	do	65 0 0	,, ,,	,,
,, ,,	14434	,,	do	do	80 0 0	,, ,,	,,
Ls. 91-6208	14508	,,	Bathurst	Bracebridge	213 2 0	15 ,, ,,	7387
Ms. 91-7070 Dep.	14451	,,	Ashburnham	Collett	7 2 0	19 ,, ,,	7486
7051 ,,	14463	109	Oxley	Carvel and Warren	370 0 0	,, ,,	,,
,, ,,	14464	,,	do	Warren	800 0 0	,, ,,	,,
399 ,,	14458	112	Blaxland	Meldvoi and others	3,200 0 0	,, ,,	,,
7472 ,,	14503	101	Benarba	Doorabuba	2,560 0 0	,, ,,	7487
Rs. 90-$\frac{8\,2\,2}{3}$	14461	,,	Gloucester	Sutton	1 2 25	,, ,,	,,
Ms. 91-7394 Dep.	14469	,,	Sandon	Harnham and others	2,700 0 0	,, ,,	,,
7037 ,,	14459	,,	Wallace	Eucumbene	22 2 0	,, ,,	,,
7120 ,,	14460	,,	Murray	Burra	10 0 0	,, ,,	,,
7862 ,,	14546	,,	Bland	Jingerangle	593 2 0	,, ,,	7488
6716 ,,	14462	,,	Richmond	Doubleduke and others	900 0 0	,, ,,	,,
7475 ,,	14523	,,	Camden	Nattai	80 0 0	,, ,,	,,
7996 ,,	14456	109	Gordon	Emimlulu	620 0 0	,, ,,	,,
7095 ,,	14465	,,	do	Cardington	234 0 0	,, ,,	,,
2976 ,,	14448	101	Bathurst	Cowra	1 0 0	,, ,,	,,
7070 ,,	14450	,,	Ashburnham	Collett	70 0 0	,, ,,	,,

[3*d*.]

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 48 Vic No. 18, secs 101, 104, 109, and 112

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 104th, 109th, and 112th sections of the Act 48 Victoria No. 18

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a r p		
Ms 90-16635	14622	104	Sandon	Armidale	0 1 24	23 Sept, 1891	7557
18353	14624	,,	Northumberland	Newcastle	0 1 20	,, ,,	,,
91-147 Ind	14625	,,	do	do	69 0 0	,, ,,	,,
90-17601 ,,	14623	,,	Darling	Barraba	1 3 20	,, ,,	7558
91-6512 Dep	14491	109	Denison, &c	Woperana, &c	13,000 0 0	26 ,, ,,	7667
4629 ,,	14492	101	Cumberland	Castlereagh	1,150 0 0	,, ,,	,,
7009 ,,	14470	,,	Gloucester	Curreeki	1 1 14	,, ,,	7668
,, ,,	14471	,,	do	do	1 2 33	,, ,,	,,
,, ,,	14472	,,	do	do	17 3 0	,, ,,	,,
,, ,,	14473	,,	do	do	3 3 0	,, ,,	,,
7214 ,,	14489	,,	Raleigh	Nambucca	4 2 0	,, ,,	,,
7009 ,,	14474	,,	Gloucester	Curreeki	1 3 27	,, ,,	,,
,, ,,	14475	,,	do	do	8 2 36	,, ,,	,,
6294 ,,	14488	109	Hardinge	Honeysuckle	130 0 0	,, ,,	,,
7351 ,,	14518	101	Benarba	Buriandoon	3,200 0 0	,, ,,	,,
6032 ,,	14517	,,	Bathurst	Beneree	76 0 0	,, ,,	,,
7397 ,,	14520	112	Bland	Congou	249 0 0	,, ,,	7669
7246 ,,	14519	,,	Bourke	Davidson, &c.	6,600 0 0	,, ,,	,,
7271 ,,	14504	101	Roxburgh	Wiagdon	7 0 0	,, ,,	,,
,, ,,	14505	,,	do	Millah Murrah	85 0 0	,, ,,	,,
7009 ,,	14483	,,	Gloucester	Curreeki	14 3 0	,, ,,	,,
,, ,,	14484	,,	do	do	16 2 0	,, ,,	,,
5918 ,,	14493	,,	Clarence	Great Marlow	120 0 0	,, ,,	7670
2508 Ind	14490	,,	Phillip	Wollar	0 2 0	,, ,,	,,
7009 Dep	14487	,,	Gloucester	Curreeki	6 2 0	,, ,,	,,
,, ,,	14476	,,	do	do	0 2 23	,, ,,	,,
,, ,,	14477	,,	do	do	0 3 26	,, ,,	,,
,, ,,	14478	,,	do	do	1 0 22	,, ,,	,,
,, ,,	14479	,,	do	do	1 1 32	,, ,,	,,
,, ,,	14480	,,	do	do	1 2 1	,, ,,	,,
,, ,,	14481	,,	do	do	1 3 16	,, ,,	,,
,, ,,	14482	,,	do	do	1 3 16	,, ,,	,,
5685 ,,	14521	,,	Roxburgh	Eusdale	120 0 0	,, ,,	,,
7009 ,,	14485	,,	Gloucester	Curreeki	4 2 37	,, ,,	,,
,, ,,	14486	,,	do	do	15 0 0	,, ,,	,,
7081 ,,	14467	,,	Rous	Hanging Rock	250 0 0	,, ,,	7671
6399 ,,	14494	,,	Fitzroy	Duckan Duckan	33 0 0	,, ,,	,,
Ms Ls 91-6271	14663	,,	Cook	Megalong	9 3 20	29 ,, ,,	,,
Ms 91 7089 Dep	14502	,,	Rous	Hanging Rock	800 0 0	3 Oct, ,,	7866
,, ,,	14499	,,	do	do	8 0 0	,, ,,	7870
,, ,,	14500	,,	do	do	190 0 0	,, ,,	7871
7248 ,,	14528	,,	Nandewar	Tippereena	25 0 0	,, ,,	,,
,, ,,	14529	,,	do	Narrabri	94 0 0	,, ,,	,,
7447 ,,	14537	112	Raleigh, &c	Allgomera, &c	48,390 0 0	,, ,,	,,
7426 ,,	14547	,,	Dowling	Yelkin	2,100 0 0	,, ,,	,,
,, ,,	14548	,,	do	Tooroonga, &c	2,520 0 0	,, ,,	,,
7350 ,,	14535	109	Benarba	Boonaldoon	520 0 0	,, ,,	7872
8092 ,,	14652	101	Nandewar	Narrabri	18 0 0	,, ,,	,,
,, ,,	14653	,,	do	do	22 2 0	,, ,,	,,
8223 ,,	14569	,,	Northumberland	Branxton	2 3 38	,, ,,	,,

No. of Papers.	No of Reserve	Section	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-7569 Dep.	14533	101	Gresham	Dalmorton	0 1 0	3 Oct., 1891	7872
7671 ,,	14550	,,	St. Vincent	Ettrima	0 1 32	,, ,,	,,
7499 ,,	14573	,,	Cumberland	Cowan	3 3 37	,, ,,	,,
7679 ,,	14551	,,	Gloucester	Stockton	0 1 0	,, ,,	7873
7524 ,,	14531	,,	Young	Wilcannia	0 1 6	,, ,,	,,
7450 ,,	14549	,,	Bligh	Uarbry	13 0 0	,, ,,	,,
6277 ,,	14527	,,	Hume	Richmond	57 2 29	,, ,,	,,
7089 ,,	14501	,,	Rous	Hanging Rock	40 0 0	,, ,,	,,
7434 ,,	14536	,,	do	Roseberry	500 0 0	,, ,,	,,
7568 ,,	14532	,,	Arrawatta	Ashford	20 0 0	,, ,,	,,
7190 ,,	14571	,,	Leichhardt	Carrabeai, &c.	360 0 0	,, ,,	,,
7524 ,,	14530	,,	Young	Wilcannia	0 0 31¾	,, ,,	7874
7190 ,,	14572	,,	Leichhardt	Carrabear	70 0 0	,, ,,	,,
7350 ,,	14534	109	Benarba	Boonaldoon	165 0 0	,, ,,	,,
8223 ,,	14568	101	Northumberland	Branxton	3 0 14	,, ,,	,,
7631 ,,	14538	109	Young	Dry Lake	640 0 0	,, ,,	,,
,, ,,	14539	,,	do	do	640 0 0	,, ,,	,,
7445 ,,	14544	,,	Tongowoko	Hermitage	81 2 0	,, ,,	,,
7704 ,,	14574	,,	Waljeers	Boondara, &c.	339 3 0	,, ,,	,,
7213 ,,	14522	101	St. Vincent	Mogood, &c.	2,000 0 0	,, ,,	7875
C.S. 91-20196 ,,	14699	,,	Auckland	Bemboka	164 0 0	7 ,, ,,	7897
Ms. 91- 7257 ,,	14510	,,	Buller	Coutts	57 0 0	10 ,, ,,	8025
7085 ,,	14513	,,	Rous	Terania	35 3 0	,, ,,	,,
Ms Ls.91-4464 ,,	14512	,,	Buccleuch	Talbingo	147 2 0	,, ,,	,,
Ms. 91- 225 ,,	14509	112	Dowling	Carilla	1,280 0 0	,, ,,	8028
7789 ,,	14600	,,	Wellesly	Nimmitabel	4 3 0	,, ,,	,,
7909 ,,	14614	101	Yancowinna	Picton	1 0 24¾	,, ,,	,,
,, ,,	14615	,,	do	do	0 1 27¼	,, ,,	,,
,, ,,	14616	,,	do	do	0 1 32¾	,, ,,	,,
,, ,,	14617	,,	do	do	0 2 0	,, ,,	,,
4811 ,,	14604	,,	Burnett	Warialda	0 2 34	,, ,,	8029
7909 ,,	14612	,,	Yancowinna	Picton	2 0 0	,, ,,	,,
,, ,,	14613	,,	do	do	0 2 8	,, ,,	,,
,, ,,	14618	,,	do	do	1 0 0	,, ,,	,,
7448 ,,	14596	,,	Bligh	Curryall	25 0 0	,, ,,	,,
7870 ,,	14599	,,	Harden	Murrumboola	175 3 0	,, ,,	,,
7931 ,,	14606	,,	Rous	Brunswick	37 0 0	,, ,,	,,
7272 ,,	14511	,,	Gregory	Gunnell	200 0 0	,, ,,	,,
7732 ,,	14605	109	Cunningham	Kiargathur	683 2 0	,, ,,	8030
7789 ,,	14602	101	Wellesley	Nimmitabel	1 1 1	,, ,,	,,
8148 ,,	14658	,,	Cumberland	Bulgo	4 0 0	17 ,, ,,	8196
8199 ,,	14647	,,	Durham	Auckland	6 2 0	,, ,,	,,
8070 ,,	14641	112	Raleigh	Herborn	6,600 0 0	,, ,,	8200
8148 ,,	14660	,,	Cumberland	Bulgo	12 0 0	,, ,,	,,
,, ,,	14661	,,	do	do	26 0 0	,, ,,	,,
,, ,,	14662	,,	do	do	135 0 0	,, ,,	,,
8458 ,,	14587	,,	Gloucester	Bachelor	2,700 0 0	,, ,,	,,
7942 ,,	14636	,,	Wakool	Cockran	265 0 0	,, ,,	,,
8197 ,,	14645	,,	Durham	Auckland	0 3 28	,, ,,	,,
8200 ,,	14648	,,	do	do	0 3 30	,, ,,	,,
8148 ,,	14657	,,	Cumberland	Bulgo	0 3 20	,, ,,	,,
8458 ,,	14578	,,	Gloucester	Bachelor	10 0 0	,, ,,	8201
,, ,,	14579	,,	do	do	11 0 0	,, ,,	,,
,, ,,	14580	,,	do	do	14 3 0	,, ,,	,,
,, ,,	14581	,,	do	do	17 3 0	,, ,,	,,
,, ,,	14582	,,	do	do	20 0 0	,, ,,	,,
,, ,,	14583	,,	do	do	20 0 0	,, ,,	,,
,, ,,	14584	,,	do	do	57 2 0	,, ,,	,,
7741 ,,	14639	,,	Richmond	Camera	41 0 0	,, ,,	,,
7937 ,,	14635	,,	Fitzroy	Chambigne	9 0 38	,, ,,	,,
8121 ,,	14642	,,	Georgiana	Wyndham	160 0 0	,, ,,	,,
8122 ,,	14643	,,	do	Jerrong	200 0 0	,, ,,	,,
8458 ,,	14575	,,	Gloucester	Bachelor	20 0 0	,, ,,	,,
,, ,,	14576	,,	do	do	21 1 0	,, ,,	,,
8458 ,,	14577	101	do	do	46 3 0	,, ,,	,,
7861 ,,	14640	,,	do	do	75 0 0	,, ,,	,,
8038 ,,	14627	,,	do	Mimi	42 0 0	,, ,,	,,
7990 ,,	14637	,,	Argyle	Gumeacor	40 0 0	,, ,,	,,
8198 ,,	14646	,,	Durham	Auckland	6 0 0	,, ,,	8202
2909 Ind.	14633	,,	Camden	Yarrawa	56 2 0	,, ,,	,,
8068 Dep	14626	,,	Oxley	Nyngan	200 0 0	,, ,,	,,
8458 ,,	14585	,,	Gloucester	Bachelor	17 0 0	,, ,,	,,
,, ,,	14586	,,	do	do	137 0 0	,, ,,	,,
8148 ,,	14659	,,	Cumberland	Bulgo, &c.	1 0 0	,, ,,	,,
89-12684 ,,	14655	,,	Westmoreland	Duckmaloi	8 0 0	,, ,,	,,
91-8195 ,,	14644	109	Yancowinna	Nadbuck, &c	380 0 0	,, ,,	,,
8843 ,,	14750	101	Pottinger	Mucca Mucca	212 1 24	19 ,, ,,	8217
7440 ,,	14679	,,	Raleigh	South Belligen	250 0 0	24 ,, ,,	8363
8067 ,,	14674	,,	Gloucester	Curreeki	7 1 31	,, ,,	,,
7705 ,,	14670	,,	Clarke	Seeley	3 0 5	,, ,,	,,
7204 ,,	14612	,,	Hardinge	Tenterden	240 0 0	,, ,,	,,
4573 ,,	14743	,,	White	Mollee	10 2 30	,, ,,	,,
8258 ,,	14695	,,	Ashburnham	Currajong	103 0 0	,, ,,	,,
8074 ,,	14703	,,	Macquarie	Wingham	109 2 30	,, ,,	,,
7876 ,,	14694	,,	Gloucester	Alfred	18 0 0	,, ,,	8364
7484 ,,	8095	109	Vernon	Andy	110 0 0	,, ,,	,,
8347 ,,	14696	,,	Burnett	Gravesend	640 0 0	,, ,,	,,
8349 ,,	14698	,,	Stapylton	Merriwa	615 0 0	,, ,,	,,
,, ,,	14697	,,	do	do	570 0 0	,, ,,	,,

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a. r p.		
91-8120 Dep	14704	101	Georgiana	Jerrong	612 0 0	24 Oct, 1891	8364
7062 ,,	14701	,,	Gowen	Bandulla	80 0 0	,, ,,	,,
,, ,,	14702	,,	do	do	90 0 0	,, ,,	,,
7288 ,,	14678	112	Goulburn	Coppabella	5,000 0 0	,, ,,	8365
8333 ,,	14691	101	Northumberland	Kincumber	30 0 0	,, ,,	,,
7991 ,,	14689	,,	Nandewar	Narrabri	3 0 0	,, ,,	,,
5901 ,,	14751	,,	Ashburnham	Forbes	5 2 0	31 ,, ,,	8713
8162 ,,	14716	,,	Gloucester	Topi Topi	8 0 0	,, ,,	,,
8662 ,,	14739	,,	Westmoreland	Colong	258 0 0	,, ,,	,,
8407 ,,	14718	,,	Rous	Dunoon	8 2 8	,, ,,	,,
8789 ,,	14749	,,	Harden	Wilkie	5 1 14	,, ,,	,,
8293 ,,	14720	,,	Forbes	Broula	28 0 0	,, ,,	8719
,, ,,	14721	,,	do	Warrangong	48 0 0	,, ,,	,,
8616 ,,	14735	,,	Beresford	Undoo	500 0 0	,, ,,	,,
8610 ,,	14737	,,	Forbes	Wattamondara	5 0 0	,, ,,	,,
8048 ,,	14651	,,	Rous	Coraki	20 0 0	,, ,,	,,
8538 ,,	14730	,,	Macquarie	Wingham	85 0 0	,, ,,	,,
7940 ,,	14631	,,	Rous	Terranora	300 0 0	,, ,,	8720
8789 ,,	14748	,,	Harden	Wilkie	120 0 0	,, ,,	,,
8032 ,,	14620	,,	Macquarie	Araakoon	9 3 8	,, ,,	,,
,, ,,	14621	,,	do	do	8 1 8	,, ,,	,,
8029 ,,	14619	,,	Brisbane	Scone	0 0 2¾	,, ,,	,,
8001 ,,	14686	,,	Mitchell	Sandy Creek	20 0 0	,, ,,	,,
,, ,,	14687	,,	do	do	40 0 0	,, ,,	,,
8660 ,,	14738	,,	Argyle	Yairalow	1 0 28	,, ,,	8721
8802 ,,	14753	,,	Gordon	Warrabeiry	15 0 0	,, ,,	,,
8849 ,,	14754	,,	Cowley	Congwaria	2 0 0	,, ,,	,,
8261 ,,	14688	,,	Oxley	Lawson	105 0 0	,, ,,	,,
8436 ,,	14741	112	Wakool	Boyd	1,800 0 0	,, ,,	,,
8727 ,,	14752	,,	Kennedy	Hartington	576 0 0	,, ,,	,,
8262 ,,	14726	,,	Mouramba	Knox	2,560 0 0	,, ,,	,,
,, ,,	14727	,,	do	do &c.	700 0 0	,, ,,	,,
8492 ,,	14742	109	Wallace	Gordon	340 0 0	,, ,,	8722
6976 ,,	14706	,,	Arrawatta	Redbank	350 0 0	,, ,,	,,
,, ,,	14707	,,	do	do	550 0 0	,, ,,	,,
,, ,,	14708	,,	do	Arthur's Seat	460 0 0	,, ,,	,,
8371 ,,	14722	,,	Cara	Penaire	539 1 0	,, ,,	,,
,, ,,	14723	,,	do	do	640 0 0	,, ,,	,,
8435 ,,	14729	101	Auckland	Wyndham	465 3 0	,, ,,	,,
7940 ,,	14632	,,	Rous	Terranora	250 0 0	,, ,,	,,
8382 ,,	14717	109	Tara	Cal Lal	640 0 0	,, ,,	,,
6976 ,,	14705	,,	Arrawatta	Redbank, &c.	1,380 0 0	,, ,,	8723
8484 ,,	14719	,,	Courallie	Gordon, &c	3,100 0 0	,, ,,	,,
8552 ,,	14755	,,	Cania	Biduia	170 0 0	,, ,,	,,
,, ,,	14756	,,	Taila, &c.	Brungle, &c.	5,760 0 0	,, ,,	,,
8381 ,,	14728	,,	Tara	Cal Lal	350 0 0	,, ,,	,,
8578 ,,	14734	109	Mitchell	Tootool	10 0 0	7 Nov, ,,	8866
8576 ,,	14736	,,	Gloucester	Wang Wauk	25 0 0	,, ,,	8867
8267 ,,	14710	,,	Roxburgh	Crudine	77 0 0	,, ,,	,,
,, ,,	14709	,,	do	do	50 0 0	,, ,,	,,
,, ,,	14711	,,	do	do	27 0 0	,, ,,	,,
9292 ,,	14791	,,	Cook	Linden	480 0 0	11 ,, ,,	8877
8571 ,,	14784	,,	Fitzroy	Bligh, &c.	72 sq miles.	14 ,, ,,	8988
8737 ,,	14771	109	Burnett	Vicars, &c.	6,650 0 0	,, ,,	8989
8983 ,,	14782	,,	Waljeers	Lowan, &c.	240 0 0	,, ,,	,,
8571 ,,	14783	101	Fitzroy	Leigh, &c.	13,000 0 0	,, ,,	,,
7477 ,,	14778	,,	Inglis	Tamworth	12 0 0	,, ,,	,,
8732 ,,	14780	,,	Gipps	Moonbia	208 0 0	,, ,,	8990
8731 ,,	14779	,,	Bland	Jingerangle	320 0 0	,, ,,	,,
8080 ,,	14777	109	do	Walladilly	30 0 0	,, ,,	,,
8737 ,,	14772	,,	Burnett	Bledger	640 0 0	,, ,,	,,
,, ,,	14773	,,	do	Nunga Nunga	360 0 0	,, ,,	,,
,, ,,	14774	,,	do	Oregon	530 0 0	,, ,,	,,
,, ,,	14775	,,	do	Vicars	580 0 0	,, ,,	,,
3148 Ind.	14776	101	Harden	Bookham	9 2 13	,, ,,	,,
825 Dep.	14765	,,	Brisbane	Merriwa	12 0 16	,, ,,	,,
,, ,,	14764	,,	do	do	2 2 1	,, ,,	8991
7367 ,,	14760	,,	Kennedy	Houston	40 0 0	,, ,,	,,
9006 ,,	14801	,,	Camden	Burragorang	6 2 27	,, ,,	,,
,, ,,	14802	,,	do	do	8 0 0	,, ,,	,,
,, ,,	14803	,,	do	do	177 0 0	,, ,,	,,
9198 ,,	14786	,,	Wellington	Wellington	2 0 21	,, ,,	,,
9200 ,,	14788	,,	do	do	1 2 14½	,, ,,	,,
9201 ,,	14789	,,	do	do	0 2 6	,, ,,	,,
9199 ,,	14787	,,	do	do	2 2 23	,, ,,	,,
8725 ,,	14758	,,	Macquarie	Koree	678 0 0	,, ,,	8992
9163 ,,	14792	,,	Cumberland	Willoughby	2 0 28	,, ,,	,,
8983 ,,	14781	,,	Waljeers	Largs	10 0 0	,, ,,	,,
825 ,,	14763	,,	Brisbane	Merriwa	2 2 22	,, ,,	,,
8350 ,,	14766	,,	Parry, &c.	Bullimball, &c	2,200 0 0	,, ,,	,,
,, ,,	14767	,,	do	Ainsley, &c.	13,000 0 0	,, ,,	,,
8669 ,,	14757	,,	Bligh	Collieblue	80 0 0	,, ,,	8993

Sydney George Stephen Chapman, Acting Government Printer —1891

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 101, 109, and 112.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-9007 Dep.	14798	101	Westmoreland	The Peaks	32 0 0	21 Nov., 1891	9198
8500 ,,	14770	,,	Wynyard	Mundarlo	18 0 0	,, ,,	,,
8726 ,,	14759	,,	Rous	Murwillumbah	200 0 0	,, ,,	9200
9203 ,,	14790	,,	Wellington	Wellington	0 1 38	,, ,,	9201
9248 ,,	14800	,,	Buccleuch, &c.	Peppercorn, &c.	83,700 0 0	,, ,,	,,
8903 ,,	10217	,,	Buckland	Currabubula	15 0 0	,, ,,	,,
8925 ,,	14809	,,	Stapylton	Morella	310 0 0	,, ,,	,,
,, ,,	14810	,,	do	do &c.	540 0 0	,, ,,	,,
9021 ,,	14799	,,	Arrawatta	Cucumber	3,150 0 0	,, ,,	9202
9260 ,,	14817	,,	King	Numby	2 3 0	28 ,, ,,	9390
8734 ,,	14840	,,	Forbes	Maudry	520 0 0	,, ,,	,,
8508 ,,	14839	,,	Monteagle	Yambira	640 0 0	,, ,,	,,
7163 ,,	14815	,,	St. Vincent	Boyle	3 0 0	,, ,,	,,
7507 ,,	14828	,,	Fitzroy	Nymboida	2 0 0	,, ,,	,,
8797 ,,	14834	,,	Harden	Coolac	5 0 0	,, ,,	9391
8573 ,,	14820	109	Burnett	Cox	400 0 0	,, ,,	,,
,, ,,	14821	,,	do	do	360 0 0	,, ,,	,,
9159 ,,	14823	101	Benarba	Bunarba	3,540 0 0	,, ,,	,,
7582 ,,	14836	,,	Richmond	Donaldson	19 2 0	,, ,,	,,
8573 ,,	14822	109	Burnett	Cox	250 0 0	,, ,,	,,
8887 ,,	14797	101	Wakool	Puah, &c.	12 0 0	,, ,,	9392
9593 ,,	14894	,,	Ashburnham	Currajong	1 1 0	,, ,,	,,
8429 ,,	14816	112	Kennedy	Moodama South	1,920 0 0	,, ,,	,,
9776 ,,	14934	101	Argyle	Boro	40 0 0	,, ,,	,,
4896 ,,	14811	,,	Gloucester	Tinonee	14 1 0	,, ,,	,,
,, ,,	14812	,,	do	do	39 1 0	,, ,,	,,
8532 ,,	14819	109	Pottinger	Gerrawillie	440 0 0	,, ,,	,,
9609 ,,	14881	101	King	Wyangala	40 0 0	,, ,,	,,
9828 ,,	14902	,,	Phillip	Cooyal	40 0 0	,, ,,	9393
9175 ,,	14824	,,	Narromine	Mingelo	4 0 12	,, ,,	,,
9262 ,,	14818	,,	Durham	Uffington	8 0 12½	,, ,,	,,
8494 ,,	14875	,,	Wellesley	Maffra	640 0 0	5 Dec., ,,	9605
9600 ,,	14898	,,	Westmoreland	Jooriland, &c.	472 0 0	,, ,,	,,
7493 ,,	14865	,,	Denison	Tocumwal	1 1 0	,, ,,	,,
,, ,,	14866	,,	do	do	2 1 0	,, ,,	,,
9079 ,,	14848	,,	Gloucester	Booroowa	60 0 0	,, ,,	9608
8784 ,,	14892	,,	Cowley, &c.	Gurrangora, &c.	4,800 0 0	,, ,,	9605
9079 ,,	14849	,,	Gloucester	Booroowa	92 0 0	,, ,,	9608
,, ,,	14850	,,	do	Belbora	1,000 0 0	,, ,,	,,
,, ,,	14851	,,	do	Mimi, &c.	3,500 0 0	,, ,,	,,
,, ,,	14853	,,	do	Kundibakh	480 0 0	,, ,,	,,
,, ,,	14852	,,	do	do	940 0 0	,, ,,	,,
,, ,,	14854	,,	Macquarie	Camden Haven	300 0 0	,, ,,	,,
,, ,,	14855	,,	do	John's River	10 0 0	,, ,,	,,
,, ,,	14856	,,	do	do	25 3 0	,, ,,	,,
,, ,,	14857	,,	do	do	27 1 0	,, ,,	,,
,, ,,	14858	,,	do	Stewart	45 2 0	,, ,,	,,
,, ,,	14859	,,	do	do	1,720 0 0	7 ,, ,,	9609

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a r p		
Ms 91-9079 Dep	14860	101	Macquarie	Taree . .	130 0 0	5 Dec , 1891	9609
,, ,,	14861	,,	do	Lansdowne	370 0 0	,, ,,	,,
,, ,,	14862	,,	do	do &c	470 0 0	,, ,,	,,
8800 ,,	14874	,,	Georgiana, &c	Werong, &c	4,000 0 0	,, ,,	,,
,, ,,	14871	,,	do	do	560 0 0	,, ,,	9610
,, ,,	14872	,,	Westmoreland	Koromung	300 0 0	,, ,,	,,
,, ,,	14873	,,	do	Mozart	500 0 0	,, ,,	,,
9336 ,,	13164	109	Benarba	Umbri	205 0 0	,, ,,	,,
7493 ,,	14867	101	Denison	Tocumwal	1 1 0	,, ,,	9611
,, ,,	14868	,,	do	do	14 0 0	,, ,,	,,
8031 ,,	14842	,,	Ashburnham	Eugowra, &c	1,265 0 0	,, ,,	,,
9378 ,,	14863	,,	Harden	Cootamundry	10 0 0	,, ,,	,,
9173 ,,	14882	,,	Cook	Kanimbla, &c	320 0 0	,, ,,	,,
9633 ,,	14895	,,	Argyle	Uringalla	28 0 30	,, ,,	9612
9365 ,,	14837	,,	Cook	Marangaroo	3,370 0 0	,, ,,	,,
9382 ,,	14885	,,	Gordon	Narragal	28 0 0	,, ,,	,,
8169 ,,	14731	,,	Rous	Murwillumbah	1 3 9	,, ,,	,,
9376 ,,	14877	,,	Gordon	Burrawong	1 0 0	,, ,,	,,
8497 ,,	14876	109	Beresford	Coolringdon	630 0 0	,, ,,	,,
7493 ,,	14870	101	Denison	Tocumwal	2 1 0	,, ,,	,,
9361 ,,	14884	,,	Camden	Picton	0 2 0	,, ,,	,,
9030 ,,	14896	109	Oxley	Carwal	60 0 0	,, ,,	9613
2842 ,,	14827	101	Parry	Nundle	640 0 0	,, ,,	,,
9172 ,,	14886	,,	Wellington	Tambaroora	6 0 0	,, ,,	,,
7493 ,,	14869	,,	Denison	Tocumwal	1 2 0	,, ,,	,,
9252 ,,	14883	11.	Monaramba	Adams	2,600 0 0	,, ,,	,,
9586 ,,	14896	101	Brisbane	Ellerston	31 0 0	,, ,,	,,
8169 ,,	14732	,,	Rous	Murwillumbah	1 2 19	,, ,,	9614
9772 ,,	14983	,,	Narromine	Bulgandramine	436 2 0	,, ,,	,,
9301 ,,	14904	112	Hume	Collindina	105 0 0	12 ,, ,,	9764
9443 ,,	14905	,,	Narran	Bogwanna, &c	2,560 0 0	,, ,,	,,
1923 Ind	14906	101	Camden	Bundanoon	1,450 0 0	,, ,,	,,
10388 Dep	14913	,	Clarence	Southgate	11 2 0	,, ,,	,,
9618 ,,	14932	10'	Oxley	Cuildry	1,100 0 0	,, ,,	,,
,, ,,	14933	,,	do	Terangan	1,500 0 0	,, ,,	,,
10388 ,,	14914	,,	Clarence	Southgate	2 0 16	,, ,,	9765
7985 ,,	14925	,,	Durham	Russell	1 0 0	,, ,,	,,
10076 ,,	14845	,,	Taila	Euston	0 3 20	,, ,,	,,
8421 ,,	14923	101	Durham	Houghton	3 1 38	,, ,,	,,
10388 ,,	14911	,,	Clarence	Southgate	3 3 0	,, ,,	,,
,, ,,	14912	,,	do	do	1 1 26	,, ,,	,,
10076 ,,	14847	,,	Taila	Euston . .	0 3 30	,, ,,	,,
10394 ,,	14921	,,	Yancowinna	Picton	24 2 36	,, ,,	,,
7351 ,,	14903	,,	Benarba	Burrandoon, &c.	360 0 0	,, ,,	,,
9019 ,,	14930	,,	Burnett	Bluenobby	44 0 0	,, ,,	9766
,, ,,	14931	,,	Stapylton	do	390 0 0	,, ,,	,,
9510 ,,	14924	,,	Argyle	Marulan	0 2 0	,, ,,	,,
10388 ,,	14915	,,	Clarence	Southgate .	0 3 4	,, ,,	,,
10076 ,,	14846	,,	Taila	Euston .	0 3 30	,, ,,	,,
9709 ,,	14925	,,	Rous	Runnymede	18 0 0	,, ,,	,,
9713 ,,	14926	,,	Brisbane . .	Castle Sempill	67 3 0	,, ,,	,,
8893 ,,	14546	109	Bland	Jingerangle	593 2 0	,, ,,	,,

Sydney Charles Potter, Government Printer.—1891

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE UNTIL SURVEYED FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Preented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio
					a. r. p.		
Ms. 91-9791 Dep.	14961	109	Leichhardt	Youendah, &c.	1,520 0 0	19 Dec., 1891	9935
9982 ,,	14964	101	Georgiana	Groveland	10 0 0	,, ,,	9937
9979 ,,	14966	,,	do	Copperhannia	4 0 0	,, ,,	,,
9980 ,,	14967	,,	do	Groveland	3 0 0	,, ,,	,,
9981 ,,	14968	,,	Bathurst	Purfleet	2 0 0	,, ,,	,,
9830 ,,	14965	,,	Murray	Molonglo	10 0 0	,, ,,	,,
9888 ,,	14972	112	Northumberland	Ourimbah	6,150 0 0	,, ,,	9938
10043 ,,	15050	,,	Taila	Mallee Cliffs, &c.	22,000 0 0	,, ,,	,,
9257 ,,	14959	101	Wentworth	Gol Gol	3,484 0 0	,, ,,	,,
9924 ,,	14962	,,	Raleigh	Congarinni	8 0 0	,, ,,	9939
9202 ,,	14954	,,	Gipps	Ugalong	3 0 32	,, ,,	,,
8664 ,,	14971	,,	Selwyn	Ouranee	406 0 0	,, ,,	,,
90-9782 ,,	14939	,,	St. Vincent	Currowan	4 3 38	,, ,,	,,
91-9161 ,,	14936	,,	Cook	Strathdon	2 1 20	,, ,,	,,
9127 ,,	14952	,,	Rous	Tuckombil	20 0 0	,, ,,	,,
9748 ,,	14937	,,	Westmoreland	The Peakes	50 0 0	,, ,,	,,
8687 ,,	14935	,,	Hume	Corowa	93 1 0	,, ,,	9940
9953 ,,	14963	,,	Buller	Capeen	180 0 0	,, ,,	,,
9032 ,,	14916	,,	Forbes	Morongla	73 0 0	,, ,,	,,
,, ,,	14917	,,	do	do	229 0 0	,, ,,	,,
,, ,,	14918	,,	do	Wattamondara	147 0 0	,, ,,	,,
8375 ,,	14970	,,	Wellington	Warne	12 0 0	,, ,,	,,
9606 ,,	14942	,,	Dudley	Nulla Nulla	16 3 24	,, ,,	,,
Aln. 91-9675 ,,	14969	,,	Auckland	Panbula	0 2 34¼	,, ,,	9941
9878 ,,	14973	,,	Northumberland	Awaba	16 0 0	,, ,,	,,
Ms. 91-9947 ,,	14938	,,	Wynyard	Humula	10 0 0	,, ,,	,,
10153 ,,	15001	,,	Oxley	Nyngan	100 0 0	9 Jan., 1892	166
10042 ,,	14996	,,	Gresham	Colley	600 0 0	,, ,,	169
10260 ,,	15030	,,	Nandewar	Boggabri	72 0 0	,, ,,	,,
9938 ,,	15005	109	Townsend	Puckaewidgee	60 0 0	,, ,,	170
10142 ,,	15006	,,	Forbes, &c.	Tallabung, &c.	2,376 0 0	,, ,,	,,
9696 ,,	15003	,,	Dowling	Naradhun, &c.	18,000 0 0	,, ,,	,,
9844 ,,	15022	,,	Benarba	Boolmuckledi, &c.	2,460 0 0	,, ,,	,,
,, ,,	15023	,,	do	do	4,300 0 0	,, ,,	171
,, ,,	15024	,,	Courallie	Moree, &c.	4,400 0 0	,, ,,	,,
,, ,,	15025	,,	Stapylton	Bengerang	1,634 0 0	,, ,,	,,
,, ,,	15026	,,	do	do &c.	5,530 0 0	,, ,,	,,
,, ,,	15027	,,	do	Benson, &c	1,946 0 0	,, ,,	172
,, ,,	15028	,,	do	Moppin	1,680 0 0	,, ,,	,,
9762 ,,	15004	,,	Urana	Boree	2,300 0 0	,, ,,	,,
10343 ,,	15051	101	Bathurst	Carlton	20 0 0	,, ,,	,,
8711 ,,	14987	,,	King	Jerrawa	23 0 0	,, ,,	,,
Aln. 91-10291 ,,	15039	,,	Brisbane	Wingen	7 0 0	,, ,,	,,
Ms. 91-10495 ,,	15031	,,	Macquarie	Wingham	4 2 0	,, ,,	,,
,, ,,	15032	,,	do	do	6 0 0	,, ,,	,,
,, ,,	15033	,,	do	do	3 3 0	,, ,,	,,
,, ,,	15034	,,	do	do	12 0 0	,, ,,	,,
10166 ,,	15041	109	Clarence	Stuart	40 0 0	,, ,,	173
10050 ,,	15036	,,	Benarba	Hamilton	35 0 0	,, ,,	,,
9844 ,,	15008	,,	do	Ballalla	330 0 0	,, ,,	,,
,, ,,	15009	,,	do	Boolmuckledi	600 0 0	,, ,,	,,

No. of Papers.	No of Reserve.	Section.	County.	Parish.	Area.			*Government Gazette* in which the description is published.			Folio
					a.	r.	p.				
Ms. 91–9844 Dep.	15010	109	Benarba	Goocalla	420	0	0	9 Jan.,	1892		173
,, ,,	15011	,,	do	Turrawah	575	0	0	,,	,,		,,
,, ,,	15012	,,	Courallie	Bogree	230	3	0	,,	,,		,,
,, ,,	15013	,,	do	do &c.	500	0	0	,,	,,		,,
,, ,,	15014	,,	do	Carore	175	0	0	,,	,,		,,
,, ,,	15015	,,	do	Moree	280	0	0	,,	,,		,,
,, ,,	15016	,,	Stapylton	Bongerang	560	0	0	,,	,,		174
,, ,,	15017	,,	do	Goorara	340	0	0	,,	,,		,,
,, ,,	15018	,,	do	do	360	0	0	,,	,,		,,
,, ,,	15019	,,	do	Moppin	412	1	0	,,	,,		,,
,, ,,	15020	,,	do	do	510	0	0	,,	,,		,,
,, ,,	15021	,,	do	do	589	0	0	,,	,,		,,
10050 ,,	15037	101 & 109	Benarba	Umbri	140	0	0	,,	,,		,,
9283 ,,	14995	112	Gordon	Neurea	560	0	0	,,	,,		,,
10451 ,,	15038	,,	Macquarie	Camden Haven	1,750	0	0	,,	,,		,,
10171 ,,	15042	101	Sandon	Falconer	105	0	0	,,	,,		175
10440 ,,	15043	,,	Raleigh	Bonville	100	0	0	,,	,,		,,
89–14107 ,,	15047	,,	Hardinge	Barlow	856	0	0	,,	,,		,,
,, ,,	15048	,,	do	Laura	585	0	0	,,	,,		,,
,, ,,	15049	,,	do	Chigwell, &c.	3,970	0	0	,,	,,		,,
91–10141 ,,	14997	,,	Camden	Wanganderry	470	0	0	,,	,,		,,
9836 ,,	15000	,,	Cadell	Moama	1	1	0	,,	,,		,,
10453 ,,	15045	,,	Mitchell	Burke	35	1	0	,,	,,		,,
8973 ,,	14986	,,	Harden	Cootamundry	100	0	0	,,	,,		176
9813 ,,	15046	,,	Macquarie	Wingham	3	0	0	,,	,,		,,
8751 ,,	14953	,,	Bland	Bundawarrah	14	1	30	,,	,,		,,
9925 ,,	14998	,,	Bathurst	Cole, &c	30	0	0	,,	,,		,,
10118 ,,	15029	,,	Leichhardt	Mouiabie, &c.	4,400	0	0	,,	,,		,,
9793 ,,	15035	,,	Northumberland	Newcastle	0	2	0	,,	,,		,,
Aln. 91–10291 ,,	15040	,,	Brisbane	Wingen	112	0	0	,,	,,		177

Sydney: Charles Potter, Government Printer.—1892.

[3*d.*]

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply, or other Public Purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No. of Papers.	No. of Reserve.	Section.	County.	Parish.	Area.	*Government Gazette* in which the description is published.	Folio.
					a. r. p.		
Ms. 91-10370 Dep.	15053	109	Gordon	Dilga, &c.	410 0 0	16 Jan., 1892	400
9347 ,,	15061	,,	Gough, &c.	Wellingrove, &c.	1425 0 0	,, ,,	401
10482 ,,	15054	101	Cowley	Tharwa	2 0 0	,, ,,	,,
10552 ,,	15063	,,	Auckland	Bimmel	35 0 0	,, ,,	,,
10371 ,,	15055	101 & 109	Gordon	Cardington	15 0 0	,, ,,	,,
9302 ,,	15052	101	Hume	Therwyn	142 2 0	,, ,,	,,
10539 ,,	15062	,,	Inglis	Congi	8 0 0	,, ,,	402
92-305 ,,	15191	,,	Clarendon	Ulandra	56 0 0	20 ,, ,,	459
,, ,,	15192	,,	do	do	70 0 0	,, ,,	,,
,, ,,	15193	,,	do	do	90 0 0	,, ,,	,,
,, ,,	15194	,,	do	do	240 0 0	,, ,,	,,
,, ,,	15195	,,	do	do	1765 0 0	,, ,,	,,
91-10771 ,,	14994	109	Taila	Taila	320 0 0	23 ,, ,,	572
10206 ,,	15083	101	Gloucester	Womboin, &c.	480 0 0	,, ,,	573
10202 ,,	14527	,,	Hume	Goombargana	57 2 29	,, ,,	,,
9949 ,,	15074	,,	Wynyard	Humula	130 3 0	,, ,,	,,
8449 ,,	14600	,,	Wellesley	Nimmitabel	4 3 0	,, ,,	,,
10205 ,,	15082	,,	Gloucester, &c.	Beean Beean, &c.	18 0 0	,, ,,	,,
9990 ,,	15057	,,	Cumberland	Narrabeen	10 0 0	,, ,,	574
92-128 Ind.	15069	,,	Monteagle	Brundah	113 2 3	,, ,,	,,
91-9693 Dep.	15073	,,	Buccleuch	Darbalara	650 0 0	,, ,,	,,
9352 ,,	15071	,,	Sandon	Metz	4 0 0	,, ,,	,,
,, ,,	15072	,,	do	do	169 1 16	,, ,,	,,
9949 ,,	15075	,,	Wynyard	Humula	2 0 0	,, ,,	,,
10704 ,,	15070	,,	Harden	Cootamundry	2 0 0	,, ,,	,,
10566 ,,	15111	,,	Clarence	Rushforth	870 0 0	30 ,, ,,	856
11065 ,,	15104	,,	Forbes	Bogalong	40 3 0	,, ,,	,,
9513 ,,	15119	,,	Gough	Rusden	120 0 0	,, ,,	,,
91-10911 ,,	15124	,,	Urana	Clear Hill	982 0 0	,, ,,	,,
10069 ,,	15116	,,	Monteagle	Brundah	12 2 0	,, ,,	,,
10609 ,,	15128	,,	Yancowinna	Picton	2 1 24	,, ,,	,,
10217 ,,	15076	,,	Gloucester	Boranel	175 0 0	,, ,,	857
,, ,,	15077	,,	do	Knowla	1600 0 0	,, ,,	,,
,, ,,	15078	,,	do	Bindera	1800 0 0	,, ,,	,,
,, ,,	15079	,,	do	Wawgan, &c.	1950 0 0	,, ,,	,,
,, ,,	15080	,,	do	Barrington	2600 0 0	,, ,,	,,
,, ,,	15081	,,	do	Knowla, &c.	3000 0 0	,, ,,	,,
10932 ,,	15085	,,	Drake	West Fairfield	9 0 0	,, ,,	858
10037 ,,	15107	,,	Bathurst	Waldegrave	1 3 0	,, ,,	,,
9445 ,,	15247	,,	Dampier	Currambenne, &c.	710 0 0	,, ,,	,,
10721 ,,	15087	,,	Ashburnham	Cudal	108 0 0	,, ,,	,,
11027 ,,	15109	,,	Buller	Boonoo Boonoo	2 0 0	,, ,,	,,
10185 ,,	15091	,,	Wellington	Muckewa	1400 0 0	,, ,,	859
10933 ,,	15086	,,	Drake	West Fairfield	11 0 0	,, ,,	,,
10484 ,,	15108	,,	Wakool	Binbinette	172 0 0	,, ,,	,,
10644 ,,	15122	,,	Cumberland	Castlereagh	22 2 10	,, ,,	,,
11049 ,,	15112	,,	Inglis	Muluerindi	43 0 0	,, ,,	,,
11038 ,,	15110	,,	Gordon	Warraberry	10 0 0	,, ,,	,,
11109 ,,	15114	109	Franklin	Moolbong	560 0 0	,, ,,	860

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio.
					a. r. p.		
Ms. 91 10957 Dep	15101	109	Yancowinna	Alma	383 0 0	30 Jan , 1892	860
10877 ,,	15123	,,	Urana	Jerilderie South	107 0 0	,, ,,	,,
11107 ,,	15113	,,	Mossgiel	Ballah, &c	414 0 0	,, ,,	,,
10545 ,,	15120	101	Courallie	Moree	16 0 0	,, ,,	,,
,, ,,	15121	,,	do	do	18 0 0	,, ,,	,,
10825 ,,	15068	,,	Bland	Bribaree	3 2 0	,, ,,	,,
10695 ,,	15093	,,	Beresford	Cooma	1 0 0	,, ,,	861
10875 ,,	15097	,,	Durham	Dungog	2 0 0	,, ,,	,,
10369 ,,	15159	109	Clarence	Banyabba	300 0 0	6 Feb , 1892	1070
6947 ,,	15180	101	St Vincent	Monga	1 1 0	,, ,,	1071
,, ,,	15181	,,	do	do	1 3 0	,, ,,	,,
,, ,,	15182	,,	do	do	2 0 0	,, ,,	,,
,, ,,	15183	,,	do	do	2 0 0	,, ,,	,,
,, ,,	15184	,,	do	do	2 0 0	,, ,,	,,
,, ,,	15185	,,	do	do	2 1 0	,, ,,	,,
,, ,,	15186	,,	do	do	4 3 0	,, ,,	,,
10663 ,,	15171	,,	Wynyard	Hindmarsh, &c	225 0 0	,, ,,	,,
92-337 ,,	15181	,,	Denison	Savernake	116 0 0	,, ,,	,,
16 ,,	15157	,,	Pottinger	Gerrawillie	400 0 0	,, ,,	,,
42 ,,	15160	112	Ashburnham	Goimbla	10700 0 0	,, ,,	1072
335 ,,	15187	,,	Pottinger	Gullendaddy	1707 2 0	,, ,,	,,
14 ,,	15156	101	Gowen	Coonabarrabran	400 0 0	,, ,,	,,
91-3671 ,,	15168	,,	Ashburnham	Brymedura	6 3 10	,, ,,	,,
6947 ,,	15173	,,	St Vincent	Monga.	2 0 16	,, ,,	,,
,, ,,	15174	,,	do	do	2 0 0	,, ,,	,,
,, ,,	15175	,,	do	do	2 0 0	,, ,,	,,
,, ,,	15176	,,	do	do	2 0 0	,, ,,	,,
10139 ,,	15155	,,	Pottinger	Yaraman	50 0 0	,, ,,	1073
Aln 91-11407 ,,	15115	,,	Gough	Rusden	13 0 0	,, ,,	,,
Ms 92-337 ,,	15188	,,	Pottinger	Rodd	40 0 0	,, ,,	,,
185 ,,	15158	,,	Hunter	Poppong	40 0 0	,, ,,	,,
91-6947 ,,	15177	,,	St Vincent	Monga	2 10 0	,, ,,	1074
,, ,,	15178	,,	do	do	1 1 0	,, ,,	,,
,, ,,	15179	,,	do	do	16 0 0	,, ,,	,,
10113 ,,	15170	109	Tongorooko, &c	Wanpah, &c	138 sq. miles	,, ,,	,,
92-177 ,,	15161	101	Macquarie	Tinebank .	120 0 0	,, ,,	,,
235 ,,	15172	,,	Bligh.	Worobil	19 0 0	,, ,,	,,

Sydney Charles Potter, Government Printer —1892

[3*d*.]

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE UNTIL SURVEYED FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES)

Presented to Parliament, pursuant to Act 48 Vic No. 18.

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply, or other public purposes, in accordance with the 101st, 109th, and 112th sections of the Act 48 Victoria No. 18.

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a r p		
Ms 91-10893 Dep	15138	101	Argyle	Collector	210 0 0	13 Feb, 1891	1279
92-210 ,,	15222	,,	Ashburnham	Currajong	81 0 26	,, ,,	,,
91-10893 ,,	15137	,,	Argyle	Collector	70 0 0	,, ,,	,,
92-210 ,,	15223	,,	Ashburnham	Kamandra	114 0 0	,, ,,	,,
259 ,,	14087	109	Oxley	Ganalgang	1790 0 0	,, ,,	,,
260 ,,	15215	,,	Gregory	Mount Foster	160 0 0	,, ,,	1280
91-10567 ,,	15252	,,	Denham	Pokataroo, &c	9600 0 0	,, ,,	,,
10731 ,,	15219	,,	Franklin	Wheallah	445 0 0	,, ,,	,,
2966 ,,	15212	101	Durham	Uffington	8 0 0	,, ,,	,,
10895 ,,	15225	,,	Drake	West Fairfield	5 0 0	,, ,,	,,
92 197 ,,	15166	,,	Cumberland	Heathcote	50 2 0	,, ,,	1281
91-10529 ,,	15214	,,	Macquarie	Macquarie	10 3 0	,, ,,	,,
10950 ,,	15154	,,	Waradgery	Hay	10 3 4	,, ,,	,,
92-301 ,,	15229	,,	Gunderbooka	North Bourke	1 0 0	,, ,,	,,
197 ,,	15163	,,	Cumberland	Heathcote	2 0 0	,, ,,	,,
,, ,,	15164	,,	do	do	1 0 37¾	,, ,,	,,
,, ,,	15165	,,	do	do	7 1 14	,, ,,	,,
91-10850 ,,	15152	,,	Rous	Ballina	2 0 0	,, ,,	,,
92-289 ,,	15228	,,	Brisbane	Merriwa	2 0 0	,, ,,	,,
391 ,,	15230	,,	Beresford	Undoo	8 2 20	,, ,,	1282
392 ,,	15231	,,	do	Wangrah	10 0 0	,, ,,	,,
91-10529 ,,	15213	,,	Macquarie	Macquarie	33 2 22	,, ,,	,,
10731 ,,	15220	109	Franklin	Wheallah	640 0 0	,, ,,	,,
92-197 ,,	15162	101	Cumberland	Heathcote	2 1 15	,, ,,	,,
264 ,,	15227	,,	Gregory	Gardiner, &c	1720 0 0	,, ,,	,,
139 ,,	15136	,,	Coutalhe	Moree	5 0 0	,, ,,	,,
91-2966 ,,	15211	,,	Durham	Uffington	39 0 10	,, ,,	,,
10567 ,,	15248	109	Denham	Burwan	640 0 0	,, ,,	1283
,, ,,	15249	,,	do	do	640 0 0	13 Feb, 1892	,,
,, ,,	15250	,,	do	do, &c	640 0 0	,, ,,	,,
,, ,,	15251	,,	do	Pokataroo	640 0 0	,, ,,	,,
4256 ,,	15205	,,	Macquarie	Mackay	2 0 0	,, ,,	,,
,, ,,	15206	,,	do	do	6 0 0	20 ,, ,,	1466
10866 ,,	15196	101	Cumberland	Berowra	2 3 24½	,, ,,	,,
,, ,,	15197	,,	do	do	3 2 17¾	,, ,,	,,
9835 ,,	15261	109	Hardinge	Elderbury	620 0 0	,, ,,	,,
10568 ,,	15262	,,	Boyd	Uroly	280 0 0	,, ,,	1467
92-169 ,,	15263	101	Cadell	Moama	0 3 0	,, ,,	,,
11 ,,	15265	,,	Bathurst	Orange	3 0 0	,, ,,	,,
788 ,,	15312	,,	Cumberland	Field of Mars	12 3 30	27 ,, ,,	1691
462 ,,	15310	,,	do	Ham Common	2 0 33	,, ,,	1690
91-10374 ,,	15300	,,	Mouramba	Devon	40 0 0	,, ,,	1691
92-352 ,,	15267	109	Narromine	Mingelo	640 0 0	,, ,,	,,
475 ,,	15280	,,	Yancowinna	Myalla	640 0 0	,, ,,	1692
,, ,,	15281	,,	do	do.	640 0 0	,, ,,	,,
477 ,,	15284	,,	Tandora	Sturt	640 0 0	,, ,,	,,
,, ,,	15285	,,	do	do	640 0 0	,, ,,	,,
183 ,,	15302	101	Rous	Mullumbimby	423 0 0	,, ,,	,,
584 ,,	15264	,,	Durham	Russell	0 1 14	,, ,,	,,
91-3555 Ind	15266	,,	Auckland	Bega	2 2 0	,, ,,	,,
92-462 Dep	15309	,,	Cumberland	Ham Common	0 1 20½	,, ,,	,,
638 ,,	15303	,,	Roxburgh	Sofala, &c	6150 0 0	,, ,,	1693
544 ,,	15278	109	Gipps	South Condobolin	3090 0 0	,, ,,	,,
483 ,,	15311	101	St Vincent	Tomboye	6 0 0	,, ,,	,,
509 ,,	15290	,,	Fitzroy	Coundi	8 0 0	,, ,,	1694
137 ,,	15391	101	Raleigh	Denison	12 1 20	,, ,,	,,
91-10092 ,,	15299	112	Roxburgh	Yetholme	108 0 0	,, ,,	,,
8362 ,,	14740	101	Sandon	Metz	0 1 26	,, ,,	,,

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES)

Presented to Parliament, pursuant to Act 48 Vic No 18, secs. 101 and 109

ABSTRACT of Crown Lands reserved from sale for the preservation of Water Supply, or other public purposes, in accordance with the 101st and 109th sections of the Act 48 Victoria No. 18.

No of Papers	No of Reserve	Section	County	Parish	Area	*Government Gazette* in which the description is published	Folio
					a. r. p		
Ms 92-840 Dep	15368	101	Westmoreland	The Peaks	382 0 0	2 Mar., 1892	1791
1284 ,,	15383	,,	Wentworth	Wentworth	1 0 0	,, ,,	1792
,, ,,	15384	,,	do	do	2 0 0	,, ,,	,,
Aln. 91-10410 ,,	14980	,,	Oxley, &c	Warren, &c	6,040 0 0	5 ,, ,,	1894
Ms. 91-10337 ,,	15321	,,	Ashburnham	Trajere	100 0 0	,, ,,	1895
,, ,,	15322	,,	do	do	270 0 0	,, ,,	,,
,, ,,	15323	,,	do	Nanami	290 0 0	,, ,,	,,
92-639 ,,	15326	,,	Kennedy	Burrill	116 0 0	,, ,,	,,
Aln 91-10410 ,,	14974	,,	Oxley	Warren	26 0 0	,, ,,	,,
,, ,,	14975	,,	do	do	27 0 0	,, ,,	,,
,, ,,	14976	,,	do	do	38 0 0	,, ,,	,,
,, ,,	14977	,,	Ewenmar	Umangla	49 0 0	,, ,,	,,
,, ,,	14978	,,	do	do	84 0 0	,, ,,	,,
,, ,,	14979	,,	do	do	95 0 0	,, ,,	,,
Ms 92-524 ,,	15307	,,	Georgiana	Carrawa	108 0 0	,, ,,	1896
,, ,,	15308	,,	do	do, &c	300 0 0	,, ,,	,,
91-10337 ,,	15318	,,	Ashburnham	Nanami	640 0 0	,, ,,	,,
,, ,,	15319	,,	do	Trajere	640 0 0	,, ,,	,,
,, ,,	15320	,,	do	do	345 0 0	,, ,,	,,
92-524 ,,	15305	,,	Georgiana	Currawa	1,450 0 0	,, ,,	,,
652 ,,	15327	,,	Westmoreland	Joorilland	5 0 0	,, ,,	,,
362 ,,	15295	,,	Gloucester	Korngа	550 0 0	,, ,,	,,
91-10338 ,,	15088	,,	Wynyard	Adelong, &c	360 0 0	,, ,,	1897
,, ,,	15089	,,	do	Tumut	388 0 0	,, ,,	,,
92-324 Ind	15324	,,	Townsend	Conargo	650 0 0	,, ,,	,,
524 Dep	15306	,,	Georgiana	Carrawa	6,200 0 0	,, ,,	,,
91-11101 ,,	15325	,,	Narromine	Mingelo	10 0 0	,, ,,	,,
92-838 ,,	15338	,,	Cumberland	Frederick	8 0 0	,, ,,	1898
Aln 92-322 ,,	15360	,,	Ashburnham	Forbes	39 2 0	12 ,, ,,	2071
Ms 91-5785 ,,	15347	,,	Gloucester	Tinonee	1 0 0	,, ,,	,,
,, ,,	15348	,,	do	do	14 2 0	,, ,,	,,
92 949 ,,	15355	,,	Westmoreland	Ganbenang	35 0 0	,, ,,	,,
966 ,,	15356	,,	Murray	Molonglo	10 0 0	,, ,,	,,
914 ,,	15354	,,	Forbes	Bang Bang	80 0 0	,, ,,	,,
91-5785 ,,	15345	,,	Gloucester	Tinonee	3 0 0	,, ,,	,,
92-790 ,,	15337	,,	Cumberland	Cowan	0 0 26	,, ,,	2072
841 ,,	15357	,,	Gipps	Ugalong	104 1 0	,, ,,	,,
546 ,,	15336	,,	Richmond	Bungawalbin	101 0 0	,, ,,	,,
91-5785 ,,	15349	,,	Gloucester	Tinonee	1 0 0	,, ,,	,,
92-848 ,,	15353	,,	Auckland	Wyndham	73 0 0	,, ,,	,,
91-5785 ,,	15346	,,	Gloucester	Tinonee	1 0 0	,, ,,	,,
9186 ,,	15335	,,	Darling	Barraba	0 1 35	,, ,,	2073
92-860 ,,	15358	109	Murchison	Derra Derra	85 0 0	,, ,,	,,
,, ,,	15359	,,	do	Tange	320 0 0	,, ,,	,,
1036 ,,	15401	101	Camden	Colo	559 0 0	16 ,, ,,	2169
91-10852 ,,	15340	,,	Gough	Rusden	12 0 36	19 ,, ,,	2283
,, ,,	15339	,,	do	do	23 3 0	,, ,,	,,
10179 ,,	15329	,,	Clive	Tenterfield	9 0 0	,, ,,	2284

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 4TH AND 101ST SECTIONS OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 4 and 101.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Abercrombie (Village)	15	Nil	County of Georgiana, parish of Tuena.	30 May, 1891, folio 4041
The Pinnacles (Village)	40	Nil	County of Yancowinna, parish of Alma.	2 June, 1891, folio 4105.
Dungog (Town)	435	455	County of Durham, parish of Dungog.	4 July, 1891, folio 5064.
Bundarra (Town)	500	1,000	County of Hardinge, parish of Bundarra.	4 July, 1891, folio 5065.
Tambaroora (Town)	125	300	County of Wellington, parishes of Tambaroora, &c.	18 July, 1891, folio 5495.
Richmond (Town)	300	Nil	County of Cumberland, parish of Ham Common.	25 July, 1891, folio 5830.
Cunningar (Village)	180	550	County of Harden, parish of Cunningar.	25 July, 1891, folio 5830.
Ivanhoe (Village)	170	Nil	County of Mossgiel, parish of Ivanhoe.	25 July, 1891, folio 5830.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 4TH AND 101ST SECTIONS OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 4 and 101.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Wyee (Town)	150	1,000	County Northumberland, parish Morrisset.	22 August, 1891, page 6632.
Canowindra (Village)	372	250 and 176	County Bathurst, &c., parish Canowindra, &c.	22 August, 1891, page 6648.
Maclean Village)	.....	600	County Clarence, parish Taloumbi.	22 August, 1891, page 6648.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 4th AND 101st SECTIONS OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Wellington (Town)	1,200	2,700	County Wellington, &c., parish Wellington, &c.	29 August, 1891, folio 6979.
Nuntherungie (Village)	800	.....	County Yungnulgra, parish Woraro.	19 September, 1891, folio 7484.
Hay, South (Town)	.....	150	County Waradgery, parish South Hay.	19 September, 1891, folio 7489.

[3d.] 356—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 4TH AND 101ST SECTIONS OF THE ACT 48 VIC. No. 18)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Gooloongolok (Village).....	190	300	County of Gloucester, parish of Curreeki.	26 September, 1891, folio 7663.
Greta (Town).....	460	620	County of Northumberland, parish of Branxton.	3 October, 1891, folio 7879.
Wombat (Village)	140	120	County of Harden, parish of Wilkie.	31 October, 1891, folio 8725.

[3d. 483—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 4TH AND 101ST SECTIONS OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Corruga	300	....	County of Yanccwinna, parish of Nadbuck.	18 November, 1891, folio 9077.
Tocumwal (Village Extension)	72	.....	County of Denison, parish of Tocumwal.	5 December, 1891, folio 9616.
Broulee (Village)	150	240	County of St. Vincent, parish of Broulee.	5 December, 1891, folio 9616.
Southgate (Village)	110	310	County of Clarence, parish of Southgate.	12 December, 1891, folio 9768.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE 101ST SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Sites for Cities, Towns, and Villages, declared under the 101st section of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
Coraki (Village)	acres. 370	acres. 1,460	County of Richmond, &c., parish of West Coraki, &c.	19 December, 1891, folio 9944.

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 4 and 101.

ABSTRACT of Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria, No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Turimetta (Village)	64	84	County of Cumberland, parish of Narrabeen.	23 January, 1892, folio 571.
Monga (Village).....	135	55	County of St. Vincent, parish of Monga.	6 February, 1892, folio 1076.
	perches.			
Alma (Town Extension)	30	—	County of Yancowinna, parish of Picton.	6 February, 1892, folio 1076.

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, secs. 4 and 101.

ABSTRACT of all Sites for Cities, Towns, and Villages, declared under the 4th and 101st sections of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	a. r. p.	acres.		
Helensburgh West (Village) ...	78 0 0	180	County of Cumberland, parish of Heathcote.	13th February, 1892, folio 1273.
Willyama	—	Extension 1595	County of Yancowinna, parish of Picton.	13th February, 1892, folio 1287.
Maroota (Village).....	36 0 0	3690	County of Cumberland, parish of Berowra.	20th February, 1892, folio 1461.
Aberdeen (Village)	146 0 0	394	County of Durham, parish of Russell.	27th February, 1892, folio 1698.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES, DECLARED UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 101.

ABSTRACT of Sites for Cities, Towns, and Villages, declared under the 101st section of the Act 48 Victoria No. 18.

City, Town, or Village.	Area for City, Town, or Village.	Area for Suburbs.	Locality.	*Government Gazette* in which published.
	acres.	acres.		
Moree (Town	830	1480	County of Courallie, parish of Moree.	5 March, 1892, folio 1901.
Bowra	.....	690 ex.	County of Raleigh, parish of Missabotti.	12 March, 1892, folio 2074.
Tinonee (Town)	230	440	County of Gloucester, parish of Tinonee.	12 March, 1892, folio 2074.

[3*d*.] 864—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE 107TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 107.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Bundarra (Town)	4 July, 1891, folio 5064.
Dungog (Town and Suburban Lands)	4 July, 1891, folio 5064.
Nimmitabel (Town)	4 July, 1891, folio 5064.
Tambaroora (Town and Suburban Lands)	18 July, 1891, folio 5496.
Cunningar (Village and Suburban Lands)	25 July, 1891, folio 5830.
Ivanhoe (Village)	25 July, 1891, folio 5831.
Coonabarrabran (Town)	25 July, 1891, folio 5831.

[3d.] 125—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE 107TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 107.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Willyama (Town)	8 August, 1891, page 6182.
Canowindra (Village)	22 August, 1891, page 6648.
Canowindra (Village and Suburban Land)	22 August, 1891, page 6648.

[3d.] 244—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE 107TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Cowra (Town)	19 September, 1891, folio 7484.

[3d.] 357—

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE 107TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Yass (Town)	24 October, 1891, folio 8367.
Wagga Wagga South (Town)	31 October, 1891, folio 8725.
Woimbat (Village)	31 October, 1891, folio 8725.
Merriwa (Village)	14 November, 1891, folio 8994.

[3d.] 482—

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Coraki (Village)	19 December, 1891, folio 9945.
Moama (Town)	9 January, 1892, folio 178.

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES.

Presented to Parliament, pursuant to Act 48 Vic. No. 18, Sec. 107.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village	*Government Gazette* in which alteration is notified.
Dungog (Town)	16 January, 1892, folio 403.
Drake (Village)	30 January, 1892, folio 865.
Monga (Village)	6 February, 1892, folio 1076.

1891-2.

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 107.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Aberdeen (Village)	27 February, 1892, folio 1698.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS OF DESIGNS OF CITIES, TOWNS, AND VILLAGES, UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 107.

ABSTRACT of Alterations of Designs of Cities, Towns, and Villages, under the 107th section of the Act 48 Victoria No. 18.

Town or Village.	*Government Gazette* in which alteration is notified.
Tinonee (Town)	12 March, 1892, folio 2073.

[3*d*. 865 —

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place	County	Portion	Allotment	Section	Locality.	Area a r p	To what purpose dedicated.	No of Papers.	Catalogue No of Plan
Mitchell's Island	Macquarie	231	.		Parish of Oxley	0 2 0	Site for Mechanics' Institute	90-16,591	Ms 3094-666
OBX Creek	Fitzroy	43			Parish of Ermington	2 0 0	Public School Site	90- 9,507	F 955 1810
Peak Hill	Narromine				Parish of Mingelo	13 0 32	General Cemetery	90 11,552	Ms 169 D O
Tocumwall	Denison .		4	24	Village of Tocumwal	0 2 0	Site for Mechanics' Institute	90-17,394	T 9-1816
Willyama	Yancowinna				Parish of Picton	1 0 0	General Cemetery (extens on)	90-17,176	Ms 236 B E
Chatham Valley	Westmoreland	71			Parish of Duckmaloi	2 0 0	Public School Site	89-12 684	W 1,933-1,502
Ford s Bridge	Gunderbooka	8			Parish of Ford s Bridge	2 0 0	do	90-10,132	G 214 1,944
Gum Springs	Ashburnham	97			Parish of Eurowra	2 0 0	do	90-11,886	A 4,616-1,770
Mullumbimby	Rous		1	8	Village of Mullumbimby	0 1 0	Site for Mechan es' Institute.	90-18,007	Mullum bimbi, 3
Nerriga	St Vincent	4			Parish of Meangora	2 0 0	do	90-16 776	N 2,192-2 013
Rock Forest	Wallace	93			Parish of Wallgrove	2 0 0	Public School Site	90 11,887	W 3,861-1,604
Alectown	Kennedy				Parish of Houston	5 3 37	General Cemetery	90 14,118	Ms 68 Fs
Bald Nob	Gough	50			Parish of Bloxsome	2 0 0	Public School Site	90- 9 891	G 4,424-1 761
Bankstown	Cumberland				Parish of Liberty Plains	21 0 0	Public Recreation	91-1 3o2 D	C 1,4o4 2 030
Binnaway	Napier	75			Parish of Binnaway	2 0 0	Public School Site	91-1 031 D	N 599-1 833
Birriwa	Bligh	102			Parish of Wargundy	2 0 0	do	90 18 814	B 2,709-1 o70
Blowering West	Selwyn	111			Parish of Yellowin	2 0 0	do	90-16,771	S 1,302-1 o22
Bowning	Harden				Village of Bowning	8 3 0	General Cemetery	91- 487 D	Ms 242 Gbn
Bowral . .	Camden				Parish of Mittagong	10 0 0	do	91- 624 I	Ms 183 Gbn
Brelsford	Fitzroy		11	6	Village of Brelsford	0 1 0	Site for Mechanics' Institute	91 1,607 D	B 2-2,453
Charlestown	Northumberl'nd				Parish of Kahibah	13 2 18	General Cemetery	91- 682 D	Ms 296 Md
Cheviot	Clarence	39			Parish of Lawrence	2 0 0	Public School Site	90-17,802	C 1,641-1 577
Clonalton	King .	98	.		Parish of Graham	3 0 0	do	90-18,507	K 5,016-1 995
Coopernook	Macquarie	151			Parish of Lansdowne	2 0 0	do (addition)	90-17,261	Ms 3,083 666
Copeland	Gloucester		10	27	Village of Copeland	0 2 0	Site for Mechanics' Institute	91-1,073 I	C 24 2,219
Glencoe	Gough				Parish of Fletcher	16 2 0	General Cemetery	90 12,891	Ms 188 Ac
Graman .	Arrawatta	64	.		Parish of Graman	1 0 0	Public School Site	91 1 985 I	A 1 520 1 847
Gulgong	Phillip		5	23	Village of Gulgong	0 1 19	Site for Town Hall	91-4,078 D	G 140 2,089
Gullen West	King	368			Parish of GrabbenGullen	2 0 0	Public School Site	90 12,439	K 4 995-1,995
Hay	Waradgery				Town of Hay	0 0 24	Addition to Site for Municipal Buildings	90-18,898	Ms 64 Hay
Humula	Wynyard .				Parish of Umbango	7 3 30	General Cemetery	90-16,820	Ms 141 Wga
Krambach	Gloucester				Parish of Kundibakh	13 2 6	do	90 14 126	Ms 284 Md
Little Gundary	Argyle	112			Parish of Gundary	2 0 0	Public School Site	91-3,671 D	A 2,717-2 121
Mathoura	Cadell			Part 99	Town of Mathoura	0 0 18	do (addition)	88-1 944	P 487 1 978
Morangarell	Bland				Parish of Morangarell	11 0 0	General Cemetery	90 1,942	C 1,049-1 984
Munyabla	Urana .	111			Parish of Munyabla	2 0 0	Public School Site	91- 683 D	U 2,392-1 881
Nimbin	Rous				Parish of Terania	13 1 20	General Cemetery	90 15 127	Ms 176-G fn
Oxley	Waljeers				Parish of Tooralboung	14 1 24	do	91- 631 D	Ms 62 Hay
Parramatta	Cumberland				Town of Parramatta	0 2 3¾	Public School site (addition)	91- 899 D	Ms 369 Sy
Round Mount	Hardinge	65			Parish of Mayo	2 0 0	Public School Site	91- 659 D	H 2,566-1,762
St Peter's	Cumberland				Parish of Petersham	10 0 0	Public Recreation	91 2,808 D	Ms 403 Sy
Tuncurry	Gloucester				Parish of Tuncurry	12 2 9	General Cemetery	91-3,076 D	Ms 322 Md
Waratah	Northumberl'd				Parish of Newcastle	3 0 11¾	Site for Gasworks	91-2,1o2 D	N 2,633 2 111
Webb's Creek	Hunter				Parish of Wonga	0 3 24½	Public School Site	91-3,744 D	Ms 398 Sy
Willyama	Yancowinna				Town of Willyama	0 1 8	Site for Mechanics' Institute, Museum, Hall, or other Institution for Public Amusement	91-3,492 D	
Young Wallsend	Northumberl d	103			Parish of Teralba	1 3 35	Public School Site	90-13,367	N 2,077-2 111
Airlie Brake (Goomoorah)	Arrawatta	69			Parish of Bergundy	2 0 0	do	91 1,878 D	A 1,533 1,847
Alectown	Kennedy			Part of Sec 8	Village of Alectown	2 0 0	do	90-17,793	Alectown 2
Burrangong	Monteagle	1,194			Parish of Young	2 0 13	do	91-4,031 D	M 4,496-1,780

Place.	County.	Portion.	Allotment	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Catalogue No. of Plan.
						a r. p.			
Darby's Branch	Hardinge	15			Parish of Cope's Creek	2 0 0	Public School Site	91-1,987 D	H 2,599-1,762
Dungog	Durham	135			Parish of Dungog	5 2 0	Hospital Site	91-2,879 D	D. 3,369-2,083
Dunoon	Rous	114			Parish of Dunoon	2 0 0	Public School Site	91-1,474 D	R. 4,559-1,759
Hawkesbury, Lower.	Northumberl'd	64			Parish of Spencer	1 0 0	do	91-4,387 D	N. 3,053-2,111
Kookabookra	Clarke	13			Parish of Seeley	2 0 0	do	91- 379 D	C. 1,102-1,867
Maude	Waradgery				Parish of Maude	14 1 22½	General Cemetery	91-2,437 D	Ms. 66 Hy.
Mount Wilson	Cook	81			Parish of Irvine	2 0 0	Public School Site	91-3,745 D	C. 1,517-1,507
Parkes	Ashburnham	563			Parish of Currajong	12 1 17	Show Ground (extens'n)	91-4,383 D	A 4,717-1770
Purnamoota	Yancowinna		13	14	Village of Purnamoota	0 1 0	Site for Mechanics' Institute.	90-15,036	P. 1-2,323
Redbank	Arrawatta	24			Parish of Redbank	2 0 0	Public School Site	91-1,079 D	A. 1,537-1,847
Tamworth	Inglis		11	54	Town of Tamworth	2 0 0	do	91-3,286 D	T. 56-1,393
Tintenbar	Rous		1	5	Village of Tintenbar	0 1 0	Site for Mechanics' Institute.	91-4,601 D	T. 4-1,930
Tumut	Wynyard		5	57	Suburbs of Tumut	5 0 16	Show Ground (extens'n)	91-1,981 D	T. 24-1,344
Urangeline	Urana	69			Parish of Clive	2 0 0	Public School Site	91-1,986 D	U. 2,393-1,881
Waratah	Northumberl'd	2,411 2,412 & 2,413			Parish of Newcastle	0 2 14½	Town Hall Site	91-4,796 D	N. 3,072-2,111
Adamstown	do	2,396			do	0 1 4¼	do	91-5,933 D	N. 3,079-2,111
Galston	Cumberland	181			Parish of North Colah	10 0 0	Public Recreation	91-2,132 I	C. 1,488-2,030
Taree	Macquarie	127			Parish of Taree	10 0 0	do	91-5,288 D	M. 2,836-666
Wollongong	Camden				Town of Wollongong	1 2 17½	do	91-5,750 D	Ms. 405 Sy.

[3*d*.] Sydney: George Stephen Chapman, Acting Government Printer.—1891.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE RESERVED FOR PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be reserved for Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Cat No. of Plan.
						a. r. p.			
Adamstown	Northumberland.	..	.....	.	Parish of Newcastle	25 1 10	Public Recreation ..	Misc 91- 2,596	Ms 43 Md., Roll
Do ...	do ..	2324	.....	....	do ..	69 0 0	Racecourse	Dep. 91- 147	N. 2,947-2,111
Do	do .	1654	.....	.. .	do ...	0 1 20	Post and Telegraph Office Site.	Ind. 90-18,353	Newcastle Pasturage Res. Plan.
Armidale	Sandon . ..	. .	8	57	City of Armidale	0 1 24	Site for Mechanics' Institute.	90-16,635	Town Plan.
Barraba	Darling	...	13, 14, 15, 16	14	Town of Barraba ...	1 3 20	Public School Site ..	90-17,601	B. 15-1,498.

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area.			To what purpose dedicated.	No. of Papers.	Catalogue No. of Plan.
						ac.	r.	p.		Misc.	
Adamstown	Northumberland.	....	.....	....	Parish of Newcastle....	25	1	10	Public Recreation.....	91-2,562 Ind.	Ms. 43 Md. Roll.
Dundas	Cumberland ..	....	.....	....	Parish of Field of Mars..	10	0	0	Public Recreation.....	91-6,216 Dep.	Ms. 469 Sy.
Maybole.....	Gough	....	.....	....	Parish of Macintyre....	9	1	13	General Cemetery.....	91-5,302 Dep.	Ms. 245 Ac.
Nimmitabel	Wellesley.....	....	.....	14 & 19	Town of Nimmitabel ..	13	0	0	Public Recreation.	91-5,361 Dep.	Town plan.
St. Leonards (N. Sydney.)	Cumberland ..	....	.. ...	....	Parish of Willoughby ..	0	0	28½	Town Hall Site..	91-6,499 Dep.	S. 39-1,093
Temora	Bland	....	.....	....	Town of Temora..	0	0	4⅓	Public School Site (extension.)	91-3,903 Dep.	T. 5-2,244 Roll.
Trundle.....	Cunningham ..	....	.....	....	Parish of Trundle	5	3	14	General Cemetery.....	91-6,166 Dep.	Ms. 79 Fs.
Tumut	Wynyard.....	....	.....	....	Town of Tumut.....	15	0	20	Public Recreation.....	91-6,844 Dep.	Ms. 146 Wga.
Tuncurry	Gloucester	....	.....	....	Parish of Tuncurry	12	2	9	General Cemetery.....	91-2,311 Ind.	Ms. 322 Md.
Yamba..	Clarence	....	.....	....	Parish of Yamba	13	0	10	General Cemetery.....	90-16,574	Ms. 134 Gfn.

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1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED FOR PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area.			To what purpose dedicated.	No. of Papers.	Catalogue No. of Plan.
						a.	r.	p.		Misc.	
Alum Creek .. .	Beresford	5	.....	....	Parish of Cosgrove	2	0	0	Public School Site	91-7,121 Dep.	B. 2,808-1,765
Antonio Creek..	Westmoreland..	116	.....	....	Parish of Antonio	2	0	0	Public School Site	91-7,560 Dep.	W.2,543-1,502
Bathurst	Bathurst	part of 130	....	....	Parish of Bathurst	10	3	29	Site for Cattle Sale-yards	91-7,483 Dep.	B. 3,402-2,009
Berrima.....	Camden	....	.....	....	Parish of Berrima	1	0	30	Gaol Site (extension) ..	91-6,605 Dep.	Ms. 276 Gbn.
Melrose	Sandon.....	....	1	9	Parish of Merrigobah ..	2	0	0	Public School Site.....	91-2,704 Dep.	Melrose 138
Narrabeen	Cumberland ..	....	.....	....	Parish of Narrabeen ..	10	3	39½	General Cemetery.....	91-5,873 Dep.	Ms. 458 Sy.
Oakborough....	Phillip	136	.....	.. .	Parish of Dungeree	2	0	0	Public School Site	91-7,185 Dep.	P. 1,813-2,125
Willyama	Yancowinna ..	....	2	35	Town of Willyama	0	2	25¾	Town Hall and Fire Brigade Station Sites.	91-7,909 Dep.	W. 136-2,492

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area. a. r. p.	To what purpose dedicated.	No. of Papers.	Cat. No. of Plan.
Argent's Hill ..	Raleigh	....	.....	....	Parish, Buckrabendinni.	16 1 18	General Cemetery.....	91-5,069 D	Ms. 239 Gfn.
Benmore	Harden	511	.....	....	do Murrimboola.	2 0 0	Public School Site	91-4,002 D	H. 5,355-1,716
Binda	Georgiana	....	1	10	Village of Binda	3 0 0	do do	91-7,361 D	B. 10-1,463.
Brooklyn (Peat's Ferry).	Cumberland ..	....	11	C	Parish of Cowan	0 1 22	do Addition.	91-7,644 D	Ms. 467 Sy.
Do do	do ..	....	12	C	do	0 0 20	do do	91-7,644 D	Ms. 467 Sy.
Deniliquin South	Townsend	....	3	13	Town of Deniliquin South	0 0 7¼	Site for Fire Brigade Stn.	91-9,398 D	D. 49-1,458.
Hamilton	Northumberland	2,418	.....	....	Parish of Newcastle....	6 0 25	Public Recreation.....	91-8,397 D	N. 3,124-2,111
Heathcote.....	Cumberland ..	....	12 & 13	1	Village of Heathcote ..	0 2 0	Public School Site	91-8,108 D	H. 1-2,480.
Hunter's Hill ..	do ..	....	.....	....	Parish of Hunter's Hill.	0 0 36½	Public Landing Place ..	91-7,337 A	Ms. 304 Sy.
Lambton	Northumberland	2,414	.....	....	do Newcastle ..	1 2 1	Court-house Site	91-7,368 D	N. 3,116-2,111
Do	do	856	.....	....	do do ..	0 1 30	Town Hall Site	91-7,368 D	N. 1,949-2,111
Mullumbimby ..	Reus.....	....	.....	....	do Mullumbimby	11 2 14	General Cemetery.....	91-5,261 D	Ms. 235 Gfn.
Store Creek	Wellington	10	.....	....	do Boduldura ..	2 0 0	Public School Site	91-4,515 D	W. 2,856-2,091
Thuddungra....	Monteagle	....	.....	....	do Bribaree	10 0 0	General Cemetery.....	91-5,539 D	Ms. 274 Gbn.
Tibooburra	Tongowoko....	13	.....	....	do Hermitage ..	6 1 18	Hospital Site	91-4,759 D	T. 46-2,182.
Uralgurra.....	Dudley.....	....	.....	....	do Uralgurra ..	10 2 17	General Cemetery.....	91-5,327 D	Ms. 224 Gfn.
Wagga Wagga North.	Clarendon	1	.....	....	do Gobbagombalin	1,863 0 0	Agricultural College and Experimental Farm.	91-9,126 D	C. 3,000-1,578 Roll.
Wagga Wagga ..	Wynyard.....	61A	.....	....	do South Wagga Wagga.	8 0 31	General Cemetery (Exn.)	91-2,834 I	W. 9-1,687.
Wyee	Northumberland	....	.....	....	Town of Wyee	10 0 4	General Cemetery.....	91-5,811 D	Ms. 328 Md.

[3d.]

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, IN ACCORDANCE WITH THE 104TH SECTION OF THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Cat. No. of Plan.
						a. r. p.		Misc.	
Beechwood	Macquarie	....	.....	....	Parish of Redbank	10 0 0	General Cemetery.....	91-6,236 D	Ms. 242 Gfn.
Cudal	Ashburnham ..	....	9	8	Village of Cudal.....	0 2 0	Town Hall Site	91-9,084 D	C. 1-2,003 Rl.
Dandaloo	Narromine	....	.....	....	Parish of Turribung....	13 0 32	General Cemetery.....	91-5,850 D	Ms. 182 Roll.
Eulimore Creek.	Ashburnham ..	51	.....	....	Moura	2 2 0	Public School Site.....	91-6,607 D	A. 5,121-1,770
Gulgong	Phillip	....	.....	Part of 64.	Village of Gulgong	2 0 3	do do	91-7,522 D	G. 139-2,089.
Ivanhoe.....	Mossgiel	23	.....	....	Parish of Ivanhoe.....	2 0 0	do do	90-4,940 D	M. 242-2,178.
Larbert	Murray.....	....	.....	....	do Larbert	10 0 0	General Cemetery.....	91-10,106 D	Ms. 192 Ca.
Off Flat	Westmoreland..	110	.....	....	do Bindo.....	2 0 0	Public School Site.....	91-10,105 D	W. 2,542-1,502
Penrith	Cumberland ..	....	.....	....	do Mulgoa	23 1 15	Public Recreation.....	91-8,879 D	Ms. 506 Sy.
Quirindi.....	Buckland.....	....	1	53	Town of Quirindi	0 1 16	Town Hall Site	91-10,146 D	Q. 21-1,613.
St. Albans.....	Northumberland	.. .	.....	.. .	Parish of St. Albans.. .	4 2 8	General Cemetery.....	91-9,598 D	C. 30-1,934 & Ms. 508 Sy.
Sydney	Cumberland ..	....	.....	...	do Petersham....	0 0 7	Approach to Sydney University.	91-4,697 D	C. 736-690.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, UNDEB THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Cat. No. of Plan.
						a. r. p.		Misc.	
Bungwall	Gloucester	45	.....	....	Parish of Topi Topi ...	106 0 0	Public Recreation.....	91-3,632 Ind.	G. 2,305-1,497
Dunoon	Rous.....	....	.....	....	Parish of Dunoon.....	11 1 24	General Cemetery.....	91-8,407 Dep.	Mis. 237 Gfn.
Hanbury	Northumberland	3	.....	....	Parish of Newcastle....	1 0 0	Public School Site (addition).	91-7,881 Dep.	N. 654-1,501

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES, UNDER THE ACT 48 VIC. No. 18.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Cat. No. of Plan.
						a. r. p.		Ms.	
Baan Baa	Pottinger	30	.....	....	Parish of Tulla Mullen	2 0 0	Public School Site	91-7,996 D	P. 3,272 1,781
Berrigan	Denison	....	.....	....	Village of Berrigan	14 0 0	General Cemetery.....	92-469 I	Berrigan 1. R.
Curia Creek	Dampier	236	.....	....	Parish of Moorooma	1 2 0	Public School Site	91-9,935 D	D. 1,622. 1,618
Helensburgh West	Cumberland	....	.....	....	,, Heathcote....	10 0 0	Public Recreation.....	92-199 D	Helensburgh, W. 1.
Kookabookra	Clarke	....	.....	....	,, Seeley	4 1 11	General Cemetery.....	91-8,830 D	Ms. 248. Ac.
Outer South Head	Cumberland	154	.....	....	,, Alexandria ..	0 3 11	Defence Purposes.....	92-452 D	Ms. 534. Sy.
Shallow Crossing	St. Vincent	8	.....	....	,, Currowan	2 0 0	Public School Site	91-10,520D	V. 2,239-2,013.
Shark Point, Coogee	Cumberland	....	.....	....	,, Alexandria ..	4 2 0	Defence Purposes.....	92-787 D	Ms. 526. Sy.
Temora	Bland	654, 655, 656	.....	....	,, Bundawarrah	16 0 31	Show Ground (Exn.) ..	91-9,156 D	B.2840-1946R
Yalwal	St. Vincent	....	.....	....	,, Danjera.....	5 1 24	General Cemetery.....	92-87 D	Ms. 273. Gbn.

1891–2.

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 48 Vic. No. 18, sec. 104.

ABSTRACT of Crown Lands authorised to be dedicated to Public Purposes, in accordance with the 104th section of the Act 48 Victoria No. 18.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Cat. No. of Plan.
						a. r. p.			
Awaba	Northumberland	....	1	1	Village of Awaba	2 1 12	Public School Site	Misc. 91-8,929	Awaba 2.
Bear Hill	Clarke	....	.....	....	Parish of Mitchell	8 2 30	General Cemetery.....	Dep. 92-1,956	Mis. 383 A.E.
Fox Hill	Dampier	181	.....	....	Parish of Narira	2 3 28	Public School Site	Dep. 92-8	D. 3,024-1,618
Gerrymberrya ..	Clarence	163	.....	....	Parish of Southampton	0 2 0	Mechanics' Institute Site	Dep. 92-1,740	C. 1,727-1,577
Gooloongolok ..	Gloucester	....	.....	....	Village of Gooloongolok	12 2 9	General Cemetery	Dep. 91-8,820	Mis. 326 M.D.
Moama	Cadell	....	3	56a	Town of Moama	0 1 6	Town Hall Site	Dep. 91-3,079	M. 12-1,425.
Moree	Courallie	124	.....	....	Town of Moree	4 0 0	Public School Site	Ind. 92-1,145	P. 330-1,978.
San Crox	Macquarie	....	.....	....	Village of San Crox....	12 2 1	General Cemetery.....	Dep. 91-5,386	Mis. 238 G.f.n.
Swan Ponds	Bathurst	121	.....	....	Parish of Wangoola....	2 0 0	Public School Site	Dep. 92-1,087	B. 3,384-2,009
Warren	Ewenmar.....	101	.....	....	Parish of Umangla .. .	10 0 0	Hospital Site	Dep. 92-1,804	E. 1,414-1,890
								Dep.	

1891.

(SECOND SESSION.)

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORISED TO BE DEDICATED TO RELIGIOUS PURPOSES, IN ACCORDANCE WITH THE 5TH SECTION OF THE ACT 25 VICTORIA No. 1.)

Presented to Parliament, pursuant to Act 25 Vic. No. 1, sec. 5.

ABSTRACT of Crown Lands authorised to be dedicated to Religious Purposes, in accordance with the 5th section of the Act 25 Victoria No. 1.

Place.	County.	Portion.	Allotment.	Section.	Locality.	Area.	To what purpose dedicated.	No. of Papers.	Catalogue No. of Plan.
						a. r. p.		Mis.	
Adamstown	Northumberland.	1,645, 1,646.	..	....	Parish of Newcastle....	0 2 39¾	Primitive Methodist Church site.	80-17,689	N. 2,806-2,111
New Lambton ..	do ..	782, 783, 784.	..	....	Parish of Newcastle....	0 2 21¾	Wesleyan Church site.	80-16,171	N. 2,732 2,111

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Annual Report, 1891

MAP OF NEW SOUTH WALES

Illustrating progress of the New Colony Map Compilation

NOTE

Work completed prior to 1891 ..... tinted thus

Do. do. during 1891 ..... do. do.

Do compiled and ready for drawing ..... do. do.

Astronomical Stations ..... shewn thus

Sections numbered 1 to 9 represent sheets of map when completed.

NOTE Existing Railways and those in course of construction shewn thus

Chief Postal Roads do. do. Telegraphs do.

Territorial Division Boundaries under Land Law of 1884 do

County Boundaries and Names shewn thus COOK

SCALE OF MILES 0 10 20 30 40 50 60 70 80 90 100

QUEENSLAND

NEW SOUTH WALES

VICTORIA

SOUTH AUSTRALIA

SOUTH PACIFIC OCEAN

MACINTYRE RIVER

DARLING OR BARWON RIVER

NAMOI RIVER

CASTLEREAGH RIVER

MACQUARIE RIVER

BOGAN RIVER

DARLING RIVER

LACHLAN RIVER

MURRUMBIDGEE RIVER

MURRAY OR HUME RIVER

MURRAY OR HUME RIVER

Inset: AUSTRALIA — WESTERN AUSTRALIA, SOUTH AUSTRALIA, QUEENSLAND, NEW SOUTH WALES, VICTORIA, Sydney, Melbourne, Brisbane, Perth, Adelaide, Tasmania, Timor, Gulf of Carpentaria, Bass Strait

Printed at the Department of Lands Sydney N. S. W. 1892

N° of Lith M. 92 7

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MAP OF NEW SOUTH WALES

SHOWING ALL DIVISIONS FOR THE PURPOSES OF THE CROWN LANDS ACTS.

Scale 32 Miles to 1 Inch

LIST OF LAND DISTRICTS AND HEAD OFFICES OF LOCAL LAND BOARDS

Within each Division of the Colony

Head Office of Land Board	Land Districts Comprised in Land Board Districts	Head Office of Land Board	Land Districts Comprised in Land Board Districts	Head Office of Land Board	Land Districts Comprised in Land Board Districts
1 Armidale	2 Armidale 34 Glen Innes 46 Inverell 80 Tenterfield 84 Walcha	7 Grafton	96 Bellingen 18 Casino 37 Grafton 47 Kempsey 49 Lismore 60 Murwillumbah 71 Port Macquarie	11 Orange	5 Bathurst 17 Carcoar 28 Cowra 50 Lithgow 55 Molong 58 Mudgee 66 Orange 74 Ryslstone 88 Wellington
2 Bourke	11 Bourke 13 Brewarrina 14 Brewarrina E. 20 Cobar 21 Cobar East 90 Wilcannia 97 Willyama	8 Hay	3 Balranald 4 Balranald S.D. 29 Deniliquin 42 Hay 43 Hay North 44 Hillston 45 Hillston North 89 Wentworth	12 Sydney	16 Campbelltown 48 Kiama 51 Liverpool 53 Metropolitan 68 Parramatta 70 Penrith 75 Picton 91 Windsor 93 Wollongong
3 Cooma	6 Bega 9 Bombala 12 Braidwood 23 Cooma 32 Eden 54 Milton 57 Moruya 72 Queanbeyan	9 Maitland	19 Cessnock 31 Dungog 35 Gosford 52 Maitland 61 Muswellbrook 64 Newcastle 69 Paterson 73 Raymond Terrace 75 Scone 76 Singleton 77 Stroud 79 Taree 92 Wollombi	13 Tamworth	24 Coonabarrabran 40 Gunnedah 59 Murrurundi 62 Narrabri 78 Tamworth
4 Dubbo	25 Coonamble 30 Dubbo			14 Wagga Wagga	1 Albury 26 Cootamundry 27 Corowa 39 Gundagai 63 Narrandera 81 Tumut 82 Urana 83 Wagga Wagga
5 Forbes	22 Condobolin 33 Forbes 38 Grenfell 67 Parkes	10 Moree	8 Bingara 56 Moree 85 Walgett 86 Walgett North 87 Warialda		
6 Goulburn	7 Moss Vale 10 Boorowa 36 Goulburn 41 Benning 65 Nowra 94 Yass 95 Young				

NOTES

Land District Boundaries shewn in green thus

Land Board District Boundaries shewn in blue, thus

Head Offices of Local Land Boards shewn in blue thus BOURKE

Territorial Divisions are shewn in red thus

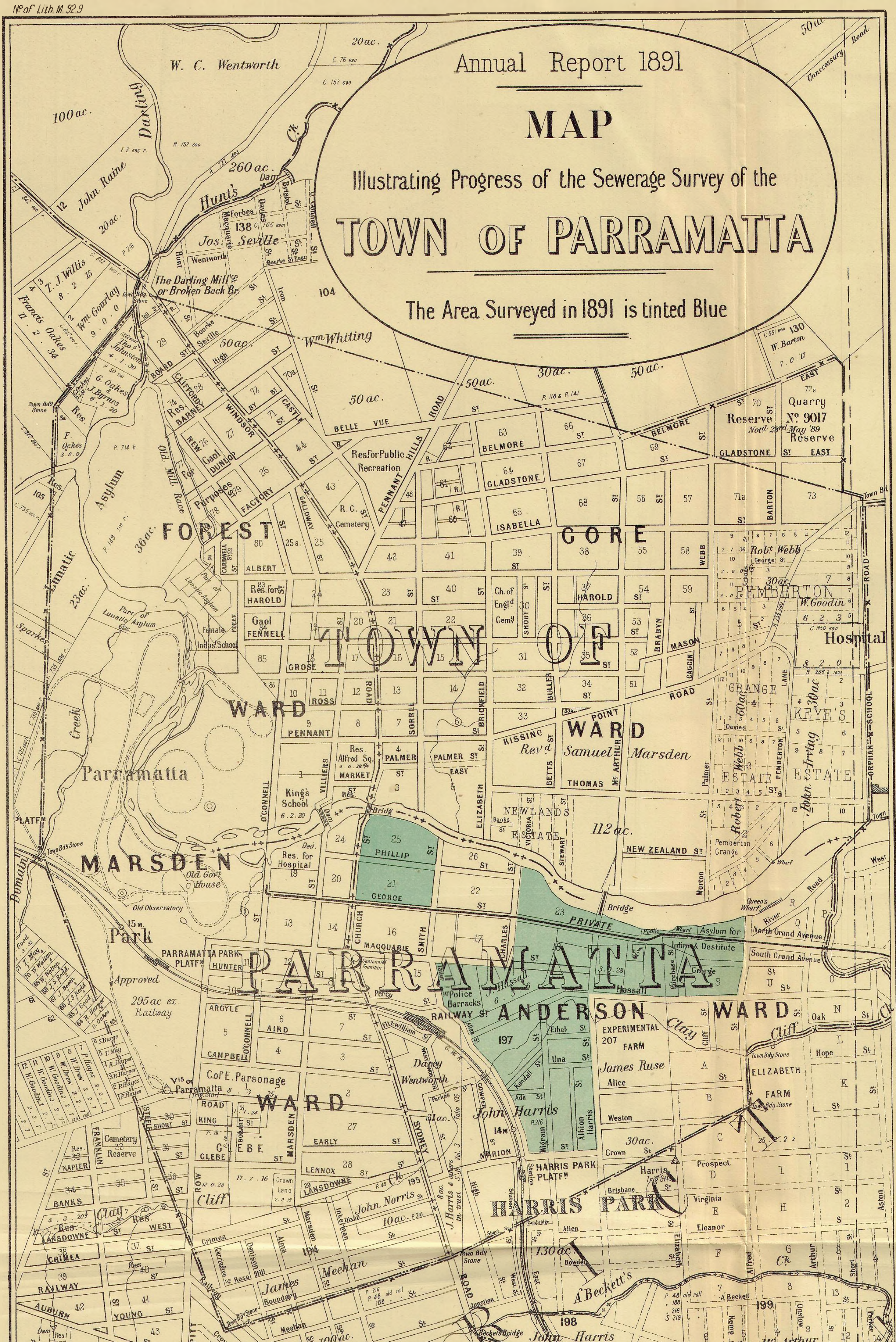
County Names and Boundaries shewn in red thus ROUS

Railways shewn thus

Annual-Report 1891.

Lithographed and Printed at the Department of Lands, Sydney 1892.

Nº of Lith. M. 92.9



No of Lith M 92 10

Annual Report 1891

MAP

Illustrating Progress of the Sewerage Survey of the

CITY OF SYDNEY & SUBURBS

The Area Surveyed in 1891 is tinted Blue
" " " to end of 1890 " " Red

Photo-lithographed at the Government Printing Office
Transferred to stone and printed at the Department of Lands, Sydney, N.S.W.
Feb. 1892

1891.
(SECOND SESSION.)

NEW SOUTH WALES.

ANNUAL REPORT

OF THE

DEPARTMENT OF MINES,

NEW SOUTH WALES,

FOR THE YEAR

1890.

Printed in accordance with Resolutions of both Houses of Parliament.

SYDNEY : GEORGE STEPHEN CHAPMAN, ACTING GOVERNMENT PRINTER.

1891.

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ANNUAL REPORT.

To the Honorable Sydney Smith, Esq., M.P., Minister for Mines and Agriculture, &c., &c.

Sir,

I do myself the honor to submit to you the following report upon the working of the Department (other than Agriculture), under your control, and also the progress of mining and the results obtained during the year 1890.

The following statement conveys some idea of the clerical work of the Department during the year:—

Statement of the Number of Papers registered and Letters despatched by the several Branches (other than Agriculture) of the Department of Mines.

	Papers Registered.		Letters Written.	
	1889.	1890.	1889.	1890.
Mines proper	28,169	*26,042	16,305	20,918
Lease Branch, applications and plans registered	.....	4,323	.....	.....
Account Branch	11,190	11,813	.....	.....
Stock Branch	15,090	†12,293	5,626	5,832
Water Conservation	9,082	‡11,050	5,300	‡7,248
Prospecting Votes and Chief Inspector of Mines	2,565	3,049 563	1,871	2,013 207
Diamond Drills	4,037	3,548	1,760	1,451
Geological Branch	1,573	1,986	3,536	3,206
	71,706	74,667	34,398	§40,875

*Exclusive of applications to lease. † Returns and circulars not registered this year. ‡ Exclusive of caretaker's reports, gauge readings, and correspondence between Chief Engineer and his officers. § Exclusive of printed forms, circulars, and telegrams.

The work done during the year shows a fair increase upon the previous year, and that without any material increase in the clerical staff. The officers, as a whole, have performed their duties in a highly satisfactory manner, and always cheerfully work after office hours when necessary, for which I take this opportunity to express my thanks and high appreciation. I also desire to express my indebtedness to the Assistant Under Secretary, the Chief Mining Surveyor, the Geological Surveyors, the Chief Inspector of Mines, and the other heads of branches for the valuable and ready aid they have at all times given me in discharging the duties of my office.

With regard to the acquisition of lands for mining purposes:—

The number of applications made to lease Crown lands for mining purposes during the year 1890 including applications for special gold leases, was 2,748, being an increase of 463 as compared with the number of such applications made in 1889.

Of the 2,748 applications so made 1,263 were for auriferous land comprising an area of 10,254 acres 3 roods 29 perches; and 1,485 were for mineral land comprising an area of 75,913 acres.

The number of applications dealt with in 1890 was 2,878, which, compared with the number dealt with in 1889 shows a decrease of 1,277. While keeping in view the necessity of extreme care to guard against the creation of conflicting titles, I have in no wise relaxed my efforts to secure such expedition in dealing with applications as is consistent with safety. The result of my efforts (though seconded by the Chief Mining Surveyor) has not been such as I could desire, but that is, I venture to think, mainly due to the need of reform in the Charting Branch.

Of the 2,878 applications dealt with in 1890, 1,533 were for gold-mining leases, comprising an area of over 13,407 acres, and 1,345 were for mineral leases embracing an area of 81,934 acres.

he

The area of auriferous Crown land applied for in 1890, as compared with 1889, shows a decrease of over 1,054 acres. The area of mineral Crown land applied for in 1890 is greater than the area applied for in 1889 by nearly 3,684 acres.

LAND applied for to Lease during the year 1890, and the Minerals to be mined.

	a.	r.	p.
Gold	10,254	3	29
Antimony	3,590	0	0
Bismuth	20	0	0
Bismuth ochre	40	0	0
Cinnabar	160	0	0
Copper	669	0	0
Copper, tin, and silver	80	0	0
Coal and shale	23,065	0	0
Coal	1,159	0	0
Chrome iron	150	0	0
Diamonds	40	0	0
Emeralds	80	0	0
Graphite	120	0	0
Gypsum	80	0	0
Iron and manganese	40	0	0
Iron and copper	40	0	0
Limestone	260	0	0
Manganese	160	0	0
Mica, silver, and lead	140	0	0
Ochre	95	0	0
Opal	580	0	0
Silver	8,275	0	0
Silver and lead	21,767	0	0
Silver and manganese	30	0	0
Silver and copper	402	0	0
Silver and arsenic	40	0	0
Silver, lead, and copper	2,573	0	0
Silver and iron	60	0	0
Silver, lead, and ironstone	1,123	0	0
Silver, lead, marble, and ironstone	20	0	0
Silver, lead, and limestone	1,624	0	0
Silver, lead, copper, and iron	120	0	0
Silver, lead, and tin	204	0	0
Silver, lead, slate, and marble	720	0	0
Silver, lead, plumbago, and platinum	40	0	0
Silver and asbestos	60	0	0
Slate and marble	20	0	0
Tin	7,555	0	0
Tin and silver	352	0	0
Tin and diamonds	180	0	0
Tin and emeralds	60	0	0
Tungsten	80	0	0
Wolfram	40	0	0
Total	86,167	3	29

The aggregate area applied for in 1890 is 3,683 acres 3 roods and 13 perches in excess of that applied for in 1889. The increase is chiefly in silver, antimony, silver and lead, and tin. Gold, coal and shale, coal and diamonds show a decrease, while emeralds, tungsten, and wolfram are new.

The following table shows the quantity of Crown land held under application to lease, on the 31st December, 1889, and the minerals proposed to be mined :—

	a.	r.	p.
Gold	6,019	0	9
Antimony	2,322	0	0
Bismuth and ochre	40	0	0
Cinnabar	120	0	0
Copper	271	0	0
Coal	2,611	2	28
Coal and shale	10,112	2	0
Chrome iron	40	0	0
Copper, tin, and silver	40	0	0
Chrome	80	0	0
Diamonds	40	0	0
Emeralds	80	0	0
Emeralds and tin	60	0	0
Gypsum	80	0	0
Graphite	60	0	0
Ironstone	20	0	0
Iron and manganese	40	0	0
Iron and copper	20	0	0
Iron and silver	60	0	0
Limestone	100	0	0
Lead and limestone	20	0	0
Manganese	160	0	0
Ochre	95	0	0
Opal	240	0	0
Silver	6,120	3	0
Silver and lead	8,463	3	18
Silver and copper	217	1	13
Silver, lead, and copper	1,751	0	0
Silver and arsenic	40	0	0
Silver, lead, and ironstone	622	0	0
Silver, lead, copper, and ironstone	100	0	9
Silver, lead, and tin	205	0	0
Silver, lead, and limestone	303	2	22
Silver, lead, slate, and marble	320	0	0
Silver, lead, plumbago, and platinum	40	0	0
Silver and asbestos	60	0	0
Tin	4,682	1	28
Tin and diamonds	80	0	0
Tungsten	80	0	0
Tin and silver	132	0	0
Wolfram	40	0	0
Not specified	20	0	0
Total	46,009	0	38

The aggregate area of Crown lands held under application to lease, on the 31st December, 1890, is less by some 6,000 acres than was so held at the end of 1889.

The following table shows the area of Crown lands held under lease, and the minerals to be mined :—

Mineral.	Mining Act 1874.	Mining Act Further Amendment Act, 1884.	Crown Lands Occupation Act, 1861.	Total.
	a. r. p.	a. r. p.	a. r. p.	a. r. p.
Gold	11,145 3 6	1,426 0 29½	.....	12,571 3 35½
Alum	480 0 0	.....	.....	480 0 0
Alumnite or alumstone	40 0 0	.....	.....	40 0 0
Antimony	760 0 0	40 0 0	.....	800 0 0
Bismuth	159 0 0	.....	.....	159 0 0
Coal	1,495 3 0	34,228 3 24	2,604 0 0	38,328 2 24
Coal and shale	1,253 1 16	55,226 1 21	.....	56,479 2 37
Coal, shale, and fireclay	.....	640 0 0	.....	640 0 0
Cobalt	20 0 0	.....	.....	20 0 0
Cobalt and nickel	39 0 0	35 2 0	.....	74 2 0
Copper	1,410 0 0	.....	.....	1,410 0 0
Copper and iron	20 0 0	.....	.....	20 0 0
Cinnabar	40 0 0	.....	.....	40 0 0
Diamonds	820 0 0	.....	.....	820 0 0
Diamonds and tin	480 1 16	171 3 19	.....	652 0 35
Hematite	40 0 0	.....	.....	40 0 0
Iron	65 0 0	.....	.....	65 0 0
Limestone	20 0 0	20 0 0	.....	40 0 0

Mineral.	Mining Act, 1874.	Mining Act Further Amendment Act, 1884.	Crown Lands Occupation Act, 1861.	Total.
	a. r. p.	a. r. p.	a. r. p.	a. r. p.
Marble	40 0 0			40 0 0
Mineral salts	40 0 0			40 0 0
Not specified			37 1 33	37 1 33
Ochre	320 0 0			320 0 0
Opal	340 0 0			340 0 0
Plumbago	80 0 0			80 0 0
Silver	15,290 0 0	510 0 10		15,800 0 10
Silver and antimony	120 0 0			120 0 0
Silver and arsenic	115 2 2			115 2 2
Silver and bismuth	80 0 0			80 0 0
Silver and copper	340 0 0			340 0 0
Silver and lead	18,105 0 0	214 3 24		18,319 3 24
Silver and manganese	45 0 0			45 0 0
Silver and tin	577 2 23			577 2 23
Silver, lead, and copper	5,880 0 0			5,880 0 0
Silver, lead, and tin	1,700 0 0	80 0 0		1,780 0 0
Silver, lead, and spar	40 0 0			40 0 0
Silver, lead, and calc spar	40 0 0			40 0 0
Silver, lead, and asbestos				
Silver, lead, and iron	580 0 0			580 0 0
Silver, lead, and limestone	1,190 0 0			1,190 0 0
Silver, lead, iron, and limestone	160 0 0			160 0 0
Silver, lead, and bismuth	40 0 0			40 0 0
Silver, lead, and antimony	80 3 4			80 3 4
Silver, lead, copper, and rubies	80 0 0			80 0 0
Silver, lead, copper, and tin	240 0 0			240 0 0
Silver, lead, slate, and marble	40 0 0			40 0 0
Silver, lead, copper, and ironstone	40 0 0			40 0 0
Silver, lead, and mica	40 0 0			40 0 0
Slate	70 0 0			70 0 0
Sulphate of alumina and potash	95 3 17			95 3 17
Sienna pigments	40 0 0			40 0 0
Tin	12,970 0 0	1,065 1 20		14,035 1 20
Tin, bismuth, and grit	50 0 0			50 0 0
Tin and precious stones	20 0 0			20 0 0
	77,178 0 4	93,659 0 27½	2,641 1 33	173,478 2 24½

The above table shows a considerable decrease upon the area held uuder lease at the end of 1889. This is probably due to the large number of leases cancelled during the year. The number of leases cancelled during the year either for non-observance of the labour conditions or for non-payment of rent was 2,314 comprising an area of 67,762 acres, of which 1,637 were mineral leases, covering an area of 62,447 acres, and 677 were gold leases, covering 5,315 acres.

The number of applications for permits or authorities under section 27 or 28 of the Mining Act to mine under reserves received during 1890 was 290, being a decrease of 50 upon the number in 1889. The number dealt with in 1890 was 280, being a decrease of 110 upon the number dealt with in 1889.

This table shows the area of reserved lands comprised in permits or authorities granted during 1890, and minerals to be mined thereunder:—

	a. r. p.
Coal	9,997 0 0
Coal and shale	19,782 2 22
Copper	80 0 0
Tin	33 2 0
Antimony	57 1 15
Gold	41 0 16
	29,991 2 13

In many cases the permits or authorities had not actually issued prior to 31st December, 1890. This table shows a considerable decrease as compared with the area granted in 1889.

This table shows the area of reserved lands comprised in authorities granted under sections 27 and 28, which were issued prior to 1890, and the minerals to be mined thereunder:—

	a. r. p.
Coal	21,764 1 23
Coal and shale	649 1 0
Coal, iron, and shale	18 2 16
Shale	8 2 32
Limestone	10 0 0
Tin	134 1 33
Copper	45 3 22
Silver and lead	7 1 30
Marble	5 0 0
Gold	26 0 38
	22,669 3 34

This

This table shows areas comprised in permits (sections 27 and 28) issued, which were in force 31st December, 1890:—

	a.	r.	p.
Coal	24,664	3	7
Coal and shale	7,276	0	34
Coal, iron, and shale	18	2	16
Limestone	10	0	0
Tin	136	2	33
Copper	125	3	22
Silver and lead	7	1	30
Bismuth	4	1	7
Marble	5	0	0
Antimony	7	1	15
Shale	8	2	32
Gold	29	2	24
	32,294	2	20

The decreased area shown in the two foregoing tables as compared with 1889 is due to the cancellation of authorities during the year.

The foregoing represents all lands occupied for mining purposes except freehold lands and Crown lands held under miners' rights and mineral licenses. The area comprised in these exceptions represents a considerable area.

The following information in regard to the search for or removal of minerals from alienated lands:—

The number of applications for permits under section 45 of the Crown Lands Act of 1884 to dig and search for gold received during 1890 was 327, being an increase of 7 as compared with 1889. The number dealt with in 1890 was 246, of which 174 were granted and 72 were refused, as compared with 182 granted and 91 refused in 1889. The number of such permits in force at the end of 1890 was 283. The number in force at the end of 1889 was 235.

The regulations under section 98 having been repealed, no applications thereunder were received; but some permits issued under such regulations are still in force.

The number of applications for permits under the Mining Act of 1889 to dig and search for gold or other minerals received during 1890 was 172, and the number dealt with was 164, of which 100 were granted and 64 were refused. The number in force on the 31st December last was 74.

The number of applications for permits under section 7 of the Crown Lands Act of 1884 to remove reserved minerals received during 1890 was 92. The number dealt with was 94, of which 62 were granted and 32 were refused. The number in force on the 31st December last was 150.

The amount received as royalty during the year on reserved minerals was £5,606 10s. 11d. This source of revenue may be expected to reach in the course of a few years a considerable amount.

During the year the returns of gold and Mineral leases, and of authorities under sections 27 and 28, have been published with commendable punctuality. It is much to be feared that the miners do not avail themselves of the information thus supplied to so full an extent as could be desired.

Prospecting Board.

During the year 1890 the Prospecting Board visited the following amongst other places, viz.:—

Albury	Emmaville	Peak Hill
Alectown	Eurongilly	Peel
Barmedman	Forest Reefs	Pyramul
Barraba	Glen Innes	Queanbeyan
Bega	Gulgong	Quartz Ridge
Berrima	Gundagai	Reedy Flat
Bingera	Hargraves	Sally's Flat
Box Ridge	Hill End	Scrubby Rush
Braidwood	Hill Grove	Shoalhaven
Bungendore	Ironbarks	Sofala
Camden	Jew's Creek	Sunny Corner
Canowindra	Junee	Tallewang
Captain's Flat	Lewis' Ponds	Tambaroora
Carcoar	Little River	Tomingley
Cargo	Marulan	Tumut
Cheshire's Creek	Mitchell	Two-mile Flat
Cobargo	Mittagong	Temora
Coolah	Mookerawa	Upper Turon
Coolagalite	Mount M'Donald	Walcha
Cootamundra	Mudgee	Wattle Flat
Clear Creek	Narangaiee	Wellington
Cowra	Nerriga	Windellama
Cobar	Nerrimunga	Windeyer
Crudine	Orange	Woodstock
Dark Corner	Palmer's Oakey	Woodstown
Denisontown	Pambula	
Dubbo	Parkes	

Aid granted in	207 cases.
„ refused in	217 „
Applications not yet dealt with	324 „
	748

The following extracts are taken from Reports by officers instructed to measure up the work of parties aided from the Prospecting Vote.

The Day Dawn Gold-Mining Co., Little River, cut the reef at 200 feet; reef 3 to 4 feet in width, with well defined walls, gold can be plainly discerned in the stone. The Manager reports (30th December, 1890), clearing up at the small mill on Christmas Day after a run of 126 hours. The stone crushed was 26 tons, and the gold obtained 120 oz. 12 cwt. After the next month he expects to be able to bank 250 oz. monthly for a long time to come.

Griffin and Keir's, Mine Boro.—The prospects of this property have improved to such an extent that I (Warden King), am credibly informed that the prospectors have sold to a Sydney syndicate for £500 and a large number of shares. Samples from this mine assayed from 9 oz. 5 dwt. 2 gr. to 666 oz. 18 dwt. 21 gr. silver per ton.

J. R. Everetts' claim at Scrubby Rush.—In the drive from the 125 feet level, about 3 feet in, struck a reef about 20 feet wide, a sort of dyke, and from the appearance of the stone considered to be worth 15 dwt. to the ton.

S. Patterson and party, Blayney, have struck a rich patch, they have obtained 8 oz. of gold from about 1 cwt. of stuff.

The Britannia Co-operative Gold-Mining Co., Forbes.—The reef appears to widen out into a lode about 6 feet wide, composed of what the Manager calls quartz and quartzite. The stone shows gold freely and large quantities of pyrites which also contain gold. The reef in the winze is rather irregular, about 3 feet 6 inches wide, but the stone shows gold freely, and prospects about 3 oz. to the ton.

Anderson and party, Nerrigundah.—At 28 feet 6 inches from the main shaft in the eastern drive a leader was cut running north and south averaging about 4 inches wide. This leader is carrying a very good prospect of loose gold, as shown by a dish panned off in my presence. About 1 cwt. of the stone has been brought to grass and gold can be seen in almost every piece with the naked eye. Had the vein been 1 foot thick it would have been considered a very important find. In view of the above report the Minister was pleased, on the recommendation of the Prospecting Board, to grant further aid to Anderson and party. Warden Maunsell reports at the end of the year that this party, at a depth of 115 feet have struck a very rich lode from 2 to 3 feet wide showing splendid gold in black slate below water level.

James Gins, Coolagalite.—The reef was cut through at the 60 feet level, under laying on the south side of shaft carrying more or less gold. Warden Maunsell reports that 1 ton of ore from Riley's lease, which adjoins Gins, was crushed for a return of 14 oz. 10 dwt.

Gold has been struck in the bore in the flat opposite Lindley's lead Gundagai, in Dodds claim. It is fully anticipated that the Lindley rich lead has been hit in the deep ground, and the flat has been pegged out by various parties. The prospectors have been boring for the lead with the aid of the Government Prospecting Vote, and the result is very satisfactory.

Ellis and party, Oakey Creek, have struck a reef in their tunnel 2 feet wide bearing east and west showing gold freely, assayed 14 oz. to the ton; on 3rd November, they completed their first crushing of 85 tons which yielded 106 oz. superior quality of gold. The reef varies from 2 to 5 feet in width, and was discovered by Ellis and party, assisted by aid from the Prospecting Vote. This is the most valuable discovery that has been made in this district for years past. The Warden reports 500 tons crushed for a yield of 330 oz. retorted gold.

Shield and party, Boney's Rocks.—There is now on the bottom a vein of about 8 inches showing gold freely; also to the west a very rich small vein.

W. H. Pascoe and party, Lunatic Reef.—The reef is about 8 inches wide, and shows gold very freely. A dish of loose rubble from the bottom of the shaft was washed in my presence and several coarse pieces of gold could be seen in the dish and a number of small specimens.

Patrick M'Hugh and party, Bowraville, have again struck the ore at about 12 feet in, and have now a lode of about 3 feet wide to work on. There is a large and rich vein of metallic antimony through the lode which would yield a high percentage of metal.

George Greenaway and party, Dalmorton.—The driving on this claim disclosed a shoot of gold about 16 feet in width, and after passing through 18 feet of barren stone another shoot has been discovered, the extent of which has not yet been proved. I may here state that apart from this claim the Government aid has been the means of opening up another reef, "The Golden Hope," which the prospectors sold to Mr. Beacroft for £500 cash and 5,000 paid up shares. The reef named was opened by Greenaway and party during the time they were prevented working their claim owing to wet weather.

George Fauvel, Nana Creek.—The reef is still well defined, and shows a fair quantity of gold.

Emmett and Hughes, Hill End, took up the ground next to T. C. Suttor and party, who discovered payable gold by aid from the Prospecting Vote, and they are now getting very rich stone.

W. Bursell and party, who were aided from the 1888 Vote, and have worked without cessation ever since, have struck payable gold on the Periwinkle Lead, 3 miles from Gulgong, on the Home Rule Road. They got 2 feet of wash at the 120 feet level showing coarse gold, some of the pieces weighing 15 dwt.

The Mount Browne Gold-mining Co. in the beginning of 1890 had struck at 247 feet wash 12 inches in depth, yielding 5 dwt. to the load. A drive was put in for 170 feet, when a rise of 12 feet to the wash was made. The dirt here is from 5 to 3 feet in depth, and is estimated at half an ounce to the load.

The Lady Mary, Adelong (late Channon and party), who were assisted out of the Prospecting Vote, have just (14/1/90) finished a crushing of 60 tons of quartz from the gap reef for 80 oz. of gold. This is above their expectations, and will cause a fresh impetus to quartz-mining in the Adelong District.

Brankin Ferguson and party, Mount M'Donald, are still following the vein, which is carrying good gold.

W. Ovington, Forest Reefs, sunk through the basaltic rock, cut a splendid wash 4 feet in thickness, carrying payable gold 8 or 10 dwt. to the load, and under that they have struck basalt rock pretty hard and water heavy.

Wilson and Day, Albury, have owing to the subsidy received, been enabled to open up what promises to be one of the most valuable claims in the district.

Rivers and party, near Drake, have opened up one of the richest gold-mines in the Northern district. The body of auriferous matter is from 5 to 6 feet wide. During the year 480 tons were treated for a yield of 1,617 oz. of gold.

P. Myers, Fiery Creek, 1 oz. per ton free gold, 6 oz. per ton of pyrites.

"Nil Desperandum" Reef, Nerrigundah.—This mine which had it not been for the Government aid would have been abandoned, is now considered a valuable property.

These results, I venture to submit, are satisfactory, and reflect credit upon the Prospecting Board, who have spared no pains in the performance of the onerous and important duties cast upon them. They are not only a complete answer to those who condemn the Vote, but are an evidence of the wisdom of the member who first advocated in Parliament the grant of public money for this purpose.

During the year aid was granted to several parties to prospect tracts of country recommended in most cases by the warden of district as likely to contain valuable mineral deposits, and the work of these parties was carried on under the general supervision of the warden; but, though in many instances gold or other minerals were found, the deposits were not sufficiently rich to pay for working.

Mr. David M'Culloch, as Secretary to the Board, in addition to his ordinary work, performed with great credit the very large amount of clerical work connected with the administration of this Vote.

GEOLOGICAL SURVEY.

The Geological Surveyors have inspected during the year many parts of the Colony. Some of the localities were visited in connection with the applications for aid out of the Prospecting Vote.

Mr. C. S. Wilkinson, Geological Surveyor-in-charge, examined the Mittagong and Bowral District and reported on its mineral resources, which embrace iron ores, coal, kerosene shale, stone for building, and road metal, &c. He also furnished a special report on the iron ores of this and other parts of the Colony, pointing out that the deposits available for smelting in the Mittagong and Picton District, contain 8,234,000 tons of ore, chiefly of brown hematite yielding 2,484,000 tons of metallic iron.

Mr. Wilkinson inspected portions of the country between Nowra, on the Shoalhaven River, Jervis Bay, Milton, and the head of the Clyde, and ascertained that the workable coal seams of the last named locality belong to a series of coal-measures geologically lower than the Bulli or Wollongong series, and that therefore these or other seams hitherto unknown, may be found to pass under the Illawarra District. Mr. David and Mr. Stonier, Geological Surveyors, continued the examination of this important part of the Southern coal-field, but had to leave it uncompleted, as their services were urgently required in other parts of the Colony. For the same reason the Geological survey of the Maitland coal-field, upon which Mr. David for several years has been occasionally engaged, remains unfinished.

On 1st May, Mr. Wilkinson left for England, having been commissioned as Geological Director for New South Wales at the International Exhibition of Mining and Metallurgy, London. Mr. J. E. Carne, Curator of the Mining and Geological Museum, who was instructed to accompany Mr. Wilkinson, carried out the detail work of arranging the exhibits. Most of the departmental and private collections of minerals had been sent direct from the New Zealand Exhibition by Mr. Oscar Meyer, the Executive Commissioner, and these were supplemented by certain fresh exhibits collected by direction of the Minister for Mines from Broken Hill and other mining districts. They were all effectively arranged in the south nave and gallery of the Crystal Palace, and this display of our mineral resources has been generally acknowledged to have been superior to that made at any previous exhibition. The Hon. Sir Saul Samuel, K.C.M.G., C.B., Agent-General for New South Wales; Mr. Francis Abigail, M.P.; and Mr. W. Knox, Secretary of the Broken Hill Proprietary Company, took an active interest in the work. This exhibition, while making widely known the nature of our various minerals and the attention which they attracted, will, it is believed, be productive of much good and inspire confidence in our mining industry. Mr. Wilkinson gave several public addresses on the mineral resources of New South Wales. He also visited some of the mining districts and reported upon certain improved mining appliances for coal washing, ore dressing, coking, &c., which he considered might be advantageously introduced into the Colony.

Mr. Carne has also reported on some processes which he inspected; but during his stay in England he was almost in constant attendance at the Mining Exhibition to afford information regarding the mineral exhibits.

The exhibition was open for two and a half months, and during this period 740,000 persons visited the Crystal Palace.

Mr. T. W. E. David, B.A., F.G.S., Geological Surveyor, has been very zealous in his work both in the field and at the head office. He has continued the geological survey of the Newcastle and Maitland Coal-field and reported thereon; has inspected and reported on the kerosene shale deposits at Megalong, Hartley Vale, and near Doughboy Hollow; the coal and iron deposits in parts of the Southern Coal-field; the supposed auriferous basalts near Wyong; the Junction Mines, near Mandurama; parts of the Canowindra, Blayney, and Orange Districts; the tunnelling in granite for the Bathurst Water Supply, which resulted successfully in obtaining a supply of good potable water flowing at the rate of 200,000 gallons per day; the Sunny Corner mining deposits; the Narrabeen Gas and Cremorne Diamond-drill bores, &c. As a member of the Prospecting Board he has dealt with many of the applications for aid out of the Prospecting Vote. During the absence of Mr. Wilkinson, in England from the 1st May, Mr. David took charge and ably directed the work of the Geological Branch, which necessitated his close attention to the office duties in Sydney.

Mr. W. Anderson, Geological Surveyor, as a member of the Prospecting Board, dealt with applications in the northern, western, and southern districts. He has also furnished reports on the boring for artesian water near Nyngan; the geological features of Peak Hill; the new Pambula Gold-field; the Dromedary Gold-field; the Great Southern Silver Mine, near Grenfell; the Jingellic Silver Mines; the Cargo Gold-field; and attended to the office work in Sydney during the absence of Mr. Wilkinson and Mr. David.

Mr.

Mr. Geo. A. Stonier, C.E., Geological Surveyor, besides inspecting and reporting upon certain cases in some of the gold and coal fields, has assisted Mr. David both in the field and at the office. He acted as Curator for some time during Mr. Carne's absence in England, and prepared and arranged collections of minerals for display at the Muswellbrook, Narrabri, Tamworth, and Ballarat Exhibitions, which latter necessitated his visiting the Hillgrove, Broken Hill, and other mines to secure suitable exhibits. He also supervised the treatment of five different parcels of ore sent to the Clyde Works by the Prospecting Board.

The Palæontological work of the Geological Survey has been continued by Mr. Robert Etheridge, junior. The following memoirs of the Palæontological series have been published during the year, the issue of which reflects much credit upon the Government Printer's Department:—

No. 3: Geological and Palæontological relations of the coal and plant-bearing beds of Palæozoic and Mesozoic age in Eastern Australia and Tasmania, by Ottaker Feistmantel, M.D.

No. 4: The Fossil Fishes of the Hawkesbury series at Gosford, by Arthur Smith Woodward.

No. 7: The Mesozoic and Tertiary Insects of New South Wales, by R. Etheridge, junior, and A. Sydney Olliff.

No. 8: Contributions towards a Catalogue of Works, Papers, and Reports on the Anthropology, Ethnology, and Geological History of the Australian Aborigines by R. Etheridge, junior.

Part 1 of Memoir No. 5, on the Corals of the Permo-Carboniferous Invertebrata of New South Wales, by Mr. Etheridge, is in the printer's hands; and part 2 of this work, containing the Echinodernata, and Nos. 6 and 9, are in progress. The index to vol. I of the Records of the Geological Survey of New South Wales, and parts 1 and 2 of vol. 2 have been published. They contain, amongst others, seven papers by Mr. Etheridge, who has also edited each of the above-mentioned publications.

Mr. J. E. Carne, F.G.S., Curator and Mineralogist, reports that of the numerous samples of minerals and water which were received and examined, chiefly on behalf of mining prospectors, 3,323 samples were sent on to the laboratory for assay or analyses. Reports on each were furnished. The information thus afforded must be a valuable aid to the development of mining. Another means of imparting useful information is the providing collections of typical mineral specimens for exchanges with other countries and for reference at the Schools of Arts or other public institutions. It is intended to supply these reference collections to all the principal mining towns and the Technical Schools in the Colony as soon as sufficient duplicate specimens have been obtained for the purpose. Collections of minerals have also been prepared by Mr. Carne and other officers of the Geological Branch, and displayed at various exhibitions in the Colony, the Industrial Exhibition, Ballarat, and at the International Exhibition of Mining and Metallurgy, London. In reference to the latter, Mr. Carne deserves much credit for the manner in which he carried out the arrangement of the mineral and timber exhibits.

Numerous specimens have been added to the collections of the Mining and Geological Museum, but they cannot be displayed, and have to be packed away, owing to want of more room than the present inadequate Museum building affords. During his absence from the Colony Mr. Carne visited some of the principal Museums, and reports that he has obtained much useful information regarding Museum management.

The library of the Department has received many additional works, partly in exchange for the publications of the Department and partly by purchase. Owing to the increase in the duties of Mr. Carne, who has hitherto received and registered the books of the library, Mr. Robert Etheridge, palæontologist, has been appointed librarian. Mr. Whittell has been very energetic in carrying on much of the work in the office of the curator during the absence of the latter in England.

A large amount of work has been performed in the laboratory by Mr. Mingaye, F.C.S., analyst and assayer, and his assistant, Mr. White; no fewer than 3,323 samples having been submitted for assay or analysis. Mr. Mingaye furnished an important report upon analyses of some of the cokes manufactured in the Colony. Particulars of the assays and analyses are given further on in this report under the heads of the different minerals and waters to which they refer.

The caves in different parts of the Colony are increasing in public importance now that better roads to them and improved accommodation are provided. Many improvements in and about the caves for the safety and convenience of visitors have been carried out during the year, and at the Wombeyan

and

and Yarrangobilly Caves new accommodation houses have been erected. At Jenolan Caves, the keeper, Mr. Jeremiah Wilson, has discovered another very fine cavern. New caves have been discovered in other parts of the Colony, viz., at Bendithera, near Moruya; Kybean, near Cooma; and Jerrara, near Marulan. Descriptions of these are herewith given in the Progress Report of Mr. W. S. Leigh, the Superintendent of Caves.

Mining Surveys, &c.

The total number of mining surveys made during the year 1890 was 1,718, comprising 939 gold-lease portions, 636 mineral lease portions, 102 mining permits, and 41 mining tenements. This is the smallest number that has been dealt with since the year 1887, when the total was 1,418. The small number of surveys made during the year is mainly due to the fact that they were more scattered than in previous years, there being few large rushes in 1890. Thirty-two surveyors were employed, 8 of whom were in receipt of salary, the remainder being paid by fee. On the 1st January, 1891, there were 375 lease applications awaiting survey.

In the Charting Branch there were received during the year 2,581 applications for gold and mineral leases, and 2,554 were finally dealt with during the same period. 195 new applications under the 28th section of the Mining Act of 1874 were received, and 235 were finally dealt with. The number of cases dealt with in 1890 is considerably less than in 1889, due to the fact that the overtime contract work was discontinued during the year, though the number of draftsmen has since that event been increased. Eighteen parish maps were compiled, and assistance was rendered to the Lands Department in the compilation of 13 others, as per accompanying list.

Return of Compiling Work for 1890.—New Maps compiled.

Parish.	County.	Parish.	County.
Coolamigal	Roxburgh.	Somers	Bathurst.
Cullen Bullen	„	Toogong	Ashburnham.
Mingelo	Narromine.	Mitchell	Clarke.
Cooney (2nd edition)	Sandon.	Seeley	„
Metz (2nd edition)	„	Sara	Gresham.
Edgar (3rd edition)	Yancowinna.	Umberumberka	Yancowinna.
Bray (3rd edition)	„	Coally	Evelyn.
Bomangaldy (2nd edition)	„	Orr	„
Naradin (3rd edition)	„	Milring	„

During the year arrangements were completed with the Survey Branch of the Lands Department to avoid the unnecessary duplication of compiling work in the two departments. Under the new arrangements, maps compiled in the Lands Department, and which show mining measurements, are now prepared in accordance with a system mutually agreed upon, and proofs of same are forwarded to this Department for revisal before publication.

The following is a list of the maps so prepared, revised, and adopted as mining maps during the year:—

Parish.	County.	Parish.	County.
Jamieson	Cook.	Stowell	Gloucester.
Arvid	Gough.	Yowaka	Auckland.
Bloxsome	„	Muckerwa	Wellington.
Bald Nob	„	Albury	Goulburn.
Heathcote	Cumberland.	Tumberumba	Selwyn.
Southend	„	Eumur	Darling.
Coolamin	Wellington.		

The local offices (warden's clerks, &c.) have been supplied with 674 copies of mining maps charted up to date during the year.

A large proportion (about 300) of the plans of mining tenements (previously undealt with) have been systematically dealt with, and charted on the office maps in this Department and in the Department of Lands.

Complete

COMPLETE List in alphabetical order of all Mining Maps compiled to date:—

No.	Folio.	Parish or part of.	County.	Mining District.	Gold-field.
...	...	Adelong	Wynyard	Tumut and Adelong	Adelong and other Gold-fields.
11	D	Albury	Goulburn	do	Black Range (partly).
1	B	Albert	Yancowinna	Albert	Albert.
7	C	Alma	do	do	do
7	B	Alberta	Farnell	do	do
20	A	Arvid	Gough	New England	Emmaville.
30	A	Annandale	Clive	do	do (partly).
10	D	Antimony	Buller	do	Boorook and Lunatic.
16	B	Aston	Hardinge	Peel and Uralla	Tingha.
...	...	Anderson	Gough	do	do
...	...	Bundar	Gough	New England	
6	C	Bookookoorara	Buller	do	Boorook and Lunatic (partly).
13	A	Bates	Clive	do	Emmaville.
21	A	Blain	do	do	do
21	A	Bowman	do	do	do
14	A	Binghi	do	do	do
23	A	Boorook	Buller	do	Boorook and Lunatic.
3	A	Boonoo Boonoo	do	do	do
12	C	Bomangaldy	Yancowinna	Albert	Albert.
5	B	Bray	do	do	do
22	A	Bolaira	do	do	do
...	...	Bligh	Farnell	do	do
13	B	Badjerrigarn	do	do	do
7	A	Byjerkerno	do	do	do
...	...	Bindera	Gloucester	Hunter and Macleay	Barrington and Gloucester.
7	D	Banghet	Murchison	Peel and Uralla	Bingara (partly).
7	D	Bingara	do	do	Bingara.
...	...	Boyd	Gough	do	
26	A	Bloxsome	do	do	
14	C	Bald-Nob	do	do	
3	C	Bolton	Westmoreland	Bathurst	Oberon (partly).
8	C	Baring	do	do	Oberon.
9	D	Bullongong	Murray	Tumut and Adelong	Molonglo (partly).
9	D	Ballallaba	do	do	do
2	C	Bundawarrah	Bland	Lachlan	Temora do
...	...	Calafat	Wynyard	Tumut and Adelong	Adelong Creek.
...	...	Clive	Gough	Peel and Uralla	Tingha.
9	B	Clare	Hardinge	do	do
18	B	Cope's Creek	do	do	do (partly).
24	A	Coventry	Clarke	do	Kookarabooka.
5	D	Cooney	Sandon	do	Gyra River.
6	C	Corry	Buller	New England	Boorook and Lunatic.
6	C	Cullendore	do	do	
21	A	Cranbrook	Clive	do	Emmaville.
29	B	Callanyn	Buller	do	Boorook and Lunatic.
...	...	Craven	Gloucester	Hunter and Macleay	Barrington and Gloucester.
4	B	Corona	Farnell	Albert	Albert.
10	A	Castleton	Roxburgh	Bathurst	Turon River and Kirkconnel.
10	C	Coolamigal	do	do	Turon River.
25	A	Clinton	Bathurst	Bathurst	Ophir.
1	A	Carroll	Wellington	Tambaroora and Turon	Wellington.
1	A	Cummings	do	do	do
9	C	Coally	Evelyn	Albert	Albert (partly).
37	A	Cullen Bullen	Roxburgh	Bathurst	Turon River.
4	D	Currajong	Ashburnham	Lachlan	Billabong.
32	A	Cargo	do	do	Cargo.
26	D	Cobar	Robinson	Cobar	Bogan.
21	C	Coolamin	Wellington	Tambaroora and Turon	Macquarie River, Stoney Creek, and Ironbarks.
25	B	Darby	Hardinge	Peel and Uralla	Tingha.
5	A	Dungowan	Parry	do	Peel River.
3	D	Dinoga	Murchison	do	Bingara.
7	D	Derra Derra	do	do	do (partly)
...	...	Dumaresq	Gough	New England	Emmaville.
34	B	Dunleary	Bathurst	Bathurst	Milburn Creek
35	B	Dangera	St. Vincent	Southern	Yalwal.
33	A	Dhoon	Yancowinna	Albert	Albert.
...	...	Ellerslie	Wynyard	Tumut and Adelong	Mount Adra (partly).
...	...	Euadera	do	do	Adelong Creek.
2	B	Edgar	Yancowinna	Albert	Albert.
29	A	Enmore	do	do	do
8	A	Eskdale	Roxburgh	Bathurst	Clear Creek and Kirkconnel (partly).
35	B	Ettrema	St. Vincent	Southern	Yalwal.
18	C	Eumur	Darling	Peel and Uralla	Ironbarks and Tea-tree.
...	...	Frazer	Gough	New England	Emmaville.
...	...	Flagstone	do	do	do
...	...	Falnash	Roxburgh	Bathurst	Turon River.
1	C	Fowler's Gap	Farnell	Albert	Albert.
...	...	Gulgong	Phillip	Mudgee	Gulgong.
...	...	Gadara	Wynyard	Tumut and Adelong	Adelong (partly).
8	D	Guntawang	Phillip	Mudgee	Gulgong.
1	C	Giles	Farnell	Albert	Albert.
3	D	Gouron	Murchison	Peel and Uralla	Bingara.
15	A	Gillindich	Georgiana	Bathurst	Junction Point, Tuena Creek, and Markdale.
27	B	Highland Home	Gough	New England	Emmaville.
...	...	Hamilton	do	do	do (partly).
...	...	Haystack	do	do	do

No	Folio.	Parish or part of.	County.	Mining District.	Gold field.
23	B	Herbert	Gough	Peel and Uralla	Tingha.
6	B	Hanning	Inglis	do	
6	A	Hall	Clarke	do	Oban.
8	B	Hall	Darling	do	Ironbark and Tea-tree.
3	D	Hall	Murchison	do	Bingara.
12	A	Hargraves	Wellington	Mudgee	Wellington (partly).
20	C	Heathcote	Cumberland	Southern	
3	C	Jocelyn	Westmoreland	Bathurst	Oberon.
16	C	Jamieson	Cook	do	
5	C	Lewis	Yancowinna	Albert	Albert.
...	...	Lands End	Gough	New England	Emmaville.
3	C	Langdale	Westmoreland	Bathurst	Oberon (partly).
2	D	Lennox	Bathurst	do	Ophir do
2	D	Lewis	Bathurst	do	do do
11	C	Mingelo	Narromine	Mudgee	Tomingley.
...		Muir	Gough	New England	Emmaville.
6	C	Maryland	Buller	do	
6	C	Marsh	do	do	
17	A	Mayo	Hardinge	Peel and Uralla	Tingha.
..	.	Mitchell	Gough	do	
12	D	Mitchell	Clarke	do	Kookarabooka and Orara.
3	D	Macintyre	Murchison	do	Bingara
5	D	Metz	Sandon	do	Gyra River.
15	B	Mount Gipps	Yancowinna	Albert	Albert.
16	A	Moorkaie	do	do	do
9	C	Milring	Evelyn	do	do
36	B	Moquilamba	Robinson	Cobar	Bogan.
30	B	Mulgunnia	Georgiana	Bathurst	Mulgunnia.
38	B	Muckerwa	Wellington	Tambaroora and Turon	Macquarie River and other Gold-fields.
12	B	Naradin	Yancowinna	Albert	Albert.
37	B	Nadbuck	do	do	do
9	A	Nerrimunga	Argyle	Southern	Nerrimunga and Shoalhaven
21	B	Nullama	Gresham	Clarence and Richmond	Boyd or Little River (partly).
4	A	Nundle	Parry	Peel and Uralla	Peel River (partly).
9	C	Orr	Evelyn	Albert	Albert.
34	A	Ophaia	Yancowinna	do	do
18	A	Oberon	Westmoreland	Bathurst	Oberon.
...		Paradise North	Gough	New England	Emmaville.
21	A	Purvis	Clive	do	do
3	B	Purnamoota	Yancowinna	Albert	Albert
19	A	Picton	do	do	do
4	D	Parkes	Ashburnham	Lachlan	Billabong.
6	C	Ruby	Buller	New England	Boorook and Lunatic (partly).
13	A	Rockvale	Clive	do	Emmaville.
13	A	Rock Glen	do	do	do
4	C	Robe	Yancowinna	Albert	Albert
35	A	Somers	Bathurst	Bathurst	Gully Swamp and Black Hills (partly
11	B	Stephen	Yancowinna	Albert	Albert.
14	B	Soudan	do	do	do
32	B	Sebastopol	do	do	do
31	A	Sentinel	do	do	do
28	B	Swinton	Hardinge	Peel and Uralla	Tingha.
..		Severn	Gough	do	
.	.	Scott	do	do	
6	A	Sara	Gresham	do	Oban.
12	D	Seeley	Clarke	do	Kookarabooka.
12	D	Sara	Gresham	do	Oban
		Strathbogie North	Gough	New England	Emmaville (partly).
20	B	Strachan	do	do	do do
14	A	Silent Grove	Clive	do	do
19	B	Strathbogie	Gough	New England and Peel and Uralla.	do
		Scone	do	do do	do (partly).
15	C	Stowell	Gloucester	Hunter and Macleay	
19	C	Southend	Cumberland	Southern	
22	B	Tent Hill	Gough	New England	Emmaville (partly)
21	B	Tienga	Hardinge	Peel and Uralla	
27	A	Tara	Yancowinna	Albert	Albert.
2	A	Tuena	Georgiana	Bathurst	Abercrombie.
1	A	Tambaroora	Wellington	Tambaroora and Turon	Wellington
36	A	Toogong	Ashburnham	Lachlan	Cargo and Canowindra
22	C	Tumberumba	Selwyn	Tumut and Adelong	Tumberumba, Ourainee, and Burra Creek
6	C	Underchff	Buller	New England	
		Umberumberka	Yancowinna	Albert	Albert.
28	A	Wellington Vale	Gough	New England	Emmaville (partly)
6	C	Wylie	Buller	do	
1	D	West Fairfield	Drake	do	Tumbarra
.		Wellington North	Gough	do	Emmaville.
6	A	Worra	Gresham	Peel and Uralla	
17	B	Wood's Reef	Darling	do	Ironbarks and Tea-tree.
	.	Wondalga	Wynyard	Tumut and Adelong	Adelong
11	A	Wyaldra	Philip	Mudgee	Gulgong.
31	B	Worcester	Bathurst	Bathurst	Ophir
33	B	Waukeroo	Yancowinna	Albert	Albert.
87	Press]	Warratta	Evelyn	do	do
10	B	Yancowinna	Yancowinna	Albert	do
6	D	Young	Monteagle	Lachlan	Burrangong
17	C	Yowaka	Auckland	Southern	Panbula.

INSPECTION OF MINES OTHER THAN COAL-MINES.

The Chief Inspector of Mines (Mr. Slee, F.G.S.), reports 16 fatal and 21 non-fatal accidents in metallic mines during 1890, an increase as compared with 15 fatal and 16 non-fatal in 1889; though in regard to fatal accidents the percentage is lower in 1890, being ·072 as compared with ·08 in 1889. In 1890 there was 1 fatal accident for every 1,384 miners employed. The percentage of non-fatal accidents in 1890 was higher than in 1889, being ·094 as compared with ·085. In 1890 there was 1 non-fatal accident for every 1,055 miners employed.

Of the fatal accidents in 1890, 6 were caused by falling down shaft, 4 by falls of earth, 4 by explosives, 1 by dynamite fumes, and 1 by scalding.

Of the non-fatal accidents in 1890, 8 were caused by explosives, 5 by material falling down shaft, 4 by fall of earth, and 4 from various causes.

During the year the mines in the following localities were inspected:—

By the Chief Inspector.

North—Maitland, Hillgrove, Armidale. South—Nerriga, Braidwood, Queanbeyan, Bungendore, Gundaroo, Goulburn, Mittagong, Joadja, Yalwal. West—Orange, Lewis Ponds, Mount M'Donald, Woodstock, Cowra, Broula, Lyndhurst, Sunny Corner (Mitchell), Clear Creek, Bathurst, Wattle Flat, Sofala, Palmer's Oakey, Hill End, Quartz Ridge, Pyramul, Windeyer, Hargraves, Mookerawa, Wellington, Dubbo, Tomingley, Peak Hill, Alicktown, and Parkes.

By Inspector Rue.

Broken Hill, Pinnacles, Thackeringa, Umberumberka, Day Dream, Purnamoota, Mount Gipps, Black Mountain, and Corona.

By Inspector Milne.

Sunny Corner, Wattle Flat, Sofala, Hill End, Pyramul, Windeyer, Hargraves, Peak Hill, Parkes, Forbes, Grenfell, Canowindra, Young, Pambula, Bega, Dromedary, Wagonga, Nerrigundah, Moruya, Araluen, Braidwood, Major's Creek, Little River, Boro, Bungendore, Captain's Flat, Hillgrove, Stewart's Brook, Dennison, Tamworth, Nundle, Hanging Rock, Bowling Alley Point, Walcha, Niangala, Glen Morrison, Uralla, Melrose.

The report of the Chief Inspector appended hereto contains matter of considerable interest.

DIAMOND DRILLS AND WATER AUGERS.

Under the supervision of Mr. Slee, F.G.S., the working of the diamond drills during the year was satisfactory. The aggregate depths bored during the year was 7,857 feet 4 inches, being 3 feet 6 inches in excess of the depth in 1889. The average cost per foot in 1890 was 14s. 5$\frac{3}{16}$d. per foot, as compared with 14s. 3$\frac{1}{4}$d. per foot in 1889. The cost per foot in destruction of diamonds in 1890 was 7$\frac{3}{4}$d., as compared with 1s. 3$\frac{1}{8}$d. in 1889. The aim being to perform the work of boring at such a price as will cover the cost of working, so that the persons who employ the drills, and who, as a rule, are prospectors engaged in developing the mineral resources of the Colony, shall reap the fullest benefit of the drills provided by the State. It is, therefore, gratifying to find that the operations of the year have resulted in a credit balance of only £83 1s. 11d. showing how closely the estimates of cost fixed by the Superintendent have approximated the cost.

The work of the Water Augers has been delayed during the year by reason of the want of tubing. There are at present only two bores in progress, namely, one at the 106-mile, and one at the 121-mile on the Wanaaring to Milparinka Road. The former has now reached 1,206 feet 6 inches, and the latter 1,112 feet 8 inches. The depth bored during the year was 497 feet 4 inches, at a cost per foot of 32s. 0$\frac{3}{8}$d. per foot The water auger will, probably, at no distant date, be entirely superseded by the various makes of well borers, but in the meantime, though slow, they have done good work in very dry country, where, so far, it has not been possible to get owners of well-borers to undertake the work. It is hoped that the two bores in progress will shortly reach artesian water, as the depth already reached severely taxes the powers of the augers, and it requires the utmost skill and care to avoid mishaps.

Mr. Slee in addition to performing ably the duties of Chief Inspector of Mines and Superintendent of Diamond Drills and Water Augers, has discharged the duties of Warden at Peak Hill for some months.

The staff under Mr. Slee in the office, the store, and the field, work with a zeal which is deserving of all praise.

Mineral Products.

The aggregate value of the mineral products of this Colony to the end of 1890 amounted to £86,881,953. The value of such products for the year 1890 was £5,283,840, being an increase of £503,474 upon the value of minerals raised in 1889. This is a most gratifying result, when it is remembered that during the year a strike occurred which for a time paralysed more than one branch of mining, and caused a reduction in the output of our Coal-mines to the value of £353,759 16s. 1d. The greatest increase is, as might be expected, from our Silver-mines; but, perhaps, the most interesting increase is in our output of gold, that for 1890 being the largest since 1882. There are grounds for believing that if the fields recently opened be properly worked our output of gold will continue to increase for some years to come. The increase in the output of antimony indicates that more attention is being given to our important deposits of that mineral, and as soon as a practicable method of separating the gold from our antimony ores shall have been introduced, it may fairly be expected that the output will be very largely increased. In the return for the year 1890 are mentioned alum, of which one important deposit has been opened; limestone for flux, which will probably soon employ a large number of men; and opals, emeralds, and diamonds may be expected to increase our mineral products in the near future.

The following table shows the aggregate value of minerals, the produce of New South Wales for the years 1889 and 1890 respectively compared :—

Minerals.	Quantity.	Value.	Quantity.	Value.	Increase in Value.	Decrease in Value.
	1889.	£ s. d.	1890.	£ s. d.	£ s. d.	£ s. d.
Gold	119,759·00 oz.	434,070 8 4	127,760·64 oz.	460,284 16 2	26,214 7 10	.....
Silver*	416,895·35 ,,	72,001 0 0	496,552·20 ,,	95,410 0 0	23,409 0 0	.....
Coal	3,655,632·30 tons	1,632,848 15 6	3,060,876·48 tons	1,279,088 19 5	.....	353,759 16 1
Shale	40,561·00 ,,	77,666 15 0	56,010·00 ,,	104,103 7 6	26,436 12 6	....
Coke	.....	.....	31,097· ,,	41,147 3 7	41,147 3 7	.....
Tin	4,650·25 tons	415,171 0 0	3,668·75 ,,	329,841 0 0	.....	85,330 0 0
Copper	4,182·00 ,,	206,641 0 0	3,745·90 ,,	173,311 0 0	.....	33,330 0 0
Iron†	2,136·90 ,,	18,330 10 0	3,413·44 ,,	39,948 12 2	21,618 2 2	.....
Antimony	221·40 ,,	3,344 0 0	1,026·00 ,,	20,240 8 6	16,896 8 6	....
Bismuth	42·50 ,,	11,349 0 0	2·10 ,,	306 0 0	.....	11,043 0 0
Silver-lead and Ores.	81,545 30 ,,	1,899,197 0 0	131,039·65 ,,	2,667,144 0 0	767,947 0 0	.....
Manganese	.....	.....	100·00 ,,	325 0 0	325 0 0	.....
Oxide of Iron and Pig-iron.	489·05 tons	1,329 0 0	450·30 ,,	884 0 0	.....	445 0 0
Zinc Spelter	96·85 ,,	988 0 0	210·45 ,,	2,378 0 0	1,390 0 0	.. ..
Lead (Pig)	522·30 ,,	6,711 0 0	126·00 ,,	1,587 0 0	.....	5,124 0 0
Sundry Minerals	95·85 ,,	719 0 0	233·00 ,,	7,252 0 0	6,533 0 0	.....
Limestone (Flux)	....	.....	41,436·80 ,,	41,989 5 9	41,989 5 9	.....
Alum	.....	.....	220·00 ,,	3,000 0 0	3,000 0 0	.....
The Noble Opal	.....	....	195 lb.	15,600 0 0	15,600 0 0	.....
		4,780,366 8 10		5,283,840 13 1	992,506 0 4	489,031 16 1
					Net increase	503,474 4 3
						992,506 0 4

* The greater part of the silver produced is exported in the shape of silver lead and ore. † Not manufactured from the ore, but old iron.

2,225 carats emeralds were got at Emmaville, value not ascertained; but some of the gems have been sold in London at the rate of £1 per carat.

The value of the mineral products in 1890 exceeds the decennial average by £1,866,056.

The

The following Return shows the quantity and value of Gold, Coal, Shale, Copper, Tin, Silver, Silver-lead Ore, Iron, Antimony, Asbestos, and Bismuth, &c, &c, produced in the Colony of New South Wales during the last ten years —

Year	Gold		Coal		Shale		Copper and Regulus		Tin and Tin Ore	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Oz.	£	Tons.	£	Tons	£	Tons	£	Tons	£
1881	149,627	566,513	1,769,597	603,248	27,894	40,748	5,494	355,062	8,200	724,003
1882	140,469	526,521	2,109,282	948,965	48,065	84,114	4,953	324 727	8,670	833,461
1883	123,806	458 509	2,521,457	1,201,942	49 250	90,861	8,957 7	577,201	9,125 5	824,552
1884	107,199	395,292	2,749,109	1,303 077	31,618	72,176	7,305 4	416,179	6,665 9	521,587
1885	103,736	378 665	2 878,863	1 340,213	27 462	67,239	5,746	264,920	5,193	415,626
1886	101,417	366,294	2 830,175	1 303,164	43,563	99,976	4,027	167,665	4,968	467,653
1887	110,288	394 579	2,922,497	1,346,163	40 010	87,761	4,763	199,102	4,961	525,420
1888	87 503	317,100	3 203,443	1 455,198	34,869	73 612	3,899	275,034	4,809	582 496
1889	119,759	434,070	3,655,632	1,632,848	40,561	77,666	4,182	206,641	4,650	415,171
1890	127,760	460,284	3,060,876	1,279,088	56,010	104,103	3,745·90	173,311	3,663 75	329,841
	1,171,564	4,297,827	27,700,931	12,413,906	409,302	799,156	53,078	2,958,842	60,911	5,639,810

Year	Silver		Silver lead and Ore		Iron		Antimony and Ore		Asbestos.	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity.	Value	Quantity	Value
	oz. dwt	£	t. c	£	t c	£	t. c	£	t c.	£
1881	57,254 0	13,026	52 14	1,625	6,560 0	47,871	539 4	17,346		
1882	38,618 0	9,024	11 19	360	7 476 0	37,224	1,068 18	16,732	7 10	75
1883	77,065 18	16,488	138 4	2 075	3,434 3	26,908	375 11	5,555	.	.
1884	93,660 5	19,780	9,167 11	241,940	3,759 2	24,572	433 12	6,458	.	.
1885	794,174 0	159,187	2,286 0	107,626	4,176 0	25,793	293 0	4 296	6 0	90
1886	1,015,433 10	197,544	4 802 2	294,485	3,685 17	19,068	273 3	3,381	.	. .
1887	177,307 15	32,458	12,530 3	541,952	2 797 8	14,543	168 7	1,641	..	
1888	375 064 0	66,668	29,841 12	1,075,737	3,747 0	23,721	190 7	2 918	..	
1889	416,895 7	72,001	81,545 6	1 899 1·7	2,136 18	18,330	221 8	3,344		
1890	496,552 4	95,410	131,039 13	2,667,144	3,413 8	39,948	1,026 0	20,240		
	3,542,024 19	681,586	271,413 4	6,832,151	41,185 16	277,978	4,589 10	81,911	13 10	165

Year	Bismuth		Sundry Minerals		Oxide of Iron		Zinc Spelter		Lead (Pig)	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	t c	£	t. c	£	t c	£	t c	£	t. c	£
1881	12 10	2,728	15 5	1,020						
1882	2 14	162	7 0	979						
1883	3 14	650	31 0	160						
1884	14 7½	2 770								
1885	14 0	3,700	457 0	7,820						
1886	20 18	3,870	69 0	5,327						
1887	36 11	6,695	1,431 0	15,624						
1888	18 1½	3 911	119 0	3,438						
1889	42 10	11,349	95 15	719	489 1	1,329	96 17	988	522 6	6,711
1890	2 2	306	233 0	5,115	450 6	884	210 9	2,378	126 0	1,587
	167 8	36,141	2,227 0	40,202	939 7	2,213	307 6	3,366	648 6	8,298

Year	Limestone flux		Alum		Opal		Manganese		Total
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
	t. c	£	t	£	lb	£	t	£	£
1881									2,373,190
1882									2,782,344
1883									3,204,901
1884									3,003,831
1885									2,775,175
1886									2,928,427
1887									3,165,938
1888									3,879,833
1889									4,780,364
1890	41,436 16	41,989	220	3,000	195	15,600	100	325	5,283,840
	41,436 16	41,989	220	3,000	195	15,600	100	325	34,177,843

Gold.

The output of gold, from the opening of the gold-fields to the end of 1890, amounts to 10,220,116 oz., valued at £38,075,172 5s. 7d. The output for 1890 was 127,760 oz, valued at £460,284 16s. 2d., being the largest since 1882, and exceeds the decennial average by 10,604 oz, valued at £30,502. The auriferous country at Pambula bids fair to add considerably to our gold yield, and we may fairly expect a considerable

considerable addition from Peak Hill when the mines get into full work. If some inexpensive method be found of treating pyritous and other gold ores many deposits which are now neglected might be worked, and it is therefore highly desirable that the attention of experts be attracted to this branch of mining industry. I look forward to a large yield of gold from the extensive deposits which are found in the vicinity of some of our rivers, as soon as the difficulty of bringing water to bear upon such deposits shall have been overcome.

TABLE showing the Quantity and Value of Gold won in the Colony of New South Wales from 1851 to 1890.

Year.	Quantity in oz.	Value.	Year.	Quantity in oz.	Value.
		£ s. d.			£ s. d.
1851 ...	144,120	468,336 0 0	1872 ...	425,129	1,643,581 16 11
1852 ...	818,751	2,660,946 0 0	1873 ...	361,784	1,395,175 8 7
1853 ...	548,052	1,781,172 0 0	1874 ..	270,823	1,040,328 13 6
1854 ...	237,910	773,209 0 0	1875 ...	230,882	877,693 18 0
1855 ...	171,367	654,594 0 0	1876 ...	167,411	613,190 7 9
1856 ...	184,600	689,174 0 0	1877 ...	124,110	471,418 4 4
1857 ...	175,949	674,477 0 0	1878 ...	119,665	430,033 2 7
1858 ...	286,798	1,104,174 12 2	1879 ...	109,649	407,218 13 5
1859 ...	329,363	1,259,127 7 10	1880 ...	118,600	441,543 7 7
1860 ...	384,053	1,465,372 19 9	1881 ...	149,627	566,513 0 0
1861 ...	465,685	1,806,171 10 8	1882 ...	140,469	526,521 12 5
1862 ...	640,622	2,467,779 16 1	1883 ...	123,805	458,508 16 0
1863 ...	466,111	1,796,170 4 0	1884 ...	107,198	395,291 12 5
1864 ...	340,267	1,304,926 7 11	1885 ...	103,736	378,665 0 3
1865 ...	320,316	1,231,242 17 7	1886 ...	101,416	366,294 7 7
1866 ...	290,014	1,116,403 14 5	1887 ...	110,288	394,578 16 3
1867 ...	271,886	1,053,578 2 11	1888 ...	87,503	317,099 12 0
1868 ...	255,662	994,665 0 5	1889 ...	119,759	434,070 8 4
1869 ...	251,491	974,148 13 4	1890 ...	127,760	460,284 16 2
1870 ...	240,858	931,016 8 6			
1871 ...	323,609	1,250,484 15 11		10,220,116	38,075,172 5 7

The following extracts, taken from the reports furnished by the Wardens and Mining Registrars, indicate the condition of mining in the several districts during the past year :—Bathurst District: Sunny Corner division—gold won £1,877 15s.; Sofala division—gold won £14,568 19s. 6d.; Tuena division—£5,812 10s.; Trunkey division—£4,124 16s. 3d.; Mount McDonald division—£3,249 13s. 5d.; Bathurst, Burraga, Oberon, and Rockley divisions—value of gold won £1,368 3s. 4d. Orange—The Queen of the Mount, near Ophir, is producing a satisfactory return for the labour expended. At Forest Reefs, Ovington and Co. (aided from the Prospecting Vote) came upon good wash at 96 feet deep, but not supposed to have reached the bottom yet. In the Cowra North division, Firth and party crushed 36½ tons for 27 oz. 5 dwt., and from McInnes' freehold, Tenandra, 21 tons gave 6 oz. 5 dwt. per ton, and now crushing 50 tons expected to yield 1½ oz. per ton. At King's Plains, the tributors of North Confidence Co., just started, had one crushing which gave 43 oz. of gold; the lode is 30 feet wide, and averages 3½ dwt. per ton.

Mudgee District: At Hargraves, the Big Nugget Co. crushed, for various small parties, 160 tons of quartz for 306¼ oz. McGregor and party obtained 33 oz. from 30 tons of quartz. The quartz crushed from the Homeward Bound line averaged 3 oz. per ton. The following notes, furnished by the Manager, are inserted, as showing how an abandoned mine may, by good management, be made to pay :—

DESCRIPTION OF THE MITCHELL'S CREEK FREEHOLD GOLD ESTATE, WELLINGTON, N.S.W.

This well-known ground, which has been the property successively of a public company, of two absentee owners, and now of a private co-partnery of four (one being resident), occupies the spot from which gold-bearing stone was said to have been obtained, as early as 1848, by a shepherd from Montefiores named MacGregor *(vide* Professor Liversidge's "Minerals of New South Wales," page 33), and has been worked as far back as twenty years ago.

The ground comprises an area of 600 acres freehold land, situated close by the Wellington to Gulgong road, about eight miles from Wellington township, in the parish of Bodangorra, and overlying the divisional line between the counties of Bligh and Lincoln. It is traversed by a strong quartz reef, between walls of hard black diorite, exceedingly well defined, and with every indication of a permanent character.

The supply of quartz, which appears inexhaustible, is highly auriferous, and is associated with minerals of considerable value—viz., iron and copper pyrites, galena, zincblende, magnesia, alumina, a little carbonate of lime, a little cobalt, and talc; an almost constant average of 18 dwt. gold, 6 oz. silver, and about 5 lb. copper being contained per ton of this lode-matter.

The reef, which is traceable a length of 8,000 (eight thousand) feet—viz., for the whole extent of the estate—underlies to the east at an angle of 45°, its strike being N. 15° west, and has an almost invariable width of 2 feet. Owned originally by a Sydney company, the old "Mitchell's Creek Gold Mining Company," and subsequently by Messrs. J. B. Rundle and S. D. Gordon, it was worked at intervals between 1869 and 1881. During these twelve years 2 (two) portions from a central point upon this long line were extensively worked—viz., southwards about 1,600 feet in length, and to various depths, from 100 to 360 feet; and northwards, up-hill, for about 1,800 feet in length, and to depths varying from 90 to 140 feet; the extremities, both northern and southern, remaining unworked. These operations took place chiefly under a tribute system, the reef being let, in respect of the free gold (but the pyrites being entirely reserved by the proprietors) in sections of 150 feet per working party, upon a royalty of 15 (fifteen) per cent. of the gold obtained. This arrangement appears to have served well in the upper portions of the reef—naturally the most abundant in free gold—but to have led to prompt cessation of work on the part of the tributors at such points as sulphides began to predominate in the vein-stuff. These workings, completely stoped-out (underhand) from the surface thus exhibit an extremely uneven line of depth. Upon reaching the water-level operations were discontinued. For the following eight years (1881–1889) no effort was made to resume working the reef, regarded by the owners as consisting thenceforward almost exclusively of sulphides too intricate to treat with profit. In 1889 the estate was purchased by the present proprietary (Messrs. Phillip Davies, T. M. Dalveen, and J. M. Findlay, of Sydney,

Sydney, and James Dick, of Glasgow) for the purpose of reopening the mine. By these owners a shaft upon the southern workings has been enlarged and carried down to 440 feet (327 feet through former workings and 113 feet through solid lode), the resources of the mine at this deeper level being thus clearly ascertained, and two levels have been extended below the former workings at depths of 327 feet and 400 feet respectively, these having reached a distance of 220 feet and 213 feet respectively in payable quartz along the entire length opened. At the lower end of the northern workings a similar shaft (No. 2) has been commenced, which will enter the solid at a depth of about 140 feet. On the deeper level reached by present workings the reef averages 2 feet 4 inches over the whole extent of that level, and the quartz here is being found more highly mineralised.

The stone (some 30,000 tons) taken out in former years, is recorded to have yielded in free gold about 8 dwt. per ton —a little over 1 dwt. per ton more being accounted for in pyrites. That undue loss had occurred appears from the vast heap of tailings, the whole mass of these averaging 8 dwt. fine gold and about 9 dwt. silver per ton, and containing an inordinate quantity of escaped quicksilver. A consideration of the difficulties thus apparently experienced by former proprietors has influenced the present owners in the arrangement of their plant. This, though as yet only on a preliminary scale, is of a very substantial and valuable kind, comprising the most improved mechanical appliances for gold saving; an extreme measure of care being bestowed on the amalgamation, which is necessitated by the very finely-divided nature of the gold, not the slightest particle being visible in the stone.

The crushing and concentrating plant consists of a 15-head stamper battery (weight of stamps, 784 lb.; length of drop, 8 in.; speed, 75 drops per minute), discharging through screens (of 180 holes to the square inch) on to an inclined table in front of each (5-head) stamper-box (length of table, 10 ft.; width, 4 ft. 8 in.; pitch of table, 1¾ in. per ft.). Electro-silvered copper-plates (2 oz. electro-silver per super. foot) cover 8 ft. 2 in. in length of each table (width, 4 ft. 8 in.), the size and spacing of plates being as follows:—Top-plate, 1 ft. 6 in.; space, 1 ft. 8 in. (occupied by wooden distributing-lozenges); 2nd plate, 5 ft. 0 in.; ripple, charged with mercury, here intervenes; 3rd plate, 1 ft. 8 in.; bottom ripple, charged with mercury, here ensues. Superficial area per table, occupied by electro-plates, 38 ft. 2 in. An inclined wooden shoot, at right-angles to the tables, and 400 ft. in length, connects the battery with the grinding and concentrating works, and conveys the pulp from battery to the latter. Small electro-plates, 1 ft. long 4 in. wide, are laid at several points in this narrow shoot, in transit through which the pulp from battery undergoes a very marked amount of friction, resulting in the cleansing and liberation of much free gold that has resisted amalgamation in the boxes or on the battery tables. The shoot discharges into two Lamberton grinding mills (horizontal), four heavy balls in each mill revolving in a circular "race," which is charged with mercury. These discharge through fine-wire screens on to inclined tables (length, 8 ft.; width, 5 ft.; pitch, 1¾ in. per ft.) having 6 ft. each of electro-silvered copper-plates (size and spacing:—Top-plate, 3 ft.; space (unoccupied), 2 ft.; bottom plate, 3 ft.; superficial area per table, occupied by electro-plates, 32 ft.). From this point launders and pipes distribute the pulp to 6 (six) small electro-plated copper troughs, discharging over another electro-copper plate on a wooden "distributing-apron" attached to Frue-Vanner concentrators, the amalgamation ending here. Of the gold saved in passage through this process, less than 2½ per cent. (two and a half per cent.) is arrested in the battery-boxes, 75½ per cent. (seventy-five and a half per cent.) on the battery-tables (on plates 71¾ per cent., and in ripples 3¾ per cent.), and 22 per cent. (twenty-two per cent.) at the grinding shed (in mills, on plates, and in Frue-Vanner feed-troughs). Six (6) smooth-belt Frue-Vanner concentrating machines receive the residue from "distributing-apron" plates, and separate almost the entire mineral sulphides from the gangue, the tailings thence passing over blankets covered by wire-netting (forming a universal ripple over them) laid upon two wide slime tables slightly inclined. The slimes collected by these tables are periodically retreated, from the grinding-mill downwards. The final tailings from the whole process average 1 dwt. 15 gr. per ton.

The concentrates withdrawn hour by hour from the Frue-Vanner machines are freed of moisture by moderate heating in a brick drying-furnace, being then immediately filled into strong canvas bags. These are despatched for the meantime to public chlorination works for further treatment.

Prior to completion and start of this full plant in June last, the present owners ground and concentrated 2,188 tons of the former owners' tailings, yielding a value of £1,166 14s. 10d. From June 24th to December 24th, 1890 (the past half-year), they crushed from the reef (327 ft. and 400 ft. levels, No. 1 shaft), 2,362 tons of quartz and 17 tons of old tailings, or 2,379 tons in all, yielding 1,396 oz. 2 dwt. 9 gr. smelted gold bullion (value £4,829 5s. 7d.) and 551 oz. 0 dwt. 20 gr. fine gold (in concentrates), value £2,204 16s., or a total of 1,947 oz. 3 dwt. 5 gr., value £7,034 1s. 7d. An average has thus been obtained, in free gold, of 11 dwt. 18 gr. per ton, and in pyrites, of 4 dwt. 15 gr. per ton, or 16 dwt. 9 gr. in all, while only 1 dwt. 15 gr. per ton escapes in tailings. An average of 9½ tons quartz was crushed per week (several stoppages in early part of period reducing the mean considerably), 4 tons 16 cwt. 9 lb. being concentrated therefrom, showing a percentage of 5¼ per cent. pyrites. These concentrates, amounting for the six months to 124 tons 18 cwt. 21 lb., averaged 4 oz. 8 dwt. 4 gr. fine gold, 7½ oz. silver, and 4·82 per cent. copper per ton, and therefore contained as by products, 930 oz. silver, (value, £174 7s. 6d.) and 5¾ tons of copper (value, £287); no return for these, however, is allowed by the Chlorination, Co., who purchase the concentrates.

The large amount of sulphides in the stone combined with the extreme fineness of the gold, make incessant attention to the copper plates necessary. Though the stamper boxes are charged with mercury, not 2½ per cent. of the gold is retained by them. Care is therefore bestowed in keeping the copper plates in constant order. These are dressed 3 (three) times daily (morning, noon, and evening) invariably, a clear surface being thus preserved. As 71¾ per cent. of the gold obtained during the last half year has been saved on them, these measures are of high utility. A very small proportion (only 3¾ per cent.) of the gold saved, results from the ripples (or mercury wells), of which there are two on each table, one at the middle, and one at the lower end. A total superficial area of 114 feet 4 inches is covered by the copper plates (at battery), yet past these, with the six (6) mercury wells, and quicksilver in the battery boxes, and notwithstanding painstaking attention to the amalgamation, over 22 per cent. of the gold escapes. This flows over 100 yards before it is arrested on the second set of amalgamating tables and wells (at the lower shed) comprising a total superficial area of 64 feet of electro copper plates (stationery), and about 12 feet in oscillating troughs. Proportionately to each, 5-head of stampers, there is thus in all a super area of 59¾ feet of stationery electro plates, two stationery mercury wells, and two oscillating electro-plated copper troughs, besides mercury in the Lamberton grinding mills, where pulp from the battery is rough-ground. "Cleaning up" is carried out with very great regularity; amalgam being removed once, weekly (Saturday), from the tables only; once fortnightly, from tables and ripples; once monthly, from all sources, including battery boxes, plates in long shoot, oscillating copper troughs, &c.

An interesting feature in the present owners operations has been the variation in the value of the gold which, commencing at £3 2s. 3¾d. per oz. in July, has risen progressively throughout the half year to £3 10s. 5d. per oz. the mean for this period being £3 8s. 8¾d. A corresponding variation of the percentage of gold contained by the amalgam is also notable. This, beginning in July at 18·87 per cent. (much less than a fifth), progressed steadily reaching in August, 26·00 per cent (over a quarter) in September, 33·33 per cent (one third) in October 37·53 per cent. (three-eighths) since which it has been constant at 33 to 34 per cent. The mean for the six months has been 30·16 per cent.

The water supply is obtained from the Mitchell's Creek on the northern extremity of the estate, about a mile and a quarter from the battery. A Blake pump at this place, steamed from an 8-horse power vertical Tangy boiler, forces the water through 4-inch pipes along the above distance to a small reservoir dam behind battery. To assist this supply, which is variable, a tailings pump at the concentrating works returns the waste water from there, leaving the sand to settle.

The drainage of the mine is affected by the pumps at the No. 1. and No. 2. shafts, the discharge from the latter also serving as an auxiliary supply to the battery. The steam winding and pumping plants at these shafts are both alike and haul a ¼ ton truck on the underlay by steel wire cable from the extreme depth of the shaft. The entire plant erected by the present owners, comprises 5 boilers (aggregating 88-horse power) and 5 engines besides the Blake steam pump, 22 cords of fire-wood (128 feet per cord) are consumed weekly, amounting to £14 17s. 6d. The owners crush on the average 18½ tons a day. The total cost of working, including the management and the heavy charges incidental to realisation of the concentrates, is £182 per week, the average number of men employed being 63. The reef being of fair size, remarkably even, and free from disturbances or faults, it is easily and cheaply timbered. So firm is the ground that the short props placed years ago in the underhand stopes worked by former company, and open to the surface, are still intact. The stone is tough to work and hard to crush. Its extreme hardness is best shown by the consumption of charcoal for sharpening drills (which is a considerable item of expense and keeps one smith constantly employed), and by the large consumption of explosives (averaging for the half year 1s. 4¾d. per ton of the stone raised). Miners of a kind adapted to this ground not being easily procurable, the owners have experienced much difficulty in gathering a good staff of diligent, practical miners around them. After many changes, this seems at last to have been secured. The most powerful explosives and most efficient drill-work are indispensable to success, and a valuable Air rock drill plant (McCulloch's "Rio Tinto") which is being imported by the owners, is relied on to materially reduce the cost of breaking out stone in the next half year, besides rapidly extending the various levels. From

From the present solidity of this lode and its well defined walls from grass, to the extreme depth (440 feet) reached, and throughout the distance (over 3,400 feet) blocked out to various depths by the former companies, it is evidently capable of producing vast supplies of stone for considerable time and justifies the confidence that it will continue to a great depth. To the constant personal supervision, forethought, and acumen of the resident owner (and general manager) Mr. Philip Davies, it is owing that this abandoned mine, now gives promise of ranking as the premier auriferous pyrites quartz-mine of New South Wales.

STATEMENT of Battery Crushings for half-year, 24 June–24 December, 1891, work of 15 head of Stampers.

THE MITCHELL'S CREEK FREEHOLD GOLD ESTATE, WELLINGTON, N.S.W.

Free Gold.

	Hours run.	Stone crushed.	Average crushed per day.	Average crushed per hour.	Average per head per day.	Average crushed per hour.	Amalgam.	Percentage of gold in Amalgam.	Smelted gold.	Average per ton.	Value of gold per oz.	Gross value of smelted gold.
		t. c. q. lb.	t. c. q. lb.	c. q. lb.	t. c. q. lb.	c. q. lb.	oz. dw. gr.	p. ct.	oz. dwt. gr.	ds. gr.	£ s. d.	£ s. d.
1st Quarter, 24 June to 20 September.	1,493	1,148 3 3 10	17 13 2 14	15 1 14	1 3 2 8	1 0 2	2,773 10 0	25·72	694 19 9	12 2	6 11	2,339 19 3
2nd Quarter, 22 September to 24 December.	1,523	1,231 15 0 0*	18 12 0 3	16 0 19	1 4 3 9	1 0 9	2,026 4 5	34·60	701 3 0	11 9	3 10 6½	2,489 6 4
	3,016	2,379 18 3 10†	18 2 3 8‡	15 3 3	1 4 0 21	1 0 5	4,799 14 5	30·16	1,396 2 9	11 18	3 8 8¾	4,529 5 7

* Including 17 tons 18 cwt. old tailings. † 91 tons 10 cwt. 3 qr. 2 lb. average per week for the six months. ‡ 108 tons 16 cwt. 3 qr. 20 lb. per full crushing week of 138 hours.

Concentrates.

	Bags.	Weight (net).	Tons gold contents (by assay).	Value	Fine gold returned by Chlorination Co.*	Value.	Average gold per ton stone.
		t. c. q. lb.	oz. dwt. gr.	£ s. d.		£ s. d.	dwt. gr.
1st Quarter	1,641	58 2 2 3	271 8 2	1,080 5 0	244 7 15	977 10 6	4 18
2nd Quarter	1,847	16 15 2 18	279 12 18	1,118 11 0	251 13 3	986 6 0	4 12
	3,488	124 18 0 21†	551 0 20‡	2,204 16 0	496 0 18	1,963 16 6	4 15

* After deduction of 10 per cent. for assumed loss in treatment. † Average per week for the six months, 4 tons 16 cwt. 0 qr. 9 lb., = 5·25 per cen pyrites per ton of stone. ‡ Average gold per ton of Concentrates, 4 oz. 8 dwt. 4 gr.

Abstract.

	£ s. d.
Total value Bullion (ex Amalgam)	4,829 5 7
,, Fine Gold (ex Concentrates)	1,963 16 6
	6,793 2 1

	dwt
Average per ton as free gold	11
,, ,, gold in pyrites	4 15
	16 9

Amalgam.

1st Quarter—Battery	Plates	2,082 5 12	
	Wells	82 6 0	= 2,225 17 12
	Boxes.....	61 6 0*	
2nd Quarter—Battery	Plates.....	1,417 18 12	
	Wells	58 3 0	= 1,525 17 12
	Boxes.....	49 16 0	
			3,751 15 0

Mill—	Plates	508 11 12		
	Troughs	26 17 12	oz. dwt. gr.	oz. dwt. gr.
	Aprons.....	6 3 12	= 547 12 12†	Total, 2,773 10 0
	Sundries....	6 0 0		
Mill—	Plates	404 14 17		
	Troughs	18 8 12	= 500 6 17‡	2,026 4 5
	Aprons	7 16 12		
	Sundries	69 7 0	1,047 19 5	4,799 14 5

* Of the 4,800 oz. Amalgam collected for the half-year only 111 oz (less than 2½ per cent.) were caught by the mill.

† 19¾ per cent. (obtained at Concentrators' shed) of total Amalgam collected for quarter.

‡ 24½ ,, ,, ,, ,,

22⅛ per cent. obtained there for the half-year

The plant and machinery may be described as follows :—

Winding and pumping plant, No. 1 shaft, comprises vertical Tangye boiler of 10-horse power, steaming horizontal Tangye engine, with winding gear attached ; also pumping gear, working two 18-inch by 5 pumps, with two connecting-rods (of steam gas-pipe) and 3-inch delivery pipe. The rods rest on friction pulleys, the shaft going down on the underlay of lode at an angle of 45°. The pump draws the water from depth of 437 feet in one column. A substantial steel rail tramway is laid from top to bottom of the shaft upon which the trucks are hauled by means of steel-wire rope attached to drum of the winding gear. This plant is entirely under a substantially-built wooden shed, covered with galvanised iron.

Winding and pumping plant, No. 2 shaft, is a sister plant to the above described.

Crushing plant, erected on the machinery site of the former company, about midway along the reef, consists of a new 27 feet x 6 feet Cornish boiler, with Galloway tubes seated in solid brickwork, and the flues connected with a substantial brick stack ; an 18-inch horizontal engine, driving 15-head stamper battery (weight per stamper, 784 lb.; length of drop, 8 inches; speed, 75 drops per minute) ; inclined wooden tables, 10 feet long, 4 feet 8 inches wide, 1¾ inch per foot pitch, with two mercury wells on table—one in middle, one at lower end—the intervening space covered by electro-silvered copper-plates (2 oz. electro-silver per super. foot), in length 8 feet 2 inches, in width 4 feet 8 inches, in front of each box, the remaining space —1 foot 8 inches upon each table—being occupied by wooden "distributing-lozenges."

Grinding and concentrating plant, about 400 feet distant from battery, and connected with same by narrow wooden shoot, conveying the pulp from stampers. This comprises one 20-horse power double-cylinder Marshall's portable engine, driving two Lamerton grinding mills imported from Glasgow. These regrind the tailings after the stampers, and discharge on to inclined tables, 8 feet by 5 feet, with pitch of 1¾ inch per foot, covered by electro-silvered copper-plates in following order :—Top of table, 3-foot plate ; space of 2 feet unoccupied ; bottom plate, 3 feet. Distributing shoots (wooden launders) and pipes deliver pulp from grinding mill tables to 6 Frue-Vanner concentrating machines, driven by a Tangye vertical 5-horse power engine, steamed from the Marshall's portable boiler. Two 7-inch plunger sand pumps, driven from the 20-horse power portable engine, return waste water from the tailings dam to the reservoir at battery through 4-inch cast-iron pipes, distance 550 feet.

Both battery and concentrating plant is supplied by a line of 3-inch pipes laid down between supply-reservoir and the concentrating shed. The concentrating shed is very substantially built, and measures 100 feet long by 60 feet wide, and 20 feet high, to the wall plates. Nearly the whole floor is boarded or bricked, and a large area is kept in perfect order for depositing and bagging pyrites. The whole of shed is covered with galvanised iron. A drying furnace of brickwork for freeing pyrites from moisture opens from the shed.

The main water supply is furnished by pumping plant at the Mitchell's Creek on extreme northern end of property. A Blake steam-pump, steamed from a steel tubular boiler, 8-horse power Tangye vertical, pumps from an undercurrent on west bank of the creek, and forces the water through a mile and a quarter in length of 4-inch cast-iron pipes to the supply dam at the battery.

The buildings comprise a three-roomed office (one compartment for smelting gold, one for assay-weighing, and the third for clerical purposes, a very complete assay plant being housed here) ; a substantial residence for general manager ; storehouse ; smith's shop ; explosives magazine (brickwork) ; and stable. Water is laid on to the office and residence, and every precaution provided against fire.

JAS. M. LINDLAY, 10/3/91.

At

At Peak Hill, 5 claims (alluvial) in the Eastern Valley obtained payable gold. Cummins and party, the prospectors, have washed 21 loads yielding 35 oz. 10 dwt. 20 gr., besides 18 oz. 6 dwt. picked out by hand. About 1,000 loads have been brought to grass at the 5 claims. The depth of the wash is 5 to 6 feet, the depth of sinking being 130 feet. There are also about 20 payable alluvial claims working east of the Peak, in addition to the 5 above mentioned; a few parties are still working on the boulder lead, a 6½-oz. nugget having been found there recently. Several parties are prospecting for alluvial leads within 5 miles of Peak Hill. On the lode, the Proprietary Mine has reached 120 feet in depth, and a cutting has been made 116 feet in length; across the auriferous stuff of this cutting 800 tons of material have been taken which is likely to yield ½ oz. per ton. The Company have crushed 486 tons for a yield of 413 oz. McRae and Co. had 120 tons crushed for a yield of 11 dwt. per ton. Gibson and Co. crushed 72 tons for 75 oz. The other principal holdings have been prevented by litigation, &c., from starting. Gold won during the year: alluvial, 6,380 oz.; lode or dyke, 620 oz.; at Tomingley, 500 oz.

Tambaroora and Turon District:—Hill End there is a visible improvement in mining matters, chiefly in consequence of Emmett and Hughes, Riley Brothers, and others at Prince Alfred Hill, striking wonderfully rich stone. The first-named party have obtained over 1,018 oz. of gold from 24 tons of stone. and in the adjoining mine C. Suttor has been raising good stone, while Riley and party won 1,156 oz. 4 dwt. as the result of four men's work. On the Golden Gully line of reef two parties have struck payable stone. At Hawkin's Hill the Cornelian Company has recently been raising good stone, and Vere and party are said to have cut through a belt of veins all carrying gold. Sofala—The heavy rains in the early part of the year enabled parties of men to roughly ground-sluice some of the old alluvial workings. Some of these parties made as much as £200 for six months' work. Ellis and party, from a reef 3 to 5 feet wide, crushed 510 tons of stone for a yield of 330 oz. The Queensland Company after removing their crushing plant to the mine have crushed 365 tons for 65 oz. 18 dwt. 12 gr. of gold. The dyke from which the crushing stuff is taken is very wide, and a small yield should pay if a large quantity be put through. East of Razorback some men are working new alluvium, depth 30 to 35 feet, with 3 feet of wash.

Lachlan District:—Forbes—The Pinnacle Company during the early part of the year were prevented by scarcity of water from working. They raised 800 tons of stone, of which 200 tons crushed gave fair returns. Parkes—At Hazelhurst Proprietary Company Mine 200 tons of stone crushed yielded 844 oz., and there is 1,600 tons at grass. The reef at the bottom of the shaft is 5 feet wide. In the stopes the reef averages 4 feet, and the stone shows gold freely. The Gladstone Company crushed 100 tons of stone for a yield of 248 oz. of gold, the reef averaging 2 feet in width. Barnett's Reef Company at Tichbourne obtained 170 oz. of gold from 16 tons of stone. At Alectown a large number of men (say 500) are prospecting under permits. The alluvial deposits are shallow, dry, and easily worked, and appear to extend a considerable distance, giving remunerative employment to a large number of miners. The puddler's returns show 5,574 oz of gold won from 11,149 loads of wash. Four large reefs have been discovered near the town, the stone from which looks promising. At Boney's Rocks, Cudal, there are four claims at work. From a vein 10 inches wide in the London claim, 40 tons crushed gave 3 oz. per ton. Nine tons from Shield and party's claim treated at the Clyde works produced 18 oz. of gold. At Paling Yards, Court and party, working on a soft lode from 2½ to 6 feet wide, have crushed 295 tons, yielding from 6 to 8 dwt. per ton. At Cargo the Iron-clad lode is 3 to 4 feet wide, made up of small veins of pyrites and quartz. After the pyrites is picked out the stone yields from 1 to 3 dwt. of gold, and 10 per cent of concentrates which average 3 oz. per ton. Between 500 and 600 tons have been treated during the year. At Canowindra the reef in the Blue Jacket Mine averages 18 inches. During the year 650 tons crushed gave 1½ oz. per ton, and 22 tons of tailings gave 10 oz. 12 dwt. per ton. The ground is soft and easy to work. On Haye's line of reef M'Intyre and Co. have crushed 90 tons of stone for 1½ oz. per ton. At Delany's Dyke, about 14 miles from Molong 1,630 tons of stone have been treated for a yield of 820 oz. At Grenfell two alluvial claims at the Quondong are on payable gold. On the Enterprise Reef one mine is putting out payable stone, and at Lawson's Reef one mine is raising stone said to be payable. At Sandy Creek Alsop and party obtained ¾ oz. per ton from 80 tons. At Creamy Hills Euabalong Cabot and party at 65 feet deep struck a reef 2½ feet wide, about 10 inches of which shows gold freely. The reef appears to improve in depth. The country around is well worthy the attention of prospectors. At Young gold raised 4,829 oz. 2 dwt. 23 gr., valued at £18,477 14s. 11d., the South Burrangong Company contributing about £9,000 and the Cunningar Reef about £1,300. At Temora the output of gold for the year was only 474 oz. 1,800 loads of wash-dirt puddled averaged 2½ dwt. per load. From Hennsler's prospecting claim 18 tons of quartz crushed gave 100 oz., and 30 tons gave 60 oz. At Sebastopol a quantity of stone is ready for crushing. There are said to be numerous reefs that under good management with requisite capital would pay well. Junee output of gold 230 oz.; Cootamundra output of gold 321 oz. At Barmedman 1,002¾ tons of stone crushed yielded 327 oz. 0 dwt. 12 gr. The greater part of the mines are idle for want of appliances to work below the water level. Near Junee Reef Dillon and party are said to have bottomed at 30 feet on quartz

wash,

wash, showing colours of gold. At Eurongilly 41⅓ tons from the Enterprise claim yielded 67 oz. Seven tons crushed from the Pioneer claim yielded 19½ oz., and 35 tons from the Victoria Reef gave 41½ oz.

Tumut and Adelong District:—There is now a prospect of the value of the large river flats at the Gundagai being tested. Borings on the flats have given indications of a heavy gold-bearing deposit at depths varying from 60 to 100 feet. The water is so heavy that the deposit can be worked only by the aid of powerful machinery, but if any one of the three parties now prospecting should find payable gold a very large area will probably be opened up, giving employment to a great number of miners. At South Gundagai Mr. Lindley has opened a valuable alluvial gold-mine on his private property on the banks of the river. Up to the present he has won about 300 oz. of gold. The lead or deposit appears to trend across the river towards the extensive flat on the north side. On Higgins' lease, adjoining Lindley's land, a similar deposit has been found by means of a series of bores. About 5 miles further south from Gundagai Mr. M'Inerney is opening up an alluvial lead on his property at Stony Creek; the prospecting shaft first struck payable wash at 40 feet on a false bottom; the shaft being continued down reached the lower or main lead at 85 feet, containing more gold than the upper wash. There is upwards of a mile in length of this lead in Mr. M'Inerney's property. The lead is said to have been proved to be nearly 200 feet in width. Two properties below M'Inerney's, known respectively as Annett's and Edwards', have been tested by boring, and the same lead proved to extend through them. These discoveries have given quite an impetus to alluvial prospecting, which will probably lead to other discoveries. At Adjungbilly Creek some extensive alluvial works are in progress, such as constructing tail-races. At Adelong the yield of gold is set down at 4,931 oz. 9 dwt. 6 gr., of which 1,562 oz. 8 dwt. is from quartz, the Reefer Battery having crushed 869 tons for 1,062 oz. 8 dwt., and the Perseverance Battery 499 tons for 500 oz. The bulk of the alluvial gold was obtained from Mr. A. D. Shepard's lease. Phillips and party have won 100 oz. from their creek claim; the run of gold is likely to be traced into private property. The Manager of the Proprietary Mine reports having crushed 300 tons of quartz for 683 oz. of gold, and 143 tons (seconds) for 85 oz., the vein being 1 foot wide. From the Lady Mary Mine Gap Reef 194 tons yielded 129 oz. 6 dwt. 14 gr., and 76 tons (seconds) yielded 22 oz. 11 dwt. of gold. The shaft on the western channel has been let to tributors, who raised 12 tons of stone, which yielded 2½ oz. per ton; this vein is well defined, but small. The opening of the deep lead under the basalt at Cherry Hill, about 10 miles from Tumberumba is an important event, as it may lead to other mines being opened, as the lead extends some 20 miles, with breaks here and there. The ground has yielded well so far. Alves & Co. are working vigorously opening up the eastern lead at Watson's, about 5 miles from Tumberumba. The Burra Company, the largest sluicing company in the division, has been engaged on dead work nearly all the year, which has reduced the yield of gold for the year. The sluicing claims on Tumberumba and Back Creek, and on the Tarcutta, are doing well. A fair sized reef has been opened about 20 miles from Tumberumba, from which quartz showing gold has been obtained. The quantity of gold raised in the division during the year was about 1,600 oz. Hertzog and party at Mount Pleasant, near Albury, obtained 56 oz. of gold from 36 tons of stone. Messrs. Wilson and Day, after sinking 103 feet, came upon an apparently valuable body of stone, but they have been prevented by a flood from working it. The yield of gold in the Albury Division during the year was worth £1,155.

Southern District:—A large extent of land has been taken up at Yellow Spring Creek on the great auriferous drift deposit on the Shoalhaven River. A Company has been formed to work this drift deposit at the Oallen Crossing, and another Co. has commenced operations at Spa Creek. Should these companies succeed, their operations will doubtless bring into notice these immense auriferous deposits. The auriferous drift-bed which underlies large areas of the basaltic hills at Kangaloon, &c, appears to be precisely similar in character to the great Shoalhaven deposits, though carrying less gold, and so fine as to be exceedingly difficult to save. The first occurrence of this auriferous drift-bed is at Wild's Meadow, Burrawang, where it outcrops under a basaltic hill known as Grice's Farm, and thence in many other places trending northerly to the Mittagong Gold-fields, a distance of 8 or 10 miles. Its outcrops show it to be 2 or 3 miles in width, and there is reason to believe it will in places prove to be 100 feet in thickness. Quartz pebbles and boulders in this drift contain gold. Over 1,000 oz. of gold have been won from the Dansfield Estate, at Jembaicumbene, in the Braidwood division. There is a great quantity of private land in the locality yet untouched. At Major's Creek, the gold won amounted to 545 oz. 13 dwt. 8 gr. The prevailing opinion that the reefs in the Little River division do not carry gold to a depth, but this idea has been dispelled by the Day Dawn Co. cutting a reef at 200 feet deep, from which 120 oz. of gold was obtained from 25 tons of quartz. There is a great extent of alluvial ground suitable for sluicing in the Little River division. There are several companies in the Nerriga division engaged in constructing dams and races for sluicing extensive deposits of wash on the banks of the Shoalhaven and tributaries. The quantity of gold won in the Araluen division during the year was 2,675 oz. 10 dwt., viz., 2,600 oz., from alluvium, and 75 oz. 10 dwt. from quartz. The New Koh-i-noor Co., at Captain's Flat, crushed 4,860½ tons

tons of ore for 823 oz. 12 dwt. of gold. The Caledonian Co., at Yalwal, have over 200 tons of stone at grass, a parcel treated at the Mint yielded 14 oz. to the ton, and 50 tons crushed at the old Homeward-bound Co.'s battery yielded over 3½ oz. per ton. The Star Co., south of Homeward-bound, has a lode 12 feet wide, two parcels of 1 ton each, from which was tested at the Mint—one yielded 5 dwt. and the other 11 dwt. The Brewery Co., at Micalago, have about 150 tons of stone at grass ready for crushing; width of reef, 2 to 6 feet; and they have purchased a 10-head battery, &c. The original prospector at Colinton, W. W. Quigg, treated 390 tons of stone for 254 oz. of gold, the reef varying from 4 inches to 3 feet 6 inches. Bradley and party have sunk three shafts on veins, all showing gold; crushings averaging 10 dwt. per ton. At Fiery Creek 182 tons of stone crushed gave 193 oz. of gold. A trial crushing from a gossan reef yielded 3 oz. per ton. At Pambula there are now three crushing plants completed, two in course of erection, and two very large ones projected. The prospector's shaft is 120 feet deep, There are 700 miners at work on the field. At Nerrigundah, Anderson and Mitchell (aided from the prospecting vote) have struck a rich lode at a depth of 115 feet; width of reef 2 to 3 feet. The Wandella Co. have raised some stone from below the water level, which surpasses in richness anything previously found in the mine. Several parties are winning good returns of gold from alluvium, chiefly creek claims in the Nerrigundah division. At Coolagalite a rich leader has been struck in Riley's prospecting claim, one ton treated at Mount Dromedary yielded 14 oz. 15 dwt.; depth of shaft, 100 feet; width of vein at that depth, 2 feet; 50 tons at grass. There are several other mines on gold, and the reef promises to be of great importance. Gold has been found at Punkally below high-water mark and traced to a reef in the adjoining main land. The reef in Hobbs' lease at Currowan is 3 feet wide, 100 tons of ore at grass, and gold is seen in the stone on the adjoining lease. On No. 1 North, a reef about 4 feet wide has been opened out showing gold. At Bumbamalla the prospectors have sunk four shafts on the reef, and have a quantity of stone at grass. Hobbs and party have 80 tons at grass, and several other parties have raised quantities of stone ready for crushing. At Bullock Creek Ray's prospecting claim and other mines show good gold. At the Italian mine, Turlingah, a large quantity of stone has been raised, and Mr. Leoni is now looking for suitable machinery.

Hunter and Macleay District:—At Copeland 243 tons quartz crushed for 132 oz. of gold. Andrew Clark has a reef from 6 inches to 2 feet 6 inches wide showing gold; no stone crushed yet. The Belmore Co. raised 33 tons which yielded 47 oz. The Granville Co. raised 30 tons of stone which yielded 15 oz. The United Reefs Co. raised 150 tons which yielded 70 oz. The Black Prince Co., width of reef 2 feet to 4 feet; 30 tons of stone at grass; not yet started to crush. At Coolongolook the Mountain Maid Co. has about 40 tons of stone at grass, but has not yet crushed. At Deep Creek (Kempsey Division) the Deep Creek Co. have sunk 170 feet, the 25 to 30 feet they have been sinking in the heart of the lode; nothing but rich stone all around them. They have driven 12 feet and have not yet reached either wall. A small parcel of the stone was sent to England on trial, but it was sold for £7 per ton. A parcel of 52 tons sent to the Clyde Works, and was there sold on assay at 4 oz. 17 dwt. per ton of gold and a trace of silver. The Co. have 100 tons of pyrites (first-class) at grass, besides hundreds of tons of stone which it is thought will pay when the plant is erected. Anderson and party have very encouraging prospects on the same lode. Alluvial gold has been found on the sea beach at three different points, but owing to its fineness special appliances are required for saving it. Some rather coarse gold has been found on Taylor's Arm.

Peel and Uralla District:—In the Scone division 4,500 tons of stone crushed at the various batteries gave 3,800 oz. of gold. At Stewart's Brook the United Bluey Co. crushed 2,000 tons for 1,560 oz. of gold; average width of reef, 2 ft. The Ethel May Co. crushed 1,300 tons of stone for 555 oz. of gold; reef large, some places as much as 10 feet wide; average width, 3 feet. A trial crushing of 2 tons from the Teddy Morgan mine gave 5 oz. 5 dwt. of gold. The Terry Co. crushed 42 tons for 24 oz. 9 dwt., and 59½ tons 52 oz. 9 dwt. Twenty tons crushed from the Little Nell claim, south of the Great Britain and Mountain Maid mines, gave 9 oz. 13 dwt. From the Alice mine, top end of Stewart's Brook, one crushing of 13 tons averaged 1 oz. 4 dwt. per ton; another of 12 tons yielded 1½ oz. per ton; width of reef, 4 to 8 inches, increasing in depth. From the Pride of the North mine one crushing of 18 tons in Sydney yielded 2¼ oz. per ton; another of 45 tons treated locally yielded 14 dwt. per ton. A crushing of 7 tons from the Lady Maude mine gave 13 dwt. per ton. On the Denison Field the Newcastle Co. crushed 600 tons of stone from Fuller's reef for 1,076 oz. of gold; average thickness of reef 16 inches; the tailings are heavily charged with pyrites. Taylor and party have struck very good stone. At Mount Misery (Nundle division) Mr. Norris has struck a payable run in the cement lead, wash 8 feet thick and a good width. The Peel River Proprietary Co. have raised 1,005½ tons of stone which was crushed at their own battery, and yielded 298 oz. 7 dwt. 23 gr. of gold. The Lady Mary Co. at Happy Valley crushed 250 tons for 50 oz. of gold. The Royal Mountain, Hanging Rock, crushed 28 tons for 33 oz. Isaacsohn and Thompson obtained some very rich specimens at Hanging Rock—33 tons gave 8 oz. per ton. One or two sluicing parties are making good wages on old

ground

ground at Bowling Alley Point. Two new fields have been opened, namely, Niangula, 30 miles from Walcha and 47 from Tamworth, and Swamp Oak, 10 miles from Niangula and about equidistant from Tamworth and Walcha. At Niangula there are three or four payable claims; the deepest shaft, the prospectors', is 65 feet deep, but there is no battery on the field to treat the stone. At Swamp Oak there are eight or ten good claims; the reefs average about 15 inches. The greatest depth reached is 40 feet on the Tichbourne reef, 1½ to 2 feet wide. A trial crushing in Sydney is said to have yielded 11½ oz. per ton. The country for 20 miles below the rush is similar formation, with veins crossing it at intervals. At Bullawa Creek (Narrabri) the prospectors (Sheppard and party) washed one load, and obtained 1 dwt. 17 gr. of gold, besides 12 small diamonds. At Melrose the Enmore Co. had a trial crushing of 10 tons, which gave 11 oz. per ton, but subsequent crushings gave less than 2 oz. per ton. The mine was closed in November last. This caused other mines, supposed to contain payable gold, to be abandoned, with the exception of a few miners who are erecting a 5-head battery to prospect the reefs. The Comet reef, on private property about 12 miles north of Hillgrove, is from 5 to 7 feet wide and can be traced for 40 chains. About 10 tons of stone, tested in Sydney, gave 1 oz. per ton of free gold, the concentrates assaying 8 oz. per ton. The Garibaldi Co. have crushed 842 tons of stone for 739 oz. of gold. The Sunlight Co crushed 2,009 tons of stone for 1550 oz. of gold, and 310 oz. of silver; lode about 6 feet wide. Baker's Creek Co. have three reefs, one (average width 15 inches) giving an average yield of 2 oz. per ton; one 2 feet wide, average yield about 12 dwt; and a new reef which averages 1¼ oz. per ton. They crushed during the year 5,725 tons of stone for 11,476½ oz. of gold. The Lady Carrington Co. have a lode of quartz and antimony carrying gold; about to erect furnaces; have about 160 tons of concentrates ready for treatment. The Baker's Creek North Co. have a lode about 8 inches wide, carrying gold. The Starlight Co. have a lode about 6 inches wide of quartz and antimony. A trial crushing of 8 tons gave 6 oz. per ton of gold. The Eleanora Co. have a lode of quartz and antimony about 8 feet wide, intersected by a sandstone dyke about 4 feet wide; quantity of gold won during the year, 1,640 oz. The Golden Gate Co. have a reef 2 feet wide, a crushing of 300 tons from which gave 170 oz. of gold. They have also two other reefs from which they have obtained fair prospects. The Earl of Hopetoun Co. have a lode of quartz and antimony from 6 to 60 inches wide. A trial crushing of 5 tons gave about 4 oz. of gold per ton. About 250 tons of stone at grass, waiting erection of plant. The Glen Morrison Co. at Glen Morrison have 100 tons of stone at grass awaiting crushing. Boggy Creek Hydraulic Sluicing Co. (Walcha division); average earnings £2 per week per man. At Kookabookra Butcher's Reef Co. treated 150 tons of quartz for 400 oz. of gold. The Bear Hill Proprietary Co.'s reef is 12 to 15 inches wide, carrying gold; 800 tons at grass ready for crushing. The Starlight reef, Oakwood Gully, about 10 miles from Bear Hill, averages about 3 feet wide; prospects considered good. The Adeline Mine at Drake having been tested in depth, the lode, which is 4½ feet wide, is found to contain ore composed of copper, iron, and galena, containing gold. 40 tons of this ore has been reduced to matte containing gold, silver, and copper, at the Glen Smelting Works, and it was thought it could be worked at a profit by having the appliances on the mine, but having erected the necessary furnaces and reduced 100 tons of ore to matte, it was found the cost of treatment was too great. 417 tons of ore have been raised, and 140 tons treated as above-mentioned. Rivers and party (Lady Jersey Mine), about 6 miles south of Drake, struck payable gold. The ore contains copper and iron pyrites, and free gold, the lode being about 18 inches, but the associated rock on either side of the lode is impregnated with gold to a distance of about 2 feet, so that the gold-bearing material is from 5 to 6 feet wide. 480 tons of ore have been treated for 1,617 oz. of gold. At Mount Carrington a small vein was found by Monley and Co. which has at a depth of 20 feet opened out to 5 feet wide, estimated to yield 3 to 4 oz. per ton. Barker and party, south-east of Monley and Co., have had 12 tons crushed, yielding 5 oz. per ton. At Nana Creek (Grafton) Thompson and Mathews had 25 tons of stone crushed for 23 oz.; reef 18 inches wide. From the Jubilee Mine 197¼ tons gave 224 oz. 5 dwt.; average width of reef, 1 foot. No. 1 West, 25½ tons gave 25¼ oz. Forbes and Co., Bella reef, 159 tons gave 247 oz. 19 dwt. 12 gr. Nana's Daughter Co., 53 tons gave 58½ oz. After heavy gales about 100 men find profitable employment between Ballina and Byron Bay washing the beach sand. In places the sand pays well, but the appliances are not of the best. The prospecting party found coarse gold in several places in the locality of Byron Bay, but were unable to contend with the heavy influx of water. About 800 oz. of gold won in the Lismore division.

Cobar District:—The Occidental Co. were engaged the greater part of the year erecting machinery, &c., which was completed early in December last; since then 140 tons of stone crushed yielded 118 oz. 10 dwt. of gold. In the Chesney North a lode 8½ feet wide of blue and green carbonates was struck, from which two trial crushings gave 12 dwt. per ton. The Chesney Cobar Co. worked through the year, but the Warden could obtain returns for the last five months only, namely, 880 tons crushed yielded 586 oz. of gold. Two trial crushings from a lode 20 feet wide in the Fort Bourke Mine averaged 3½ dwt. The Jubilee are raising promising stone. At Mount Hope Riley and party reported the discovery of gold

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at Iron-stone Hill in a lode or dyke 60 feet wide; yield, about 8 dwt. per ton. Upon the south and east occurs a lode composed of ferruginous felspathic ore from 20 to 25 feet wide, carrying free gold apparently equal to about 2 oz. per ton. The lode has been laid bare about 50 feet in length. At the Mount Dromedary Mine, about 10 miles north of Mount Hope, gold is found in a lode about 30 feet wide where opened, and said to be something like 1 oz. per ton; 10 tons were sent to Melbourne for treatment some time since, said to have yielded 16 dwt. A parcel of 5 tons is being prepared for treatment at Parkes.

Albert District.—At Cawker's Well, 37 miles west of Wilcannia, gold was discovered about two years ago; the reefs have been opened to a depth of 100 feet. One reef is 2 feet wide at the surface, and has increased in width to 2½ feet. Assays have been made, the results averaging from 1½ to 3 oz., one from the "Golden Ridge" yielding as high as 19 oz. per ton. Bulk samples have been sent to Victoria; 5 tons from the "Golden Ridge" tested at Sandhurst yielded 5 oz. 2 dwt. of gold. A small parcel tested at the School of Mines, Ballarat, yielded at the rate of over 1 oz. per ton. At a mine due south of the "Golden Ridge" three reefs have been discovered, an assay of stone from one giving 2 oz. 17 dwt. per ton. The Peak Tank Mine is about 82 miles from Wilcannia, on the Mount Brown Road. At Stringer's Hill, in the Milparinka division, a fair amount of work has been done by a large number of miners, but with a plentiful supply of water double the number could find payable ground in this locality. The average depth of sinking is 90 feet, with about 4 inches of wash, and the average yield is estimated at 9 dwt. per load. The principal returns are:—Campbell and party, 240 loads for 222 oz.; depth of sinking, 75 feet; wash, 10 inches; Mercer and party, 197 loads for 96 oz.; depth, 80 feet; wash, 9 inches. The surfacing at Mount Browne has yielded from ½ dwt. to 2 dwt. to the load; the quantity of surfacing is practically unlimited. The wash in the Mount Browne Co.'s mine varies from 1 to 5 feet, yielding 3 to 12 dwt. per load, but the quantity of water in the mine equals 45,000 gallons per twenty-four hours. At the Good Friday the returns principally from surfacing averaged 1½ dwt. per load. At Evan's Gully fair returns were obtained so long as the water lasted. Around Tibooburra good wages can still be made so long as the water lasts. The quantity of gold won in the division is estimated at 2,210 oz.

The following information has been kindly furnished by R. Hunt, Esq., C.M.G., F.G.S., the Deputy-Master of the Royal Mint.

QUANTITIES of Gold, the produce of New South Wales, received into the Royal Mint, Sydney, during 1889 and 1890 compared.

District.	Division.	1889.	1890.	Increase.	Decrease.
		oz.	oz.	oz.	oz.
Bathurst	Bathurst	898 92	1,269·29	370·37	
	Carcoar	2,663 94	1,480 97		1,182·97
	Orange	2,442·29	1,502·06		940·23
	Trunkey Creek	1,007·85	462 40		545·45
	Tuena	599·68	1,176 96	577·28	
	Mount M'Donald	167 97	601·92	433 95	
Tambaroora and Turon	Hill End	2,222 57	1,753·65		468 92
	Tambaroora	920 02	519·95		400 07
	Sofala	644·25	372·26		271·99
	Stony Creek	1,830·19	340·78		1,489·41
Mudgee	Mudgee	3,133·92	2,023·08		1,110 84
	Gulgong	1.168 58	8 79·77		288 81
	Hargraves	304·12			304·12
	Wellington	126 51	687·81	561 30	
Lachlan	Parkes	7,023 74	4,068 82		2,954 92
	Forbes	3,520 33	7,478·63	3,958·30	
	Grenfell	525·99	381·37		144·62
	Young	1,434·82	1,377·98		56 84
	Temora	989 36	619 68		369·68
Albert	Wilcannia	2,720·22	2,235·33		484 89
Southern	Goulburn	205·81	144 49		61·32
	Braidwood	2,044 68	2,216 56	171·88	
	Araluen	104·88	24·35		80 53
	Shoalhaven	1,997·80	1,288 47		709 33
	Nerrigundah	232 16	475 62	243·46	
Tumut and Adelong	Adelong	2,128 02	4,565 58	2,437 56	
	Tumut	68 97	20·99		47 98
	Cootamundra	194 09	336 34	142·25	
	Tumbarumba	1,246 38	1,150 86		95 52
	Gundagai	356 99	251 22		105 77
	Cooma	286 66	276·01		10 65
	Kiandra	351·52	309 92		41·60
	Wagga Wagga		5·63	5 63	
Peel and Upper Hunter	Armidale	27,458 33	16,000 35		11,457 98
	Rocky River	471·33	418 42		52·91
	Nundle	300 96	1,156 03	855·07	
	Tamworth	376 90	295 93		80 97
	Bingera	1,204 45	1,053 90		150 55
Hunter and Macleay	Copeland	124 82	71 31		53 51
Clarence and Richmond	Grafton	559 69	363 23		196 46
New England	Tenterfield	603 68	768 52	164 84	
Mixed	Western Northern, and Southern		20,740 04	20,740·04	
Localities	Unknown	39,822 90	38,397 42		1,425·48
	Total	114,486 29	119,563 90	30,661·93	25,584 32

SUMMARY.

District.	1889.	1890.
	oz.	oz.
Bathurst	7,780·65	6,493·60
Tambaroora and Turon	5,617·03	2,986·64
Mudgee	4,733·13	3,590·66
Lachlan	13,494·24	13,926·48
Albert	2,720·22	2,235·33
Southern	4,585·33	4,149·49
Tumut and Adelong	4,632·63	6,916·55
Peel and Uralla	29,811·97	18,924·63
Hunter and Macleay	124·82	71·31
Clarence and Richmond	559 69	363·23
New England	603·68	768·52
Mixed—Western, Northern, and Southern	.....	20,740·04
Localities unknown	39,822·90	38,397·42
	114,486·29	119,563·90

From the above statement it is seen that the quantity of gold sent to the Mint in 1890 exceeds that of 1889 by 5,077·61 oz. Forbes, Adelong, and Nundle show the largest increases, while Parkes and Armidale show the largest decreases; but then 20,740·04 oz. appears under the head of "Mixed Western, Northern, and Southern" in the return for 1890, whereas in the return for 1889 there is no such item. However, the aggregate for the year shows a moderately satisfactory increase, and we may be well satisfied if we can maintain such an increase year by year.

The following table is compiled from information kindly furnished by the Collector of Customs:—

EXPORT OF GOLD, 1890.

Gold.		Quartz Tailings and Pyrites.		Total.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
oz.	£		£	oz.	£
34,852	137,169	Quartz, 105 packages ..... Pyrites, 10 tons 16 cwt.....	1,822	35,324	138,991

The quantity of gold sent to the Royal Mint plus the quantity exported in 1890 equals 154,887·90 oz., but of the 35,324 oz. exported we are informed 27,127 oz. passed through the Mint, and is included in the return furnished by the Master. The output of gold for 1890 may, therefore, be set down at 127,760·90 oz., which, compared with the yield for 1889, shows an increase of 8001·61. This increase is small as compared with the increase in the output of 1889 over that of 1888, and I think we may fairly expect that with increased knowledge concerning the mode of dealing economically with our refractory gold ores and the separation of gold from other metals, our gold production will not only increase, but we shall be able to take credit for considerable quantities of gold which now leave the Colony associated with other metals of which no account is or can be taken.

The returns furnished by the Mining Registrars of the gold won in their respective divisions is less by 1,904 oz. than the quantity sent to the Mint, and consequently is less by 9,905 oz. than the year's production as shown by the Mint and Customs returns.

RETURNS of Gold for 1890 from Mint and Mining Registrars compared.

District.	Mint.	Mining Registrars.	Excess.	Deficiency.
	oz.	oz.	oz.	oz.
Bathurst	6,494	10,353	.....	3,859
Tambaroorra and Turon	2,987	10,900	.....	7,913
Mudgee	3,591	12,154	.....	8,563
Lachlan	13,926	28,999	.....	15,073
Albert	2,235	2,210	25	.....
Southern	4,149	9,853	.....	5,704
Tumut and Adelong	6,917	11,205	.....	4,288
Peel and Uralla	18,925	24,058	.....	5,133
Hunter and Macleay	71	472	.....	401
Clarence and Richmond	363	2,251	.....	1,888
New England	769	3,453	.....	2,684
Cobar	.....	1,752	.....	1,752
Mixed—North, South, and West	20,740	.....	20,740	.....
Localities Unknown	38,397	.....	38,397	.....
	119,564	117,660	59,162	57,258
			57,258	
The quantity sent to the Mint exceeds returns by Mining Registrars by			1,904	

The Mining Registrars' returns of Gold for 1890 show an increased yield of only 4,711 oz. over that of 1889, but then it is abundantly clear that these returns are incomplete.

MINING Registrars Returns of Gold for 1889 and 1890 compared.

District.	1889.	1890.	Increase.	Decrease.
	oz.	oz.	oz.	oz.
Bathurst	16,449	10,353	.....	6,096
Tambaroora and Turon	10,414	10,900	486	.....
Mudgee	4,275	12,154	7,879	.....
Lachlan	17,222	28,999	11,777	.....
Albert	2,151	2,210	59	.....
Southern	13,086	9,853	.....	3,233
Tumut and Adelong	8,121	11,205	3,084	.....
Peel and Uralla	35,253	24,058	.....	11,195
Hunter and Macleay	244	472	228	.....
Clarence and Richmond	1,250	2,251	1,001	.....
New England	2,950	3,453	503	.....
Cobar	1,534	1,752	218	.....
	112,949	117,660	25,235	20,524
Less Decrease	.....	.....	20,524	
Increase in yield for 1890			4,711	

The following statement shows the results obtained from the treatment of parcels of alluvium in one district in 1890. The yield though good is not so high as the average for 1889. The fact that returns have been obtained from only one district indicates the reluctance shown by miners to disclose the results of their labours. Of course it is well known that in many cases the miners are too careless to keep any record of the quantity of dirt washed, and it is also well known that the gold is separated from a large proportion of the alluvium in this colony by sluicing, and in the latter case it is difficult if not impossible to keep a record of the quantity of earth treated, but after making due allowance for these there must be a large quantity of wash-dirt respecting which statistical information could be given which would be of the greatest value to the miners especially, but which is withheld from a mistaken idea that the public has no right to know the result of their private operations.

COMPARATIVE Statement of Average Yields from Alluvial Mines for 1889–90.

1889.				1890.			
District.	Quantity.	Average per ton.	Yield of Gold.	District.	Quantity.	Average per ton.	Yield of Gold.
	Tons.	oz. dwt. gr.	oz. dwt. gr.		Tons.	oz. dwt. gr.	oz. dwt. gr.
Bathurst	200	0 7 0	70 0 0	Bathurst	.....	.....	.....
Lachlan	4,454	0 14 12	3,230 0 0	Lachlan	11,761	0 9 11	5,717 10 0
Southern	1,110	0 11 4	620 0 0				
	5,764	0 13 14	3,920 0 0		11,761	0 9 11	5,717 10 0

The following statement shows the average yield of sundry parcels of quartz crushed in the several mining districts. Though it is comparatively easy to furnish returns of quartz crushed, because it is almost impossible to escape the necessity of taking some account of the quantity of stone crushed, still, in many cases the miners do not keep any record, especially where they own the plant or hire it by time, and there are instances of refusal to supply returns by persons possessing full information, consequently, of all the stone treated in the Colony, we are able to give, for the purposes of comparison, the results of only 46,294½ tons. If it were possible to obtain the results of every parcel of stone crushed year by year, some very valuable information might be deduced that would be of incalculable benefit to the very persons who might, but who do not, supply the information. For example, the average yields per ton in 1890, as compared with 1889, show some extraordinary fluctuations, but the return for neither year is complete, and, for aught we know to the contrary, if each were complete it might be found that each district had maintained a comparatively even yield per ton. It is to be hoped that both the Mining Registrars and the miners will realise the value, for statistical purposes, of furnishing complete returns, and will in future give their aid to secure the desired end.

COMPARATIVE

COMPARATIVE Statement of Average Yields from Quartz-mines for 1889–90.

1889.									1890.								
District.	Quantity.			Average per ton.			Yield of Gold.			District.	Quantity.			Average per ton			Yield of Gold.		
	Tons.	cwt.	qr.	oz.	dwt.	gr.	oz.	dwt.	gr.		Tons	cwt.	qr	oz.	dwt.	gr.	oz.	dwt.	gr.
Bathurst	4,901	0	0	1	8	0	6,859	0	0	Bathurst	8,428	0	0	0	6	18	2,855	6	11
Tambaroora & Turon	1,345	0	0	1	6	3	1,758	0	0	Tambaroora and Turon	2,702	0	0	0	10	9	1,298	5	0
Lachlan	9,069	0	0	1	1	6	9,647	0	0	Lachlan	3,768	0	0	0	18	15	3,579	0	0
Southern	5,780	0	0	0	13	19	3,990	0	0	Southern	1,730	11	0	0	17	16	1,538	0	18
Tumut and Adelong	500	0	0	1	6	0	650	0	0	Adelong and Tumut	12,321	0	0	0	8	12	5,253	12	14
Peel and Uralla	10,531	0	0	3	1	15	32,449	0	0	Peel and Uralla	13,810	0	0	1	6	2	18,150	14	0
Hunter and Macleay	235	0	0	0	17	0	200	0	0	Hunter and Macleay	415	0	0	1	1	13	447	4	0
Clarence & Richmond	266	0	0	1	2	22	305	0	0	Clarence and Richmond	282	10	0	1	7	17	380	13	9
New England	2,106	0	0	0	9	15	1,015	0	0	Mudgee	2,522	0	0	0	13	12	1,704	2	9
Mudgee	1,736	0	0	0	15	9	1,336	0	0	Cobar	1,023	0	0	0	13	19	704	10	0
Cobar	3,136	0	0	0	9	18	1,534	0	0										
	39,605	0	0	1	0	2	39,743	0	0		46,802	1	0	0	15	8	35,911	8	13

The number of miners engaged in gold-mining, more or less constantly during 1890, was 12,589, being an increase over 1889 of 2,397. The number engaged in alluvial mining was 5,597 Europeans and 707 Chinese = 6,304. The number engaged in quartz mining was 6,285—all Europeans. There is an increase in each class of miners as compared with 1889, but the increase in alluvial miners far exceeds that of the quartz miners.

Dividing the quantity of gold won by the number of miners, the result obtained is that each miner appears to have earned 10 oz. 3 dwts. of gold, valued at £36 11s. 3d. during the year, being less by £6 0s. 6½d. than the average earnings in 1889. A reference to the reports of the Wardens and Mining Registrars will however show that a large proportion of the miners have been engaged in prospecting. And it must be remembered that several new or comparatively new fields, from which little or no returns have yet been obtained, have attracted large numbers of miners, many of whom have been engaged in preliminary works. As for example, Pambula, Niangala, Swamp Oak, &c., to say nothing of the men engaged on works preparatory to extensive sluicing operations.

During the year 3,084 samples were assayed for gold, by direction of this Department.
1,715 yielded nil.
1,013 yielded under 10 dwts. per ton.
356 yielded as follows:—

Locality.	Description of Mineral.	Per ton.		Per cent.	
		Gold.	Silver.	Lead.	Copper.
		oz. dwt. gr.	oz. dwt. gr.		
Adelong	Tailings	1 7 5	0 6 12		
„	Quartz showing free gold	5 4 12	0 3 6		
Albury	Concentrated pyrites	0 13 1	0 14 3		
„ (9 miles from)	Quartz with mispickel	15 10 8	1 5 1		
„ District	Ferruginous quartz with a little mispickel	7 17 21	3 13 12		
„ (Black Range)	Pyritous quartz veinstone	0 13 0	0 6 12		
Armidale	Quartz and felspathic material	0 19 12	0 15 5		
„ (5 miles from)	Ferruginous quartz and felspathic lodestuff	4 18 0	2 10 2		
Abercrombie River (Butcher's Flat).	Ferruginous granular quartz	1 1 18	0 4 8		
„ „	Crushed pyritous quartz	1 6 0	0 6 12		
Bungendore Gold-field	Blue quartz showing free gold	8 10 9	1 15 22		
„ „	„ „	3 7 12	6 13 0		
„ „	„ „	6 4 2	0 19 14		
„	Quartz showing free gold	28 17 2	5 12 0		
„	„ with a little mispickel	10 6 21	2 1 9		
„	„ „ „	1 15 22	0 11 20		
„	„ „ „	2 1 9	0 10 18		
„	„ „ „ and a little free'gold	2 16 14	0 12 22		
„ (10 miles from)	Quartz with pyrites and galena	2 3 13	1 1 18		
Bulga	Ferruginous quartz	0 14 0	0 5 10		
„	„ „	0 18 8	0 5 10		
„	„ „	2 14 10	0 5 9		
Baker's Creek	Quartz with stibnite	0 18 12	0 8 15		
Bermagui	Pyritous quartz with a few specks of blende	0 18 12	0 11 23		
Bingera	Serpentinous rock, one piece showing a speck of free gold	1 1 18	0 8 17		
„	Serpentinous rock, with a little manganese oxide	0 15 2	6 12 0		
„	Ferruginous felspathic rock with magnetite	0 14 8	0 5 10		
Bathurst (7 miles from)	Granular quartz with chlorite	0 18 14	0 5 10		
„ District	Ferruginous pyritous quartz	0 10 21	0 3 6		
„ „	Crushed sample of quartz and pyrites with a few rounded pebbles.	3 2 14	1 14 7		
„ „	Crushed ferruginous quartz	2 12 16	1 3 21		
„ „	Ferruginous quartz showing free gold	34 17 23	7 4 9		
Belmore	Tailings	1 10 11	0 13 0		
Broula	Yellow gossan with carbonate of lead	1 7 10	27 3 13		

Locality.	Description of Mineral	Per ton		Per cent.	
		Gold	Silver	Silver.	Copper.
		oz dwt. gr	oz dwt. gr		
Blayney (near)	Quartz with mispickel	1 8 6	0 6 12		
„ District (King's Plains).	Ferruginous quartz veins in schist	0 19 11	0 8 17		
Blayney (2 miles W)	„ porous quartz and iron ore with pyrites	1 3 22	0 14 3		
„	Very ferruginous and slightly porous quartz with one piece containing secondary iron pyrites.	0 16 6	0 8 16		
Bommerah Mountain (Dapto District).	Ferruginous quartz showing specks of copper and iron pyrites, galena and two specks of free gold.	1 13 5	0 4 2		
Braidwood (near)	Porous brown iron ore	0 15 5	0 8 16		
Bundanoon (near)	Arsenical pyrites with a little quartz	3 7 12	10 0 8		
Bulli Range, Bulli	Massive pyrites in ferruginous quartz	2 7 21	1 12 16		
Brindabella	Slightly ferruginous quartz with a little pyrites and showing a little free gold.	14 3 2	1 3 22		
„	Quartz	6 10 16	1 3 22		
Barraba	Hematite with quartz veins carrying specular iron	0 17 9	6 19 8		
Bellinger River	Mispickel	9 16 0	1 1 18		
Bungonia	Ferruginous quartz from ironstone band	1 13 18	0 9 18		
Burra Burra	Blanketings	0 16 8	0 8 4		
Boney's Rocks	Crushed sample	3 5 8	0 12 12		
Chandler's Creek	Pyritous quartz	1 1 18	0 6 12		
„ „	Porous and pyritous quartz	0 10 21	...		
Cobar (Chesney's Lease)	Quartz, with azurite, malachite, and a little greenish felspathic material.	0 15 5	0 6 12		
„	Pyritous chlorite rock	3 6 1	1 15 22		
„ (3 miles from)	Ferruginous quartz	0 13 0	0 5 10		
„ „	„ „	0 13 0	0 5 10		
„ „	„ „	0 14 3	0 4 8		
„ „	„ „	0 15 5	0 6 12		
„ „	„ „	0 11 23	0 3 12		
„ „	„ „	1 2 18	0 5 10		
„ „	„ „	0 10 21	0 4 8		
„ District	Tailings	0 16 13	0 5 12		
„ Gold-mine	Quartz, with a little grey sulphide and green and blue carbonates of copper.	7 10 5	0 15 5		
„ and Billagoe (between).	Ferruginous quartz	3 0 22	0 11 20		
„ „	„ „	0 17 6	0 6 12		
Carrangra	Quartz, with a little molybdenite	14 13 23	5 18 16		
Charles River, New England	„ „ arsenical and iron pyrites	0 16 6	0 5 10		
Carcoar (5 miles from)	Ferruginous silicious gossan	0 10 21	0 3 6		
„ (Slattery's Creek).	Porous ferruginous quartz, with a little pyrites and free gold.	5 19 18	10 7 5		
„ District	Crushed sample	3 11 20	.....		
„ and Forest Reefs (between).	Ferruginous porous quartz and felspathic rock	7 10 5	10 3 14		
„ „	Pyritous quartz	0 10 21	0 4 8		
Cell's Creek (6 miles from Walcha).	„ „ and felspathic veinstone	1 12 16	0 4 8		
Coolac and Gundagai (between).	Ferruginous quartz, slightly porous	5 4 12	0 18 8		
„ „	„ „ with schist casing	0 12 22	0 18 8		
Coolac	„ „	1 3 22	0 13 0		
Cooma (Fiery Creek, near)	Gossan, with a little quartz and schist, showing free gold	4 4 16	3 16 10		
„ „	Ferruginous quartz	2 10 2	0 7 14		
„	„ „ with specks of pyrites	1 8 6	5 17 14		
„ District	„ „ veins in schist	0 14 0	0 11 20		
„	Porous ferruginous quartz in slate	1 1 18	0 5 10		
Cargo	Brown iron ore and quartz	4 2 17	0 10 18		
„	„ „ „	9 9 1	0 15 2		
„	Gossan	8 9 19	0 19 11		
Cowmowandah	Ferruginous quartz, with oxide and carbonate of lead	2 18 18	31 13 16		
„	„ „ „ „	2 14 10	43 0 5		
Cherry Hill, Dungog	Quartz, with a few specks of pyrites	13 12 4	2 3 13		
Candelo (near)	„ and felspathic rock	7 5 21	0 12 0		
Casino	„ with iron and a little copper pyrites	0 13 0	2 1 8		
Crudine Creek	„	3 3 3	0 6 12		
Cowra District	Ferruginous quartz and felspathic material	2 14 10	...		
„ „	„ „	1 2 18	0 16 0		
„ „	„ „	0 17 10	0 14 0		
„ „	„ „	2 4 15	1 0 5		
Copeland	Concentrated pyrites	0 16 8	0 13 0		
Crookwell	Ferruginous quartz, showing free gold	8 9 19	0 10 21		
Capertee Valley (near)	Silicious brown iron ore	0 17 6	9 13 9		
„ „ „	„ „ „	1 18 2	1 5 0		
Cudgegong	Quartz, showing a little free gold	1 17 0	0 15 5		
Clarke's Creek	Ferruginous pyritous quartz	0 13 0	0 4 8		
County Bathurst, parish Melrose.	Silicious gossan, with a little carbonate of lead	0 15 12	5 1 6		
Deep Creek	Mispickel	3 5 8	0 10 18		
Dalmorton (near)	Quartz, with a little mispickel and a speck of coarse gold	2 16 10	0 10 21		
„	Pyritous quartz	1 15 22	0 7 14		
„	Ferruginous quartz	0 13 0	0 4 8		
„	Slightly ferruginous quartz, with a few specks of galena	3 16 5	12 10 10		
Drake (Long Gully, near)	Zinc blende, iron and copper pyrites	7 18 22	4 4 21		
„ „ „	„ „ „	2 12 14	5 11 1		
Dungog	Ferruginous quartz, with fragments of slate	3 7 12	0 8 17		
Eden	„ „	3 0 22	2 13 7		

Locality.	Description of Mineral.	Per ton.		Per cent.	
		Gold.	Silver.	Silver.	Copper.
		oz. dwt. gr.	oz dwt. gr		
Eden District	Ferruginous felsitic breccia	9 15 23	0 6 12		
Forbes (near)	Tailings	2 17 16	0 9 12		
Forbes	Quartz with copper and iron pyrites, and showing free gold	14 4 4	2 2 11		
Flyer's Creek (near Forest Reefs)	Ferruginous porous quartz and felspathic rock	20 6 3	4 5 21		
,, ,,	,, ,, with a little pyrites	6 12 20	1 12 15		
,, (Burnt Yards)	One piece of ferruginous silicious gossan and one piece of porous ferruginous quartz.	20 18 2	3 16 5		
,,	Ferruginous cavernous quartz showing free gold	54 19 15	7 12 10		
Forest Reefs and Carcoar (between).	Pyritous quartz	0 19 11	2 5 17		
Fort Bourke Hill (near Cobar)	Ferruginous quartz	1 1 16	0 5 10		
Glen Innes	,, ,, with a few specks of galena	0 10 21	2 5 17		
,,	,, ,, ,, pyrites	12 10 10	29 15 13		
,,	Slightly ferruginous quartz with felspathic material	2 13 8	0 9 19		
,, district	Quartz with massive pyrites	1 5 0	0 7 14		
,, ,,	,, ,,	0 13 1	0 5 10		
,, (20 miles from)	Ferruginous pyritous quartz	0 17 10	0 10 21		
Gostwyck	,, quartz and felspathic rock, with a few specks of pyrites.	0 13 17	0 2 4		
Glen Elgin	Ferruginous quartz with pyrites	0 13 1	0 8 17		
Gulgong (6 miles from)	,, ,, with a little free gold and felstone, carrying a little arsenical pyrites.	4 7 2	3 13 0		
Gundaroo district	Ferruginous quartz	13 14 8	0 10 21		
Glen Morrison (4 miles from).	,, ,,	5 2 8	0 13 0		
Gloucester (near)	Slightly ferruginous quartz	1 6 2	0 8 16		
Havilah	Ferruginous quartz	0 10 18	1 3 22		
Hillston	,, clay slate, showing free gold	1 3 22	1 3 22		
,,	,, ,, ,,	1 10 10	0 8 16		
,,	,, ,, ,, ,,	0 19 12	0 6 12		
,,	Felspathic rock with magnetic iron	1 10 2	0 5 10		
,,	,, ,, ,,	1 15 22	0 14 12		
,,	,, ,,	0 17 6	0 6 12		
,,	,, ,,	1 9 8	0 10 21		
,,	Ferruginous clay slate, showing free gold	3 19 11	2 7 21		
Hill Grove	Concentrates	4 8 4	1 13 18		
,,	Tailings	3 19 7	1 5 0		
,, (1 mile W.)	Ferruginous quartz vein, slightly crystalline	6 16 2	13 2 10	metallic antimony	
,,	Quartz and slate breccia carrying stibnite	4 3 19	0 16 8	25 26 per cent metallic antimony	
,,	Concentrates	3 14 1	1 6 2	22 61	
,, (5 miles from)	Ferruginous quartz with small fragments of slate (brecciated).	0 16 15	0 5 1	per cent	
Hill End	Mispickel with calcite	123 11 18	14 5 6		
Ironbarks	Quartz with mispickel	0 13 1	0 17 9		
,,	Ferruginous quartz with free gold	38 4 8	4 8 4		
,, (11 miles from)	Quartz with a little pyrites	0 11 23	0 3 6		
,,	Slightly ferruginous quartz	12 1 6	1 12 16		
Junction Reefs, Carcoar	Arsenical pyrites carrying cobalt in felspathic gangue, and showing traces of erythrine.	0 15 5	0 6 12		
Jingellic	Ferruginous quartz with a little pyrites	0 10 21	0 6 15		
,,	,, ,,	0 11 23	1 8 7		
Jindera district	Quartz and micaceous felspathic rock	5 8 21	2 16 14		
,,	Ferruginous quartz	0 10 21	11 8 16		
,,	Blanketings	1 6 3	1 11 13		
,,	Tailings	0 13 14	0 12 12		
,,	Concentrates	1 1 18	0 14 16		
,,	Ferruginous quartz	1 12 16	0 10 21		
Kookobookra	Quartz with mispickel	1 5 2	0 7 4		
,,	Ferruginous quartz and felspathic material	3 5 8	0 8 17		
,,	,,	2 3 13	0 14 3		
Kooringbury Range (30 mls S E)	,,	3 14 0	1 3 22		
Kiandra	,, with a little pyrites	2 5 17	0 9 16		
Lucknow	Mispickel in quartz	0 19 12	0 4 8		
Lue	Quartz and iron ore	0 18 11	2 17 16		
Lismore district (Evan's Head)	Magnetite	4 7 2	0 13 0		
Lower Temora	Ferruginous quartz	2 11 4	1 2 18		
Little Nymboida River	,, ,,	53 7 2	2 10 1		
Log Paddock (near Mudgee)	Felspathic veinstone, with green carbonate of copper on joint faces, and carrying a thin porous veins showing free gold.	3 0 23	1 2 18		
Mogo (near)	Slightly ferruginous quartz, with a few specs of pyrites	0 15 5	0 7 14		
Mt Hope (12 miles from)	Felspathic rock with magnetic iron	2 4 9	0 3 21		
Mt. Dromedary (40 miles from)	Ferruginous felspathic material	1 1 16	0 11 20		
,, ,,	Porous ferruginous quartz vein in schist	3 14 0	0 2 4		
,, ,,	Gossan showing free gold	16 6 16	7 8 2		
,, ,,	Ferruginous quartz	4 3 1	0 19 12		
,, ,,	,, decomposed felspathic rock	2 14 16	0 13 0		
,, ,,	Porous ferruginous gossan	2 16 14	0 13 0		
,, ,,	Concentrates consisting of quartz and partly oxidized pyrites	2 15 12	1 7 10		
Mt. Macdonald	Pyrites felspathic rock with a very little quartz	3 4 5	0 17 10		
,,	Pyritous quartz	8 8 18	3 16 5		
Mudgee (16 miles from)	Silicious felspathic rock, stained slightly with green carbonate of copper, and showing a speck of free gold.	1 8 7	0 11 23		
,, (15 miles W.)	Ferruginous quartz with a few specks of copper pyrites	1 19 4	0 10 21		
Mudgee District	Quartz and brown iron ore	18 13 9	1 1 18		

Locality.	Description of Mineral.	Per ton.		Per cent	
		Gold.	Silver.	Silver.	Copper.
		oz dwt. gr	oz dwt gr		
Mudgee (near)	Silicious gossan	0 14 0	1 9 8		
„ „	Ferruginous quartz	0 15 2	1 10 11		
„ (16 miles from)	„ „ with a little sulphide and oxide of antimony.	11 2 2	9 15 23		
Moruya	Concentrated pyrites and quartz sand	1 19 4	0 4 5		
„	Tailings	0 17 23	8 12 13		
„	„	0 18 9	6 19 8		
„	Pyritous quartz	1 10 6	9 17 21		
„	Blanketings from quartz with iron and arsenical pyrites	0 19 12	4 9 6		
„	Quartz with iron and arsenical pyrite	1 1 18	0 3 19		
Monaro	Mispickel with a little quartz	52 12 14	0 3 6		
Mandurama	Ferruginous pyritous quartz	0 15 5	0 14 11		
„	„ quartz with pyrites and stains of green carbonate of copper.	1 3 22	2 18 6		
Macleay River (Coff's Harbour)	Ferruginous quartz	1 6 0	0 8 16		
Micalong	„ „	3 9 16	0 6 12		
„	„ „	14 11 19	1 3 22		
Merrindie (near Mudgee)	„ „ showing free gold	5 8 21	0 19 12		
Macquarie District (Cell's Creek)	„ „	8 11 21	0 16 6		
Mann River	Concentrates	10 0 8	1 8 7		
Molong (3 miles from)	Ferruginous felspathic rock	17 6 5	0 10 21		
„ „	„ „	5 2 8	0 6 12		
„ „	„ „	11 8 16	0 6 12		
Numeralla (12 miles N.E)	Silicious brown iron ore	8 18 13	0 8 16		
Newton Boyd	Quartz with galena	9 13 19	12 19 3		
Nundle District	Concentrated pyrites	3 18 9	1 6 3		
Nerriga (5 miles from)	Ferruginous quartz containing a little pyrites	3 18 9	0 6 12		
Nerrigundah	„ „ „	3 17 7	3 16 0		
Nana Creek	„ quartz with carbonaceous veins	2 17 6	0 16 4		
New England	Pyritous quartz	0 14 0	0 4 8		
Orange (9 miles from)	Pyritous quartz	0 13 0	2 10 1		
„ (near)	„	2 16 4	3 3 3		
Oberon Gold-field	Soft whitish clay, with fragments of quartz	8 14 5	0 4 8		
„ „	Ferruginous decomposed schist	3 9 16	0 4 8		
„ „	„ silicious gossan	1 13 18	0 7 11		
Peak Hill	„ quartz veins in talcose schist	33 4 5	0 13 0		
„	„ „ „	5 8 21	0 5 10		
„	„ „ „	0 19 12	0 10 21		
„	„ „ „	0 19 12	0 7 10		
„	„ „ „	0 10 21	0 5 10		
„	Silicious talc slate, with cavities formed by decomposition of pyrites.	0 17 15	. .		
„	Ferruginous porous quartz	0 10 21	0 4 8		
„	„ „ and talcose schist	44 8 12	0 10 21		
„	„ quartz	0 13 0	0 4 8		
„	„ „	2 4 15	0 4 8		
„	Silicious talc slate	1 1 13	0 6 12		
Pambula	Ferruginous quartzite	0 19 14	0 10 18		
„	„ „	0 13 1	0 6 12		
„	„ „ and ferruginous breccia	58 15 23	2 1 9		
„	„ „	4 2 17	0 8 16		
„	„ „	9 2 22	1 3 22		
„	„ conglomerate, showing free gold	3 12 22	0 5 10		
„	„ „ „	7 5 21	0 10 18		
„	„ „	1 10 11	0 8 17		
„	Felsitic breccia, showing gold freely	5 3 10	0 5 13		
„	Quartzite and felspathic rock, with a few specks of pyrites	1 9 6	0 3 6		
„	Slightly jasperoid quartz and felspathic rock	10 17 18	0 8 16		
„	Tailings	0 12 12	0 3 9		
„	Slimes	0 13 1	0 3 12		
„	Crushed sample	1 6 5	0 9 18		
„	Conglomerate	5 8 21	0 10 18		
Parkes	Concentrates	128 0 1	58 4 5		
„	Tailings	0 16 21	1 7 10		
„	Quartz, with sulphides of antimony, lead, zinc, and copper	5 8 18	2 19 3		
„	Concentrates	4 4 22	10 1 10		
Peel and Uralla District	Rubble, consisting of ferruginous quartz	2 0 6	0 16 8		
Rockley and Burraga (between)	Ferruginous quartz, with a few pieces of gossan	1 1 18	150 16 4		
Rockley (Blossom Hill)	Ferruginous cavernous quartz	0 19 12	0 4 8		
Rosedale	„ quartz	3 19 11	0 5 10		
Scrubby Rush	„ „ and felspathic veinstone	3 5 8	0 6 12		
„	„ felspathic quartzite	0 13 0	0 6 12		
Solferino District	Quartz, with mispickel	0 18 11	0 4 8		
Sofala	Ferruginous quartz	0 12 2	0 2 5		
Sunnyside	„ „	0 16 6	.		
„ (Scrubby Mountain)	„ „	4 2 17	1 6 3		
Stewart's Brook (¾ mile from)	„ „	2 0 6	0 7 14		
„ „ „	White quartz, with a little calcite and cubical pyrites, and one piece of grey quartz, with a little pyrites and a speck of free gold	83 11 10	12 10 10		
„ „ „	Crushed quartz	1 2 4	0 4 13		
Tait's Gully	Quartz with galena and blende	0 16 6	70 15 13		
„ „	Ferruginous felspathic rock, with quartz veins and one piece of oxide with sulphide of antimony.	1 1 16	1 12 16		
Tumbarumba (12 miles from).	Felspathic rock with mispickel	3 12 9	0 14 16		
Tarana	Porous ferruginous quartz	0 15 2	0 6 12		

Locality	Description of Mineral.	Per ton.		Per cent.	
		Gold.	Silver.	Silver.	Copper.
		oz. dwt. gr	oz. dwt gr		
The Forest (Yankee Point)	Ferruginous felspathic rock	0 19 12	0 6 12		
,, ,,	Pyritous quartz	1 6 2	7 14 4		
Tumut District	Quartz	2 18 19	3 15 5		
Turlinjah	Ferruginous porous quartz	32 0 5	21 13 9		
,,	Concentrates	2 8 22	35 2 8		
,,	Tailings	0 16 21	4 17 8		
,,	,,	1 12 16	24 4 13		
Tamworth District	Brown iron ore and quartz showing gold	9 7 6	1 14 20		
,, ,, (4 miles from).	Ferruginous quartz showing one speck of free gold	2 6 19	0 4 8		
Tenterfield (8 miles from)	Quartz	0 16 4	1 15 22		
Ullamalla Cement Hills	Drift	6 6 2	0 1 2		
Upper Wangat Williams River.	Quartz showing a little free gold and pyrites	3 16 5	2 12 4		
Uralla District	Ferruginous quartz and felspathic rock	0 19 12	0 6 12		
,, ,, (Swamp Oak River).	Dark grey quartz	12 8 5	1 8 6		
Uralla (near)	Porous iron ore and quartz	3 0 23	0 4 8		
Walcha (30 miles from)	Ferruginous quartz showing a little free gold	18 16 17	2 1 8		
,, District	Grey quartz	1 2 18	0 10 21		
,, ,,	Ferruginous quartz	1 0 16	0 7 14		
,, ,,	Grey quartz	2 16 14	0 15 5		
,, ,,	,, with mispickel	2 15 12	0 15 5		
,, ,,	,, ,,	0 16 8	0 7 14		
,, ,,	Dark ferruginous quartzite	0 11 23	0 5 22		
,, ,, (near)	Ferruginous quartz	3 11 20	0 7 14		
,, ,, ,,	Chloritic quartz showing a little free gold	3 9 16	0 10 21		
,,	Ferruginous quartz	2 13 6	0 16 4		
,,	Quartz with a little free go'd	27 4 10	3 16 5		
,,	Ferruginous quartz showing a little free gold	9 2 22	0 19 11		
Wiseman's Creek	Sulphides and arsenides of antimony, lead and iron in schistose felspathic veinstone with a little quartz.	2 15 2	26 2 16		
Warren	Ferruginous quartz	7 18 22	1 6 2		
,,	Quartz with a litt'e mispickel	17 19 8	2 14 10		
Wee Jasper	Slightly ferruginous quartz showing a speck of free gold	3 0 22	0 19 12		
Windellama (near)	Quartz with a little pyrites	3 14 8	0 10 21		
,, ,,	,, pyrites	5 4 12	0 18 8		
Wilcannia (37 miles from)	Slightly ferruginous quartz	5 0 4	0 8 16		
,, ,,	,, ,, ,,	2 17 16	0 5 10		
Wollomombi Valley	Quartz with arseniate of iron	3 10 18	0 10 21		
,,	Ferruginous quartz veinstone	0 13 0	0 3 6		
,, River	,, ,,	3 7 12	1 3 22		
,, ,,	,, ,, with pyrites	0 15 5	0 8 16		
,,	Quartz with arsenical and iron pyrites and galena	0 18 8	3 8 14		
Wmdeyer	Tailings	1 3 9	0 4 21		
Wellington	Quartz with iron and copper pyrites and a little blende	5 19 18	4 12 12		
Yowaka	Pyritous schist	0 19 12	0 7 14		
,,	Crushed sample consisting chiefly of pyrites and quartz	2 5 16	0 6 12		
Yalwal	Tailings	0 17 10	0 6 12		
,,	,,	0 19 12	0 8 16		
,,	Concentrates	14 8 12	3 8 14		
,,	Quartz and felspathic veinstone with a little pyrites and free gold.	25 6 6	1 2 18		
,,	Slightly ferruginous quartz and felspathic veinstone	11 4 6	1 12 16		
,,	,, ,, ,, ,,	7 16 8	0 17 9		
,,	Pyritous tailings	2 0 7	0 13 0		
,,	Ferruginous quartz with a little felspathic material	2 14 10	1 1 16		
,,	Grey quartz with a few specks of copper pyrites and galena.	9 5 2	2 17 6		
Yass District	Ferruginous quartz	0 11 20	0 3 10		

Coal.

The output of coal for 1890 shows as compared with that of 1889, a decrease in quantity of 594,756 tons, and in value of £353,760. This unfortunate result is clearly traceable to the very serious strike which caused the greater part of the collieries to be closed for a considerable period. If no worse result than the loss already sustained attend the strike, we may consider ourselves exceedingly fortunate seeing that it is quite possible the stoppage of supplies to vessels waiting for loading may very seriously affect our export of coal for some time hence. The trade thus lost in 1890 nearly equals the aggregate increase in the coal trade for the years 1888 and 1889, and exceeds by 28,928 tons the increase in our export of coal for those two years. These facts should make very plain to both owners and miners the importance of avoiding in future by every possible means such interference with the progress of this important industry. The average price per ton of coal on the whole output was 8s. 4 29d. The average price per ton of coal sent to colonial ports was 10s 6 96d. The average price per ton of coal sent to foreign ports was 11s 3 31d., being a decrease in the average rate per ton of the total output equal to 6 91d , while the average rate per ton to colonial and foreign ports show an increase respectively of 2 72d. and 1·43d.

QUANTITY and Value of Coal raised from the opening of the Coal-seams to 1857, inclusive :—

Year.	Quantity.	Average per ton.	Value.	Year.	Quantity.	Average per ton.	Value.
Prior to		£ s. d.	£			£ s. d.	£
1829	50,000	0 10 0	25,000	1844	23,118	0 10 8·34	12,363
1829	780	0 10 1·23	394	1845	22,324	0 7 10·27	8,769
1830	4,000	0 9 0·00	1,800	1846	38,965	0 7 0·46	13,714
1831	5,000	0 8 0·00	2,000	1847	40,732	0 6 9·01	13,750
1832	7,143	0 7 0·00	2,502	1848	45,447	0 6 3·38	14,275
1833	6,812	0 7 6·73	2,575	1849	48,516	0 6 0·45	14,647
1834	8,490	0 8 10·00	3,750	1850	71,216	0 6 6·77	23,375
1835	12,392	0 8 10·19	5,483	1851	67,610	0 7 6·51	25,546
1836	12,646	0 9 1·06	5,747	1852	67,404	0 10 11·33	36,885
1837	16,083	0 9 8·81	5,828	1853	96,809	0 16 1·51	78,059
1838	17,220	0 9 9·05	8,399	1854	116,642	1 0 5·63	119,380
1839	21,283	0 9 9·73	10,441	1855	137,076	0 12 11·96	89,082
1840	30,256	0 10 10·86	16,498	1856	189,960	0 12 4·06	117,906
1841	34,841	0 12 0·00	20,905	1857	210,434	0 14 0·97	148,158
1842	39,900	0 12 0·00	23,940				
1843	25,862	0 12 6·54	16,222		1,468,961	0 11 10·72	869,391

TABLE showing the Quantities and Average Value per ton of Coal exported to Intercolonial and Foreign Ports respectively, the Quantity of Coal consumed in this Colony, and the Average Price per ton of the total output of the Collieries, from 1858 to 1890 inclusive.

Year.	Exports to Intercolonial Ports.			Exports to Foreign Ports.			Total Exports.			Home consumption.	Total Output and Value		
	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.		Quantity.	Average per ton.	Value.
	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.	Tons.	£ s. d.	£ s. d.
1858	101,488	0 15 1·67	76,824	12,039	1 0 1·85	12,132	113,527	0 15 8·05	88,956	102,870	216,397	0 14 11·84	162,162 0 0
1859	129,586	0 14 6·67	94,312	44,349	0 17 5·27	38,672	173,935	0 15 3·49	132,984	134,278	308,213	0 13 3·14	204,371 0 0
1860	140,183	0 14 10·85	104,471	93,694	0 16 11·10	79,290	233,877	0 15 8·57	183,761	134,985	368,862	0 12 3·36	226,493 0 0
1861	157,278	0 15 2·25	119,433	50,502	0 16 5·37	41,532	207,780	0 15 5·92	160,965	134,287	342,067	0 12 9·52	218,820 0 0
1862	195,427	0 15 0·55	147,019	113,355	0 17 4·34	98,403	308,782	0 15 10·75	245,422	167,740	476,522	0 12 9·73	305,234 0 0
1863	213,909	0 13 8·40	146,532	84,129	0 17 6·10	73,649	298,038	0 14 9·30	220,181	135,851	433,889	0 10 10·66	236,230 0 0
1864	283,539	0 10 3·74	146,199	88,927	0 14 10·90	66,289	372,466	0 11 4·91	212,488	176,546	549,012	0 9 10·10	270,171 0 0
1865	292,664	0 9 11·83	146,129	90,304½	0 15 0·79	68,029	382,968½	0 11 2 20	214,158	202,556½	585,525	0 9 4·43	274,303 0 0
1866	344,194	0 9 2·98	159,175	196,711	0 14 4·53	141,413	540,905	0 11 1·37	300,588	233,333	774,238	0 8 4·44	324,049 0 0
1867	312,101	0 9 4·35	146,111	161,256	0 13 3·47	107,148	473,357	0 10 8·40	253,259	296,655	770,012	0 8 10·79	342,655 0 0
1868	329,052	0 9 5·76	155,975	218,984	0 12 5·29	136,226	548,036	0 10 7·96	292,201	406,195	954,231	0 8 9·08	417,809 0 0
1869	340,466	0 8 9·07	149,059	255,087	0 11 8·31	149,136	595,553	0 10 0·16	298,195	324,221	919,774	0 7 6·32	346,146 0 0
1870	335,564	0 8 6·02	142,656	242,825	0 10 3·57	125,025	578,389	0 9 3·07	267,681	290,175	868,564	0 7 3·54	316,826 0 0
1871	378,891	0 8 6·91	162,470	186,538	0 10 1·22	94,220	565,429	0 9 0·95	256,690	333,355	898,784	0 7 0·47	316,240 0 0
1872	394,052	0 8 8·11	170,947	275,058	0 9 11·46	136,914	669,110	0 9 2·42	307,861	343,316	1,012,426	0 7 9·92	306,198 0 0
1873	425,937	0 12 9·32	272,110	347,142	0 14 7·59	253,979	773,079	0 13 7·32	526,089	419,783	1,192,862	0 11 1·94	665,747 0 0
1874	467,583	0 13 8·30	320,119	405,442	0 15 4·76	312,128	873,025	0 14 5·81	632,247	431,587	1,304,612	0 12 1·37	790,224 0 0
1875	518,853	0 13 7·77	354,074	408,154	0 15 6·64	317,409	927,007	0 14 5·84	671,483	402,722	1,329,729	0 12 3·89	819,429 17 2
1876	542,952	0 13 8·45	372,045	325,865	0 15 6·45	253,166	868,817	0 14 4·70	625,211	451,101	1,319,918	0 12 2·06	803,300 5 6
1877	563,757	0 13 8·64	386,740	351,970	0 14 10·81	262,237	915,727	0 14 2·08	648,977	528,544	1,444,271	0 11 10·74	858,098 8 2
1878	623,323	0 13 8·77	427,954	383,097	0 14 7·69	293,452	1,006,420	0 14 0·93	708,406	569,077	1,575,497	0 11 8·28	920,936 7 4
1879	621,087	0 13 6·75	421,198	376,962	0 14 6·13	273,509	998,049	0 13 11·05	694,707	585,332	1,583,381	0 12 0·12	950,878 18 3
1880	550,672	0 11 2·67	309,004	202,684	0 11 5·70	116,295	753,356	0 11 3·48	425,299	712,824	1,466,180	0 8 6·36	615,336 11 7
1881	657,135	0 7 9·34	255,572	372,709	0 8 8·29	161,958	1,029,844	0 8 1·30	417,530	739,753	1,769,597	0 6 9·55	603,248 5 8
1882	760,226	0 9 9·54	372,334	501,319	0 10 11·50	274,699	1,261,545	0 10 3·09	647,033	847,737	2,109,282	0 8 11·97	948,965 0 0
1883	855,704	0 10 5·75	448,356	656,741	0 11 7·34	381,306	1,512,445	0 10 11·65	829,662	1,009,012	2,521,457	0 9 6·40	1,201,941 12 11
1884	994,087	0 10 8·66	532,938	696,676	0 11 5·14	398,107	1,690,763	0 11 0·15	931,045	1,058,346	2,749,109	0 9 5·71	1,303,076 19 11
1885	991,924	0 10 7·13	525,443	764,432	0 11 6·52	441,220	1,756,356	0 11 0·09	966,663	1,122,507	2,878,863	0 9 3·72	1,340,212 13 7
1886	1,027,775	0 10 7·22	544,824	708,090	0 11 4·31	402,178	1,735,865	0 10 10·93	947,002	1,094,310	2,830,175	0 9 2·53	1,303,164 4 1
1887	1,077,270	0 10 89	565,084	713,172	0 11 1·08	395,455	1,790,442	0 10 8·75	960,539	1,132,055	2,922,497	0 9 2·57	1,346,440 2 7
1888	1,039,764	0 10 10·25	564,293	884,108	0 11 3·77	500,179	1,923,872	0 11 0·78	1,064,472	1,279,572	3,203,444	0 9 1·02	1,455,198 4 1
1889	1,310,228	0 10 4 24	678,200	1,077,474	0 11 1·88	601,071	2,387,702	0 10 8·58	1,279,271	1,267,930	3,655,632	0 8 11·20	1,632,848 15 6
1890	1,149,544	0 10 6·96	608,108	672,330	0 11 3·31	379,065	1,821,874	0 10 10·04	987,173	1,239,002	3,060,876	0 8 4·29	1,279,088 19 5
	18,126,215	0 11 0·74	10,025,708	11,962,125	0 12 3·91	7,372,491	30,088,340	0 11 6·77	17,398,199	18,307,557	48,395,888	0 9 7·03	23,196,853

The aggregate thickness of coal bored through by the Government diamond drills during the year was 138 feet 1½ inche, namely:—At Liverpool, 8 ft. 9½ inches; at Nowra, 6 ft. 2½ inches; at Joadja, 10 inches: at Ravensworth (1st bore), 39 feet 11 inches, (2nd bore) 83 ft. 2½ inches. The drills pierced in addition to the above 40 ft. 6½ inches of coal and bands.

The number of collieries under inspection in 1890 was 64 coal and 1 shale mine in the Northern District, 15 coal and 2 shale mines in the Western District, and 16 coal and 1 shale mine in the Southern District; total, 99, as compared with 103 in 1889.

The number of mines opened out or in course of opening during the year was 30, and 5 were abandoned as compared with 16 opened out and 8 abandoned in 1889.

During the year a fair amount of prospecting for coal has been carried out.

The existence of coal in the neighbourhood of Coraki has been known for a considerable time, but until the late strike very little was done towards proving the seams. The scarcity, however, of coal during the strike last year, and the local demand for it for sugar-mills and river steamers, and the prospective market for it on the Lismore to Tweed railway for supplying the locomotives, &c., led to these seams being prospected in several places in the neighbourhood of Lismore in 1890. The principal seams at present proved are three in number, viz., the top seam, of which the total thickness (including bands) of portion of seam possibly workable is 4 feet 2 inches. In this thickness there are three bands of one half an inch each, and the coal between the bands contains rather a high percentage of ash, as shown by the samples taken by Mr. Geological-Surveyor David, and assayed by the Department. The percentage of ash varies from 15·59 up to 39·94 per cent. in the average samples. A picked sample, however, was found to contain only 11·06 per cent. of ash, and was proved by analysis to have the following composition:—

Hygroscopic moisture	·48
Volatile hydrocarbons	14·33
Fixed carbon	74·13
Ash	11·06
	100·

Coke, 85·19 per cent.

"Well swollen, with cauliflower excrescences; fairly firm and bright." This sample, however, represented only a few inches of the best coal in the seam. The analysis shows it to be a first rate steam coal, but it cannot of course be taken as representing the average composition of the seam. About 50 feet below the floor of this seam is the second seam not yet fully tested, but showing at the outcrop a thickness of 3 feet of black dirt (perished coal with probably some bands).

About 30 feet below the floor of this seam is a third seam, showing about 11 feet of black dirt, but not yet fully tested. The coal in the top seam has been opened up principally at Bungawalbyn, about 8 miles south from Coraki, and has been traced thence along the line of outcrop for a distance of about 6 miles to the Richmond River, about 4 miles below Coraki, and for a further distance of over half a mile on the north side of that river. The geological examination and analyses of the coal from the upper seam show that it contains too much ash and is too brittle to be used for anything more than local comsumption, and even for this purpose it would require to be washed in a coal-washing machine before it could be converted into a marketable commodity. The local consumption of coal at present amounts to about 30,000 tons annually, which are supplied chiefly from Newcastle.

Aid has been given out of the Prospecting Vote to assist in testing the two lower seams. The general dip of the seams is to the west-north-west at a gentle angle. These seams appear to be identical with those which have already been examined and reported on by Mr. C. S. Wilkinson at Maclean and Coaldale, and like them are capped by a current-bedded white sandstone, much resembling the Hawkesbury sandstone, and probably identical with it, as suggested by Mr. Wilkinson. It is intended to make a further geological examination of the Clarence and Richmond River District, which may lead to the discovery of workable coal-seams in certain areas.

The following statement shows that the output of the Northern collieries in 1890 was less by 504,300 tons, valued at £265,293, than the output for 1889; while output from the Western collieries exceeded in quantity that of 1889 by 13,519 tons, but the value of the output fell short of

that

that of 1889 by £15,463. This is to some extent accounted for by the low rate at which the contract for supplying the Railway Department with coal was taken. The output from the Southern collieries shows a decrease of 103,974 tons, value £73,002.

COMPARATIVE Statement of Output of Coal in the Northern, Western, and Southern Districts.

	1884.		1885.		1886.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		£ s. d.		£ s. d.		£ s. d.
Output, Northern District	2,055,342 10 3	1,011,933 13 7	2,113,372 13 0	1,032,904 13 4	2,178,116 0 0	1,084,554 17 1
Increase as compared with previous year.	155,722 14 3	83,907 0 2	58,030 2 1	20,970 19 9	64,743 7 0	51,650 3 9
Decrease do	.....	.....	.....	.....	.....	.....
Output, Western District	273,823 14 0	74,161 9 7	311,762 16 0	76,836 13 3	281,229 0 0	68,615 15 0
Increase as compared with previous year.	41,405 11 0	.....	37,939 2 0	2,675 3 8	.....	.....
Decrease do	.....	3,619 8 11	.....	.....	30,533 16 0	8,220 18 3
Output, Southern District	419,942 9 0	216,981 16 9	453,727 15 3	230,471 7 0	370,830 0 0	149,993 12 0
Increase as compared with previous year.	30,523 7 0	20,847 15 9	33,785 6 3	13,489 10 3	.....	.....
Decrease do	.....	.....	.....	.....	82,897 15 3	80,477 15 0

	1887.		1888.		1889.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		£ s. d.		£ s. d.		£ s. d.
Output, Northern District	2,243,792 0 0	1,096,720 0 7	2,067,042 4 3	1,022,022 8 10	2,624,347 3 0	1,261,224 16 5
Increase as compared with previous year.	65,676 0 0	12,165 3 6	.....	.....	557,304 18 1	239,202 7 7
Decrease do	.....	.....	176,749 15 1	74,697 11 9	.....	.....
Output, Western District	302,137 0 0	79,036 0 2	339,594 9 0	95,136 3 0	329,713 3 0	81,459 1 1
Increase as compared with previous year.	20,908 0 0	10,420 5 2	37,457 9 0	16,100 2 10	.....	.....
Decrease do	.....	.....	.....	.....	9,881 6 0	13,677 1 11
Output, Southern District	376,563 0 0	170,684 1 10	796,806 10 0	338,039 12 3	701,572 0 0	290,164 18 0
Increase as compared with previous year.	5,738 0 0	20,690 9 10	420,238 10 0	167,355 10 5	.....	.....
Decrease do	.....	.....	.....	.....	95,234 10 0	47,874 14 3

	1890.	
	Tons.	Value.
		£ s. d.
Output, Northern District	2,120,046 6 1	995,931 2 6
Increase as compared with previous year	.....	.....
Decrease do do	504,300 16 3	265,293 13 11
Output, Western District	343,232 3 2	65,995 3 0
Increase as compared with previous year	13,519 0 2	.....
Decrease do do	.....	15,463 18 1
Output, Southern District	597,598 0 0	217,162 13 11
Increase as compared with previous year	.....	.....
Decrease do do	103,974 0 0	73,002 4 1

The average price of Coal in the several districts was as follows :—

1889.	s. d.		s. d.	1890.	s. d.	
Northern	9 7·34		9 4·74	a decrease of	0 2·60	per ton.
Western	4 11·29		3 10·14	„	1 1·15	„
Southern	8 3·26		7 3·21	„	1 0·05	„

TABLE

TABLE compiled from Reports furnished by Owners of Collieries, showing the quantity and value of Coal and Shale won during the year 1890, and the number of men employed in the Collieries.

Company.	Locality.	Men employed. Above ground.	Men employed. Under ground	Men employed. Total	Quantity.	Value.
	Northern District.					
COAL.					Tons cwt qr.	£ s. d.
Australian Agricultural Company	Newcastle	158	625	783	252,687 0 0	118,071 6 6
Burwood	Burwood	74	280	354	90,204 15 0	49,612 5 8
„ Extended		8	5	13	5,404 0 0	2,702 0 0
Brown's	Minmi	41	247	288	48,121 0 0	26,966 0 0
Bloomfield	Four-mile Creek, East Maitland.	3	8	11	7,655 0 0	2,296 10 0
Co operative	Plattsburg	90	428	518	143,682 0 0	68,155 0 0
Centenary	Curlewis	8	23	31	8,800 0 0	3,520 0 0
Duckenfield	Minmi	50	206	256	39,084 0 0	21,496 9 6
Dulwich	Singleton	1	3	4	1,100 0 0	550 0 0
East Lambton	New Lambton	6	20	26	12,100 0 0	5,625 0 0
Ebbw Vale	Adamstown	2	25	27	11,817 0 0	4,891 7 0
East Greta	West Maitland	2	6	8	2,100 0 0	1,155 0 0
Elliott's	Rix's Creek	4	8	12	1,160 0 0	580 0 0
Ellesmere	Singleton	5	15	20	8,377 0 0	3,325 0 0
Ferndale	Wickham	19	121	140	40,626 0 0	12,187 16 0
Fern Valley	Adamstown	4	8	12	1,216 0 0	550 3 0
Greta	Greta	166	254	420	88,535 0 0	36,427 15 1
Gladstone	Gunnedah				5 3 0	2 15 0
Gartlee	Teralba	5	20	25	2,630 2 0	2,500 0 0
Hetton	Carrington	45	325	370	97,094 0 0	44,619 0 0
Hill End		1	4	5	780 0 0	273 0 0
Homeville	Greta	5	24	29	5,137 0 0	2,825 7 0
Killingworth		10	33	43		
Linwood	Wickham	8	30	38	3,342 0 0	1,444 0 0
Lambton	Lambton	58	382	440	139,375 0 0	69,751 0 0
Leconfield	Greta				1,737 0 0	728 17 0
Monkwearmouth	Minmi	10	40	50	12,475 5 1	6,105 6 10
Maitland	West Maitland	21	20	41	110 0 0	55 0 0
Morrisett	Swansea		3	3	2,202 0 0	1,076 0 0
Northern		22	175	197	35,893 0 0	18,816 3 0
Newcastle-Wallsend	Minmi	151	947	1,098	346,437 0 0	176,191 2 6
Newcastle A and B Pits		90	483	573	187,912 0 0	82,164 17 11
New Lambton C Pit		25	95	120	17,922 0 0	8,888 7 0
Northumberland	Fassifern	12	23	35	3,696 0 0	1,814 0 0
North Stockton		10	40	50	5,552 0 0	1,943 0 0
New Anvil Creek	Greta	10	28	38	2,488 0 0	1,295 0 0
„ Park	Singleton	5	10	15	4,039 0 0	1,664 0 0
Pride of Ferndale	Tighe's Hill	4	9	13	6,430 0 0	1,929 0 0
Port Waratah		3	6	9	1,700 0 0	595 0 0
Rosehill	Waratah	4	8	12	450 0 0	225 0 0
Richmond Vale		10	24	34	300 0 0	150 0 0
Rosedale	Singleton	4	14	18	2,701 0 0	1,220 2 6
Stockton	Stockton	80	300	380	144,900 0 0	71,670 0 0
South Waratah		65	202	267	76,802 0 0	36,345 2 0
„ Burwood		22	80	102		
„ Wallsend	Cardiff	20	70	90	19,802 0 0	7,920 16 0
Summerhill	Plattsburg	11	17	28	13,830 1 0	5,500 0 0
Sunderland	East Maitland	3	4	7	1,577 0 0	354 5 0
Swansea		1	4	5	310 0 0	185 0 0
Thornley	East Maitland	20	16	36	15,100 0 0	4,530 0 0
Wickham and Bullock Island	Wickham	41	372	413	131,253 0 0	52,501 4 0
West Burwood	Merewether	2	18	20	15,849 0 0	7,924 10 0
„ Wallsend		28	90	118	19,584 0 0	9,057 12 0
Wallarah		30	60	90	24,760 0 0	9,347 0 0
Young Wallsend	Teralba	30	60	90	11,500 0 0	5,500 0 0
Elemore Vale		6	3	9		
Russells		1	1	2	28 0 0	9 2 0
Electric		4	8	12	300 0 0	150 0 0
Enterprise		2	3	5	10 0 0	4 0 0
Rotunda		2	3	5	368 0 0	138 0 0
Phippens		1	1	2	40 0 0	30 0 0
Rosehill, Lambton		1	3	4	500 0 0	175 0 0
Reays		1	1	2	72 0 0	36 0 0
S. Liddle	Waratah	2	2	4	200 0 0	70 0 0
Heddon Greta	East Maitland	2	2	4	45 0 0	54 0 0
Shamrock Hill	West Maitland				140 0 0	42 0 0
		1,529	6,345	7,874	2,120,046 6 1	995,931 2 6
	Southern District.					
Metropolitan	Hellensburg	50	144	194	55,249 0 0	15,400 0 0
Coal Cliff	Clifton	29	74	103	20,182 0 0	17,462 0 0
North Illawarra	North Bulli	50	50	100	13,500 0 0	7,000 0 0
Bulli	Bulli	42	123	165	48,436 0 0	14,368 3 0
Bellambi	„	35	118	153	40,737 0 0	20,368 10 0
South Bulli	South Bulli	60	180	240	102,640 0 0	27,273 0 0
Corrimal	Wollongong	10	80	90	28,831 0 0	8,649 6 0
Mount Pleasant	„	67	143	210	70,010 0 0	22,939 0 0
Osborn Wallsend	„	90	250	340	95,799 0 0	27,004 15 0
Mount Kembla	„	58	220	278	107,063 0 0	49,335 5 11
Southern		10	2	12		
		501	1,384	1,885	582,447 0 0	209,799 19 11

Company.	Locality.	Men employed. Above ground.	Men employed. Under ground.	Men employed. Total.	Quantity.	Value.
		South-Western District.				
					Tons cwt. qr.	£ s. d.
Great Southern	Moss Vale	5	10	15	4,681 0 0	2,047 14 0
Mittagong	Mittagong	9	20	29	800 0 0	480 0 0
Australian Kerosene Company	Joadja Creek	10	20	30	9,670 0 0	4,835 0 0
		24	50	74	15,151 0 0	7,362 14 0
		Western District.				
Rawdon	Rylstone	2	8	10	2 500 0 0	750 0 0
Irondale	Wallerawang	.....	4	4	2,610 0 0	516 0 0
Cullen Bullen	,,	6	25	31	6,292 16 1	1,415 0 0
Lithgow Valley	Lithgow	6	79	85	54,000 0 0	6,371 0 0
Hermitage	,,	4	52	56	37,195 0 0	4,299 0 0
Eskbank	,,	7	46	53	43,262 0 0	8,652 8 0
Eskbank and Old Tunnel	,,	1	6	7	5,691 0 0	1,425 5 6
Vale of Clwydd	,,	6	30	36	24,546 13 0	5,257 0 0
Vale	,,	16	110	126	54,318 0 0	12,628 16 0
Zig Zag	,,	5	45	50	30,566 2 0	6,580 0 0
Oakey Park	,,	4	34	38	27,811 0 0	5,819 18 6
Katoomba	Katoomba	22	45	67	34,847 0 0	8,711 15 0
Australian Kerosene Company	,,	22	38	60	12,592 12 0	2,519 0 0
New South Wales Shale Company		3	10	13	7,000 0 0	1,050 0 0
		104	532	636	343,232 3 1	65,995 3 0
	SHALE.					
New South Wales Shale and Oil Company.	Hartley	20	85	105	15,918 0 0	35,817 12 6
Australian Kerosene Oil and Mineral Company.	Katoomba	7	11	18	607 0 0	1,062 0 0
Australian Kerosene Oil and Mineral Company.	Joadja Creek	10	50	60	36,985 0 0	64,723 15 0
Katoomba	Katoomba	2	4	6	2,500 0 0	2,500 0 0
		39	150	189	56,010 0 0	104,103 7 6

The number of men actually employed in and about the collieries, raising coal and shale, was 10,315. The total number of fatal accidents in 1890 was 13 as compared with 41 in 1889. The total number of non-fatal accidents in 1890 was 36 as compared with 57 in 1889. Of these—9 fatal and 28 non-fatal occurred in the Northern district, 2 fatal and 6 non-fatal in the Southern district, and 2 fatal and 2 non-fatal in the Western district.

From the table supplied by the Examiner of Coal-fields it is seen that during a period of fourteen years the average number of deaths from accidents in coal mines in Great Britain per 1,000 persons employed was 2·158, whereas during a period of sixteen years the average number of deaths from accidents in coal mines in New South Wales per 1,000 persons employed was 2·580.

Coke.

The quantity of coke made in the Colony during 1890 was 31,097 tons, valued at £41,147, namely—in the Northern district 15,886 tons, valued at £22,955, and in the Southern district 15,211 tons, valued at £18,191.

During the year the following analyses of Coal were made in this Department:—

Locality.	Description of Mineral.	Analysis in 100·00 Parts. Hygroscopic Moisture.	Volatile Hydrocarbons.	Fixed Carbons.	Ash.	Coke.	Sulphur.	Specific Gravity.	Remarks.
						℔ cent.	℔ cent.		
Buttai	Bright, bituminous coal.	3·04	33·66	54·55	8·75	63·03	0·315	1·336	Coke, fairly well swollen, lustrous, and firm. Ash, dark grey.
Burragorang	Splint coal.	1·49	17·51	43·49	37·51	Nil.	0·439	1·656	Ash, nearly white.
Bundanoon	Bituminous coal	2·26	28·76	52·33	16·65	68·98	0·442	1·449	Coke, fairly swollen, with slight cauliflower-like excrescences, bright, and firm. Ash, grey, and dense.
Ballina (Bungawalbyn Creek)	,, ,,	0·58	14·47	66·65	18·30	84·95	0·49	1·388	Coke, very much swollen up, forming a somewhat conical shell, extending two-thirds of the height of the crucible. Fairly lustrous, fairly firm. By experiments conducted in a Thompson's Calorimeter, it was found that 1 lb. of this coal will convert 10·98 lbs. of water into steam. This coal is very brittle.
Coraki, Richmond River	Small pieces of bituminous coal, and much coal dust.	2·09	14·31	68·55	15·05	83·06	0·60	1·414	Coke, dull in colour, slightly swollen into a cone-like form. Very firm. Ash, light grey in colour.
Cullen Bullen	Bituminous coal	2·27	33·58	48·90	15·25	64·15	0·837	1·421	Coke, well swollen, fairly bright, and firm. Ash, grey and heavy.
,, ,,	,, ,,	2·20	31·85	45·25	20·70	65·95	0·59	1·416	Coke, well swollen, lustrous, and firm. Ash, grey and heavy.
,, ,,	,, ,,	2·79	31·46	50·30	15·45	65·75	0·645	1·393	Coke, well swollen, lustrous, and firm. Ash, light grey and heavy.
,, ,,	Semi-bituminous coal.	1·81	30·79	50·05	17·35	67·40	0·535	1·379	Coke, fairly swollen, dull, and firm. Ash, light grey.

Locality.	Description of Mineral.	Analysis in 100·00 parts. Hygroscopic Moisture	Volatile Hydrocarbons.	Fixed Carbon.	Ash.	Coke.	Sulphur.	Specific Gravity.	Remarks.
						₱ cent.	₱ cent		
Curlewis	Bituminous coal	3 16	33 08	50 12	13·64	63 76	·768	1·363	Coke, well swollen up, with cauliflower-like excrescences, firm, and bright. Ash, dark grey, contains a strong trace of copper.
,, ...	Semi-bituminous coal.	3·10	29 40	58·47	9 03	67·5	·357	1·404	Coke, partly caked only, dull lustre, and fairly hard. Ash, light grey in colour, trace of copper.
,, ...	Bituminous coal	1·42	14 08	69·03	15·47	84 5	·453	1·479	Coke, well swollen up, with numerous cauliflower like excrescences, fairly bright, and firm. Ash, light grey, and dense.
,, ...	Cannel coal	3 05	19·25	48·62	29 08	Nil	·425	1·596	Ash, pink in colour.
Casino (Therisa Creek, 18 miles from)	.....	32 08		38·66	29·26	67·92	. ..	....	Coke, well swollen, bright, and fairly firm. Ash, nearly white, flocculent.
East Greta (upper seam, 30 feet thick).	Coal	2 05	40 87	51·03	6 05	57 08	·782	1 288	Coke, fairly well swollen, lustrous, and fairly firm. Ash, reddish tinge in colour.
Gunnedah	Dull splint coal	4·36	26·52	61·47	7·65	Nil.	1·17	1·378	Coke, slightly caked, the mass falling into powder on handling, not a true coke, dull in colour. Ash, pinkish in colour, and dense.
,, ...	Hard, bituminous coal.	3·70	32·79	52·48	11 03	63 51	·617	1·365	Coke, well swollen up, firm, and lustrous. Ash, light grey, and dense.
Heddon Greta	Coal	2·43	37·87	54 25	5·45	59·7	·713	1·273	Coke, fairly well swollen up, lustrous, and firm. Ash, light grey in colour.
,, ...	,, ...	2·11	38 49	54 00	5·40	59 4	1 537	1 272	Coke, well swollen up, lustrous, and firm. Ash, light grey in colour.
,, ...	,, ...	1 59	40 46	49 05	8·90	57·95	·137	1 321	Coke, fairly swollen up, dull, and firm. Ash, dark grey in colour.
,, (lower seam 24 ft. 4 in. thick).	,, ...	2·11	39 59	54·99	3·31	58·30	·780	1·275	Coke, firm, lustrous, and well swollen, with cauliflower-like excrescences. Ash, light pink colour
Joadja (4 miles S.W. from)	Cannel coal.....	3 99	21 76	48·65	25 60	Nil.	274	1·598	Coke—no true coke formed; only a dull coherent mass left after ignition. Ash, light grey, heavy, and granular.
Lake Macquarie	Hard coal, breaking with conchoidal fracture.	2 30	20 70	32·15	44 85	Nil.	·274	1 598	,, ,, ,,
Mount Kembla (near)	Coal	·83	24·88	68 21	6 08	74 29	·645	1 38	Coke, well swollen up, dull in colour, light, and friable. Ash, grey in colour, flocculent. By experiments performed in a Thompson's calorimeter it was found that 1 lb. of this coal would convert 13 5 lb. of water into steam A good description of coal for steaming purposes, the calorimeter value being high.
Megalong, near Katoomba.....	Cannel coal	2 619	25 831	59·600	11 950	Nil.	·658	1·389	Ash, grey in colour.
Milton (near)	Semi-bituminous coal.	·71	27 01	64·41	7 87	72 28	·349	1 339	Coke, fairly swollen, dull lustre, and fairly firm. Ash, slightly pink in colour; contains a trace of copper.
Moss Vale.....	Bituminous coal ..	2 28	33·07	52·22	12·43	64 65	·590	1·362	Coke, fairly well swollen up, lustrous and firm. Ash, white and granular.
Richmond Range, Tenterfield to Casino Road.	Coal	2 84	22 80	28·71	45·65	..	..	..	
Rylstone District	Bituminous coal .	5 54	32·16	52 93	9·37	Nil.	·287	1·365	Ash, reddish tinge in colour and dense.
Ravensworth Bore. Seam struck at 591 ft 7 in., 12 ft. 6 in. thick	,, ,, .	1 64	36 36	54 30	7 70	62	·41	1·305	Coke, moderately swollen, lustrous and firm. Ash, reddish in colour.
Ravensworth Bore. Seam struck at 707 ft. 9 in ; 9 ft. 9 in. thick.	,, ,, ..	1 83	34 67	53 55	9 95	63 5	1·11	1 311	Coke, fairly well swollen, lustrous and firm. Ash, reddish tinge in colour.
Ravensworth Bore. Seam struck at 519 ft. 7½ in.; 9 ft. 5½ in. thick.	,, ,, .	1 88	37·32	54·20	6 60	60 80	·63	1 315	Coke, not much swollen, fairly bright and firm. Ash, reddish tinge in colour
Ravensworth Bore. Seam struck at 733 ft. 9 in., 7 ft. 11 in. thick.	,, ,, ..	1·83	37 07	53 45	7 65	61 10	·576	1·301	Coke, well swollen, with cauliflower-like excrescences, firm, and fairly bright. Ash, reddish tinge in colour.
Ravensworth Bore. Seam struck at 835 ft. 11 in.; 8 ft. 8½ in thick.	,, ,, .	1 63	35·80	50 35	12·22	62 57	·425	1·301	Coke, well swollen, with cauliflower-like excrescences, fairly firm and lustrous. Ash, reddish tinge in colour.
Wingecarribee, Parish of, County Cumberland.	Coal	5 32	20 38	53·28	21 02	Nil.	..	1·527	Ash, grey in colour and dense.
West Maitland (Homeville Colliery).	Splint coal	2 34	33 76	51 33	12 57	63 9	1·304	1 361	Coke of poor quality, not much swollen up, and dull in colour. Ash, reddish tinge From experiments made with a Thompson's calorimeter, 1 lb of this coal was found to convert 12 4 lb. of water into steam.
Wallerawang District (Irondale Colliery).	Coal from 6½ feet seam, from first or top cleave 9 inches thick.	3·15	31·96	58·47	6·47	..	...	..	Ash, nearly white, flocculent.
,, ,, ,, ...	Coal from 6½ feet seam; second cleave, 24 inches thick.	3·42	26·18	58·65	11·75	..	.. .	. .	Ash, white, flocculent.
,, ,, ,, ...	Coal from 6½ feet seam; third cleave, 12 inches thick.	3·36	26·59	59 04	11·01	. ..	....	.. .	
,, ,, ,, ..	Coal from 6½ feet seam; fourth cleave, 10 inches thick.	3·98	26·46	55·21	14 35	...	..	. .	,,
,, ,, ,, ..	Coal from 6½ feet seam; fifth or bottom cleave, 18 inches thick.	3 44	27·19	58 81	10·56	..	. .	....	,, ,,

Shale.

The output of boghead mineral or petroleum oil cannel-coal, commonly called shale, in 1890 exceeded that of 1889 in quantity by 15,449 tons, and in value by £26,437. The output for 1890 was by far the largest we have yet had, and the average price per ton was only 1s. 1·48d. less than in 1889. The price had never been so low since 1883. The increased output was probably due to the scarcity of coal during the strike. The

The following table shows the quantity and value of Kerosene Shale produced during the years 1865 to 1890.—

Year.	Quantity	Average price per ton	Total value.	Year	Quantity.	Average price per ton	Total value.
	Tons	£ s. d.	£ s d		Tons.	£ s. d.	£ s. d.
1865	570	4 2 5 47	2,350 0 0	1879	32,519	2 1 1 96	66,930 10 0
1866	2,770	2 18 10 48	8,150 0 0	1880	19,201	2 6 7 03	44,724 15 0
1867	4,079	3 14 9 21	15,249 0 0	1881	27,894	1 9 2 59	40,748 0 0
1868	16,952	2 17 7 11	48,816 0 0	1882	48,065	1 15 0 00	84,114 0 0
1869	7,500	2 10 0 00	18,750 0 0	1883	49,250	1 16 10 77	90,861 10 0
1870	8,580	3 4 3 18	27,570 0 0	1884	31,618	2 5 7·86	72,176 0 0
1871	14,700	2 6 3 91	34,050 0 0	1885	27,462	2 8 11 62	67,239 0 0
1872	11,040	2 11 11 91	28,700 0 0	1886	43 563	2 5 10 79	99,976 0 0
1873	17,850	2 16 6 55	50,475 0 0	1887	40,010	2 3 10 43	87,761 0 0
1874	12,100	2 5 1 48	27,300 0 0	1888	34,869	2 2 2 66	73,612 0 0
1875	6,197	2 10 2 22	15,500 0 0	1889	40,561	1 18 3 55	77 666 15 0
1876	15,998	3 0 0 00	47,994 0 0	1890	56,010	1 17 2 07	104,103 7 6
1877	18,963	2 9 0 81	46,524 0 0				
1878	24,371	2 6 11 40	57,211 0 0		612,692	2 3 8 34	1,338,551 17 6

During the year the following analysis of Kerosene Shale were made in this Department·—

Locality.	Description of Mineral.	Analysis in 100 00 par's				Sulphur	Specific Gravity	Remarks.
		Hygroscopic Moisture	Volatile Hydrocarbons	Fixed Carbone	Ash			
						₱ cent	₱ cent	
Barrigan (parish of, County Phillip)	Kerosene shale	74	59 74	9 37	30 15	453	1 261	Ash, grey in colour and granular
Capertee	,, ,,	50	70 45	13 10	15 95	97	1 159	Ash, light grey in colour
,,	,, ,,	1 10	60 27	19 15	19 48	603	1 275	Ash, grey in colour No true coke formed, only an incoherent powder being left
Joadja District	,, ,,	1 06	52 44	24 33	22 17		1 232	Ash, pink in colour
,, (6 miles from)	,, ,,	76	50 54	20 40	28 30	659	1 313	Ash, white
Lue (9 miles from)	,, ,,	54	71 41	8 31	19 74	851	1 138	Ash, white and granular
Mudgee (18 miles from)	,, ,,	37	76 98	8 26	14 39	74	1 084	,, ,,
,, (18 miles N W of)	,, ,,	1 00	71 30	8 80	18 90	412	1 147	Ash, light pink in colour No coke formed, only a highly porous non coherent mass being left after ignition
Mittagong River	Inferior kerosene shale	91	57 44	8 05	33 60			Ash, light grey
,, ,,	,, ,, ,,	1 36	23 89	35 85	38 90			,, ,,
,, (near)	Kerosene shale	26	53 72	19 40	26 62	645		Ash, nearly white, loose
Murrurundi District	,, ,,	1 06	75 46	6 03	16 95	727	1 116	Ash, grey, granular
Megalong, near Katoomba	,, ,,	53	15 32	20 40	35 75	878	1 393	Ash, white No true coke formed, a loose powder being left
,, ,,	,, ,,	1 45	52 50	14 70	31 35			
,, ,,	Inferior kerosene shale	1 50	15 25	5 15	78 10			
,, ,,	,, ,, ,,	55	56 50	11 65	31 30			
,, ,,	Kerosene shale	10	78 45	10 70	10 75	608	1 084	Ash, white No true coke formed, only a dark powder being left
,, ,,	Inferior kerosene shale	38	46 77	16 60	36 25	590	1 328	Ash, white No true coke formed, only a loose cake left
,, ,,	,, ,, ,,	44	52 11	27 00	20 45	562	1 276	Ash, white No true coke formed, only a loose coherent cake left
,, ,,	,, ,, ,,	94	25 36	17 80	55 90	343	1 747	Ash, white No true coke formed, a loose powder left
,, ,,	,, ,, ,,	2 01	34 14	37 65	26 20	343	1 439	,, ,, ,,
Scone (near)	Kerosene shale	33	79 19	13 38	7 10	686	1 048	Ash, pink in colour
Wingecarribee (parish of) County of Cumberland	Inferior kerosene shale	62	47 04	6 86	44 98			Ash, grey in colour, granular
Wolgan	,, ,, ,,	25	63 65	11 95	24 15	686	1 200	
Wolgan Valley, County of Cook	,, ,, ,,	1 00	56 35	12 10	30 55	480	1 269	Ash, white
Wentworth Falls (8½ miles E)	Kerosene shale	11	79 84	5 70	14 35	Traces	1 062	Ash, white No coke formed.

Silver and Lead.

Notwithstanding that so many mines containing large and valuable lodes of silver ore are standing idle, owing to the inability of the owners to treat the ore economically, the value of the output of our silver mines for 1890 exceeds that of the previous year by £791,356. Fortunately we are by degrees overcoming the difficulties surrounding the treatment of our silver ores, and to this fact may be to some extent due the very large increase in our output; but when we shall be in a position to deal satisfactorily with all the varieties of ore found in this Colony, not only will the value of our silver and lead production increase enormously, but our silver lodes should provide an almost inexhaustible field for the employment of labour and capital It is of course much to be lamented that so much capital has been wasted in the erection of unsuitable plant, and in the employment of unsatisfactory modes, but in this respect our experience has been very similar to that of most other silver producing countries, and we have no right to expect exemption from trials and losses which attend similar pursuits in other countries.

Quantity and Value of Silver, and Silver-lead, and Ore exported.

Year.	Silver.		Silver, Lead, and Ore.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
Up to	oz.	£ s. d.	Tons cwt. qr. lb.	Tons cwt.	£ s. d.	£
1881.....	726,779·14	178,405 0 0	191 13 0 0	.....	5,025 0 0	183,430
1882.....	38,618	9,024 0 0	11 19 0 0	.....	360 0 0	9,384
1883.....	77,065·18	16,488 0 0	136 4 0 0	.....	2,075 0 0	18,563
1884..	93,660·25	19,780 0 0	9,167 11 1 7	.....	241,940 0 0	251,720
1885.....	794,173·80	159,187 0 0	2,095 16 0 0	190 8	107,626 0 0	266,813
1886.....	1,015,433·10	197,544 0 0	4,802 2 0 0	.....	294,485 0 0	492,029
1887.....	177,307·75	32,458 0 0	12,529 3 2 0	.....	541,952 0 0	574,410
1888... .. .	375,063·70	66,668 0 0	11,739 7 0 0	18,102 5	1,075,737 0 0	1,142,405*
1889.....	416,895·35	72,001 0 0	46,965 9 0 0	34,579 17	1,899,197 0 0	1,971,198
1890.....	496,552·80	95,410 0 0	89.719 15 0 0	41,319 18	2,667,144 0 0	2,762,554
	4,211,549·07	846,965 0 0	177,088 19 3 7	94,192 8	6,835,541 0 0	7,672,506

Note.—In the Annual Report for 1888, 11,739 tons 7 cwt. of silver ore valued at £164,620 was omitted from the table.

The bulk of the silver is exported as silver-lead or in the ore.

During the year 3,083 samples were assayed for silver by direction of this Department.

1,210 yielded nil.
1,741 yielded under 20 oz. per ton.
132 yielded as follows:—

Locality.	Description of Mineral.	Per Ton.		Per Cent.	
		Silver.	Gold.	Lead.	Copper.
		oz. dwt. gr.	oz. dwt. gr.		
Armidale (12 miles from)	Galena	51 18 18	Trace.		
Ashford (near)	Quartz with a little copper pyrites and antimonial silver sulphide.	1,197 15 13	,,		
Burrowa (near)	Ferruginous carbonate of lead	77 6 4	Nil.		
,, ,,	Metallic copper	52 5 8	Trace.	10·05	85·62
,,	Galena, with a few specks of pyrites	68 9 10	Nil.		
,, (25 miles N.E.)	Ferruginous porous silicious gossan	29 18 21	,,		
Blicks River (near)	Massive, mispickel	26 10 2	,,		
Boro Creek	Ferruginous quartz and felspathic rock, with carbonates of lead and copper.	666 18 21	,,		
,,	,, ,, ,, ,,	27 4 10	,,		
,,	,, ,, ,, ,,	225 11 5	,,		
Boro	Quartz, with grey sulphide of copper and carbonates of lead and copper.	150 16 5	,,		
,,	Quartz, with sulphide of copper and carbonates of lead and copper.	206 17 8	,,		
,,	Ferruginous quartz, with grey sulphide, red oxide, and green carbonate of copper, and a little carbonate of lead.	133 18 16	,,		
,,	Felsitic rock, with a little carbonates of lead and copper	75 5 4	,,		
,,	,, ,, ,, ,,	33 9 20	,,		
,,	,, ,, ,, ,,	107 16 0	,,		
,,	,, ,, ,, ,,	76 13 3	,,		
,,	Carbonate of lead in slightly ferruginous decomposed felspathic schist.	36 1 22	,,	61·5	
,,	Felspathic rock, with carbonate of lead	49 17 19	,,	28·80	
,,	Ferruginous quartz, with carbonates of lead and copper	76 17 4	,,		
,,	,, ,, ,,	31 15 21	,,		
Broula	Massive garnet rock, with a little galena and pyrites	91 8 12	0 3 6		
,,	Yellow gossan, with carbonate of lead	27 3 13	1 7 10		
Bredbo (near)	Galena and gossan	56 12 10	Nil.	55·5	
,, (2 miles from)	Ferruginous galena and carbonate of lead	47 9 12	,,		
Boorook	,, gossan with a little lead oxide	31 5 0	Trace.		
Barraba (near)	,, quartz	129 9 8	Nil.		
Burraga	Gossan, with carbonate of lead	27 4 10	,,	20	
Black Mountain (near Armidale).	Coarsely crystalline galena	42 9 7	,,		
Boorolong	,, ,,	47 18 5	,,		
,,	Massive galena	40 6 20	,,		
Broken Hill (6 miles from)	Ferruginous dolomite with quartz and chloride of silver	76 0 12	,,		
,, (20 miles from)	Quartz with about 3 oz. of carbonate of lead and one piece about 1 oz. of carbonate of lead rich in chloride of silver.	598 17 18	,,		
Barrier Range (parish Bomangaldy).	Schist with chloride of silver	64 1 20	,,		
Burragorang District	Ferruginous quartz rubble	27 12 0	0 3 6		
Boonoo Boonoo	Galena, zinc blende, and copper and iron pyrites	21 2 10	Trace.		
Crookwell	Galena, with a little blende	25 0 21	Nil.		
Cownowndah	Ferruginous quartz, with oxide and carbonate of lead	31 13 16	2 18 18		
,,	,, ,, ,,	43 0 5	2 14 10		
Corona	Ferruginous vitreous quartz, with carbonate of lead	39 4 0	Trace.		
,,	Crushed sample	61 6 2	Nil.	Nil.	
,,	Black manganese and iron ore	22 12 22	,,		

Locality.	Description of Mineral.	Per Ton.		Per Cent.	
		Silver.	Gold.	Lead.	Copper.
		oz. dwt. grs	oz. dwt. grs		
Coppabella	Galena, with quartz and pyrites	20 7 5	Nil.		
„	„ with mispickel and calcite	37 0 10	„		
Clarence River District (Horse-shoe Bend).	Ferruginous quartz, with stains of blue and green carbonates of copper.	34 12 12	„		
Condobolin	Ferruginous galena, with carbonate of lead	27 4 10	Trace.		
Condobolin District	Galena	33 15 2	Nil.		
Coolah	„ with carbonate of lead	22 6 7	„		
Clarevaulx, near Glen Innes.	„	22 17 8	„		
„	Very fine grained galena	28 6 5	„		
Deepwater District (the Nine-mile).	Massive magnetic pyrites with galena, blende, and a little quartz.	32 13 8	„		
„	Galena, with a little copper pyrites and quartz	21 15 13	„		
„	„ with a little quartz	87 2 5	„		
„	Zinc blende, galena, and magnetic pyrites	30 14 3	„	30 76	
Denison Town	Porous ferruginous quartz	68 5 8	Trace		
Emmaville (near)	Concentrated pyrites, blende, and galena	95 5 13	Nil.	6 42	
„	Crushed sample	89 0 8	„	0 34	
„	Crushed pyritous quartz	28 12 18	„	1·09	
„	Concentrated pyrites, blende, and galena	79 9 17	„	2· 6	
„ District	Quartz and felspathic veinstone, with arsenical and copper pyrites and galena.	27 15 4	„	27 56	
„	Felspathic material, with pyrites and galena	26 4 20	„	47 41	
East Goodradigbee	Quartz, with galena	36 9 16	„		
Forbes District	Blue and green carbonates of copper	44 6 4	0 4 8		
Fairfield (near)	Massive pyrites, with galena and one piece of porous oxide with a little carbonate of lead.	40 5 18	Trace.		
Gulgong (Cope's Creek)	Quartz, with chloride of silver	121 10 9	„		
„ „	„ „	147 10 21	„		
Glen Innes	Ferruginous quartz, with a few specks of pyrites	29 15 13	12 10 10		
„ (12 miles from)	Granitic vein with a wolfram, crystallized iron pyrites, with arsenical pyrites and crystallized quartz.	22 6 10	Nil		
Grafton District	Quartz containing pyrites, galena, and zinc blende	112 11 18	„		
Goulburn District	Galena, with a little carbonate of lead	20 2 21	„		
Hillgrove	Ferruginous quartz, with antimonial silver sulphide	261 6 10	0 3 6		
„ District	„ „ „	468 15 8			
„ „	„ „ „	226 4 6			
„ „	„ „ „ and a little pyrites.	38 13 2			
Jingellic	Quartz, with galena	22 11 20	Nil.		
„	„ and felspar, with tourmaline, mispickel, galena, and blende.	180 5 7	„		
Kooringbury Gap	Ironstone, with green carbonate of copper and blebs of clear quartz.	25 6 6	„		
Kiandra	Galena, with a little carbonate of lead	21 15 13	Trace.		
Lachlan Watershed	„	62 14 8	Nil.		
Melrose (30 miles from)	„ with quartz and a little carbonate of lead	33 7 14	„		
„	„	34 14 16			
„	Ferruginous quartz and felspathic rock	20 1 14	Nil.		
Mount Werong	Galena and copper pyrites	60 2 15	„		
Oberon (1½ mile from)	Quartz, with galena and mispickel	49 6 12	„		
Orange District	Ferruginous green carbonate of copper	27 19 12	„		42 95
Pye's Creek	Quartz, with lead and antimony oxides	80 11 12	„		
„	„ a little lead and antimony oxides	58 0 17	„		
„	„ antimonial sulphide of lead	22 18 9	„		
„	„ „ „ and oxides of lead and antimony	71 6 10	„		
Parkes	Concentrates	58 4 5	128 0 1		
Pine Ridge	Ferruginous quartz, with galena and copper pyrites, with a few stains of blue and green carbonates of copper.	103 8 21	Trace		
Rock Vale	Ferruginous quartz, with antimonial silver sulphide	253 7 15	0 6 12		
Rockley and Burraga (between)	„ with a few pieces of gossan	150 16 4	1 1 18		
Rye Park (3 miles from).	Porous ferruginous quartz vein in schist	26 7 0	Trace.		
„ „	Gossan, with stains of arseniate of iron	24 10 8	Nil.		
„ „	Galena	56 8 1	„		
Reedy Creek, New England.	Galena, blende, mispickel, stibnite (acicular crystals), and a little oxide of antimony in quartz.	28 17 2	„	14 93	Metallic antimony 11 24
Shoalhaven Gullies	Galena, blende, and copper pyrites, with quartz	13 19 20	Nil.		
„ River	Ferruginous lodestuff, with stains of carbonate of copper	20 2 21	Trace.		
Tait's Gully	Quartz, with galena and blende	70 15 13	0 16 6		
Tenterfield (8 miles S.E)	Ferruginous, siliceous, clayey gossan, with a little lead oxide; one piece containing a few specks of mispickel and arseniate of iron.	87 2 5	Trace.		
„ (near)	Ferruginous, porous, pyritous quartz	23 19 2	„		
„ District	Bluish quartz, with copper pyrites, galena, and zinc blende.	65 13 3	0 6 12		
The Peakes Ph. Co, Westmoreland	Quartz, containing galena and carbonate of copper, and pyrites and silver sulphide.	89 7 22	Nil.		
Turlmjah	Concentrates	35 2 8	2 8 22		
„	Tailings	24 4 13	1 12 16		
Tarago	Quartz, with carbonates of lead and lime and a little copper pyrites.	96 18 5	Nil.		
„	Quartz and felspathic material, with carbonates of lead and copper.	22 17 7	„		

Locality.	Description of Mineral.	Per Ton.		Per Cent.	
		Silver.	Gold.	Lead.	Copper.
		oz. dwt. grs.	oz. dwt. grs.		
Tarago District	Chlorite slate, with veins of ferruginous carbonate of lead.	33 15 2	Nil.		
Temora	Galena	34 11 14	,,	66	
Tarana	Specular iron, with chlorite	76 4 10	Nil.		
,,	Quartz, with galena and mispickel	21 15 13	,,		
,, (5 miles from)	Crushed copper pyrites, quartz, and magnetic iron	32 2 10	,,		
Wiseman's Creek	Sulphides and arsenides of antimony, lead, and iron in schistose felspathic veinstone, with a little quartz.	26 2 16	2 15 2		
Wellington District	Ferruginous quartz, with a little native silver	197 6 2	0 12 22		
,, (near)	Schist with ferruginous veins	98 15 1	0 8 17		
Wollomombi River	Ferruginous quartz with antimonial sulphide of silver	472 6 2	0 1 2		
,,	,, ,, ,,	1,128 15 22	0 5 10		
,,	,, ,, ,,	273 4 1	0 2 4		
,,	,, ,, ,,	369 2 16	0 6 12		
,,	,, ,, ,,	765 18 11	0 2 4		
,,	Quartz ,, ,,	407 15 21	0 10 18		
,,	,, ,, ,,	80 10 8	Nil.		
,,	,, ,, ,,	354 3 4	,,		
Wilcannia (near)	Quartz, with galena and carbonate of iron	43 11 3	,,		
Yass District	,, ,,	28 9 10	,,		

During the year twenty-five assays were made for lead, the most favourable results being given below :—

Locality.	Description of Mineral.	Lead, per cent.	Silver, per ton.	Gold, per ton.	Copper, per cent.
			oz. dwt. gr.		
Burrowa (near)	Metallic copper matter	10·05	52 5 8	Trace.	85·62
Boro	Felspathic rock, with carbonate of lead	28·80	49 17 19	.....	
,,	,, ,,	48· 2	8 14 5	.....	
,,	Carbonate of lead, in decomposed felspathic schist	45· 5	10 17 10	Nil.	Nil.
,,	,, in slightly ferruginous decomposed felspathic schist.	61· 5	36 1 22	,,	,,
Captain's Flat	Ferruginous felspathic material, with quartz and carbonates of lead and copper.	14·49	2 5 17	,,	5 05
Emmaville (near)	Concentrated pyrites, blende, and galena	6·42	95 5 13	,,	
,, ,,	,, ,, ,,	2·60	79 9 17	,,	
Michelago (near)	Ferruginous gossan, with carbonate of lead	15·54	13 18 0	,,	
New England (Reedy Creek).	Galena, blende, mispickel, stibnite (acicular crystals), and a little oxide of antimony in quartz.	14·93	28 17 2	,,	Antimony, 11·24%

In the Bathurst District the Warden reports the silver industry has quite collapsed at Cordillera, Mount Costigan, and Peelwood, in the Tuena Division, and at Back Creek and Wiseman's Creek, in the Rockley Division. The matte produced at Sunny Corner during the year was valued at £82,771 2s. 1d., namely, £72,642 17s. 3d. from the Sunny Corner Mine, and £10,128 4s. 10d. from the Silver King Mine. From the Phœnix Mine, ore to the value of £2,250 was sent to Lithgow. At Lewis' Ponds, Tom's Co. have done a considerable amount of work, though during part of the year the roads were in such a bad state that they were unable to procure fuel or send away their bullion. The quantity of ore raised was 8,116 tons, producing 1,272 oz. gold, 104,727 oz. silver, and 110 tons lead, and they have ore at grass valued at £5,304—total value for the year, £32,218. The Company having purchased the mine of the N. L. P. Co., have raised a considerable quantity of good ore from it, and the old slag left is found to be an excellent flux, besides containing both gold and silver. They effect a saving of expense by using a larger proportion of charcoal in lieu of coke.

In the Mudgee District, at Denison Town it has now been proved that a mineral belt exists 10 miles in width, with four lines of lode, nearly all parallel, bearing N.E. and S.W. Assays from the Dynevor (the more eastern lode) show as high as 300 oz. silver and 2 oz. gold per ton. The Mount Stewart line has been systematically worked for over three years. Smelters are about to be erected. On the Narangarie line but little is doing. From the Gladstone the ore is said to contain from 100 to 1,095 oz. of silver, and from 6 to 9 oz. of gold per ton, and about 40 per cent. of lead. This lode in the Bullinda Mine shows, on 30 chains in length, from 2 to 6 feet wide, the gossan assaying from 24 oz. to 75 oz. of silver per ton. At Mount Tingha, in the Condobolin District, it is probable a payable silver lode has been discovered, but owing to the distance from a railway the carriage of ore would be very expensive. About 5 miles from Condobolin, on the main road, silver was discovered some years ago. The Great Southern Silver-mine, at Uramajong, about 15 miles in a southerly direction from Grenfell, contains a lode 20 feet wide, 20 tons of ore from which is reported to have realized £900. Ore is now being raised for treatment at the Clyde

works

works. 5 tons 14½ cwt. of ore from the Mount Billagoe Mine, was sold in South Australia for £510, but the quantity of gold and silver contained therein is not known to the Company. The Black Mountain Silver-mine is situated about 90 miles from Wilcannia. A shaft is being sunk through very promising looking manganese and rotten ironstone, with veins of kaolin clay. In two other mines the cap of a large body of ore was struck, which gave fair assays. At Nuntherungie there are several mines. The ore from the Proprietary Mine has assayed 55 oz. silver and 26 per cent. of lead. From the Nil Desperandum Mine about 10 tons of rich ore, showing chlorides very freely, have been bagged for testing. Assays show 88 oz. silver and 3 per cent. lead. Some good assays have been made of ore from the Tarella Consols. From the Broken Hill and Silverton Division the following was exported during the year:—Silver lead bullion, 40,755 tons 9 cwt. 1 qr. 7 lb., valued at £1,844,262; silver lead ore, 88,870 tons 13 cwt. 2 qrs., valued at £774,500; copper ore, 580 tons 6 cwt. 1 qr., value £9,774. During the year the Broken Hill Proprietary Company raised 192,546 tons, valued at £1,778,362. Of this 174,807 tons were smelted at the mines, resulting in a return of 7,490,654 oz. of silver, and 30,486 tons of lead, of the total value of £1,690,986. The Company's plant now consists of thirteen 80-ton furnaces, capable of smelting about 5,778 tons of ore weekly. A concentrating plant, capable of treating 90 tons of ore per day, has been erected at Broken Hill North Mine. The erection of three 80-ton smelters have been completed at the Central Mine. Valuable discoveries of ore were made during the year at the South Mine. A smelter for refractory ores is being erected at the British Mine. At the Australian Broken Hill Consols Mine two valuable discoveries of rich ore were made. At the Umberumberka Mine a new leaching plant and roasting furnace have been erected. The Pioneer Company, Thackaringa, have purchased an ore dressing plant with improvements, cost £8,000. At Corona a considerable amount of prospecting for silver has been done. From Donnelly and Party's Mine, at Coppabella, 2 tons of ore sent to Sydney, and a similar quantity sent to the School of Mines, Ballarat, have given such results that the party has determined to go to work on a larger scale. A ton of picked ore sent to Footscray (Victoria) for treatment, yielded 40 oz. silver, 6 dwts. gold, and 3 cwt. lead. The shaft is 40 feet deep. The lode, which was 6 inches at the surface, is 7 feet wide at bottom of shaft. In the Braidwood Division, about 5 miles from Major's Creek, a silver lode was found from which some stone tested gave from 10 to 15 oz. of silver to the ton, and a small percentage of gold. At Boro, in the Braidwood Division, a large area of land has been taken up, and assays of ore from the lodes have given a high percentage of silver. The refractory character of the ores at Captain's Flat has caused a considerable decrease in the output of silver, and this will not be remedied until an effective method of treatment be introduced. The Commodore Vanderbilt Company smelted 3,986 tons of gossan ore, producing 33,857 oz. silver, 80 tons 1 cwt. of lead, and 602 oz. 16 dwts. of gold. At the silver-mine 4 miles from Moruya, about 900 tons of ore was raised. 300 tons have been partly treated at the mine and then sent to Sydney for further treatment, as the zinc blend in the quartz renders it very difficult to treat. Webb's Silver-mine (Emmaville Division) produced 92,750 oz. of refined silver. 6,500 tons of lode stuff was raised which, on being hand-picked and machine dressed, gave 833 tons of concentrates, which was sent to Dry Creek, South Australia, for treatment. The width of the lode ranges from 4 to 8 feet. Webb's Consols raised about 560 tons of lode stuff, from which 270 tons concentrates, treated at Dry Creek, gave 4,070 oz. of silver and 38½ tons of lead. Mt. Galena Mine, close to Webb's Consols and on a parallel vein, showing good bodies of argentiferous galena, said to assay 40 oz. silver per ton and 50 per cent. of lead. Webb's South Extended has bulky veins of lode stuff, the widest being 10 feet; assays said to average 20 oz. silver and 50 per cent. of lead. Castlerag Mine, 4,000 tons of ore at grass, giving an average assay of 30 oz. of silver; 20 tons of concentrates, sent to Dry Creek, gave 90 oz. of silver per ton; 26 tons of crude ore, sent to Adelaide, gave 60 oz. per ton; and 50 tons, shipped to London, gave 50 oz. of silver per ton. 26 tons of hand-picked ore from the Castle King Mine, treated at Dry Creek, yielded an average of 30 oz. per ton. The Castle Wellington Company have a lode at Nine-Mile, 10 tons of ore from which, sent to Germany for treatment, gave 37 oz. per ton, but the ore is reported to be very refractory. Pye's Creek Mine is let on tribute, and the tributors are said to have netted £200 from a parcel of ore sent to Adelaide. At Paddy's Land Ranges, south-east of Glen Innes, there are three parallel lodes, 6 feet, 4 feet, and 4 feet wide, 300 tons of ore at grass. Assays give 40 per cent. of copper and 41 oz. of silver per ton. Bland and party, 8 miles from Boonoo Boonoo, have sent parcels of silver ore to Germany for treatment; results not yet known. Morgan and Kermode have a quantity of ore bagged, ready to be sent away; veins very rich, but narrow. A number of mines have been opened up at Rivertree, about 18 miles east of Wilson's Downfall, and a large amount of prospecting has been done, the lodes showing good ore, but said to be refractory. One parcel of ore was treated locally, but the treatment was not satisfactory. It is proposed to establish works on a large scale for treating the ore from the several mines, under the management of a first-class man. The operations of the White Rock Company have been retarded by the delay in completing a portion of their reduction works and defective concentrating appliances. 4,000 tons of ore have been put through for a yield of 135 tons of concentrates, of an average value of 125 oz. silver

per

per ton=16,875 oz., leaving fully 20,000 oz. still in the tailings. During the first two months, not more than 35 per cent. of the silver contained in the ore was saved in concentration, but during the last three months the silver saved has come up to 50 per cent. Further improvements are being made, and the plant increased. There is 20,000 tons of ore at grass. The Mascotte Mine has been extensively explored, showing that they have an almost unlimited quantity of ore, rich in gold and silver, but requiring special treatment, and they may now at any time commence the erection of the necessary chlorination and amalgamation works. Two silver lodes have been opened in the Solferino Division. One between the Horseshoe Bend and Yugilbar Crossing consists of sulphide of lead and zinc blende; a sample assayed gave 25 oz. of silver per ton. At Horseshoe Bend another lode is said to contain chlorides and bromides.

Tin.

Prospecting for tin has lately received an impetus in the neighbourhood of Euriowie (Albert District) where payable tin ore is being raised by various parties. The Wheal Byjerkemo Company have 150 tons of ore at grass, and are arranging for purchase of machinery. Attempts have been made to discover tin on the Tantawanglo Range, and some very good samples of stream tin were obtained. Mr. H. M. Joseph has recently put on men to work his freehold. The Government prospecting party found patches of stream tin near the Range, but not in payable quantities. At Bendemeer, the Giant's Den Company have raised 20 tons of tin, Anderson and party 4¾ tons, Reeves and party 5⅓ tons. In the Tingha Division, 1,000 tons of tin raised, value £52,000. The alluvial deposits are practically exhausted, and the numerous lodes have not yet been opened up. At Emmaville, 152 tons of tin was raised from lodes. The lode in the Ottery Mine is 14 feet wide in places. The Butler's lode, further down Glen Creek, is rich in ore, and 5 feet wide, between well-defined walls. It has been proved a distance of about ¼-mile. In the parishes of Muir, Land's-end, and Flagstone, there are numerous uncovered lodes and veins more or less rich in tin. Twenty-six miners obtained 21¼ tons of ore from one or other of these reefs during the year by dollying and hand-dressing. In the parish of Flagstone, two men from a small hole, 3 feet x 2½ feet and 16 feet deep, raised and hand-dressed 2½ tons of ore in three weeks, the lode being more than 9 feet wide. Another lode, 2 miles distant, averaging 2 feet wide, has returned 1½ tons of clean hand-dressed for the labour of three men for three weeks. 1,150 tons of tin ore was won in the Emmaville Division. Of this quantity, 745 tons was treated at the Tent Hill smelting works, giving 538 tons of refined tin. Lodes of a promising character are known to exist at Pheasant Creek. Tin deposits are found from Haynes' Creek to Oban, a distance of 50 miles. Recently, a rich deposit has been found in shallow ground on Reserve 11,170. About 8 miles from Glen Innes as much as 7 lb. of tin ore was washed from one bucket of drift, from a depth of 5 feet. 151 tons 18 cwt. of tin ore was raised in the Glen Innes Division. Hall Bros. are still working at Kangaroo Flat. The sinking varies from 30 to 100 feet. They raised 38 tons of ore during the year. The quantity of tin ore raised at Wilson's Downfall was 220 tons, valued at £11,248.

Table showing the quantity and value of Tin exported from, and the product of, the Colony of New South Wales, since the opening of the Tin-fields in 1872.

Year.	Ingots.					Ore.					Total.				
	Quantity.		Value.			Quantity.		Value.			Quantity.		Value.		
	tons	cwt.	£	s.	d.	tons	cwt.	£	s.	d.	tons	cwt.	£	s.	d.
1872	47	0	6,482	0	0	849	0	41,337	0	0	896	0	47,819	0	0
1873	911	0	107,795	0	0	3,660	0	226,641	0	0	4,571	0	334,436	0	0
1874	4,101	0	366,189	0	0	2,118	0	118,133	0	0	6,219	0	484,322	0	0
1875	6,058	0	475,168	0	0	2,022	0	86,143	0	0	8,080	0	561,311	0	0
1876	5,449	0	379,318	0	0	1,509	0	60,320	0	0	6,958	0	439,638	0	0
1877	7,230	0	477,952	0	0	824	0	30,588	0	0	8,054	0	508,540	0	0
1878	6,085	0	362,072	0	0	1,125	0	33,750	0	0	7,210	0	395,822	0	0
1879	5,107	2	343,075	0	0	813	15	29,274	0	0	5,920	17	372,349	0	0
1880	5,476	6	440,615	0	0	682	6	30,722	9	0	6,158	12	471,337	9	0
1881	7,590	17½	686,511	0	0	609	6	37,492	0	0	8,200	3½	724,003	0	0
1882	8,059	0	800,571	0	0	611	0	32,890	0	0	8,670	0	833,461	0	0
1883	8,680	1	802,867	0	0	445	4	21,685	0	0	9,125	5	824,552	0	0
1884	6,315	16	506,726	0	0	349	13	14,861	0	0	6,665	9	521,587	0	0
1885	4,657	18	390,458	0	0	534	18	25,168	0	0	5,192	16	415,626	0	0
1886	4,640	18	449,303	0	0	326	18	18,350	0	0	4,967	16	467,653	0	0
1887	4,669	8	509,009	0	0	291	13	16,411	0	0	4,961	1	525,420	0	0
1888	4,562	2	569,182	0	0	247	8	13,314	0	0	4,809	10	582,496	0	0
1889	4,408	13	403,111	0	0	241	15	12,060	0	0	4,650	8	415,171	0	0
1890	3,409	11	317,117	0	0	259	4	12,724	0	0	3,668	15	329,841	0	0
	97,458	12	8,393,521	0	0	17,520	0	861,863	9	0	114,978	12	9,255,384	9	0

From the above table it will be seen that the out-turn of tin and tin ore for 1890 is less, both in quantity and value, than any year since 1872. This is mainly due to the fact that the shallow deposits of stream tin have been to a great extent exhausted, and the deep deposits have not yet been opened up to any extent, and the tin lodes are being worked only to a very limited extent. It is, however, no doubt difficult to find capital for the exploration of so many and such varied mineral deposits as we have in this Colony.

During

During the year eighteen assays were made for Tin, the following giving the most favourable results:—

Locality.	Description of Mineral.	Tin, per cent.
Bendemeer	Titanic iron-sand, with a little tin oxide	3·7
Germanton	Quartz, with felspar, mica, oxides of tin, and molybdemum and molybdenite	2·15
Grafton (40 miles from)	Quartz, zircon sand, and stream tin	24·
Stannifer	Quartz, with oxide of tin	13 31
Tenterfield	Quartzite, with oxide of tin	5·3
Do	Compact felsite	2·2
Do	Compact felsite, with oxide of tin, magnetic iron, and a little carbonate of bismuth.	8·9

Copper.

Though the Burraga Mine was in full work during the year, the output was far less than in the previous year, the quantity being 420 tons, valued at £24,150. At Cadia, the Scottish-Australian Co. raised 300 tons of copper ore during the year—assay value, 13 per cent. copper. From the Nymagee Co.'s Mine 7,865½ tons of sulphide ore was smelted at the mine, realising 794 tons of copper, valued at £43,868 10s. The New Burra Burra Co. raised 500 tons of ore, of which 5 tons 17 cwt. smelted at the mine yielded 98 per cent. of metal. The New Mount Hope Co. raised 1,143 tons of ore, which yielded 218 tons of copper, valued at £10,900. The width of the lode is 68 feet. From the Great Central Mine, at South Mount Hope, 1,855 tons of ore raised. Of this, 1,667 tons was smelted, giving 228 tons of copper. At Coan Peak, near Mount Hope, there is said to be a splendid show of copper ore. Payable copper ore is now being raised at Mount Badgerrigarn, near Corona (Albert district). From the following table it will be seen that our output of copper continues to decline, both in quantity and value, the fact being that at the present price of copper it does not pay to work mines that are not very favourably placed in regard to facilities of transit. There are numerous lodes that would pay to work, and would afford employment to a very large number of men, if facilities were provided for bringing fuel to the mine and sending away the produce. The projected railway to Cobar will no doubt have the effect of setting to work some important mines that are now idle, and it is to be hoped that our output will then equal that of seven or eight years back.

Table showing the quantity and value of Copper, the produce of the Colony, exported from the Colony of New South Wales, from 1858 to 1890.

Year.	Ingots.		Ore and Regulus.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons cwt.	£	Tons cwt.	£	Tons cwt.	£
1858	... .	.....	58 0	1,400	58 0	1,400
1859	30 0	578	.....	.....	30 0	578
1860	.....	.....	43 0	1,535	43 0	1,535
1861	.....	.....	144 0	3,390	144 0	3,390
1862	.....	....	213 0	5,742	213 0	5,742
1863	23 0	1,680	114 0	420	137 0	2,100
1864	54 0	5,230	.....	.....	54 0	5,230
1865	247 0	15,820	22 0	545	269 0	16,365
1866	255 0	18,905	23 0	1,885	278 0	20,790
1867	393 0	30,189	0 2	5	393 0	30,194
1868	644 0	23,297	172 0	4,000	816 0	27,297
1869	1,980 0	74,605	104 0	2,070	2,084 0	76,675
1870	994 0	65,671	6 0	60	1,000 0	65,731
1871	1,350 0	87,579	94 0	1,297	1,444 0	88,876
1872	1,035 0	92,736	417 0	13,152	1,452 0	105,888
1873	2,795 0	237,412	51 0	1,690	2,846 0	239,102
1874	3,638 0	311,519	522 0	13,621	4,160 0	325,140
1875	3,520 0	297,334	157 0	4,356	3,677 0	301,690
1876	3,106 0	243,142	169 0	6,836	3,275 0	249,978
1877	4,153 0	307,181	360 0	17,045	4,513 0	324,226
1878	4,983 0	337,409	236 0	7,749	5,219 0	345,158
1879	4,106 15	256,437	36 7	915	4,143 2	257,352
1880	5,262 10	359,260	131 18½	4,799	5,394 8½	364,059
1881	5,361 0	350,087	132 16	4,975	5,493 16	355,062
1882	4,865 3	321,887	93 1	2,840	4,958 4	324,727
1883	8,872 17	574,497	84 10	2,704	8,957 7	577,201
1884	7,286 6	415,601	18 18	578	7,305 4	416,179
1885	5,745 5	264,905	0 15	15	5,746 0	264,920
1886	3,968 18	166,429	57 18	1,236	4,026 8	167,665
1887	4,463 19	195,752	299 8	3,350	4,763 7	199,102
1888	3,786 1	272,110	113 6	2,924	3,899 7	275,034
1889	3,983 16	203,319	198 4	3,322	4,182 0	206,641
1890	3,165 9	163,537	580 9	9,774	3,755 18	173,311
	90,067 19	5,694,108	4,652 12	124,230	94,730 1	5,818,338

During the year twenty-six assays were made for Copper, the most favourable of which are given below:—

Locality.	Description of Mineral.	Copper. Per cent.	Gold. Per ton.	Silver. Per ton.	Lead. Per cent.
			oz. dwt. gr.	oz. dwt. gr.	
Bookham (near Yass) ...	Copper and magnetic iron pyrites	12·55	.....	1 1 16	
,, ,, ...	Quartz, with copper ore	51·34	.....	3 18 9	
Burrowa (near).....	Metallic and copper matte	85·62	trace.	52 5 8	10·05
Coolah (Pine Ridge).....	Sulphide of copper	23·	.....	1 10 11	
Captain's Flat	Copper pyrites, with grey sulphide and green carbonate of copper, also brown iron ore and quartz.	38·27	trace.	trace.	
,, ...	Grey sulphide, with green carbonate of copper with a little quartz.	30·25	,,	2 3 12	
,, ...	Ferruginous felspathic material, with quartz and carbonates of lead and copper.	5·05	nil.	2 5 17	14·49
,, ...	Felspathic material with quartz, grey sulphide, and carbonate of copper and carbonate of lead.	6·5	trace.	2 18 16	3·99
Eugowra.....	Oxides of iron and copper, with blue and green carbonates	36·75	,,	8 16 9	
Goulburn (near)	Ferruginous silicious gossan, with blue and green carbonates of copper.	16·20	nil.	1 6 2	
Glanmire District.....	Ferruginous gossan, with carbonate of copper	12·63	trace.	trace.	nil.
Gulgong (near)	Copper gossan	28·95	nil.	nil.	
Jenolan Caves (2½ miles from).	Bornite, with hornblende and diorite	37·65	,,	9 16 0	
Jenolan Caves (near) ...	Crushed sample of green carbonate of copper	5·5	trace.	trace.	
Mount M'Donald (2 miles west).	Crushed sample, chiefly quartz and copper pyrites	9·1	3 5 8	,,	
Mudgee District	Crushed sample, chiefly copper pyrites	16·25	.....	.....	
,, (16 miles from)	Ferruginous felspathic rock, with green carbonate of copper.	32·5	trace.	1 12 16	
,, (near)	Ferruginous felspathic schist, with blue carbonate of copper.	5·45	,,	1 19 4	
Molong District	Massive grey sulphide, with a little green carbonate of copper and quartz.	30·6	nil.	13 16 13	
Orange District.....	Ferruginous carbonate of copper	42·95	27 19 12	.....	

Iron.

Considerable attention was given during the year to our iron ore deposits and to the question of iron-making in this Colony. Mr. Ormiston, an eminent authority, having been at the instance of Mr. Joseph Mitchell, M.P., sent by English capitalists to inspect our deposits of iron, coal, and limestone, and to report upon the cost of iron-making here.

In New South Wales there are important deposits of rich iron ores, together with unlimited supplies of coal and limestone suitable for smelting purposes, and that for the manufacture of steel of certain descriptions abundance of manganese chrome and tungsten ores are available.

There are three localities favorably situated for the establishment of smelting works, viz., near Mittagong or Picton, in the South-western Coal-field, on the Great Southern Railway Line; near Wallerawang or Lithgow, on the edge of the Western Coal-field, on the Great Western Railway; and near Rylstone, also in the Western Coal-field on the Wallerawang-Mudgee Railway Line.

The ore in the two latter localities might, if required, be worked together, and smelted at some central works near Wallerawang or other convenient site.

The quantity of iron ore available for smelting works in the Mittagong or Picton District is estimated approximately at 8,234,000 tons, containing 3,684,000 tons of metallic iron; in the Wallerawang District 2,484,000 tons of ore, yielding 1,212,000 tons of metallic iron; and in the Rylstone District 2,226,000 tons of ore, containing 957,180 tons of metallic iron; or a total quantity of 12,944,000 tons of ore, containing 5,853,180 tons of metallic iron.

The quantity of iron made at Eskbank during the year was 3,413 tons, valued at £39,948 12s. 2d.

During

During the year the following assays and complete and partial analyses were made of Iron Ores:—

Locality.	Description of mineral.	Analysis.		Iron %.	Specific gravity.	Remarks.
Broula, near Cowra	Magnetite	Moisture at 100° C.	·100			
		Combined water	·520			
		Iron peroxide	79·907	66·087		
		Iron protoxide	13·038			
		Manganese protoxide	·186			
		Silica	3·230			
		Titanic acid	traces			
		Alumina	2·784			
		Lime	·392			
		Magnesia	trace.			
		Phosphoric oxide	,,			
		Sulphuric ,,	,,			
		Carbonic acid	,,			
			100·157			
Bulladelah	Silicious magnetite	Silica	17·00	49·20		
		Titanic acid	nil.			
Clarence District	Micaceous hematite			52·89		
,, Town	Massive magnetite	Silica	12·68	45·30		
		Titanic acid	17·79			
Cooyal, Mudgee District	Magnetite			57·88		
Camden county, parish Kembla, Brown's 59 acres.	Carbonate of iron from 14-inch seam.			38·18		
Camden county, parish Kembla, W. Harris' portion.	Carbonate of iron			38·62		
Cowra (10 miles from)	Micaceous hematite	Moisture at 100° C.	·05	64·33		This ore should prove valuable if found in any quantity for the extraction of the iron, the sample being an excellent quality of hematite.
		Combined water	·17			
		Iron peroxide	91·91			
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica	6·33			
		Alumina	·72			
		Lime	·74			
		Magnesia	·14			
		Phosphoric anhydride	.....			
		Sulphur trioxide	.....			
		Carbonic acid	.....			
		Titanic acid	.....			
			100·06			
Calvert parish, county Bathurst, Gilkrist's portion 29, Brown's Creek	Limonite	Moisture at 100° C.	1·02	50·65	3·602	
		Combined water	10·74			
		Iron peroxide	72·36			
		Iron protoxide	nil.			
		Manganese protoxide	trace.			
		Silica	10·20			
		Alumina	3·94			
		Lime	1·35			
		Magnesia	·86			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	,,			
		Carbonic acid	,,			
			100·47			
Dapto West	Chocolate shale			11·13		
,, near Biggar's	Natural coke			·50		
,, near Thompson's	Clay ironstone			32·83		
Drake (north-east of)	Hematite			61·94		
Garibaldi, near Lionsville.	Magnetic iron			59·44		
Galbraith parish, county Bathurst, G. Hayton's mineral lease.	Limonite	Moisture at 100° C.	2·83	55·84	3·625	
		Combined water	10·10			
		Iron peroxide	79·76			
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica	2·72			
		Alumina	3·62			
		Lime	nil.			
		Magnesia	·54			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	,,			
		Carbonic acid	,,			
			99·57			

Locality.	Description of mineral	Analysis.		Iron %.	Specific gravity.	Remarks
†Hopewood	Limonite	Moisture at 100° C.	4·69			
		Combined water	6·61			
		Iron peroxide	44·28	30·99		
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica	34·49			
		Alumina	9·16			
		Lime	·16			
		Magnesia	·07			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	trace.			
		Carbonic acid	nil.			
		Titanic acid	·66			
			100·12			
†Loseby's property	Clay band ironstone..	Moisture at 100° C.	1·55			
		Combined water	10·55			
		Iron peroxide	66·78	46·75		
		Iron protoxide	nil.			
		Manganese protoxide	·88			
		Silica	12·87			
		Alumina	6·92			
		Lime	·17			
		Magnesia	·13			
		Phosphoric anhydride	trace.			
		Sulphur trioxide	,,			
		Carbonic acid	nil.			
		Titanic acid	trace.			
			99·85			
Illawarra (north side of Con's land).	Ferruginous shale	Gangue	62·58	19·14		
Jamberoo	Ferruginous sandstone.	Gangue	59·69	20·48		
	Felspathic ironstone	Gangue	35·27	34·62		
Lyndhurst Village Reserve.	Limonite	Moisture at 100° C.	1·65			
		Combined water	13·12			
		Iron peroxide	65·20	45·65		
		Iron protoxide	nil.			
		Manganese protoxide	·50			
		Silica	14·45			
		Alumina	4·50			
		Lime	·06			
		Magnesia	·15			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	·17			
		Titanic acid	trace.			
			99·80			
Lake Bathurst	Micaceous hematite, with a little quartz.			34·95		
†Mittagong (Comer's property).	*Concretionary ironstone.	Moisture at 100° C.	5·37			
		Combined water	7·93			
		Iron peroxide	38·24	26·77		
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica	36·13			
		Alumina	11·55			
		Lime	·24			
		Magnesia	·23			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	trace.			
		Carbonic acid	nil.			
		Titanic acid	·31			
			100·00			
Mittagong (Brazenall's property).	Limonite	Moisture at 100° C.	1·20			
		Combined water	9·79			
		Iron peroxide	63·20	44·46		
		Iron protoxide	·28			
		Manganese protoxide	trace.			
		Alumina	11·43			
		Silica	13·82			
		Lime	·51			
		Magnesia	trace.			
		Phosphoric anhydride	.....			
		Sulphur trioxide	.....			
		Carbonic acid	.....			
			100·23			

Locality	Description Mineral.	Analysis.		Iron %.	Specific gravity.	Remarks.
Mittagong T. Troy's property).	Porous limonite	Moisture at 100° C.	4·654			
		Combined water	6·520			
		Iron peroxide.....	34·884	24·90		
		Iron protoxide	·308			
		Manganese protoxide	·117			
		Alumina	13·284			
		Silica	39·830			
		Lime	·414			
		Magnesia	trace.			
		Phosphoric anhydride	,,			
		Sulphur trioxide	.....			
		Carbonic acid.....	.....			
			100·011			
Mittagong (J. Loseby's property).	Limonite	Moisture at 100° C.	6·01			
		Combined water	10·49			
		Iron peroxide.....	60·04	42·03		
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Alumina	9·92			
		Silica	13·40			
		Lime	·68			
		Magnesia	.....			
		Phosphoric anhydride	.....			
		Sulphur trioxide	... ..			
		Carbonic acid..	.....			
			100·54			
,, ,,	Clay band ironstone.	Moisture at 100° C.	1·82			
		Combined water	11·13			
		Iron peroxide.....	58·77	41·14		
		Iron protoxide	nil.			
		Manganese protoxide	trace.			
		Alumina	7·85			
		Silica	20·24			
		Lime	·44			
		Magnesia	nil.			
		Phosphoric anhydride	trace.			
		Sulphur trioxide	nil.			
		Carbonic acid.....	,,			
			100·25			
Mittagong (from Crown Lands).	Limonite	Moisture at 100° C.	2·19			
		Combined water	10·79			
		Iron peroxide.....	80·88	56·62		
		Iron protoxide	nil.			
		Manganese protoxide	,,			
		Alumina	2·42			
		Silica	3·33			
		Lime	·30			
		Magnesia	trace.			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	trace.			
			99·91			
†Mittagong (Frazer's property).	Laminated ironstone	Moisture at 100° C.	3·68			
		Combined water	6·35			
		Iron peroxide.....	50·25	35·17		
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica..... ...	23·78			
		Alumina	14·27			
		Lime	1·15			
		Magnesia	·32			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	,,			
		Carbonic acid..	,,			
		Titanic acid	trace.			
			99·80			
† ,, ,, ...	*Compact ironstone...	Moisture at 100° C.	2·15			
		Combined water	6·97			
		Iron peroxide.....	38·82	27·17		
		Iron protoxide	trace.			
		Manganese protoxide	nil.			
		Silica.....	43·86			
		Alumina	7·18			
		Lime	·25			
		Magnesia	·36			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	trace.			
		Carbonic acid.....	nil.			
			99·59			

Locality.	Description of Mineral.	Analysis.		Iron %.	Specific gravity.	Remarks.
†Mittagong (Frazer's property.	Laminated ironstone	Moisture at 100° C.	1·06			
		Combined water	8·87			
		Iron peroxide	49·45	34·62		
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Silica	28·27			
		Alumina	11·62			
		Lime	·59			
		Magnesia	·35			
		Phosphoric anhydride	nil.			
		Sulphur trioxide	,,			
		Carbonic acid	,,			
		Titanic acid	strong trace.			
			100·21			
,,	Brown iron ore	Gangue	5·92	42·85		
		Silica	1·27			
		Sequioxide of chromium	2·09			
Picton	Limonite	Insoluble in acids (gangue)	8·11	52·09		
		Silica	7.77			
		Phosphoric acid	trace.			
Rylstone District	Clay ironstone			33·06		
Singleton	Concretionary ironstone.			49·53		
,,	,, ,,			62·78		
Washpool, Lionsville	Magnetic iron with a little quartz.			64·36		
Wollongong District Jondarin Creek.	Brown iron ore			40·44		
,, ,, ,,	Spongy brown hematite with carbonaceous matter (mother of coal?) on joint faces.	Moisture at 100° C.	3·77			The organic matter present in this sample somewhat resembles coal, the bituminous matter being absent. The ore being in a cellular or spongy state, and the large amount of carbonaceous matter present should render it easily reduced to the metallic state. The percentage of iron, however, is low, and would not pay to smelt in its present condition, but might be used to mix with a richer ore.
		Combined water	5·86			
		Organic matter	51·47			
		Iron peroxide	24·74			
		Iron protoxide	trace.			
		Manganese protoxide	,,			
		Alumina	5·22			
		Silica	7·69			
		Lime	trace.			
		Magnesia	·26			
		Phosphoric anhydride	·57			
		Sulphur trioxide	trace.			
		Carbonic acid	,,			
		Soda	·12			
		Potash	·33			
			100·03			
Wingello	Pisolitic iron ore			23·70		
,,	Brown iron ore	Gangue	3·07	54·63		
Wallerawang (Magnetic Iron Mine.	Magnetite from vertical shaft.	Silica	35·95	30·05		
,, ,, ,,	,, ,, ,,	Gangue	38· 8	31·16		
		Silica	34·35			
,, ,, ,,	,, ,, ,,	Gangue	35·31	31·94		
		Silica	35·65			
,, ,, ,,	,, ,, ,,	Gangue	33·00	35·39		
		Silica	30·95			
,, ,, ,,	,, ,, ,,	Gangue	25·25	41·40		
		Silica	20·45			
,, ,, ,,	,, ,, ,,	Gangue	19·05	38·29		
		Silica	22·20			
,, ,, ,,	,, ,, ,,	Gangue	20·85	22·70		
		Silica	34·30			
,, ,, ,,	,, ,, ,,	Gangue	33·65	28·05		
		Silica	36·00			
,, ,, ,,	,, ,, ,,	Gangue	32·70	10·57		
		Silica	50·25			
,, ,, ,,	,, ,, ,,	Gangue	47·05	25·82		
		Silica	31·55			
,, ,, ,,	,, ,, ,,	Gangue	29·20			
Walli parish, county Bathurst, near Cliefden homestead (portion 13).	Limonite	Moisture at 100° C.	·43			
		Combined water	11·15			
		Iron peroxide	82·95	58·06	3·998	
		Iron protoxide	trace.			
		Manganese protoxide	·08			
		Copper	strong trace.			
		Silica	2·45			
		Alumina	2·10			
		Lime	·34			
		Magnesia	nil.			
		Phosphoric anhydride	,,			
		Sulphur trioxide	,,			
		Carbonic acid	,,			
			99·50			

† On referring to the analyses it will be seen that the samples yielded from 26·77% to 46·75% of metallic iron and from 12·87% to 43·86% of silica. The silica exists in the ores combined with alumina, and two of the samples marked * contained a small quantity of sand. The samples are practically free from phosphorous and sulphur. Small quantities of titanic acid were found present, the highest amount estimated being ·66%. Samples marked * are too poor to smelt, the other samples if averaged would give about 37% of metallic iron.

Antimony.

The Wangwauk Mine, situated about 5 miles north of Coolongolook, is being opened up from one of the shafts. Some very fair samples of antimony have been obtained, the lode being about 2 feet thick. Numerous discoveries of antimony veins have been made between the sea-coast at the Bellinger and Bowra, and the head waters of the Nambucca. From 40 to 50 tons of antimony ore have been shipped from Nambucca to Sydney to test the market. Woodley & Co., at Nundle, have met with some good 65 per cent. ore, the lode being from 12 to 18 inches wide. The Cosmopolitan Co., Hillgrove, sold 130 tons of antimony in London for £30 per ton. No. 1 Freehold, head of Butler's Creek Falls, has a lode 1 foot wide of quartz and antimony carrying gold; about to erect smelters. On Brereton's freehold, ½ mile east of Hillgrove, there are several good antimony lodes mixed with quartz, varying from 1 to 10 feet wide. One lode, 1 foot wide, traceable for 14 chains, carrying 60 per cent. antimony and quartz, from which as high as 1 oz. gold per ton has been obtained. Another lode about 6 feet wide, 2 feet of which is nearly solid antimony, averaging 50 per cent. The Hillgrove Antimony Co. has two lodes 18 inches wide. Antimony and quartz can be traced about 28 chains. The Eleanora Co. has a lode of quartz and antimony, carrying gold, about 8 feet wide, intersected by a sandstone dyke about 4 feet wide. During the year they sold 348 tons 6 cwt. of antimony ore. Burke and party have an antimony lode 14 inches wide, traceable 12 chains. Sold 12 tons of ore at £11 per ton on the mine. Cock and party have four distinct lodes of antimony; averages 10 inches wide; ore assays 50 per cent. Have sold about 40 tons of ore at £10 per ton on the mine. About 1,000 tons of antimony, raised in the Hillgrove division. At Ashford, some 40 miles north of Inverell, there have been some large finds of antimony with indications of gold. There are rich deposits of antimony in the Drake division which have attracted attention. Twenty-six tons of antimony was raised in the Drake division. Some antimony lodes have been found in the Solferino division, and small samples from 2 to 5 tons have been sent away from the several lodes.

During the year twenty-one assays were made for Antimony, the following giving the most favourable results:—

Locality.	Description of Mineral.	Antimony, per cent.	Per ton.		Lead, per cent.
			Gold.	Silver.	
			oz. dwt. gr.	oz. dwt. gr.	
Abercrombie Ranges (Mt. Werong).	Stibnite with quartz	54·35	nil.		
Bellenger River	,,	33·80	.....		
,,	,,	43·39	.....		
Crudine Creek	,,	55·57	trace.		
Clarence River (Cattle Station Creek).	,,	24·57	,,		
Coolongolook	,,	21·75	.....		
Copmanhurst (twenty-five miles from).	Stibnite with a little quartz	55·34	trace.	1 12 16	
,, ,,	Quartz, with sulphide, and a little oxide of antimony.	26·84	,,	1 1 16	
Grafton	Stibnite with a little quartz	30·15	,,	trace.	
Hillgrove	Stibnite	64·26	.....	.....	
,,	Quartz, and quartz and slate breccia, carrying stibnite.	25·26	4 3 19	0 16 8	
,,	Concentrates	22·61	3 14 1	1 6 2	
Lyndhurst	Stibnite with a little quartz	55·71	nil.		
Mole River	Stibnite with quartz	51·78	,,		
New England (Reedy Creek)	Galena, zinc blende, mispickel, stibnite (acicular crystals), and a little oxide of antimony in quartz.	11·24	,,	28 17 2	14·93

Manganese, Nickel, and Cobalt.

During the year twenty-four assays were made for Manganese, Nickel, and Cobalt, of which the following gave the most favourable results :—

Locality.	Description of Mineral.	Analysis.		Per cent.
Bathurst District	Massive oxide of manganese.	Binoxide of manganese		82·08
		Gangue		4·30
		Phosphoric anhydride		·053
		Sulphuric ,,		trace.
		Arsenic		·083
do	Oxide of manganese	Binoxide of manganese		80·92
		Gangue		4·80
		Phosphoric anhydride		·066
		Sulphuric ,,		nil.
		Copper		trace.
Bathurst (20 miles from Kelso)	Oxide of manganese, with a little quartz.	Binoxide of manganese		63·75
		Gangue		18·14
		Sulphur		trace.
		Phosphoric acid		nil.
Bendemeer	Oxide of manganese	Binoxide of manganese		70·31
		Gangue		26·75
		Sulphur		·178
		Phosphorous		trace.
Boro	Cobaltiferous manganese oxide.	Metallic cobalt		1·42
		,, manganese		·35
Burragorang	Earthy wad	Moisture at 100° C.	41·61	
		Binoxide of manganese	19·95	
		Oxide of iron and alumina	9·89	
		Sesquioxide of cobalt (CO_2 O_3)	2·89	
		Protoxide of nickel (Ni. O)	·25	
		Gangue	22·65	
		Undetermined, containing a trace of copper, lime, magnesia, alkalies, &c.	2·76	
			100·00	
Cooyal, Mudgee District	Oxides of iron and manganese.	Binoxide of manganese		38·73
		Gangue (insoluble in acids)		6·39
do do	do do	Binoxide of manganese		47·21
		Gangue (insoluble in acids)		16·90
do do	do do	Binoxide of manganese		35·30
		Gangue (insoluable in acids)		3·47
Carcoar, Highfields Estate	Quartz with arsenide and arseniate of cobalt.	Metallic cobalt		1·361
Clifden, Cowra District	Ferro-manganese oxide	Binoxide of manganese		68·91
		Metallic iron		4·17
Hill End	Oxide of manganese	Binoxide of manganese		81·40
Hill Bank	do	do do		91·21
		equal to metallic manganese		57·66
Junction Reefs	Arsenical pyrites containing cobalt in felspathic gangue, showing traces of cobalt bloom.	Sesquioxide of cobalt		2·119
		Equal to metallic cobalt		1·506
		Nickel—Small percentage.		
Mittagong (Hill Top)	Wad	Binoxide of manganese (Mn. O_2)		24·05
		Sesquioxide of cobalt (Co.$_2$ O_3)		1·84
		Protoxide of nickel (Ni. O)		·27
		Moisture		38·43
		Insoluble in acids (gangue)		4·05
		Copper		trace.
		This sample contains a large amount of alumina soluble in acids.		
Mudgee (4 miles from)	Oxide of manganese	Binoxide of manganese		70·58
		Equal to metallic manganese		44·62
Do (2 miles from)	do do	Binoxide of manganese		75·65
New England (Mitchell's Creek)	do do	Binoxide of manganese		73·46
		Cobalt		trace.
		Gangue		8·35
Port Macquarie	Cobaltiferous manganese oxide.	Metallic cobalt		3·08
		Nickel (protoxide)		1·12
Rockley	Manganese oxide with a little clay and iron oxide.	Metallic manganese		44·75
Tamworth District (Moonbi)	Oxide of manganese	Binoxide of manganese		77·71
		Gangue		3·75
Do do	Earthy oxide of manganese.	Metallic manganese		38·45
		Gangue		28·61
		Phosphoric acid		nil.

Chromium.

During the year the following assays were made for Chromium :—

Locality.	Description of Mineral.	Sesquioxide of chrominm ($Cr._2$ O_3.)
		per cent.
Clarence District	Chrome iron ore	52·04
Do	do	40·25
Do	do	55·27
Do	do	40·51
Do	do	38·27
Tumut (Fine Flower Creek)	do	36·7

Mercury.

During the year one assay was made for Mercury in this Department :—

Locality.	Description of Mineral.	Mercury.
		per cent.
Tenterfield	Felstone with veins of crystalline quartz, cinnabar and pyrites well disseminated through the felstone.	1·99

Bismuth.

During the year seven assays were made for Bismuth, the following giving the most favourable results :—

Locality.	Description of Mineral.	Bismuth.	Per ton.	
			Gold.	Silver.
		per cent.	oz. dwt. gr.	oz. dwt. gr.
Germanton (near)	Quartz, with sulphide and carbonate of bismuth	6·49	.....	.....
Do	Quartz, with felspar, mica, oxides of tin and molybdenum, and molybdenite.	0·99	.....	.....
Nimitybelle	Quartz, with sulphide of bismuth	3·98	trace	trace
Solferino District (Ewingar)	Carbonate of bismuth in brown iron ore	69·95	nil	2 5 17
Do do	Brown iron ore with a little oxide of bismuth	0·63	trace	trace
Tenterfield (near)	Compact felsite with oxide of tin, magnetic iron, and a little carbonate of bismuth.	1·50	.....	.....

Alum.

In the range at the back of the village of Bulladelah is an enormous deposit of alum-stone, the outcrop can be traced over 100 chains, with a width of from 3 chains at the top of the cliffs to fully 20 chains at the foot. The deposit is about 35 miles from Port Stephens, one of the finest harbours in Australia, and can be reached by the Myall River, navigable by small vessels up to 100 tons burthen. This river runs right up to the Australian Alum Co's. mine. About 1,000 tons of stone has been treated by a new process, yielding 220 tons of alum. 500 tons of stone is being sent to England for treatment.

Limestone.

Messrs. Partridge & Co. have forwarded 1,000 tons of stone from their quarry on the Myall Lakes, near Bungwall, to their Asphalt Works in Sydney.

During the year eleven analyses were made eight of which are given—

Locality—Burragorang.

Description of mineral—Calcite.
Analysis—Carbonate of lime, 98·30 per cent.

Locality—Bushy Hill, Page River, about 9 miles East by North from Scone.

Description of mineral—Oolitic limestone.
Analysis—

Moisture	nil.
Iron peroxide	·70
Manganese protoxide	nil.
Alumina	1·05
Lime (Ca O)	48·70
Magnesia (Mg O)	1·84
Strontia	strong trace.
Sand	6·45
Soluble silica	trace.
Organic matter	·74
Carbonic acid	=40·27
Phosphoric acid ($P_2 O_5$)	nil.
Sulphuric acid ($S O_3$)	trace.
Alkalies	nil.
	99·75

Locality—Clifton.

Description of mineral—Slightly ferruginous limestone.
Analysis—Carbonate of lime 53·47 per cent.

Locality—

LOCALITY—COUNTY OF CUMBERLAND, NEAR SYDNEY WATER SUPPLY CANAL.

Description of mineral—Limestone.
Analysis—

Moisture	2·71
Organic matter	traces.
Oxide of iron	4·47
Alumina	2·17
Lime (Ca O)	30·02
Magnesia (Mg O)	·70
Strontia	trace.
Insoluble in acids	34·93
Carbonic acid ($C O_3$)	24·78
Sulphuric acid ($S O_3$)	nil.
Phosphoric acid ($P_2 O_5$)	trace.
	99·78

Remarks:—The insoluble matter consists almost entirely of coarse sand with a small quantity of clay. The presence of so much sand renders this limestone unsuitable for cement making purposes.

LOCALITY—ILLAWARRA DISTRICT.

Description of mineral—Siliceous limestone.
Analysis—

Moisture at 100° C Combined water	3·30
Silica	17·70
Soluble silica	trace.
Ferric oxide	·22
Ferrous oxide	·76
Manganese oxide	trace.
Lime	36·73
Magnesia	·88
Strontia	trace.
Alumina	11·07
Carbonic acid	28·89
Phosphoric acid	·19
Sulphuric acid	trace.
Organic matter	·21
	99·95

LOCALITY—ILLAWARRA DISTRICT.

Description of mineral—Limestone.
Lime, 36·9 per cent.

LOCALITY—ILLAWARRA DISTRICT.

Description of mineral—Fossil-bearing limestone
Lime, 31·08 per cent.

LOCALITY—PEAK HILL.

Description of mineral—Limestone.
Analysis—

Moisture	·29
Ferric oxide ($Fe_2 O_3$)	·22
Ferrous oxide (Fe O)	·14
Alumina	1·12
Lime	44·52
Strontia	2·24
Magnesia	·86
Silica	12·80
Potash	trace.
Soda	·68
Carbonic acid	36·89
Sulphuric anhydride	trace.
Phosphoric „	·05
Organic matter	trace.
	99·81

Note.—It will be noticed on perusing the above that the limestone yielded 2·24 per cent. of strontia in combination with carbonic acid. This is the largest amount yet found, although a large quantity of minerals have been tested in the laboratory for its presence.

WATER.

During the year the following analyses were made in this Department:—

LOCALITY—BYROCK.

Appearance in 2-ft. tube, reddish-brown colour. Odour when heated to 100° F., slight.

	Grains per gallon.	Parts per 100,000.
Chlorine as chlorides	1·40	2·00
Phosphoric acid as phosphates	Heavy traces.	Heavy traces.
Nitric acid as nitrates	trace.	trace.
Nitrous acid as nitrites	„	„
Free ammonia	·007	·010
Organic nitrogen, or albuminoid ammonia	·034	·049
Oxygen absorbed in 15 minutes	·059	·085
„ „ „ 4 hours	·115	·165
Poisonous metals	nil.	nil.
Total solid residue	11·368	16·24
Loss on ignition	*2·772	3·96

Remarks:—Water turbid, due to finely-divided matter (clay) held in suspension. The residue on ignition* darkened, thus showing the presence of organic matter. The bulk of the total solid residue consists chiefly of clay, the soluble portion being chloride of sodium, and traces of sulphates. The large amount of albuminoid ammonia found proves the water to be seriously contaminated

contaminated with sewerage matter, and in its present state is quite unfit for human consumption. The pollution appears to have been only recent, and is, no doubt, due to the heavy rains which have soaked and drained over a large catchment area, the water carrying the impurities into the tanks. Before condemning the water for good, I would ask to be supplied with fresh samples, the first, say, in one month's time.

J. C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

LOCALITY—HERMITAGE COLLIERY, LITHGOW.

The water yielded on evaporation :—

	Grains per gallon.
Total solids	12·04
Insoluble solids	1·14
Soluble ,,	10·90
	12·04
Chlorine in combination	1·40
Sulphuric acid in combination	4·56

The insoluble solids were found to consist of :—Silica, alumina, and oxide of iron. The soluble of :—Chiefly magnesia, with lesser quantities of lime, potash, and soda, combined with sulphuric acid, nitric acid (nitrates), and chlorine. Water free from odour, with a small quantity of matter held in suspension, which was found to consist of :—Oxide of iron and alumina. From experiments made in the laboratory, the water was found to exert a decided action on iron at a temperature of 212° F. One gallon of the water dissolving ·0908 grains of iron, 1,000 gallons would therefore dissolve 90·8 grains of iron. This action is due to the reduction of the nitrates at high pressure in the boilers, which causes the plates and boiler-tubes to corrode. In order to obviate this action and the incrustation properties of the water, I would recommend that at stated times the boilers be cleaned out, and occasionally small quantities of caustic soda be added to the water.

J. C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

LOCALITY—NETALLIE, 17 MILES FROM WILCANNIA.

Total solid matter	669·200 grains per gallon.
Equal to 956 parts per 100,000.	
Soluble solid matter	633·949 grains per gallon.
Equal to 905·641 parts per 100,000.	
Insoluble solid matter	35·400 grains per gallon.
Equal to 50·571 parts per 100,000.	
Clay held in suspension in water	17· 22 grains per gallon.

Analysis of total solid matter in water (filtered) :—

	Grains per gallon.	Parts per 100,000.
Chloride of sodium	297·266	424·666
,, of potassium	183·558	262·222
,, of magnesium	36·672	52·390
,, of ammonium	·185	·264
Sulphate of lime	63·021	90·030
,, of magnesia	53·247	76·060
Carbonate of lime	21·419	30·590
,, of magnesia	13·981	19·970
	669·349	956·192

Remarks :—Water turbid, due to fine clay held in suspension. On standing in the bottle for 24 hours, almost the whole of the suspended matter settled, the analysis being conducted on the clear water which was filtered before use. Zinc was detected in this water, the amount present being at the rate of 1·067* grains per gallon, or 1,524 parts per 100,000, probably existing in the water, combined with chlorine or sulphuric acid, as chloride or sulphate. The presence of zinc in water is peculiar, and it has most probably been derived from the action of the water which is heavily charged with sulphates and chlorides on zinc ore through which the water has percolated before reaching the bore. I am of opinion that this water is not a very suitable one for stock purposes, but as this is more of a medical question, I would submit that the analysis be furnished to the Government Veterinarian for his opinion.

* Chloride of zinc (Z_n Cl_2), 2·232 grains per gallon—equal to 3·189 parts per 100,000. Sulphate of zinc (Z_n SO_4), 2·642 grains per gallon—equal to 3·774 parts per 100,000.

LOCALITY—ROCK FLAT, NEAR COOMA, COUNTY BERESFORD.

	Grains per gallon.
Bicarbonate of sodium	24·723
,, of potassium	54·642
,, of calcium	81·387
,, of magnesium	53·305
,, of lithium	trace.
Chloride of sodium	3·114
Silica	·189
Oxide of iron and alumina	·280
	217·640

Carbonic acid gas, 379·75 cubic inches per gallon.

LOCALITY—ROCK FLAT, NEAR COOMA, COUNTY BERESFORD.

	Grains per litr	Grains per gallon
Bicarbonate of calcium	·744	52·08
Magnesium	·320	22·40
Sodium	·647	45·29
Potassium	·245	17·15
Chloride of sodium	·072	5·04
Silica	·008	·56
Alumina	trace.	trace.
	2·036	142·52

Remarks :—Water turbid, due to finely-suspended matter, which was found to consist of iron, lime, and magnesia existing as carbonates. The analysis was made of the filtered water. No iron was detected in solution. A strong trace of strontia and a trace of nitrates were detected. An examination was made of the water for poisonous metals with a negative result. The sample received was much too small to permit of an exhaustive analysis being made.

LOCALITY—

LOCALITY—YARRANGOBILLY.

Total solid residue—9·044 grains per gallon.
Free ammonia—nil per gallon.
Organic ammonia, or albuminoid ammonia—·026 parts per 1,000,000 parts.
Chlorine—·8 grains per gallon.

Analysis of total solids:—

	Grains per gallon.
Carbonate of lime	6·552
„ magnesia	nil.
Silica	·868
Alumina	trace.
Chloride of sodium	1·318
Strong trace of strontia, nitrates, and undetermined	·306
	9·044

No poisonous metals detected. Water free from odour, and matter in suspension.

MISCELLANEOUS.

LOCALITY—ADELONG.

Decription of mineral—Quartz, containing in some of the pieces thin flat layers of magnesium limestone, also a very small quantity of magnetic oxide of iron.

Silica	87·50
Alumina	1·96
Ferric oxide	1·92
Ferrous oxide	·75
Carbonate of lime	5·77
„ magnesia	2·43
Sulphuric anhydride ($S O_3$)	·06
Phosphoric anhydride (P_2O_5)	trace.
	100·39

Gold, 5 oz. 4 dwt. 12 gr. per ton. Silver, 3 dwt. 6 gr. per ton.

Remarks:—The gold is in the free state, but in a very fine state of division, there being no refractory metals present which will interfere with the amalgamation of the crushed stone. The loss of gold is due to the fineness of the particles. This is partly proved by the assay of the tailings, which yielded 1 oz. 7 dwt. 5 gr. per ton; and I should expect the slimes to yield a further portion of the metal, and also a further loss as float gold, which would be carried off in suspension and not recovered. The whole of the ore was crushed, and several assays made, it being found impossible to get any two assays to thoroughly agree, in consequence of the free gold present. Three large assays were made by amalgamating a weighed quantity of the ore, and the following result is the mean of the experiments:—Gold, 4 oz. 15 dwt. 9 gr. per ton; silver, 5 dwt. 10 gr. per ton.

LOCALITY—NEAR BURROWA.

Description of Mineral—Yellow copper, sulphide ore with blende, &c.

Sulphide of copper (Cu_2S)	17·87
„ iron (Fe_2S_3)	28·84
„ lead ($Pb S$)	2·76
„ zinc ($Zn S$)	1·64
Alumina (Al_2O_3)	4·28
Lime ($Ca O$)	0·60
Magnesia ($Mg O$)	1·64
*Gangue	42·05
	99·70

*The gangue (insoluble in acids) consists of quartz. Gold, 3 dwt. 6 gr. per ton, silver, 9 oz. 3 dwt. 22 gr. per ton.

Remarks.—If the above analysis represents anything like a fair average of the ore treated at the mine, it should be readily smelted if properly fluxed, there being nothing present in its composition to cause the action complained of, *i.e.*, "said to destroy the bottoms of furnaces in an unusual manner." The action on the furnace bottoms is possibly due to an imperfect system of fluxing the ore before smelting.

LOCALITY—CASINO.

Description of Mineral—Carbonaceous shale.

Hydroscopic moisture	5·13
Volatile hydrocarbons	19·87
Fixed carbon	12·40
Ash	62 60
	100·00

LOCALITY—CASINO.

Description of Mineral—Carbonaceous shale.

Ash	70 per cent.

LOCALITY—COOMA.

Description of Mineral—Infusorial earth.

Moisture at 100° C	7·18
Combined water	3·77
Silica	81·64
Alumina	3·20
Oxide of iron	0·40
Carbonate of lime	1·50
„ magnesia	2·16
Oxide of manganese	trace
Phosphoric acid	„
Organic matter	„
	99·85

LOCALITY—

LOCALITY—GUNNEDAH.

Description of Mineral—Resinous shale.

Moisture at 100° C	1·35
Volatile hydrocarbons	32·18
Fixed carbon	3 61
Ash	62 86
	100·00

Sulphur 1·208 per cent.
Specific gravity 1·755 per cent.
Coke—No coke formed, a dark powder being left.
Ash—Redish tinge, dense.

Remarks.—On heating, this mineral evolved sulphurous acid, and on burning in the open air gave off a fetid smoky flame. Acted upon by alcohol, ether, and bisulphide of carbon, the extract having a yellowish resinous appearance. On distillation yielded a heavy oil and solid product having a very disagreeable odour. Under the microscope the specimen had the appearance of containing a number of seed spores, and pieces of stone containing pyrites were also detected. This mineral has somewhat the appearance of Tasmanite, but its solubility in alcohol, ether, and carbon bisulphide does not class it as the resiniferous shale described by Professor Church, who states that it is not dissolved in the least degree by alcohol, ether, benzol, or carbon bisulphide.

The large percentage of ash in this substance renders it of little value for the manufacture of oil.

LOCALITY—HASTINGS RIVER.

Description of mineral—Kaolin.

Moisture	·49
Alumina	31·75
Oxide of iron	trace.
Protoxide of manganese	·37
Silicia	63·03
Lime	.....
Magnesia	1·12
Potash (K_2O)	1·66
Soda (Na_2O)	·86
Phosphoric acid (P_2O_5)	·31
Sulphuric acid (SO_3)	trace.
	99 59

LOCALITY—HERMITAGE COLLIERY, LITHGOW.

Description of substance—A yellowish hygroscopic powder caked in parts, formed on the outside of a boiler by the escape of steam.

The greater part of this powder is soluble in water, the solution being strongly alkaline. The soluble portion was found to consist largely of magnesia, with lesser quantities of lime, potash, and soda in combination with sulphuric acid, nitric acid (nitrates), and chlorine. The insoluble portion consisted of oxide of iron, alumina, silica, and a small quantity of organic matter.

LOCALITY—KOGARAH.

Description of mineral—White clay.

Moisture at 100° C	3·44
Combined water	11·67
Alumina and oxide of iron*	33·25
Silica	48 65
Lime	trace.
Magnesia	·93
Potash	·35
Soda	1·51
Titanic acid	trace.
	99·80

* Ferric oxide, 1 per cent.

LOCALITY—MUDGEE.

Description of mineral—White clay.

Moisture at 100° C	·32
Combined water	3·82
Silica	69 40
Alumina	19·33
Ferric oxide	1·31
Ferrous oxide	nil.
Manganese oxide	,,
Lime	·59
Magnesia	1·23
Potash	3·73
Soda	·52
Sulphuric anhydride	nil.
	100·00

LOCALITY—

LOCALITY—NAMBUCCA DISTRICT.

Description of mineral—Black viscous substance.

Analysis—

Moisture at 100°	1·58
Matter soluble in petroleum spirit	35·27
„ ether	8·30
„ water	*4·10
Matter insoluble in petroleum spirit, ether, and water	1·73
Silica	32·52
Alumina	10·33
Lime	trace.
Magnesia	·58
Oxide of iron	2·14
„ manganese	trace.
Phosphoric anhydride (P_2O_5)	·39
Sulphuric anhydride (SO_3)	nil.
Potash (K_2O)	2·30
Soda (Na_2O)	·76
	100·00

* Contains ·40 per cent. of inorganic matter consisting of—

Silica	·16
Oxide of iron and alumina	·17
Lime	·05
Magnesia	trace.
	·38

LOCALITY—PICTON DISTRICT.

Descripton of mineral—Carbonaceous shale.

Moisture	16·25
Carbon	11·65
Ash	72·10
	100·00

LOCALITY—UNDERCLIFF, WILSON'S DOWNFALL.

Description of mineral—Inferior graphite.

Moisture	8·66
Carbon	31·76
Ash	59·58
	100·00

LOCALITY—UNDERCLIFF, WILSON'S DOWNFALL.

Description of mineral—Inferior graphite.

Moisture	7·90
Carbon	28·60
Ash	63·50
	100·00

OPAL.

The opal mines are situated on the Momba Pastoral Co.'s run, 60 miles north-west of Wilcannia. Opals have been found within a few feet of the surface, in layers between a hard silicious sandstone; as much as £5 per oz. being offered locally for good specimens. During the year 195 lb. of noble opal has been raised.

GEMS.

The Warden at Berrima reports that he has men (employed out of the Prospecting Vote) at work prospecting the Wingecarribee River and its tributaries for gems with the view of tracing them, if possible, to a source. The result, so far, has been to trace the gems and gem sand in large quantities, comprising sapphires, topaz, zircon, garnets, pleonast (the latter largely predominating), brookite (lavender coloured corrundum) &c., and a little gold all along the river course, but, so far as I can discern no diamond as yet. At Bingera the diamonds won amounted to about 200 carats, worth from 14s. to 20s. per carat. At Bullawa Creek, about 10 miles from Narrabri, twelve diamonds were found, about ⅛ carat straw colour. Five hundred and thirty carats of diamonds, value 6s. per carat won in the Inverell Division. At the Glen, a few miles from Emmaville, a discovery of emeralds has been made, and 2,225 carats forwarded as a trial shipment to London; some of the gems were sold at £4 per carat. The lode formation is a dense quartzite about 3 feet wide. A parallel lode is being opened at 1 mile distant.

SUMMARY.

	Quantity.	Value.	Total Values.
		£ s. d.	£ s. d.
Quantity and value of coal raised prior to 1st January, 1890	46,751,938·10 tons	22,787,155 19 0	
Quantity and value of coal raised in 1890	3,060,876·48 „	1,279,088 19 5	
Totals	49,812,814·58 tons	24,066,244 18 5	24,066,244 18 5
Quantity and value of shale raised prior to 1st January, 1890	556,682 tons	1,234,453 0 0	
Quantity and value of shale raised in 1890	56,010 „	104,103 7 6	
Totals	612,692 tons	1,338,556 7 6	1,338,556 7 6
Quantity and value of coke made in 1890	31,097 tons	41,147 3 7	
Totals	31,097 tons	41,147 3 7	41,147 3 7
Quantity and value of gold won prior to 1st January, 1890	10,092,355·93 oz.	37,614,887 9 5	
Quantity and value of gold won in 1890	127,760·64 „	460,284 16 2	
Totals	10,220,116·57 oz.	38,075,172 5 7	38,075,172 5 7
Quantity and value of silver, silver lead, and ore raised prior to 1st January, 1890	Ingots 3,714.996·27 oz. Silver lead 65,912·87 tons Ore 74,600·00 „	4,919,952 0 0	
Quantity and value of silver, silver lead, and ore exported in 1890	*Ingots 496,552·20 oz. Silver lead 41,319·90 tons Ore 89,719·75 „	2,762,554 0 0	
Totals		7,682,506 0 0	7,682,506 0 0
Quantity and value of copper exported prior to 1st January, 1890	Ingots 86,900·35 tons Ore and regulus 4,071·50 „	5,645,027 0 0	
Quantity and value of copper exported in 1890	Ingots 3,165·45 „ Ore and regulus 580·45 „	173,311 0 0	
Totals		5,818,338 0 0	5,818,338 0 0
Quantity and value of tin exported prior to 1st January, 1890	Ingots 94,048·93 tons Ore and regulus 17,260·25 „	8,925,543 0 0	
Quantity and value of tin exported in 1890	Ingots 3,409·55 „ Ore and regulus 259·20 „	329,841 0 0	
Totals		9,255,384 0 0	9,255,384 0 0
Quantity and value of iron made prior to 1st January, 1890	42,112·17 tons.	307,516 1 3	
Quantity and value of iron made during 1890	3,413·44 „	39,948 12 2	
Totals	45,525·61 tons.	347,464 13 5	347,464 13 5
Quantity and value of antimony exported prior to 1st January, 1890	4,106·15 tons.	73,501 0 0	
Quantity and value of antimony raised in 1890	1,026·00 „	20,240 8 6	
Totals	5,132·15 tons.	93,741 8 6	93,741 8 6
Quantity and value of lead (pig) exported in 1889	522·60 tons.	6,711 0 0	
Quantity and value of lead (pig) exported during 1890	126·00 „	1,587 0 0	
Totals	648·60 tons.	8,298 0 0	8,298 0 0
Quantity and value of bismuth exported prior to 1st January, 1890	165·90 tons.	35,835 14 0	
Quantity and value of bismuth exported in 1890	2·10 „	306 0 0	
Totals	168·00 tons.	36,141 14 0	36,141 14 0
Quantity and value of oxide of iron exported in 1889	489·10 tons.	1,329 0 0	
Quantity and value of oxide of iron exported in 1890	455·30 „	884 0 0	
Totals	944·40 tons.	2,213 0 0	2,213 0 0
Quantity and value of zinc-spelter exported in 1889	96·85 tons.	988 0 0	
Quantity and value of zinc-spelter exported in 1890	210·45 „	2,378 0 0	
Totals	307·30 tons.	3,366 0 0	3,366 0 0
Quantity and value of limestone flux raised in 1890	41,436·80 tons.	41,989 5 9	
Totals	41,436·80 tons.	41,989 5 9	41,989 5 9
Quantity and value of alum raised and made in 1890	220·00 tons.	3,000 0 0	
Totals	220·00 tons.	3,000 0 0	3,000 0 0
Quantity and value of manganese ore raised in 1890	100·00 tons.	325 0 0	
Totals	100 00 tons.	325 0 0	325 0 0
Quantity and value of opals raised in 1890	195 lb.	15,600 0 0	
Totals	195 lb.	15,600 0 0	15,600 0 0
Value of sundry minerals exported prior to 1st January, 1890 (less zinc-spelter, £988)	.....	45,214 0 0	
Value of sundry minerals exported in 1890	.....	7,252 0 0	
Total	.....	52,466 0 0	52,466 0 0
General Total	.....	.....	£86,881,953 16 9

* NOTE.—The bulk of the silver produced is exported in the form of silver-lead and ore.

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TABLE showing approximately the number of miners employed in gold-mining, the quantity of gold won, the area of ground worked, and the value of machinery employed in the Colony of New South Wales, 1890:—

District and Division	Alluvial Miners		Quartz Miners		Total Miners	Quantity of Gold			Price of Gold per oz		Value of gold won	Auriferous ground worked	Quartz reefs proved to be Auriferous	Value of Machinery.
	Europeans	Chinese	Europeans	Chinese		Alluvial	Quartz	Total	From	To				
ALBURY—	No	No	No	No	No	oz dwt gr	oz dwt gr	oz dwt gr	s	s	£ s d	sq miles	No	£
Milparinka	150				150	1,450 0 0		1,450 0 0	79/		5 727 0 0			5,600
Tibooburra	50				50	760 0 0		760 0 0	..		3,002 0 0			
Wilcannia			71		71									
	200		71		271	2 210 0 0		2 210 0 0			8,729 0 0			5,600
BATHURST—														
Blayney	70		50		120	305 10 15	570 0 0	875 10 15	70/	77/	3 391 14 2	5	2	7,000
Bathurst	24	12	17		53	400 0 0	176 5 0	576 5 0			2,078 19 11		4	2,018
Carcoar														
Canowindra			30		30		1,480 2 13	1,480 2 13	75/	80/	5,843 0 0			800
Cowra	4		5		9									250
Cowra (North)			12		12		99 11 0	99 11 0	76/3		378 5 6	10		2,000
Mount McDonald	14		56		70	78 16 13	812 16 0	891 12 13	65/	77/6	3 249 13 5			15,500
Mitchell	82	10	12		104	518 0 0	380 0 0	898 0 0	67/6	75/6	3 143 0 0	4	6	
Oberon	15		20		35	30 0 0		30 0 0	60/	77/	95 0 0	20	4	5,000
Orange			485		485		4,177 10 18	4,177 10 18			15 978 12 4			21,000
Rockley	11				11	79 10 11		79 10 11	70/	75/	288 5 0	20		300
Trunkey	112	10	40		162	607 16 0	456 13 0	1 064 9 0	75 6	79 6	4 124 16 3	20	27	6,700
Tuena	100	30	50		180	1 500 0 0	100 0 0	1 600 0 0	77/6		6 200 0 0	20	6	3,000
Burraga	13				13	60 0 0		60 0 0	77 6		220 0 0			
	445	62	777		1 284	3 579 13 15	8 252 18 7	11 832 11 22			44,991 6 7	99	49	63,568
COBAR—														
Cobar			90		90		1 752 0 0	1,752 0 0	80/		7,008 0 0	20	3	7,500
CLARENCE AND RICHMOND—														
Ballina	199				199	1,050 0 0		1 050 0 0			4 200 0 0			
Dalmorton	20		150		170	60 0 0	60 0 0	120 0 0	70/		420 0 0	400	108	460
Grafton	6		6		12		700 11 0	700 11 0	72/	80/	2 523 5 8			
Nana Creek			48		48		380 13 19	380 13 19	75/		1,427 11 8	255	56	1,020
	225		204		429	1 110 0 0	1 141 4 19	2 251 4 19			8 570 17 4	655	164	1,480
HUNTER AND MACLEAY—														
Cope and			48		48	25 0 0	132 0 0	157 0 0			607 0 0			
Dungog			14		14		63 0 0	63 0 0			210 0 0			2 000
Kempsey	6		24		30		252 4 0	252 4 0	80/		1,008 16 0	3	1	4,500
	6		86		92	25 0 0	447 4 0	472 4 0			1,825 16 0	3	1	6 500
LACHLAN—														
Barmedman			33		33		327 0 12	327 0 12	75/	77/6	1 250 17 5	3	9	9,950
Cudal			26		26		138 0 0	138 0 0			531 16 0			450
Forbes	100		60		160	137 0 0	481 7 0	618 7 0	72/	77/10	2 318 0 0		3	10 600
Grenfell	20		19		39	124 14 14	234 16 4	359 10 18	77/		1 383 19 4	20	21	3,700
Molong			16		16		820 0 0	820 0 0	53 7		2,200 0 0	1	1	5,000
Murrumburrah	50				50	690 0 0		620 0 0	75/	77/	2 081 4 10			
Parkes	350		532		882	6 617 0 0	6 256 11 0	12 873 11 0	70/	77/6	48,513 8 6	90	60	19,000
Temora	30		37		67		474 17 0	474 17 0	77/6		1,840 1 0			
Young	150				150	4,829 2 23		4,829 2 23			18 477 4 11			15 100
Cargo			60		60		459 0 10	459 0 10	73 6	80/	1 715 14 8	4	7	8,603
Alectown	500				500	6,000 0 0		6 000 0 0			23,400 0 0			
	1,200		783		1,983	18 327 17 13	9 191 12 2	27 519 9 15			103,712 6 8	118	101	62,403
MUDGEE—														
Gulgong	70				70	1,458 0 0		1 458 0 0			5 541 0 0			
Hargraves	20	30	50		100		306 5 0	306 5 0	78/		1 286 4 6	210	10	8,000
Peak Hill	1,500		200		1,700	6,380 0 0	1 120 0 0	7 500 0 0			29 250 0 0			1 500
Wellington ..	30	2	82		114	890 0 0	2,000 0 0	2 890 0 0	75/	80/	10,990 0 0	3	1	15,500
Windeyer	150	50	6		206									1,000
	1 770	82	338		2,190	8 728 0 0	3 426 5 0	12 154 5 0			47,067 4 6	213	11	26,000
PEEL AND URALLA—														
Nundle			38		38		381 0 0	381 0 0			1 401 15 0			
Bingera	150	10	20		180	1,600 0 0	91 19 20	1,691 19 20	70/	74/6	6,122 10 0	30	1	2,120
Barraba							65 8 6	65 8 16			252 0 0			
Melrose	4		100		104		753 0 0	753 0 0	77/6	82/	2 917 17 6			2,500
Glen Innes	101	42			143	941 4 19		941 4 19			3 514 16 0			
Hillgrove			650		650		16 025 0 0	16 025 0 0			54 905 4 7			70 715
Scone			415		415		3 624 0 0	3,624 0 0	77/		14 249 5 0	100	14	8 000
Uralla	85	35			120	400 0 0		400 0 0			1,500 0 0			2,400
Walcha	50		75		125	85 13 8	90 0 0	175 13 8			654 7 6			5 000
	390	87	1,298		1 775	3,026 18 3	21,030 8 12	24,057 6 15			85,117 15 7	130	15	90,735
NEW ENGLAND—														
Tarfield	50	30	200		280	1 536 0 0	1 747 0 0	3 283 0 0	70/		11,490 10 0			21,000
Tronsville	17	2	18		37	170 10 0		170 10 0	69/	73/	605 0 0			
Tenterfield			40		40									
	67	32	258		357	1 706 10 0	1 747 0 0	3,453 10 0			12 095 10 0			21 000
TAMBAROORA AND TURON—														
Hill End	25	100	250		375	1 0 0 0 0	3 028 3 21	4 028 3 21			15 965 0 0			7,100
Ironbarks	80	20	50		150	1 079 0 0	958 10 0	2 037 10 0	76/	80/	7 801 11 0	12	22	5 700
Sofala	142	58	100		300	3 833 18 10	1 000 0 0	4 833 18 10	76/		14 568 17 11	20	23	7,650
	247	178	400		825	5 912 18 10	4 986 13 21	10 899 12 7			38 335 8 11	32	45	20,450

District and Division	Alluvial Miners. Europeans	Alluvial Miners. Chinese	Quartz Miners. Europeans	Quartz Miners. Chinese	Total Miners	Quantity of Gold. Alluvial	Quantity of Gold. Quartz	Quantity of Gold. Total	Price of Gold per oz. From	Price of Gold per oz. To	Value of Gold won	Auriferous ground worked	Quartz reefs proved to be Auriferous	Value of Machinery
TUMUT AND ADELONG—	No	No	No	No	No.	oz dwt gr	oz dwt gr	oz. dwt gr	s.	s	£ s. d	sq. miles	No.	£
Albury	1	3	45		49	30 0 0	274 0 0	304 0 0	72/	80/	1,155 4 0	10	13	1,050
Adelong	109	56	92	.	257	3,390 9 0	1,541 0 0	4,931 0 0	76/	80/	18,986 2 8	40	53	38,000
Cooma	12	4	60	.	76	106 0 0	481 0 0	587 0 0	75/		2,076 0 0	1	6	2,850
Captain's Flat	8	2	30		40	50 0 0	1,427 8 0	1,477 8 0	75/6	77/6	5,775 19 3	..	1	
Gundagai	100	.	55		155	316 2 6	10 16 0	326 18 6	75/	80/6	1,259 0 0	..	....	4,300
Junee	14		15		29	. .	230 1 12	230 1 12	71/	77/6	882 19 3		6	800
Kiandra	84	10			94	1,260 5 0	. .	1,260 5 0	74/6		4,693 10 0	15	..	12,000
Nimitybelle			6	.	6	.	3 0 0	3 0 0			11 12 6	20	9	1,000
Queanbeyan	9		20	..	29	35 12 0		35 12 0	73/	77/	132 3 3	1	2	2,000
Reedy Flat	62	8	1		71	450 0 0	.	450 0 0	77/6	80/	1,745 0 0	12	6	
Tumbarumba	130	5			135	1,600 0 0		1,600 0 0	.		6,320 0 0	..		1,300
Talcutta	..	..					.	.			. .	. .	. .	1,800
	529	88	324		941	7,233 8 6	3,967 5 12	11,205 13 18			43,037 10 11	99	96	65,100
SOUTHERN—														
Araluen	190	40	6		236	2,600 0 0	75 10 0	2,675 10 0	70/	76/6	10,250 13 6	. ..	.	18,630
Bombala	16	20			42	348 0 0	....	348 0 0	77/6		1,340 15 0	.	.	
Berrima	5				5	1 3 13	. .	1 3 13			4 11 6		....	500
Braidwood	45	5			50	1,241 4 0		1,241 4 0	72/6	79/	4,964 0 0	. .	. ..	250
Candelo	10	.			10				.	.			.	..
Cobargo	5		20		25		15 0 0	15 0 0			62 12 9			.
Little River	40	45	45		130	859 8 12	165 11 12	1,025 0 0	78/	82/	4,096 0 0	32	30	2,810
Milton			60		60	.. . .						5	6	2,000
Major's Creek	45	10	65		120	545 13 8	1,036 0 0	1,581 13 8	68	75/	5,930 4 4	.	15	35,820
Moruya	15		1,194		1,209	604 15 0	120 0 0	724 15 0	70/	80/	2,780 12 7	.	.	3,260
Nerrigundah	40	50	90	..	180	436 12 7	210 0 0	646 12 7	80/		2,586 0 0	10	20	14,700
Nowra	..	.	109		109	. .	846 18 0	846 18 0	63/	64/8	2,903 18 1	.	.	8,340
Nerriga	88		12	.	100	200 0 0	150 0 0	350 0 0	77/	.	1,347 15 0	. ..	.	. .
Wagonga	19	2	55		76	127 10 0	270 14 8	398 4 8			1,492 0 0		.	2,600
	518	178	1,656	.	2,352	6,964 6 16	2,889 13 20	9,854 0 12			37,759 2 9	47	71	88,910

Summary.

Compiled from Mining Registrars' Reports.

TABLE showing approximately the number of Miners employed in Gold-mining, the quantity and value of Gold won, the area of ground worked, and the value of machinery, in the Colony of New South Wales during 1890.

District.	Alluvial Miners. Europeans	Alluvial Miners. Chinese	Quartz Miners. Europeans	Quartz Miners. Chinese	Total Miners	Quantity of Gold. Alluvial	Quantity of Gold. Quartz	Quantity of Gold. Total	Price of Gold per oz. From	Price of Gold per oz. To	Value of Gold won.	Auriferous ground worked.	Quartz reefs proved to be auriferous	Value of Machinery.
	No	No	No	No.	No	oz dwt gr	oz dwt gr	oz dwt gr	s	s	£ s d	sq miles	No	£
Albert	200		71		271	2 210 0 0		2,210 0 0	79/		8,729 0 0			5,600
Bathurst	445	62	77		1,284	3,579 13 15	8,252 18 7	11,832 11 22	75/	80/	44,991 6 7	99	49	63,568
Clarence and Richmond	225		204		429	1,110 0 0	1,141 4 19	2,251 4 19	70/	80/	8,570 17 4	655	164	1,480
Cobar	..	.	90		90	.	1,752 0 0	1,752 0 0	80/		7,008 0 0	20	3	7,500
Hunter and Macleay	6	.	86		92	25 0 0	447 4 0	472 4 0	80/		1,825 16 0	3	1	6,500
Lachlan	1,200	.	783		1,983	18,327 17 13	9,191 12 2	27,519 9 15	53/7	80/	103,712 6 8	118	101	62,403
Mudgee	1,770	82	338		2,190	8,723 0 0	3,426 5 0	12,154 5 0	78/	80/	47,067 4 6	213	11	26,000
New England	67	32	258		357	1,706 10 0	1,747 0 0	3,453 10 0	69/	73/	12,095 10 0			21,000
Peel and Uralla	390	87	1,298		1,775	3,026 18 3	21,030 8 12	24,057 6 15	70/	82/	85,117 15 7	130	15	90,735
Tambaroora and Turon	247	178	400		825	5,912 18 10	4,986 13 21	10,899 12 7	76/	80/	38,335 8 11	32	45	20,450
Tumut and Adelong	529	88	324		941	7,238 8 6	3,967 5 12	11,205 13 13	72/	80/6	43,037 10 11	99	96	65,100
Southern	518	178	1,656		2,352	6,964 6 16	2,889 13 20	9,854 0 12	63/	80/	37,759 2 9	47	71	88,910
	5,597	707	6,285		12,589	58,329 12 15	58,332 5 21	117,661 18 12			438,249 19 3	1,416	506	459,246

TABLE showing approximately the number of Miners employed in mining for minerals other than Gold, Coal, or Shale, at some of the principal mines, the quantity of minerals won during the year 1890, and the value of same, and the value of Plant.

Locality.	Miners employed	Quantities. Copper	Tin	Antimony.	Alum	Iron	Silver	Silver lead and ores	Other	Value.	Value of Machinery.
	No.	tons.	tons	tons.	tons.	tons. cwt	oz	tons.	tons.	£ s d.	£ s d.
Broken Hill and Silverton	5,400	174½	150				8,892,999	108,365	84,861	2,785,397 12 11	406,885 0 0
Wilcannia (opal)	114								195 lb.	15,600 0 0	
Blayney	33	190								10,450 0 0	10,000 0 0
Burraga	287	420								24,150 0 0	10,000 0 0
Lithgow	110					3,413 8				39,948 12 2	
Mitchell	400							74,553		197,813 19 4	25,852 0 0
Orange	145	39					104,727	1,768	110	29,312 0 0	21,000 0 0
Cobar	10	50						50		4,155 0 0	
Hillston	122	318								15,900 0 0	7,000 0 0
Nymagee	250	794								43,868 10 0	42,000 0 0
Grenfell	13							20		900 0 0	
Bulladelah	20				220					3,000 0 0	20,000 0 0
Fairfield				26				20,135		28,605 0 0	
Emmaville	909		1,150				102,150			81,380 0 0	16,500 0 0
Wilson's Downfall	290		220					2,616		22,316 0 0	950 0 0
Glen Innes	96		151							8,050 14 0	
Tingha	1,050		1,000							52,000 0 0	7,050 0 0
Captain's Flat	20						33,857	3,080		18,964 19 6	8,200 0 0
Burrowa	66	50						362		7,043 10 0	5,000 0 0

TABLE showing approximately the Machinery employed in Gold and Tin Mining during 1890.

District and Division	Quartz.									Alluvial									
	Steam engines employed in winding, crushing, &c.		Crushing machines	Stamp heads.	Concentrators	Whims and pulleys.	Water wheels	Pumps.	Huntington mills	Steam engines employed in winding, pumping, &c.		Water wheels	Turbines	Whims and pulleys.	Whips	Pumps	Puddling machines	Hydraulic hoses	Boring machines	Sluice boxes	Other machinery.
	No	Aggregate horse power.								No	Aggregate horse power.										
ALBERT DISTRICT—																					
Milparinka																					
Tibooburra																					
BATHURST DISTRICT—																					
Blayney	2	20	2	49				2													
Bathurst	3	33	3	20																	
Carcoar																					
Canowindra	1	8	1																		
Cowra																					
Cowra North	1	6																			
Mount McDonald	6	140	3						1	2	25				1						
Oberon	2	25	2							1											
Rockley	1	8	1	6																	
Trunkey	11	60		25																	
Tuena																					
CLARENCE AND RICHMOND DISTRICT—																					
Dalmorton	1	8	1	12					1												
Ballina																					
Nana Creek	1	12	3	16								2									
HUNTER AND MACLEAY DISTRICT—																					
Bulladelah																					
Copeland																					
Dungog																					
MUDGEE DISTRICT—																					
Gulgong																					
Hargraves	5	50																			
Mudgee																					
Peak Hill	3	41	3	30																	
Wellington	6	50																			
LACHLAN DISTRICT—																					
Temora and Barmedman	3	95	1	25				2													
Cudal	1	8	1	5																	
Forbes	2	64	2							2	24					2					
Grenfell	4	44	2	1																	
Molong	2	40		20																	
Murrumburrah																					
Parkes																					
Cargo	7	81	1	10	4																
Alec's Flat																					
NEW ENGLAND DISTRICT—																					
Fairfield	8	215		91																	
Tenterfield																					
Wilson's Downfall										2	10										
PEEL AND URALLA DISTRICT—																					
Bingera	3	31	2	15	3					1	8					1					
Barraba																					
Hillgrove																					
Tamworth																					
Uralla										3	37					1					
Scone	2	24	2	20			1														
Walcha																					
Melrose	1	15	1	10					1												
TUMUT AND ADELONG DISTRICT—																					
Albury	2	15	2	12						1	9						1				
Adelong																					
Cooma	1	20	5	24			2														
Captain's Flat	6	116	2	40				3	1												
Junee	2	20		5					1												
Kiandra										2	150							2			
Nimitybelle																					
Reedy Flat																					
Tumbarumba	4	34	3	25					1												
Tarcutta																					
Gundagai	10	72	1					2													
Queanbeyan																		2			
TAMBAROORA AND TURON DISTRICT—																					
Hill End	6	105																			
Ironbarks	3	60		20																	
Sofala	10	156		54																	
SOUTHERN DISTRICT—																					
Araluen	1	12	1	10	1		1			6	54	6				12		4			
Gunning																					
Little River	4	30			2	1	1			2	10	4				1					
Major's Creek	7	87	2	15	9				3								10				
Moruya										3	14										
Nerrigundah	4	74	4	58			2														
Nowra	3	42	3	40						1	10										
Nerriga	1	10	1	10																	
Wagonga	1	8	2	16																	
Burrowa	1	20																			
Milton	1	10	1	5			1														
	143	1,969	58	688	20	1	8	9	9	26	351	12				16	13	8			

Department of Mines,
Sydney, 9 March, 1891.

HARRIE WOOD,
Under Secretary for Mines.

WARDENS' AND MINING REGISTRARS' REPORTS.

BATHURST DISTRICT—Trunkey Division.

(T. A. Smith, Warden.)

In forwarding my report for the past year, I regret that I am unable to report favourably of the mining prospects in my District. The silver industry has quite collapsed in the Tuena District (Cordillera, Mount Costigan, and Peelwood); also at Back Creek and Wiseman's Creek, in the Rockley Division. The output of copper, as supplied to me, shows a falling off that I cannot account for, unless the ore has become poor. The Burraga Mine was in full work during the whole year, yet the output was far less than in the previous return, which was for only nine months of the preceding year. The returns of coal are not reliable; nearly the whole of the Lithgow Companies positively refuse information. I hope the Department has some other means of obtaining the required information.

The total value of minerals obtained, in accordance with the returns furnished, amounted to £139,586 11s. 1d. The total value of machinery in the District, as returned, is £79,460, and the revenue £1,748 15s. Sunny Corner returned matte valued at £82,771 2s. 1d., and gold valued at £1,877 15s.; Sofala following with gold to the value of £14,568 19s. 6d.; Tuena, £5,812 10s.; Trunkey, £4,124 16s. 3d.; Mount McDonald, £3,249 13s. 5d.; Bathurst, £472 8s. 4d.; Burraga, £220; Oberon, £387 10s.; and Rockley, £288 5s. Burraga also returns 420 tons of copper, valued at £24,150; Lithgow returned 8,628 tons of coal, valued at £1,663 11s; Katoomba 9,000 tons for three months' work, valued at £2,475.

About 7,000 oz. of the gold returned is alluvial. The last winter having been very wet, water was obtainable to sluice old workings. This has been particularly noticeable at Sofala, Tuena, and Trunkey. In quartz-reefing no satisfactory progress has been made. At Wattle Flat, near Sofala, an old reef which was worked seventeen years ago and abandoned was taken up by Ellis & Co., who obtained aid from the Prospecting Vote, thus enabling them to drive a tunnel into the hill. At 300 feet a large reef from 3 to 5 feet in thickness, having well-defined walls, was struck. 500 tons of stone have been taken out and crushed, yielding 330 oz. of retorted gold. The Bathurst Gold-mining Company at Trunkey has ceased working; their returns were never less than 2¼ oz. to the ton, but this does not seem to have paid. The reef known as No. 7 Cromies is working, and Mount Grey has recently been floated in London, with a reported capital of £60,000. No doubt work will be more vigorously prosecuted shortly.

The Balmoral Mine at Mount M'Donald has been struggling along, also Butcher's (this company is receiving assistance from the Prospecting Vote); the Eureka and Grant's Amalgamated are also working.

At Tintern, Everett and party have been working two leases, and report their prospects to be very good indeed; but the absence of machinery within reasonable distance is a great drawback, the nearest being 8 miles distant.

The Butcher's Flat Sluicing Claim, unfortunately, up to the present time has not been dividend paying.

Near Newbridge, on the Great Western Railway, Heaton and party are working an iron lode; and at Back Creek, 6 miles from George's Plains Station, Great Western Railway, are working a manganese lode.

Two parties of prospectors were, this spring, engaged by the Department, under special arrangements, to search the country between Jenolan and Wombeyan Caves for gold and other minerals. These parties did not succeed in making any discoveries. I have no doubt whatever that the country about Tuglow is rich in minerals, both gold and silver. Good specimens of both being found occasionally by fossickers. The country also from the junction of the Little River with the Abercrombie downwards for many miles is deserving of more attention than it has yet received from miners. The whole of the country between Jenolan and Wombeyan Caves is exceedingly wet. The creeks never cease running in the driest seasons. This militates against prospecting. The country is very sparsely populated, which necessitates prospecting parties carrying all their own supplies, tools, &c. Attached is a schedule in explanation of my report, from which you will notice that 1,122 men, exclusive of coal miners, are working for minerals in this District.

P.S.—The average rainfall for the year was 40 inches. The average rate of wages paid in the district is: Miners, 8s. 4d. per day; labourers connected with mines, 7s. 6d. per day; feeders, 7s. to 9s.; and engineers, 10s. to 12s.

Return showing the Mining Business transacted at the Divisional Offices under the charge of Mr. Warden T. A. Smith, during the year 1890:—

Division.	Miners' rights.	Business licenses.	Mineral licenses.	Gold-lease applications.	Areas of gold-lease applications.	Mineral-lease applications.	Areas of mineral-lease applications.	No. of men employed.	Rainfall.	Gold.	
										[Quantity.	Value.
					acres.		acres.			oz. dwt. gr.	£ s. d.
Trunkey	137	25	...	5	63	...	...	162	44·063	1,064 9 9	4,124 16 3
Bathurst	101	1	2	11	96	1	20	104	33·014	124 6 20	472 8 4
Mount McDonald	60	23	1	15	55	3	100	70	37·021	891 12 13	3,249 13 5
Rockley	37	21	6	...	...	6	140	20	...	80 0 0	288 5 0
Burraga	11	17	2	...	...	2	80	300	...	60 0 0	220 0 0
Sofala	367	19	...	15	124	1	50	300	...	3,833 18 20	14,568 19 6
Oberon	36	4	3	4	20	4	120	40	...	100 0 0	387 10 0
Sunny Corner	220	89	17	7	83	18	485	400	...	518 0 0	1,877 15 0
Lithgow	15	...	4	...	...	1	182	53	...	.....	.....
Katoomba	...	...	...	...	...	...	...	...	...	.....	.....
Penrith	...	...	...	...	...	...	...	...	...	.....	.....
Tuena	138	36	5	17	87	6	144	130	...	1,500 0 0	5,812 10 0
Totals	1,122	235	40	74	528	42	1,321	1,579	...	8,172 7 14	31,001 17 6

Division	Silver.		Lead.		Matte.		Copper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	oz.	£ s. d.	tons cwt. qr. lb.	£ s. d.	tons.	£ s. d.	tons.	£ s. d.
Trunkey	...	...	...	...	...	...	...	...
Bathurst	...	...	...	...	...	...	...	...
Mt. McDonald	...	...	...	...	...	...	...	...
Rockley	...	...	...	...	...	...	...	...
Burraga	...	...	...	...	...	...	420	24,150 0 0
Sofala	...	...	...	...	...	...	...	...
Oberon	...	...	...	...	...	...	...	...
Sunny Corner	...	...	...	...	1,671	82,771 2 1	...	...
Lithgow	...	...	...	...	...	...	...	...
Katoomba	...	...	...	...	...	...	...	...
Penrith	...	...	...	...	...	...	...	...
Tuena	...	...	...	...	...	...	...	...
Total	...	...	...	...	1,671	82,771 2 1	420	24,150 0 0

Division	Revenue, miners' rights, business, and mineral licenses.	Revenue, gold and mineral lease applications, &c.	Total Revenue for Division.	Grand Total Value of minerals, including gold.	Total value machinery.	Coal.		
						Quantity.	Value.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£	tons.	£ s. d.	
Trunkey	81 10 0	63 0 0	168 8 0	4,124 16 3	6,700	...	...	
Bathurst	48 0 0	96 0 0	161 0 0	472 8 4	2,180	...	...	
Mt. McDonald	43 10 0	80 0 0	151 3 0	3,249 13 5	15,700	...	...	
Rockley	38 5 0	51 0 0	89 5 0	288 5 0	300	...	...	
Burraga	23 5 0	20 0 0	43 5 0	24,370 0 0	.. ..	...	...	
Sofala	187 10 0	136 10 0	324 0 0	14,568 19 6	7,650	...	...	
Oberon	20 15 0	50 0 0	76 5 0	387 10 0	5,000	...	...	
Sunny Corner	180 5 0	.....	459 10 0	84,648 17 1	11,930	...	...	
Lithgow*	18 0 0	.....	55 19 0	1,663 11 6	.....	8,628	1,663 11 6	To 31 Oct., 1890
Katoomba	.....	.....	.....	.....	.....	9,000	2,475 0 0	For 3 months
Penrith	.....	.....	.....	.....	.....	...	...	
Tuena	83 10 0	131 0 0	220 0 0	5,812 10 0	30,000	...	...	
Total	724 10 0	627 10 0	1,748 15 0	139,586 11 1	79,460	17,628	4,138 11 6	

* Refused information from Vale of Clywdd, Oakey Park, Zig Zag, and Eskbank.

BATHURST DISTRICT—Orange Division.

(J. T. Lane, Warden.)

In submitting my report for the past year, I am sorry to be unable to supply you with any facts of a very encouraging or hopeful character. Some of our gold miners possess an amount of perseverance which reflects honor on their courage. They seem determined that no effort shall be spared in testing localities where any promise of a show exists. Silver-mining operations are becoming very circumscribed, and we hear little or nothing said about our once promising interest—copper.

Ophir.

Still lives, and is not likely to die a natural death so long as Mr. G. Slater retains his wonted health and vigour. He is now the sole proprietor of the quartz-crushing plant at the Bluff. The old company became tired of hoping—"hope deferred maketh the heart sick"—and Mr. Slater's confidence in Ophir being unabated, he purchased the whole of their interest. He promises vigorous operations, and I am sure his "pluck" merits our warmest wishes. The Queen of the Ranges is producing a satisfactory return for the labour expended. These workings are a small distance north-east of Ophir proper. There are some operations going on at and around Ophir, but the results are not encouraging save at the spot referred to.

Forest Reefs.

The Grand Junction resumed operations a few weeks ago, but have not met with any encouraging results as yet. This company is aided by the Prospecting Fund or it would never have resumed work. W. Ovington and Party are prospecting about ½ mile west of the Extended and have come upon good wash stuff at 96 feet. O'Shea and Party are forming a new company. It is estimated that about £8,000 have been expended on this claim, which is designated the Great Combined Leads at Forest Reefs.

Byng.

Nothing doing save on Dr. Codrington's lands known as Carangara. Gold is being procured, but in quantities insufficient to cover cost of labour.

Cadia.

I know of nothing of sufficient interest to report.

Diggers' Creek, or Four-mile.

Nothing of importance since my last report.

Lewis

The latter are almost abandoned. There are two or three claims indicating the presence of copper being worked.

Three of the Lewis' Ponds mines, from which the most sanguine expectations were indulged, have collapsed.—New Lewis' Ponds, South Lewis' Ponds, and Spicer's. I believe the action in winding up these mines to have been absurdly precipitate. Tom's Company are putting the slag from the first of these through the furnace again, and procuring a payable quantity of silver, &c., &c., and are raising from 45 to 50 tons of rich ore per week, at a comparatively trifling cost. These facts demand some explanation. As regards South Lewis' Ponds, I still maintain that nature has made a great mistake if she do not prove equal in richness to either of her neighbours. The lodes may lie deep; but they are there. The strange anomalies in connection with the management of some of our mines do a deal of injury to mining enterprise. No satisfactory reason has been given why New Lewis' Ponds should have erected a second smelting furnace, and almost immediately after it was completed to discover that the ores were too poor to pay for working; nor are the knowing ones satisfied that there was a necessity for Spicer's to succumb.

The following received aid from the prospecting vote:—

1. Hidden Treasure, at Bulga, ceased working months ago.
2. Lucas' Gully Gold-mining Company, near Ophir, finished vote; no success.
3. Ashby and Party, near Ophir, not worked for some time, but I hear are going to commence again shortly.
4. Murry and Party, at Dead Horse Gully, have not been working for some time, through too much water; intend commencing when water subsides.
5. Quinn has left the Blackfellow's Reef.
6. Payne and Party are working at Lewis' Ponds, or Kelly's Gully.

Mr. Murphy is in a better position to supply figures than I am, and he has promised to give you a few bearing upon our mining industry in this District.

I should have stated that Tom's Mine looks well. The shareholders and general public have implicit confidence in Mr. Hibbard the manager. If the company be strong enough, I should like to see them add the South Lewis' Ponds and Spicer's to their present holding.

BATHURST DISTRICT.—Carcoar Division.

(N. Connolly, Warden.)

I have the honor to forward my report for the past year of the Carcoar portion of the Bathurst Mining Division in my charge.

The valuable cobalt lodes discovered some two years since on private property, close to the town of Carcoar, remain as yet unworked; but there is some prospect that during the current year a company will be formed to develop them and bring them under further public notice.

The Confidence Mine at King's Plains is, I am glad to say, again at work under a new proprietary, with every promise of yielding a fair return to the shareholders.

Flanagan's Gully still maintains its reputation as a field on which rich patches are occasionally struck, but no work of importance is being prosecuted with the exception of Watson and Party's lease, on which sinking is being continued at a considerable depth, in hopes of striking some of the rich leaders believed to exist in the locality.

Brown's Creek Mine is also again at work in the hands of a new company, which started work towards the close of the year. The yield of gold from the trial crushings gives evidence, I am informed, that this mine, under careful and intelligent supervision, will shortly resume its position as the premier gold lease of the district.

At Gold Hill, which, as well as Brown's Creek, is situate, on Church and School Estates, work has been carried on during the past year with fair results; but as the gold from this locality is taken by private hands to Orange, there is much difficulty in ascertaining the exact measure of success attending operations.

Scarcely any work has been done at the "Mandurama Gold Trust Mine" (previously known as the "Old Junction") since my last report, with the exception of placing a large amount of machinery on the ground, whether of a character to deal efficiently with the very fine gold the mine produces it is impossible to say until active operations are resumed, but it is expected that work will be started once more shortly after the holidays.

At Galley Swamp the Homeward Bound has been worked continuously. The results, as the mine deepens, are reported to be improving.

Raine's Gold-mining Company, on the same field, has also continued work with fair results so far as the water level—about 60 feet; but no attempt has been made to provide pumping machinery to test the ground at a lower depth.

Some of the old miners of the field have lately obtained from ground formerly part of Rowe and Company's leases, some very satisfactory yields at a comparatively shallow depth, but there is a want of systematic and resolute enterprise at the Galley Swamp Gold-field, which retards very much its progress, notwithstanding the success that has attended work in times past here with the most primitive appliances for crushing the stone.

At "The Needles," on the north bank of the Belabula, and the other leases taken up in the neighbourhood, work is virtually suspended, through the want of proper shoots to carry the wash to the river for sluicing, nor does there seem to be any prospect of this want being supplied by the parties interested. Although several mineral leases have been applied for during the year, no report of work on any of them has reached me.

The escort returns of the past year show that 888 oz. 16 dwt. 7 grs. have been forwarded, which is a poor result compared with the returns of former years, and affords a striking proof of the decadence of gold-mining in this District owing to various causes, but principally to the absence of capital on the fields and legitimate mining enterprise.

The judicious arrangement now being carried out by the Department in reference to the notification of intended forfeitures of unworked leases, and in various ways connected with mining matters, will, I think, have a most beneficial effect in showing to holders of leases for speculative purposes, without any intention of doing solid work, that they can no longer calculate upon doing so with impunity.

BATHURST DISTRICT—Mitchell Division.

(T. G. Wright, Mining Registrar.)

Things in general have been in a flourishing state at the Sunny Corner Mine during the past twelve months under the management of Mr. Tremenack. The old plant, being completely worn out, was taken down, and a new plant erected, which is a great improvement on the old one, especially for the men employed at the furnaces. The ore raised from this mine during the year was 42,253 tons 3 qr., valued at £112,792 17s. 3d., of which 27,653 tons 3 qr. have been smelted, yielding 1,489 tons 5 cwt. of argentiferous matte, valued at £72,642 17s. 3d., leaving 14,600 tons of calcined ore still at grass, valued at £40,150. The number of men employed in and out of the mine are 300. The value of the smelting plant is £10,322 12s. 8d.

The Silver King Mine had a fairly good run until April last. The quantity of ore raised up to that date was 3,646 tons 2 cwt., producing 181 tons 15 cwt. of argentiferous copper matte, valued at £10,128 4s. 10d. The number of men employed to that date was 160, but at the end of the year was only 9. The value of the plant would be £6,000. The lode appears to have cut out, but prospecting is still being carried on.

The Phœnix that was, has fell into the hands of Mr. Lewis Loyd, who is having the ore carted to Lithgow and treated for copper; 900 tons of ore have been raised and sent away, the value of which was £2,250. The number of miners employed are 21, and the value of the plant is £5,000.

Cook and party's claim at Dark Corner, which is better known as the Paddy Lacky, is still at work with fairly good results. The shaft is now about 350 feet deep, with a reef 3 feet 6 inches wide. They have raised 380 tons of quartz during the year, producing 277 oz. of gold, valued at £969 10s. There are 14 men employed, and the value of the plant is £1,430.

In the St. George, at Dark Corner, a lot of work has been done in prospecting, but with no good results. At the present time there is only 1 man employed looking after the place. The value of plant is about £2,000.

At the Badger Brush, Parnell and party, through aid from the Prospecting Vote, have sunk a shaft to a depth of 100 feet, which goes through a large body of mineral.

At the Racecourse Paddock, Bulkeley and M'Donald, by the same aid, have sunk two shafts and driven tunnels, but with no good results as yet.

At the Silver Hill, by the same aid, the Silver Hill Mining Company have driven a tunnel 190 feet, passing through hard flinty rock, intersected with mineralized veins throughout.

Clark and party, at Dark Corner, by the same aid, have sunk a shaft to a depth of 75 feet, but up to the present have not struck anything good. During the year there were 7 applications for gold-mining leases, containing an area of 83 acres, and 19 applications for mineral leases, containing an area of 525 acres. During the year I issued 220 miners' rights and 103 business licenses, and 19 mineral licenses. The amount of gold bought by the local banks during the year was 518 oz., the value of gold being £3 10s. per oz. The total value of plant, smelting and crushing, in this district, is £25,852 12s. 8d.

BATHURST DISTRICT—Orange Division.

Stephen Murphy, Mining Registrar.

I have the honour to submit my report for the year 1890.

My collections during that period have been as follows :—

	£	s.	d.
245 miners' rights	108	15	0
10 business licenses	5	10	0
7 mineral licenses	7	0	0
Gold-mining leases	92	0	0
Mineral leases	32	15	0
Fees under Mining Act	0	7	6
Deed fees and stamp duty	17	5	0
Revenue proper	£263	12	6
Survey fees, &c.	28	0	0
	£291	12	6

It will be seen that the receipts for 1890 fall considerably below those of the previous year, though in the item of gold-mining leases there is an increase of £10. During the past year the applications to lease lodged with me were as follows :—Gold-mining, 12 for an area of 91 acres 23 perches; mineral, 4 for an area of 131 acres, not including reapplications for the same portions. The land applied for is situate at Ophir, Summer Hill Creek, Lewis Ponds, and Forest Reefs.

Lewis Ponds.

The New Lewis Ponds Gold and Silver-mining Company (Limited) ceased operations, and the mine with valuable plant was, in July last, disposed of to the Toms Lewis Ponds Silver and Gold-mining Company (Limited).

The success of this field appears now to depend entirely upon the energy and perseverance of those charged with the management of the Toms Mine. Mr. James Hebbard, manager, has kindly furnished me with a sketch of the past years operations, from which I gather the following :—At No. 1 shaft on the main lode the number of feet driven was 816, including cross cuts. On this lode a main shaft 10 feet by 4 feet was started at the beginning of the year, and continued to a depth of 211 feet. On the Torpy lode the south drive was extended 80 feet, and a trial shaft and cross cuts aggregated a further distance of 101 feet. The work of prospecting the ground appears to have been carried out thoroughly up to about May last, and was accomplished by means of the product of the ore raised, and smelted in a furnace leased from the New Lewis Ponds Gold and Silver-mining Company. The supply of coke ran out, and the roads were in such a terrible condition that teams could not travel except at a very high rate of carriage. The furnace was closed for a time, and the funds for opening out and developing were, in consequence, not forthcoming. This was greatly to be regretted, because it seemed as if this part of the country, under the vigorous policy adopted, would at last receive the thorough prospecting

prospecting to which, by its general geological features, it appeared to be entitled. The precious metals have been won in sufficient quantity to justify the spending of capital in exploring the mine to a great depth. Mr. Hebbard gives as his opinion, after considerable experience at Broken Hill, &c., that there is a great future before this mine, and that lodes possessing similar characteristics have invariably increased in value with depth. It is hoped that the Roads Department will take prompt and energetic steps to put the roads into thorough repair so that coke and other material, bullion, &c., can be conveyed to and from the mine at all seasons. In July last the mine, plant, &c., of the New Lewis Ponds Company passed into the hands of the Toms Company, and in September, coke being available, a start was made with the furnaces, and a successful run terminated on 19th December last. The results have been such as to induce the Directors to push on with renewed vigour the prospecting of the mine during the present year. It may be mentioned that a considerable quantity of ore of good value is being raised from the old New Lewis Ponds workings and smelted. The old slag is found to be an excellent flux, besides containing a percentage of both gold and silver. The metallurgist, Mr. Bowen, has found that he can save considerable expense in smelting by using a larger proportion of charcoal in lieu of coke. There are 185 men employed, and the total value of the plant is £15,000. During 1890 the quantity of ore raised was 8,116 tons, producing 1,272 oz. gold, 104,727 oz. silver, and 110 tons lead smelted, and the ore at grass is valued at £5,304; total value of products, £32,218.

Ophir.

Most of the gold leases taken up during the year are in the neighbourhood of this old field. I trust that this movement indicates a revival which is badly required. Mr. George Slater now has a number of leases in his own hands, together with the crushing plant formerly the property of the Bluff Gold Mining Company, and states that he is commencing work at once. I hope that his perseverance and enterprise will be richly rewarded.

Forest Reefs.

The Grand Junction Gold Mining Company (no liability) has been making every effort to find the deep lead at this old field, but, unfortunately, up to the present, without success. The work consists of a main shaft 9 feet by 3½ feet, timbered where required, but the most of it is hard basalt. The drive to the west at 245-feet level is 160 feet, with two crosscuts running north and south, measuring 55 feet. At the 210-feet level there is a second drive to the west of 60 feet, with a monkey shaft from that drive 15 feet deep. At the 250-feet level they have now put in a drive to the east, which is 150 feet long. The ground is very wet, and the pump is worked by a 12 horse-power engine; there is also a horse-whim to raise mullock, &c. The members of this company have expended a large sum of money, and have been materially aided by the Prospecting Vote. I hope that their long-continued efforts may be amply rewarded. On the Church and School Lands in this neighbourhood, Ovington and others have gone down about 90 feet, and have struck two runs of gold-bearing wash. The second run, that at the depth of 90 feet, is said to return 5 or 6 dwt. to the ton. Work has been commenced upon a lease of 25 acres, taken up by Mr. Edmond O'Shea, but the shaft is only some 12 feet deep at present.

Cadia.

The Scottish Australian Mining Company has, during the year, raised 300 tons of copper ore, assayed to contain 13 per cent. copper, and from the alluvial has won 5¼ oz. gold, value £18. Number of men employed, 15, and value of plant, £500.

Byng.

Operations are still being carried on in this locality, principally on Dr. Codrington's property, known as the Carangara Estate, but nothing special has yet transpired

General.

The total value of machinery in this division is estimated at about 42,000, and the number of miners employed about 530.

The managers of the local banks have kindly supplied me with the particulars of gold purchased by them during 1890, the total being 1,427 oz., valued at £5,136. No doubt some gold, in excess of the above, is forwarded direct to Sydney. It will be noticed that the quantity purchased locally last year is very much under that for 1889.

BATHURST DISTRICT—Blayney Division.

(W. Roche, Mining Registrar.)

I have the honor to forward my annual report for the past year, and regret to say that very little has been done with regard to mining in this district.

The Brown's Creek Gold Mine was purchased by the present company in the early part of last year, and they at once set to work to renovate the old machinery, pump out the water in the mine, and put the whole concern in working order, then, after much trouble from the unsuitability of the old machinery, which was in a very bad state, this was partially accomplished, the mine being freed from water and 15 head of stampers out of the 30 started going. The lode is 50 feet wide, the last 500 tons crushed going 10 dwts. per ton, which being from the No. 1 block proves that the stone is very much richer at this level than in those already stoped. There are 45 feet to stope and 330 feet along the line of lode already driven from which point there have been 640 feet of ground worked at the 150 feet level which ground improves in value per ton all the way. The Company will start the new year with a plant capable of treating 600 tons per week; and with many years payable dirt in sight, no doubt this is one of the best mines in the Colony if properly managed.

The

The North Confidence Gold-mining Company, at Kings Plains, has been idle until within the last month. A party of 15 men took it on tribute; it has taken them some time to put the ground and machinery in working order; they had one week's crushing, which turned out 43 oz. of gold. The lode is 30 feet wide at the 150 foot level; the average yield per ton is 3½ dwt. This lease should pay well as the dirt is very easily obtained. The great drawback to this mine in the past has been the want of sufficient water, but now they have a sufficient supply to last them fully eighteen months.

The prospecting claim in Hancock's paddock, and known as the "Last Chance," has been idle for some time owing to the water getting the best of them. The owners are again going to give it another trial, and intend putting machinery on the ground to keep the water down.

During the year I have issued 70 miners rights, 3 mineral licenses, and 2 business licenses, 3 gold-mining leases, and 1 mineral lease.

BATHURST DISTRICT—Mount M'Donald Division.

(G. A. Gunning, Mining Registrar.)

I have the honor to submit my report for year ending 31st December, 1890, and regret the year's operations have not been as successful as I predicted in my last annual report. This in a measure is due to the fact that no work has been done on the Eureka Blocks, Oliver's Freehold, and Queen of the Mount, if I except a month's labour in December upon the last-named property, which was confined to putting the shafts in working order preparatory to proper working after the holidays.

The total output of gold for the year ending 31st December, 1890, is 891 oz. 12 dwt. 13 gr., valued at £3,249 13s. 5d., being 78 oz. 16 dwt. 13 gr. from alluviums, and 812 oz. 16 dwt. from quartz; and although the output is not as large as I anticipated, it shows an increase of 107 oz. 19 dwt. 20 gr. upon the year for 1889.

Following are the principal crushings for the year:—

	Tons.	oz.	dwt.	gr.
Mullins and party	23	39	16	0
Caledonian	147	41	14	12
Woolston and O'Hara	190	111	0	0
Billy's Look-out	47	38	0	0
Franklin and party	270	259	6	12
Mount Macdonald Gold-mining Syndicate	96½	128	19	0
	773	618	16	0
Balmoral	...	166	0	0
Bobby Burns	...	28	0	0
		812	16	0

By the foregoing it will be seen that the average yield has not quite reached an ounce to the ton.

The Balmoral Gold-mining Company of Hong Kong has only produced 166 oz. of gold for the year, which on first view would lead one to think was most unsatisfactory; but the fact is, the Company has been engaged throughout the year in putting the mine in good working order, which necessitated large quantity of dead labour which otherwise would have been used in breaking and raising stone; also the crushing plant was not sufficiently advanced towards completion to allow of crushing until December. This Company have now one of the best crushing plants in the Western District of the Colony, which comprises a 20-head stamper battery driven by a 43-horse power engine, rock-breaker, two percussion tables, frue vanners, and Watson and Denny's pans. The battery is situated in the gully, about 250 yards from the mouth of the tunnel, and the quartz is conveyed from the mine to the battery by means of trucks along a tram-line. At the mouth of the tunnel a complete air-compressing plant has been erected by which the rock-drills are worked, and also the air-winch which is placed some distance in the tunnel.

I am informed that it is the intention of the Company to keep six drills going, and as one drill can do as much work in an hour as two men with the hammer and drill could do in a shift, I cannot see how the Company can do otherwise than pay.

This property has been self-supporting for the last eight years, when it had not the advantage of crushing and drilling machinery; so I think it is only reasonable to expect good returns from this mine during the coming year.

Caledonian Company.—I regret to state that this property has not come up to expectation. 147 tons of quartz crushed only yielded 41 oz. 14 dwt. 12 gr., valued at £150. Consequently, operations have been suspended.

In this lease the vein averages from 10 inches to 4 feet in width, with a dip of one in 5 feet, the bearing due north and south. Depth of deepest level is 120 feet. The last miners working in this lease inform me that there are tons of stone good enough for 7 dwt. per ton in sight, but, owing to the cost of breaking by hand drill will not pay.

I think it is a pity the proprietors cannot see their way to place rock drills in this mine, as they have a good ten-head stamper battery on the ground, which, if kept running on even 7 dwt. stone, must more than pay expenses.

Woolstone & O'Hara, north, and adjoining the Caledonian Company's property, have crushed 190 tons during the year for a yield of 111 oz., and as only 2 men have been employed, viz., the two shareholders, this result may be considered satisfactory. They are at present working at a depth of 35 feet on a north and south reef, the width of the vein being 1 foot, and dipping west.

Mullins and Fifield.—This lease was formerly known as the Block Claim, and in days gone by gave some very handsome returns. The present owners have crushed during the year only 23 tons for 39 oz. 16 dwt., valued at £132 12s., but the reef being small, viz., 6 inches, they were compelled to cease work. They subsequently applied for and obtained a grant from the Prospecting Vote, but after sinking a few feet, were again compelled to suspend operations, owing to striking water. The depth of present shaft is 50 feet. This lease is still idle.

Billy's Look-out.—This lease was formerly worked by a miner named Woodward, who, failing to work it to advantage, abandoned it. The present proprietors have crushed 47 tons for 38 oz.; and as this stone was taken out from the surface to a depth of 30 feet, paid them very well. They are now down 30 feet on an east and west vein, 10 inches wide, with an underlay of 1 in 10. There are 4 men employed on this lease.

Franklin

Franklin and party (formerly Grant's Amalgamated), one of the oldest claims on the field, has been the most successfully worked during this year; 270 tons, the result of eight men's labour, yielded 259 oz. 6 dwt. 12 gr., value £972 9s. 4d. There are several shafts on this lease, ranging from 30 to 90 feet, while the deepest level is 140 feet. A number of reefs have been met with in tunnelling, varying from 6 inches to 6 feet. The small veins are very rich in places; some are dipping east and others west. This is a property only requires a little capital to develop it, and I feel sure, with the requisite machinery for treating the poor stone, would prove a valuable mine. There are at present eight men at work.

The Queen of the Mount, south and adjoining Franklin and party, was unworked up to December, when a couple of men were put on to prepare the way for work after the holidays. This lease has only recently been purchased by Mr. Gregory, of Sydney, and that gentleman informs me he intends to try and open out the mine. I feel confident that with care this can be made a payable mine.

The Mount M'Donald Syndicate (Butcher's Reef) have been engaged the greater portion of the year in sinking their main shaft, with the assistance of a grant from the Prospecting Vote. They are now down 310 ft.; the reef averaging 4 in. in width, dipping north. They have crushed 96½ tons during the year for 128 oz. 19 dwt., valued £420. I have been given to understand that this Company are about to place rock drills on the mine; if this is done, no doubt the ground can be then worked to advantage. The Company have a good Huntington Mill, Frue-Vanners, &c., together with a winding machine at the mine, which they value at £3,000.

Several other claims have been working, with assistance from Prospecting Vote, but I regret nothing of importance has been discovered.

The Eureka Blocks have been idle the whole year, but the present owners, I am informed, anticipate the formation of a strong company very shortly for the purpose of working this property. I hope such a company will be formed, as with appliances to deal with the water, and a crushing plant, I am confident it is a very valuable property.

A very little work has been done on the Bobby Burns during the year, the principal being done under assistance from Prospecting Vote. This lease has recently been purchased by the Balmoral Company, of Hong Kong, and as it adjoins that Company's mine, no doubt it will be opened out during the coming year.

I have issued 60 miners' rights, 23 business licenses, 1 mineral license, received 15 applications for gold leases, embracing an area of 55 acres, and 3 applications for mineral leases during the year, which shows a considerable decrease as compared with former years. The total rainfall for the year is 37·21 in.

At Butcher's Flat, on the Abercrombie River, 14 miles distant, a sluicing company have two 25-h.p. horizontal engines, with pair of boilers to match, double-action duplex pump, capable of throwing 40,000 to 60,000 gallons per hour. The Company gave the ground a very fair trial at different parts, but I regret to say, with indifferent results. They then resolved to cut through a rocky bar to reach a higher terrace, in which there is a deep deposit of wash. When this bar is cut through the company expect to resume sluicing, with payable results. Only 30 oz. of gold has been obtained during the year. There are at present six men employed. I am indebted to Mr. Warden's Bailiff Parker for the foregoing particulars.

At Scrubby Rush, near Milburn Creek, prospecting has been carried on with the assistance of aid from the Prospecting Vote, but I regret to say nothing very striking has yet been discovered, although the indications are very promising. Everett and party, who have been prospecting their ground for the last three years, inform me that since commencing work they have sunk their main shaft to a depth of 125 feet and put in several drives at different levels. At a depth of 30 feet they struck a rich reef running north-west by south-east, which, however, soon cut out. Drove in through a sandstone formation intersected by veins of quartz, carrying a little gold. Continued the drive 20 feet when they again struck the reef 2 feet wide. Drove along this a further distance of 10 feet, the reef still continuing, and which they estimate at about 1½-oz. stone.

Resumed sinking, and at 70 feet struck another vein about 2 feet wide, from which they crushed 11 tons for a yield of 22 oz. 5 dwt., being a little over 2 oz. to ton. Drove along the reef for a distance of 10 feet, gold being visible in the stone.

Continued sinking on a little gold, and at a depth of 118 feet struck good stone, which, on being assayed, gave 3 oz. to ton. This stone continued to bottom, where reef still exists. Have put in a drive at this level, a distance of 30 feet, and proved to be about 20 feet, and which they feel confident is of a payable nature if crushing appliances were on the ground. The course of the reef or lode is north and south, and dipping to the east 1 in 2.

They also inform me that they have now between 200 and 300 tons of stone at grass, which they estimate will go 7 dwt. to ton.

30 feet west of this shaft they have another down, 17 feet, from which they crushed 4 tons for an average of 12½ dwt. per ton.

I think it a pity this party have not crushed more of this stone, in order to prove whether it is really a payable claim. Should these reefs prove payable, Scrubby Rush must develop into a prosperous field, as the sinking is so easy as compared with Mount M'Donald.

It will be seen that, although the year's operations have not been so successful as I anticipated in my last report, there has been slight increase on the output of gold, and I think the present prospects of the field as sufficiently encouraging to justify our expectations for a decided improvement during the year 1891.

In conclusion, I desire to place on record my appreciation of valuable assistance afforded me this year by the several mining managers and claim-owners in furnishing me with the information requisite for this my Annual Report.

BATHURST DISTRICT—Cowra North Division.

(*Wm. Cook, Registrar.*)

I have the honor to state that there is very little to report re this division.

Manchester Lease.—Firth and party are still working this ground; they are receiving aid from the Government Prospecting Vote, and have sunk their shaft to a depth of 185 feet; during the year crushed 36½ tons for 27 oz. 5 dwt. 7 gr., valued at £3 16s. 3d. per oz.; 60 tons stone on hand.

McInnes's Freehold.—Situated at Tenandree, crushed 21 tons for a yield of 1 oz. 6 dwt. to the ton; they are now crushing a parcel of 50 tons, which will exceed 1½ oz. per ton.

The above are the only two mines working in this division.

Value of machinery in division, £2,000.

BATHURST DISTRICT—Canowindra Division.

(Wm. Cook, Registrar.)

I have the honor to report that the total yield of gold for this division is 1,480 oz. 2 dwt. 13 gr., of the value of £5,843.

Blue Jacket Reef.—The total output for the year was 707½ tons, which yielded 1,430 oz. 12 dwt. 1 gr. gold, of the value of £3 18s. per oz.; the most of the gold has been obtained at the 300 feet level, from which a crosscut was put in, and a well defined reef 3 feet wide has been discovered equal in richness to the old run. About twelve men are constantly employed in the mine.

Hayes Reef.—Crushed during the year 44 tons 15 cwt. for a yield of 48 oz. 14 dwt. 12 gr. gold. During the year considerable work had to be done to repair the shaft, and a contract has been let to continue the shaft from the 180 feet level a further depth of 50 feet. A party of tributers are working at the 100 feet level where the above gold was obtained.

The Never Sweat.—On the south end of the Blue Jacket is now under suspension of the labour conditions.

Red Jacket.—On the north end of the Blue Jacket are raising stone from the 180 feet level, having driven from the adjoining lease into their ground.

Boyd's Lease.—Is now under suspension of the labour conditions; their shaft has been sunk to a depth of 180 feet, and a drive extended to the southern boundary. Application for amalgamation with the Red Jacket has been made.

It is confidently anticipated that the coming year will be a very prosperous one, as more work will be carried on than usual. During the year 73 miners' rights, 2 mineral, and 1 business license, have been issued.

TAMBAROORA AND TURON DISTRICT—Sofala Division.

(M. Fagan, Mining Registrar.)

I have the honor to forward my report on the mining interest in this division for the year 1890.

The results of mining operations in this division during the year have been on the whole fairly satisfactory. The exceptionally wet weather experienced in the middle portion of the year caused a considerable amount of gold to be obtained by a rough process of ground sluicing, consisting of turning streams of water over or through old alluvial workings or heaps of debris and refuse from puddling machines; the most successful parties were Herriot & M'Lean, Williams & Co., and Bennett Brothers; some of these made as much as £200 per man for six months' work. Owing to the almost total working-out of alluvial deposits, very little alluvial mining is now done, the work now being almost confined to fossicking in the old ground. It is now difficult for many of the older men to make a living, while in the case of the few Chinese left they barely make a living. A few puddling machines are still working, but the gold obtained in most cases is hardly payable.

The chief feature in the year's mining is the tendency to form companies to work the reefs, and it is to be regretted that from various causes, chiefly insufficient capital, most of them have not as yet proved successful. The largest company now working is the Oakey Creek Gold-mining Company, situated on the creek of that name. The reefs were opened about seventeen years since, and gave good returns near the surface up to 3 oz. per ton; they have been worked since in a desultory manner by various parties of working miners, but were abandoned at a depth of about 100 feet.

Last year Ellis and party, with aid of funds from the Prospecting Vote, drove a tunnel into the range about 300 feet and struck a fine solid reef from 3 to 5 feet thick, with well-defined walls running nearly east and west and dipping to the south at an angle of 15 degrees from horizontal; on opening up the ground a reef known as Butcher's was found to intersect the main reef. As a crushing machine was required near the mine to work it successfully a company was formed. They have now the mine opened up, a shoot and tramway constructed, and a 10-head battery in full work. They have crushed 510 tons, which yielded 330 gr. of a superior quality of gold.

The Queenslander Company.—In consequence of this Company having to remove their engine and battery from the site occupied upon the Old Spring Creek Reef to the mine, work was suspended in the beginning of the year. Since the battery has been erected at the mine 365 tons of quartz have been raised and crushed, yielding 65 oz. 18 dwt. 12 gr. of gold. This mine, or rather the quarry, from which the crushing stuff is obtained is a dyke of diorite through which occur a network of numerous quartz veins, some of which are so small that they cannot be detected with the naked eye. The company has a stonebreaker and 10-stamp battery, but as the dyke is very wide and the yield of gold low, it is doubtful if the mine will pay until the crushing power is increased.

The Big Oakey Company, Surface Hill, at the beginning of the year worked a vein at the 200-feet level, but although the vein showed in places very rich patches of mundic it did not prove payable. They then, with aid from the Prospecting Vote, drove their 200-feet levels to the east 291 feet, and to the west 188 feet, but, unfortunately, failed to find any reef. They have now suspended work.

Webb and party, at the Solitary Extended Reef, sunk their engine shaft 260 feet, and drove north and south 50 and 80 feet respectively. The reef at the bottom showed from 1 to 2 feet thick, a large proportion of the vein being massive mundic. The ordinary process of stamping only extracted about 4 dwt. per ton, but assays proved that most of the gold passed away with the mineral, but in the absence of any way of treating the mundic they had to cease working.

The Middle Creek Company early in the year obtained some fair yields from the reefs in their lease, but from financial difficulties had to cease operations.

The Mount Rosette (Dry Creek) Company, with aid from the Prospecting Vote, have driven their tunnel on the reef, north and south, 100 feet respectively, and lately found some fair gold in the south drive, the reef being enclosed in blue slate, heavily charged with pyrites. They started to crush a trial lot of quartz, but had to stop from want of water. The quantity of quartz raised by parties of miners, apart from companies, has been small, and the returns have been in most cases poor. This is owing chiefly to the miners being engaged either working for wages or prospecting the reef at a depth, with Government aid. Grice and party, for example, have sunk a 100 feet on the Benedict Reef, and are now driving with encouraging indications.

During

During the year a new reef was found at Reilly's Gully in a porphyry formation, and three small crushings were raised from it, the best yielding 2 oz. per ton. A few small patches in surface veins have been obtained at Reilly's Creek and Nuggetty Hill in a diorite rock, the best giving 11 oz. to a few dishes.

Razorback Company.—Work has been almost suspended during the year by this Company. One hundred tons of quartz have been raised from the reef on their lease, but have not yet been crushed.

There are nine men working alluvial on new ground, about 1 mile east of the Razorback gold leases; these men are reported to be making good wages. The sinking is from 30 to 35 feet, with 3 feet of wash.

At Diamond Creek, about 15 miles south-east of Sofala, several miners have been working the bed of the creek, some of whom have obtained payable results.

At Palmer's Gully, Box Ridge, and Upper Turon mining operations have been confined to fossicking, with the exception of William Galbraith and party, who have been prospecting the Brittania Reef at Box Ridge, assisted by aid from the Prospecting Vote.

The outlook for the year 1891 may be regarded as promising, as in addition to the companies now working others are preparing to start. It is also probable that the Old Solitary Reef, the most permanent reef in this division, now worked to a depth of 400 feet, will be worked again; and although new winding and crushing machinery would be required, there is a grand prospect of the venture proving remunerative. It is also to be hoped that the liberal aid of the Government to prospecting parties will lead to important discoveries. There are 300 miners employed within this division, viz., 100 quartz miners, 200 alluvial miners; 58 of the latter are Chinese. Three hundred and sixty-seven miners' rights and 19 business licenses have been issued by me; 15 gold-mining leases and 1 mineral lease have been applied for during the year.

The following amount of gold from all sources has been transmitted from this division by gold escort and other means during the year, viz.:—

	oz.	dwt.	gr.
For March quarter	572	15	4
For June quarter	855	11	6
For September quarter	982	11	21
For December quarter	676	16	12
	3,087	14	19
By other means, so far as I can ascertain	746	3	15
	3,833	18	10

	£	s.	d.
Value	14,568	17	11

Return of all machinery in the division herewith attached; estimated value of same, £7,650.

TAMBAROORA AND TURON—Ironbarks Division.

(*J. Shillington, Mining Registrar.*)

I have the honor herewith to submit my annual report for the Ironbarks Division of the Tambaroora and Turon Mining District for the year 1890.

The number of mines in this division, and the yield of gold for the year, shows a decrease from last year, caused principally by the attraction of the new gold-field at Peak Hill.

The Golden Gully Company have let a contract to sink a shaft to test their reef at a depth of 300 feet, which is 100 feet below present workings. This is the only Company which has ever done anything of consequence toward testing the value of a reef at a depth, and even their prospecting has not yet reached a depth of 300 feet. There are several reefs in the division on which prospecting to a depth of 500 or 600 feet might be carried out with fair prospects of success.

The Gold Prospecting Board have granted assistance to three parties to prospect reefs; and also to drive in a basalt capped hill, at Muckerawa, to tap the wash towards the centre of the hill. The work is not yet sufficiently advanced to give any idea of what the result may be.

Some uneasiness exists in mining circles caused by a rumour to the effect that there is a probability of curtailing the area of gold-field by leasing part of it for grazing purposes. The Ironbark Common has a population of about 700 persons, and if the whole area was used for grazing sheep it could not carry any more than about 6,000 head. Auriferous reefs are to be found over the whole extent of Common, many of which will doubtless be worked in the near future.

During the year 51 applications for gold leases, aggregating 388 acres, have been lodged, and 300 miners' rights, 19 business licenses, and 5 mineral licenses have been issued.

Total value of mining plant in the division, £6,374 8s. 10d.

MUDGEE DISTRICT—Mudgee, Gulgong, Windeyer, Hargraves Divisions; and Hill End Division in the Tambaroora and Turon District.

(*William J. E. Wotton, P.M., Warden.*)

I have the honor to submit my annual report for the several divisions under my charge for the year 1890, the statistical and other information from Gulgong, Windeyer, and Hargraves, being sent direct by the different Mining Registrars at those places; and I will confine myself to Mudgee and Hill End, with a full report of the Denison Town silver-field (in the Gulgong division), which is now making a name for itself in the Western District.

The remarks I made with reference to results from the various alluvial mining localities in the vicinity of Mudgee, last year, will apply to the present time, the syndicate mentioned then as having leased Log Paddock, Melrose, and Havilah, to commence alluvial mining on an extensive scale have not yet commenced operations; and it is to be regretted if anything should prevent them starting, as gold is known to exist in payable quantities on these estates, and the presence of capital and large numbers of miners in the vicinity of Mudgee would do much to bring the town back to its former prosperous condition.

Mining

Mining is on the increase in this district, and an incentive has been given to this industry from the fact that Government aid has been distributed in rather a liberal manner through the district; although I am sorry to say in one or two deserving instances which have come to my knowledge, parties considering they were entitled to similar consideration, have found themselves overlooked and have not obtained the coveted aid.

In the Mudgee Division during the year applications have been made for 548 miners' rights, 36 business licenses, 52 mineral licenses, 25 gold leases, and 10 mineral leases.

The banks have purchased during the year 4,412 oz. 21 gr. gold, of course this does not represent anything like the total amount obtained, as large quantities are taken out of the district by miners, and the Chinese storekeepers in the different localities have a large amount coming through their hands.

Hill End.—I have only had charge of this division for a few months, Mr. Steel, formerly Warden at the Hill and latterly at Bathurst, being transferred to another part of the country, departmental arrangements resulted in my having to include it in my district. By the records of the Mining Office at Hill End, and from observation and general information, there is visible a considerable improvement in mining matters here during the past year, principally through Emmett and Hughes, Riley Brothers, and others striking wonderfully rich gold, the former party especially, and have sent large quantities to Sydney, their last crushing being 721 oz., and there seems to be no diminution of the rich vein. C. Suttor, adjoining, also has been finding very good gold; there are also parties on the Golden Gully line of reef who have struck payable gold—Lonsdale and party, and Eldridge and party, and others. The Cornelian (Star of Peace) Gold Mining Co. have lately been getting on good stone, which seems improving, and Mr. Marshall, the manager, is in great hopes of obtaining good results and a return for the large outlay.

Mr. Vere, who is manager for a private syndicate, promises great things; he is working in Rapp's, and Beyer's, and Holterman's old shafts, both well-renowned for the amount of gold taken out of them in the early days; he reports having cut through a belt of veins in Rapp's shaft all carrying payable gold.

I may mention that Riley Brothers have recently erected a battery here for private use, this will make four working batteries in this District.

Several private syndicates have recently been formed for the purpose of thoroughly testing the ground about Hawkins Hill and Hill End generally; and a fair trial is to be given to all parties who are desirous of legitimate mining.

There is no doubt that the celebrated old claims which made Hawkins Hill known all over the world contain plenty of gold, perhaps as much, or more, than was ever taken out of them; but capital is required for properly developing them; but, as rich finds are of daily occurrence at Hill End and population increasing, everything points to the probability that Hill End in the near future will again be a large mining centre and a big population, as it has one of the finest climates in the country.

At the Hill End Mining Registrar's Office for 1890 the following were issued:—329 miners' rights, 10 business licenses, 38 gold-mining leases, and the gold sent to Sydney amounts to 4,100 oz. besides, no doubt, a large amount taken away privately.

Denison Town.—Leaving the gold country I will now endeavour to describe the different mines in this locality, which is now commanding a deal of public attention, experts and capitalists being constantly on the move to and fro. It has now been proved that a mineral belt exists 10 miles in width with four lines of lode, nearly all parallel, the bearing being N.-E. and S.-W. Upon the more eastern line, now called the Dynevor Line, a Company is being formed in Melbourne to work 100 acres on Mr. A. H. Lowe's land with a capital of £75,000. Upon this land assays as high as 300 oz. silver, and over 2 oz. gold per ton have been obtained; and as to the gold, a bulk assay of 1 ton gave over 2 oz. There are several leases and permits upon this line.

One mile and a quarter N.W. is the Mount Stewart Line. This mine has been systematically worked for over three years, is a public Company with £36,000 uncalled capital. Extensive works have been carried on to a depth of 250 feet upon the western branch of the lode. It is believed to be all one lode from slate to slate, some 400 feet and over.

Smelters are about to be erected, and the works present an animated and healthy appearance, coupled with good management, the level shafts and crosscuts showing work of sound practical mining. Upon this line there are some thirty leases. The Grosvenor, adjoining the Mount Stewart, is about resuming work, suspension of labour having been granted some time since. Two miles and three-quarters N.W. of the Stewart Line is the Narangarie Line; a great quantity of leases are upon this line, although but few at work. This line was the pioneer of the field, and no doubt will yet make its way.

There is some talk of the old Narangarie Mine being resuscitated.

The Mountain Wave, which adjoins it, has produced some splendid specimens of gold, and if capital could only be brought to bear, this line would give a large amount of profitable employment.

Five miles further N.W. is the Gladstone Line, now the scene of great excitement. The Mount Gladstone Mine embraces 220 acres, and the ore obtained is a very dense carbonate, containing silver from 100 oz. to 1,095 oz. to the ton, gold from 6 to 9 dwt. to the ton, and about 40 per cent. of lead.

The country has been taken up for over 3 miles in length, and leases for over 1,000 acres applied for.

At present the most prominent are Gladstone, Gladstone North, Gladstone South, Bullenda, Bullenda North, Bullenda South. Assays of the gossan upon the Bullenda have gone from 24 oz. to 75 oz. to the ton, and this from gossan only is remarkably high, and as the outcrop in the Bullenda extends for 30 chains, 2 to 6 feet wide, the mine is held in great favour, and about to be created as a promoter's Company in 400 shares.

It is evident before this year closes that this field will become settled and command attention from the mining community.

I consider therefore from the foregoing, the Divisions under my charge, taking them all round, will compare in their value favourably with any other district in the Colony.

TAMBAROORA AND TURON.—Hill End Division.

(*T. Purcell, Mining Registrar.*)

I beg to report for your information the general state of mining interests in my division during the last year, and am extremely sorry I have not been able to do so at the proper time through pressure of work.

I enclose the various statistical returns also carefully compiled.

I am glad to be able to report that there has been a decided improvement in mining affairs during the year, principally through O'Reilly Brothers striking a very rich vein in Browne's old claim, and Emmett and Hughe's in striking very rich stone in Prince Alfred Hill—the former party took 1,156 oz. 4 dwt. out of their claim during the year and only 3 or 4 men employed on it. Emmett and Hughes only crushed 24 tons of stone, and obtained over 1,018 oz. of gold. There has been also a decided improvement in the Cornelian Co.'s stone from former years. Two parties also on the Golden Gully line of reefs struck payable stone—namely, Lonsdale and party, and Eldridge and party, which altogether has given a great impetus to the field

There has been nothing done at Tambaroora, since the Red Hill closed.

There is some work being done at the Root Hog, but it has not been paying during the year.

The reefs at Dun Dun also are all stopped work with one exception—Mr. Fryer, of Hargraves, who has put a small battery on the ground.

In alluvial, nothing new has been struck, and the old ground is getting poorer yearly. I append here the numbers of miners' rights, business, and mineral licenses, gold-mining leases, and gold forwarded for 1889 and 1890, which shows a great improvement for the latter:—

	1889.		1890.
Miners' rights	309	...	329
Business licenses	17	...	10
Mineral licenses	5	...	0
Gold-mining leases applied for	23	...	38
Gold forwarded to Mint	3,142 oz.	...	4,028 oz.

I may add in conclusion that Vere & Co. have twenty-five men and boys at work on the ground recently obtained from the Cornelian Co., but as yet have struck nothing, having been principally engaged so far in getting the mine in working order.

MUDGEE DISTRICT—Wellington Division.

(*J. Marsh, Warden.*)

Referring to your letter of the 14th October last, I have the honor now to forward the accompanying general reports from the Wardens' clerks at Wellington, in the Mudgee mining district, and Ironbarks, in the Tambaroora and Turon district. Enclosed in these reports are all the detailed returns from the mine holders mentioned.

The returns are very complete and contain all the information which can be furnished. I may, however, refer to the fact that the total amount of gold won during the past year was 4,927 oz. 10 dwt., the value of the same being £18,791 11s. This result, therefore, cannot but be considered as most satisfactory, and in favour of the divisions under my charge. As there have been no fresh developments requiring any special reference to, I beg to submit these reports as fairly representing the state of mining matters in the divisions under my charge for the year 1890.

MUDGEE DISTRICT—Dubbo Division.

(*W. S. Caswell, Warden.*)

I have the honor to make my annual report, being the tenth report since the discovery of gold in the district of Dubbo. My report has been delayed through absence on leave since the end of last year. It is of little consequence, as that portion of the mining district of Dubbo has been so curtailed, I have little information to give.

On the 1st of October, 1890, I was relieved by the Mining Department of Peak Hill and Tomingly Divisions, which were placed in charge of Mr. Warden Slee.

Mining in and about Dubbo is nearly a dead letter. Girilambone Copper-mine is still unworked. There are a few leases taken which I will take an early opportunity of visiting.

There are no developments at the Ballimore Mineral Springs. I enclose an article by Professor Bruck, which may be valuable as an independent opinion. I am not acquainted with the Professor:—

The Mineral Springs of Australia.

Professor Ludwig Bruck in a paper published on the above springs, mentions the Ballimore Spring, on the Talbragar River, as follows:—It is about 18 miles from Dubbo, which is situated 278 miles by rail W. of Sydney, possesses a cold effervescent mineral spring, of an alkaline acidulous character. The water is clear, free from odour, and highly charged with carbonic acid. It has a temperature of 65 degrees F., and contains a small amount of sediment, consisting of silica with a small quantity of organic matter and iron. An analysis (in grains per gallon), by Mr. Mingaye, F.C.S., gave the following results: Bicarbonate of soda, 183·10 gr.; bicarbonate of potash, 12·83 gr.; bicarbonate of lime, 11·38 gr.; bicarbonate of magnesia, 9·36 gr.; chloride of sodium, 6·92 gr.; lithia, 0·05 gr.; iron, 0·07 gr.; silica, 0·28 gr.; with traces of strontium and alumina,—total, 224·62 gr. of mineral matters in one gallon. It also contains 0·003 parts of albuminoid ammonia and 0·052 parts of free ammonia per 100,000 parts; the latter is rather excessive, and probably due to the shale measures through which the water has to percolate. On the whole, this is a good mineral water, and will compare favourably with many of the English and Continental waters, being rich in bicarbonates of soda and potash, and containing lithia. It is not unlike the far-famed cold bicarbonate of soda springs of Vichy, in France, which contains in 16 oz. 37·5 gr. of bicarbonate of soda; 2·7 gr. of bicarbonate of potash; 2·3 gr. of bicarbonate of magnesia; 3·3 gr. of bicarbonate of lime; ·03 gr. of bicarbonate protoxide of iron; 4 gr. of chloride of sodium; 5 gr. of silica; and 14 cubic inches of carbonic acid. This shows that the Ballimore spring contains only half the quantity of those ingredients, excepting iron, in which it is quite as rich as Vichy. The quantity of Vichy water usually drunk is from one to two, or even three pints daily. Gout, gravel, stone in the bladder, catarrh of the bladder, and diabetes, also dispepsia, splenic and hepatic disorders are benefited by water such as that of Ballimore.

Mr. Martin, Warden's Clerk, has, he informs me, sent in his return of licenses and rights issued.

MUDGEE DISTRICT—Peak Hill Division.

(*W. H. J. Slee, F.G.S., Warden.*)

In submitting my annual report for the year 1890, as Warden of the Peak Hill and the Tomingley Goldfield, I do myself the honor to inform you that the discovery of payable gold at Peak Hill was officially reported as having been made on the 3rd July, 1889.

Peak Hill is situated 44 miles south of Dubbo, 34 miles southerly of Narromine, 12 miles south of Tomingley, and 30 miles north of Parkes; the Mingela Waterhole, on the Bogan River, is about 4 miles westerly of Peak Hill. The town has been surveyed and well laid out, with a natural drainage towards the

the River Bogan, which reflect great credit on Mr. Thomas H. Smith, District Surveyor of Dubbo, under whose guidance the plan of the town was drawn and the survey made. The town has now a post and telegraph office, public school, court-house (wherein wardens' and police-courts are regularly held), a police station, a Union Church (for the worship of the different religious sects), 2 banks (Australasian Joint Stock and Union), 7 hotels, 2 large public halls, and numerous stores and other business places to supply the wants of the community. Due to the payable auriferous deposits, the rich agricultural lands, and the geographical situation, the permanency of Peak Hill, as a town, is undoubtedly secured; and what only eighteen months ago was but a mere sheep-walk, is now the centre of an industrious mining population, which, at the end of the year, numbered fully 2,000 souls.

I took charge of this gold-field in the month of August last, previous to which the duties as warden were well and ably performed by Mr. W. S. Caswell, Police Magistrate of Dubbo, who visited Peak Hill fortnightly, and who, during the severe wet season and the consequent quagmire state of the roads between Dubbo and Peak Hill, had to undergo many hardships and privations, and the wonder is he performed his warden's duties so regularly and well. The decision of the Honorable the Minister for Mines in appointing a resident warden here is highly appreciated by this community, as it was well known that however satisfied the inhabitants may have been with Mr. Caswell as their warden, the latter's numerous duties as Police Magistrate hindered him from giving daily attention to the warden's duties at Peak Hill. Subsequent events proved that such daily attention was urgently required. I had not been longer than three weeks on this field when a shaft, 130 feet in depth, was bottomed by Cummins and party in the eastern valley, about ¾ mile from Peak Hill. From the bottom of this shaft 7½ oz. of gold was picked, the smallest piece being about ¼ of a pennyweight, in consequence of which the population rapidly increased from 1,000 to 8,000 or 10,000 souls, and the eastern valley was sunk upon fully 5 miles in a north and south, and ½ mile in an east and west direction, about 250 to 300 shafts going down at the one time, the sinking being from 100 to 150 feet in depth. To cope with the mushroom growth of population, many of whom, being new to a gold-field and ignorant of our mining laws, I gave the community the full benefit of the Mining Act of 1874, by settling all mining disputes promptly on the ground, provided both sides desired such to be done; but such warden's decisions are final. This procedure found great favour with the miners, as it saves time and expense; and I have settled as many as thirty disputes on the ground in one day. Of course, conflicting parties have the option of having their cases heard in Court, and in that case they can appeal; but there is no appeal allowed by law if the case is decided on the ground. So far the miners prefer the latter course.

It was thought that an extensive and rich alluvial lead had been discovered in the eastern valley by Cummins and party, but in this many miners met with dissapointments as only about 5 claims obtained payable gold. Cummins and party washed since bottoming 21 loads of wash yielding 35 oz. 10 dwt. 20 gr. or 1 oz. 13 dwt. 20 gr. per load (the latter is about equal to a ton). This yield is irrespective of 18 oz. 6 dwt. of gold picked out by hand, the largest piece being 2 oz. 17 dwt. 6 gr. The 5 claims who obtained payable gold have now about 1,000 loads at grass; which should average at least 1 oz. of gold per load, which, considering the depths of wash to be from 5 to 6 feet, is rich and will yield a handsome return to shareholders. Depth to bed rock, 130 feet. Instead of tracing the lead in a north and south direction, a run of gold of a highly payable nature has been gradually traced from the Peak into M'Donald's, Teroni's, M'Phail's, and other claims on to Cummins claim, the gold being worked in terraces on the false bottom dipping in a few feet as much as 10 feet, until the gold was traced on to the main or porphyry bottom, that known as the false bottom being a vein principally of oxide of iron and manganese resting on a stiff clay. There are now about twenty payable alluvial claims working east of the Peak, exclusive of the claims mentioned above.

On the western side nothing new has been discovered of late; although some fifty alluvial miners are still obtaining a living by fossicking and reworking the partially worked-out ground. One thing is now proven beyond doubt, that whatever payable alluvial has been so far discovered had its origin from the Peak itself.

A few parties are still at work on the Boulder Lead, east of the Peak, obtaining payable gold, a nugget of pure gold weighing 6 oz. 5 dwt. was discovered lately. Owing to the many dissapointments the population was reduced to about 2,000 by the end of the year, but this might at any moment be increased on the first discovery of new auriferous alluvial deposits, as several parties are prospecting within 5 miles of Peak Hill. Great hopes were entertained in the latter part of November, that a deep lead had been discovered about ¾ miles west of the Peak, in an extensive valley trending north and south. Samuel Houghton and party, assisted out of the Prospecting Vote, bottomed a shaft 185 feet in depth on a soft porphyry rock on the latter of which rested a wash, out of which payable prospects of gold were obtained. The depth being over 150 feet is by the Mining Board Regulation declared to be on the frontage system, but so far I do not consider the discovery payable. Three different parties, fully 1 mile apart of each other, are now prospecting this deep valley. No less than six different parties, assisted out of the Prospecting Vote, are still prospecting for alluvial within a few miles of Peak Hill, and I am in hopes that some of these parties will be successful in the begining of the coming year.

Quartz or Lode Mining.

If such it can be called, has not progressed so satisfactorily as was anticipated, or as it ought to have done. These deposits consist of large masses of country rock (talcose slates) highly auriferous. There are no defined lodes or quartz veins, but the crushing stuff is talcose slate, silica, oxide of iron cinder, and, as stated in my first report in September, 1889, these auriferous deposits very probably derived their origin through the agency and enormous pressure of hot mineral springs. Practical developments daily strenghten this belief and many who formerly opposed my theory now think otherwise and openly express similar views to those expressed by me. The extent and area in which these auriferous talcose slates occur is about ⅜ of a mile north and south, and ½ mile east and west, of which the Peak is the centre, and they are only interrupted here and there by belts of intrusive silicious rocks. The above-mentioned area embraces the following mining properties: The Proprietary Mine (Madden Co.), M'Rea's three corner piece, Mooney and Wythes', The Lost Child, Williams and Robinson's, Gibson's, known as the 3 acres or 56, now a quartz claim, and one or two smaller holdings.

The Proprietary Mine is 120 feet in depth, although it has been opened for twelve months. This company also excavated a cutting in what is termed their dyke, which is 116 feet in length across the auriferous stuff, 22 feet in width, and 22 feet in the deepest part of the incline. Out of this cutting were excavated

excavated about 800 tons of crushing stuff which is likely to average over 10 dwt. per ton. The company have a small 10-stamp battery at the 10-mile ridges, about 5 miles from their mine, at which battery they crushed 486 tons of stuff yielding 413 oz. of gold, valued at £4 per oz. The price of cartage paid from the mine to their crushing plant is 6s. per ton, 5s. of which could at least have been saved had they conserved water and erected a crushing plant close to their mine. Considering the large quantities of crushing stuff this mine ought to pay dividends out of 5 dwt. of gold per ton of stuff. M'Rea and Co. had a crushing of 120 tons, yielding 11 dwt. per ton, which is highly payable. The Lost Child has been in the law courts for months, but have now started to work. Mooney and Wythes' lease not yet granted. Williams and Robinson have been in litigation for months, all work being suspended. Gibson and Co. applied for lease lately refused, have now started to work, holding their area as a quartz claim. This party crushed 72 tons for a yield of 75 oz. of smelted gold. By the above description of affairs it will be seen that, through injudicious management and litigation, the so-called quartz or lode-mining industry has made hardly any progress during the year; in fact, where 500 persons ought to have found payable employment, only 50 persons were employed during the year. Quantities rather than qualities should be looked forward to, as there is little likelihood of any sensational crushing, and the sooner this fact is realised by directors and shareholders the sooner will they work their mines on a judicious and economical system.

Payable shoots of gold may probably be discovered in Gorman's, Warner's, and other leases; but so far I have seen nothing which could be classed as payable, and I favour the opinion that nothing payable will be discovered in the numerous leases within 2 miles of the Peak, with the exception of those areas above enumerated, which occur in the talcose slate formation.

Practical results have also proven that there are no refractory ores down to the greatest depths as yet obtained, and there are even very few pyrites; hence the ordinary crushing plant with gold-saving and amalgamating appliances is all what is required. Chlorination and other expensive gold-extracting appliances, would only become useless and expensive toys.

Amount of gold won during the year at Peak Hill:—Alluvial, 6,380 oz.; quartz, 620 oz.; and 500 oz. from Tomingley, making a total of 7,000 oz. for Peak Hill, and 500 oz. from quartz Tomingley. Numbers of miners employed during the year, 1,500 in alluvial, and 200 in quartz, although 1,799 miners' rights were taken out. Machinery, 14 horse-power crushing plant Proprietary Mine, and a 25 horse-power crushing plant (Bennett's and Co.) in course of erection.

Tomingley.

This is essentially a quartz reefing district. Some of the old formerly abandoned mines have been retaken and worked, the total yield for the year being 500 oz., which also includes the Myall. Number of quartz miners employed, 60. Machinery, 25 horse-power crushing plant, 20 stampers at Myall, and one 10 and one 6 horse-power batteries at Tomingley.

There is a large tract of country, principally granite, between Tomingley and to within 15 miles of Dubbo, well worthy the attention of the energetic and persevering prospector, especially some gullies in the granite formation near the 22-mile post, midway between Peak Hill and Dubbo.

MUDGEE DISTRICT—Peak Hill Division.

(*Andrew Stewart, Mining Registrar.*)

I have the honor to submit the annual mining report for the past year of the Peak Hill and Tomingley Division of the Mudgee District.

Leases.

During the year there have been 83 gold lease applications and 1 application for mineral lease.

Miners Rights, &c.

1,799 miners rights, 117 business licenses, and 11 mineral licenses have been issued during the year.

Gold won.

The accurate amount of gold won, as per return from local banks, since 1st July to 31st December last, is as follows:—Alluvial, 2,747 oz.; quartz, 620 oz.; total, 3,367 oz.

Having been only appointed in June, I am unable to give accurate results for the whole year, but reliable statements establish the fact that a much larger return of gold was obtained the first six months of the year than for the period just mentioned, which clearly proves that at least fully 7,000 oz. of gold have been won from Peak Hill alone, which, with a return of 500 oz. for Myall and Tomingley, make up a total yield for the year of 7,500 oz.

Regarding the future prospects of the gold-field this Warden will fully report.

MUDGEE DISTRICT—Wellington Division.

(*A. G. Chiplin, Mining Registrar.*)

I have the honor to submit my annual report for the year 1890 for the Wellington Division of the Mudgee Mining District.

Since my last report work has commenced at the Mitchell's Creek Freehold Gold Estate, situate some eight miles in a northerly direction from Wellington.

I have been furnished by the General Manager for the Company, Mr. P. Davies, with a return of the work done during the past year upon this valuable property. The quantity of quartz raised was 2,362 tons 3 qr. 10 lb., yielding 1,397 oz. 17 dwt. 9 gr., valued at £4,803 14s. 5d.; pyrites treated, 125 tons 3 cwt. 15 lb., yielding 520 oz. 16 dwt. of gold, valued at £2,083 3s. 11d. The company have erected splendid machinery, the value of the plant being £10,500. Some seventy men are employed at the mine.

At Gunner's Dam and Black Mountain some work has been done in the way of prospecting, assisted by aid from the prospecting vote.

The only other gold-mining being carried on is the work done at various places along the Macquarie and Mudgee Rivers.

At

At the Belara Copper Mines no work has been done during the year, with the exception of carrying the engine shaft to a further depth of 55 feet. No copper was smelted during the year.

The copper leases taken on the Wellington Town Common have all been abandoned.

At the Maryvale Coal Company's property a seam has been struck at a depth of 57 feet, 2 feet 6 inches in width, and widening to 3 feet after driving 30 feet. Another shaft has now been put down, 200 feet further up the hill, to a depth of 120 feet without striking the seam. A small quantity of coal has been raised from the 57-foot shaft.

During the year no leases were applied for. Miners' rights issued, 57; business licenses, 3; and mineral licenses, 4.

The quantity of gold sold in the Division, so far as can be ascertained, was 2,000 oz. from quartz, and 890 oz. from alluviums, valued at £3 15s. per oz. A portion of this has been brought from Ironbarks Division and sold here.

MUDGEE DISTRICT—Hargraves Division.

(*T. O'Brien, Mining Registrar.*)

I HAVE the honor to submit my annual report of mining matters for the year ending 31st December, 1890.

Of the various parties holding leases in this division not one has continued work during the whole year.

The Hargraves Gold-mining Company (Limited), which discontinued work in September, resumed operations in the last week of December. The shaft in connection with this mine has been sunk to a depth of 240 feet, and has been driven 260 feet in an easterly and 62 feet in a westerly direction. From fifteen to twenty men are employed. The machinery, which consists of winding and pumping engines, is valued at £3,000.

The Big Nugget Prospecting Lease has not been worked since the 2nd December, 1888. The machinery attached to this property consists of winding, pumping, and crushing engines, valued at £5,000. 160 tons of quartz, yielding 306 oz. 5 dwt., were crushed for various small holders at the Big Nugget Company's battery during 1890.

M'Gregor's prospecting shaft at Nuggety Gully has been sunk to a depth of 90 feet, and driven above the water level 50 feet. Thirty tons of quartz from this mine yielded 33 oz. of gold. The claim has, however, not been worked since the 20th December, and will probably be abandoned, as the gold won is not sufficient to pay working expenses. Three leases have been taken up on the Homeward Bound line of reef. The quartz obtained from these leases yielded an average of 3 oz. to the ton.

Alluvial mining is now followed by a few old fossickers. During the year I issued 99 miners' rights, 12 business licenses, and received 6 applications for gold-mining leases.

MUDGEE DISTRICT—Gulgong Division.

(*H. De Boos, Mining Registrar.*)

I HAVE the honor to forward herewith my report on the state of the mining industry in the Gulgong Division of the Mudgee Goldfield during the year 1890.

Although no actual improvement has taken place in gold-mining during the past year, there are indications of a probability of a revival within the next few months.

Two English Companies have secured 100 acres each on the "Black Lead," and will no doubt proceed to work as soon as the leases are issued. The machinery at Scully's claim has been purchased by one of the companies to place on the once famous "44." As these two companies start with large capital there is every likelihood of this portion of the "Black Lead" being thoroughly tested.

The Star Lead has been taken up by a local syndicate, who intend to work the ground as soon as the leases (five in number) are executed. There is considerable work being carried on in the immediate neighbourhood of Gulgong on private property.

The Gulgong Alluvial Gold-fields Company (Limited), is the title of the Company now working the paddock known as Rouse's Guntawang Paddock. The Company have a lease of 500 acres, and a capital of £75,000. Two steam engines are at work on the ground, and an iron puddling machine has been erected. An average of fifteen hands are employed on the works.

The Lagoon Paddock Company, also on private property, have an area of over 1,000 acres, and a capital of £10,000. The diamond drill has been at work on this property since September last, but no wash has yet been found. There are five men employed by this Company, exclusive of the hands working the diamond drill. The lessee, promoter, and general manager of these two Companies is Mr. Frame Fletcher, of London.

At Canadian, Home Rule, and Cooyal, there are a few parties at work, who seem to be doing fairly well.

At Two-mile Flat several claims are being worked, and, as the ground is shallow and water abundant, fair wages are being earned by the miners employed there.

On the old Gulgong Reef, at Wilson and party's Extended Claim, now in the hands of a Melbourne syndicate, work is being carried on in a systematic manner, and the few trial crushings have been very promising. The work on this claim has been retarded by the unusually wet weather of the past season.

The antimony works at Ford's Creek have stopped, and on my last visit to the claim I found that the camp had been removed and the ground apparently abandoned.

The silver-mining at Denisontown and Bulinda has been almost at a standstill during the last twelve months. With the exception of the Mount Stewart Mine, where work has been carried on without interruption since my last report, very little has been done in the silver country. The Mount Gladstone Mine has, I believe, been floated into a company with a large capital.

During the past year 174 miners' rights, 30 mineral licenses, and 12 business licenses have been issued from this office, and 30 applications for leases, namely, 8 mineral lease applications, and 22 gold lease applications have been received. The amount of gold purchased by the bank during the same period is about 1,458 oz., valued at £5,541.

LACHLAN

LACHLAN DISTRICT—Forbes, Parkes, Molong, Grenfell, Tichborne, Cudal, Canowindra, Cargo, and Condobolin Divisions.

(E. A. L. Sharpe, Warden.)

I have the honor to submit for the information of the Hon. the Minister for Mines, my annual report on the mining district under my charge.

I regret to have to state that in the Forbes Division mining is not progressing as favourably as I anticipated in my last report, and several claims and mining properties have been abandoned which I had hoped would have proved payable. I refer to the Britannia Mine, Mathieson's, and the Bald Hills. From this last locality the washings were for a time payable, but recently the shareholders have deemed it advisable to cease work and remove their machinery, including the auger drill which was lent them by the Department, and which has been returned to Sydney. On the Britannia reef work has been suspended; a great deal of capital was invested in the mine—I believe about £12,000—both improving the mine and in erecting machinery. Patrick Connel and party are working under a permit on what is known as the "Rise and Shine" lode or reef on the North Hill, in Forbes. Work is being carried on vigorously. A main shaft is down 100 feet, and it will not be long before the value of the property is determined.

The present prospectors inform me that very rich specimens were obtained from this lode when the first rush took place at Forbes, and they are hopeful that they will be able to obtain very good returns. They have a good deal of water to contend against, but think they will be able to overcome the difficulty.

On the Union Lead, at the north-east of the town, there is one claim at work by Lynch and party. They have been working off and on for some years. At the present time they are preparing to bale out the shaft and resume work at a depth of 80 feet.

At Parkes, which is the principal mining centre of this mining district, I am glad to be able to state mining is in a flourishing state. A great many claims are payable, and likely to yield payable returns for a long time to come. The place abounds in reefs, and there are now two large crushing plants erected in the town, so that stone can be crushed at a reasonable rate, and as quickly as the owners of quartz claims could desire. The newest appliances for saving gold are attached, and the complaint so common about quartz batteries, that gold is lost, cannot reasonably be made—as far as the batteries at Parkes are concerned. I have for years past had to refer to one claim, known as Hazelhurst's, as being very rich, and producing large quantities of payable stone.

This claim, which was originally of small area, has been floated into a Company, known as "Hazelhurst's Proprietary Company." The property has been enlarged and consists of about 4 acres.

The claim was purchased from the original owner, Mr. Hazelhurst, for £20,000—£10,000 in cash, and £10,000 to be paid from the claim.

The first crushing after the sale, from 200 tons, realised 844 oz.. or over £3,000. At the present time there is about 1,600 tons at grass, which it is estimated will yield as much per ton (that is, over 4 oz) as the last crushing did.

The mine is in good order, having a main shaft 310 feet deep, with a reef at the bottom 5 feet wide. At a depth of 200 feet the reef was only 8 inches wide, so that there is every probability of the mine proving as rich in the future as it was in the hands of its first owner, Mr. Hazelhurst. For 70 feet from the main shaft, going south-east, there is about 50 feet of stopes, which will average a width of 4 feet, and the stone shows very good gold. The Company have every confidence in the durability of their property, and have shown this by erecting a 20-stamp battery with every recent appliance for saving gold. Connected with the battery are four of Alley's percussion tables, which are used in most large crushing plants in Victoria, and are considered to be the best means of saving floured amalgam and pyrites. There are also attached to the battery two Arastra pans for grinding. The concentrates thus obtained will be stored in casks, and either treated on the ground, or, if this is not a success, sent away for better treatment. The plant is very simple, and is so soundly constructed as to reflect great credit on the person who had charge of the construction.

I am informed that the Company will crush for the public at a reasonable rate, and quartz-miners are to be congratulated on having such a splendid plant so conveniently situated for the treatment of any stone raised in the neighbourhood of Parkes, and I have no doubt it will be the means of causing many reefs to be worked at a profit which otherwise would have remained untouched.

Thirty men are employed on the mine. The reef is in diorite walls, and the manager informs me that the gold is in the rock, which contains a good deal of iron pyrites.

Another lease, I may mention, is that known as the Gladstone Gold-mining Company.

The legal manager informs me the operations during the past year have been to sink from the 145-level to the 195-level, carrying down a stope 25 feet in width, from which 100 tons of stone was obtained, which yielded 248 oz. of gold. From the 195-foot level in the shaft, drives north and south have been driven a distance of 162 feet, exposing a reef averaging about 2 feet in width, from which, and the overhead stope, about 200 loads have been raised, now awaiting crushing.

A dividend of 15 per cent. was declared for the first six months working of the Company.

In the Parkes Deep Sinking Prospecting Co's. Mine a main shaft has been sunk (9 feet by 3 feet, inside timbers) 204 feet. In sinking this shaft two reefs were cut, one at 140 feet from surface, and one at 170 feet. At the 174-foot level a drive westerly has been started, which, at a distance of 38 feet from the main shaft, cut a third reef. Two of these reefs show a little gold, but no work has as yet been done on them.

Alicktown.

At Alicktown I am very pleased to be able to state that mining is progressing very favourably. In my last report I stated that in my opinion a good many claims would yield good wages and many satisfactory returns, although not up to the ordinary rate of wages. This has been proved to be the case at Alicktown, and there is every reason to suppose that the field will give remunerative employment to a large number of miners for some years to come. The ground is, as a rule, shallow, dry, and easily worked, and the auriferous ground extends for a considerable distance. The leads appear to run into conditional leases north-west of the town, and probably a good many payable claims will be discovered in the land known as Watts' and Wescott's paddocks. Altogether about 226 permits have been applied for in the

purchased

purchased and conditionally leased land near Alicktown; and although many of the claims have been, and will be, abandoned, a large number of miners will, I think, continue to work in this locality for years to come. I have, as nearly as possible, ascertained the quantity of gold won at Alicktown during the past year, viz., 5,574 oz. This is taken from the puddlers' returns, and represents 11,149 loads, estimated to yield ½ an oz. to the load, on an average. A small township has been formed, and at the present time the population cannot be less than 500. There are two hotels doing a good business, and several stores. Steady prospecting is being carried on, and, as I have already stated, successfully. The land is very rich, and the country favourable to settlement, and I have no doubt a good many miners will make comfortable homes in and about Alicktown. I may add that four reefs have recently been discovered close to the town, and the stone looks very promising. The reefs are large and easily worked, and probably a battery will shortly be erected.

Cudal.

In the Cudal Division a good deal of work is being done at Boney's Rocks, where four claims are at work. In the London claim, concerning which there has been in the past a great deal of litigation, six men are employed. A shaft has been sunk 240 feet. The reef averages 10 in. in width, and shows gold freely. About 40 tons of stone was crushed from this reef at Canowindra during the past year, and gave about 3 oz. per ton. The party have, I am informed, 50 tons at grass, which it is expected will give very good results.

Mylecharane and Donovan, who own this claim, intend to erect a battery at Boney's Rocks, and if they do, and crush for the public at a reasonable rate, no doubt a great many leases and claims now idle will be worked. The ground in this locality is very hard and expensive to work, and it will not pay to incur the expense of carting the stone to the nearest battery, 12 miles distant.

On a reef known as "The American," a party are working, and have been at work for upwards of two years. The party have been doing a lot of dead work, and have about 5 or 6 tons at grass. Adjoining the London claim, on the north, two leases are amalgamated, and contain 6 acres belonging to Messrs. Evans and Stephens. A shaft has been sunk 80 feet, and the reef at this depth is 6 in. wide.

On Shield and party's claim, the main shaft is down 150 feet. This party have Government aid, and have 20 tons at grass, which they estimate will yield 1 oz. per ton.

Adjoining Shield and party, on the north side, O'Brien and party have a lease, on which they have sunk two shafts, one 60 feet deep and the other 125 feet.

Nine tons of stone was treated at the Clyde Chlorination Works in the early part of the year, and gave 18 oz. of gold. The vein is only from 4 to 6 in. in width.

At the Paling Yards, 8 miles south-east of Cudal, Messrs. Courts and party are working under a permit on what is known as Kearney's conditional lease. They have a claim of 8 acres, 220 yards long and 176 yards wide, and are working a large soft lode from 6 feet to 2 ft. 6 in. wide, and this lode, which can be worked very easily, has been traced for a considerable distance. Courts and party have had a good deal of difficulty in getting a title to their ground, which they have been holding for upwards of four years, and during that time have crushed 295 tons, the value of which was £341 2s. The yield per ton was from 6 to 8 dwt. This party have erected a small battery on the Paling Yards Creek, and are now putting through about 50 tons of lode stuff. I think this lode stuff will prove payable, and afford employment to a large number of men, but a large plant is required for the proper treatment of the lode stuff. This lode is well worthy the attention of capitalists. Courts and party have sunk three shafts on the lode, 25, 40, and 60 feet deep respectively. They have also driven about 60 feet; but only the 60-foot shaft is timbered, and that very roughly. This party have had much to contend against, but I am informed that they have now arranged for an efficient party of men to work the mine. If the lode, which runs north and south, can be discovered near the creek, a tunnel could be put in the hill, and the stuff taken out very cheaply, and worked on a face. I noticed old workings from end to end of the conditional lease. If Courts and party are successful with their mine, and further discoveries are made, probably the lease will be cancelled, when I have no doubt miners will be glad to prospect it thoroughly. I am of opinion that this lode will require capital to make it payable, as it will need extensive machinery, and there may be difficulties in treating the lode-stuff, which is of a very clayey nature, and difficult to put through the battery quickly. This locality is certainly auriferous, and should have remained a restricted gold-field. Gold was discovered on it long before it was selected; and it is not suitable for pastoral purposes except in a very favourable season, and even then I should think its capacity for carrying stock small.

Cargo.

In this division the principal mines are the "Ironclad," the "Dalcouth," and "Golden Clad." The Ironclad Co. hold 24 acres under leases amalgamated, and employ 28 men. During the past year their main shaft has been sunk 150 feet, making a total depth of 320-feet. Besides this, at the 200-feet level a cross-cut has been put in 30 feet, and at the 300-feet level one 20 feet.

The Ironclad lode is from 3 to 4 feet wide, and is made up of small veins of pyrites and quartz. The yields from the pyrites is from 2¾ oz. to 3 oz. per ton. The balance of the stone is put through the battery in the ordinary way after the pyrites is picked out, and yields from 1 to 3 dwt. of gold with 10 per cent. of concentrates, which averages 3 oz. per ton. During the past year 500 or 600 tons of ore have been treated. Some fresh machinery has been added to the Ironclad Co.'s plant, viz., the Kroms Rolls, which is an improved method of dry-crushing, reducing as fine as crushed coffee, and rather more than a ton in quantity per hour. A new pair of winding engines have also been added. It is to be hoped that this mine will prove payable, as capital has not been spared to make it so.

Another mine worthy of mention in this division is what is known as the Dalcouth. This mine comprises 5 acres, and has been at work for the last three years. The late Mr. Jas. Power sent 6 tons of the ore to the Clyde Works—not picked stone—and got 2 oz. 7 dwt. per ton free gold, and 2 oz. from the pyrites tailings. There is a good deal of pyrites in the stone. The reef varies from 4 feet to 2 inches in width. One shaft has been sunk on this mine 170 feet, and another 96 feet. There is a drive 50 feet east in the 170-feet shaft, and in the 96-feet shaft the reef has been stoped out 30 feet each side of the shaft to within 20 feet of the surface. 150 to 200 tons of stone has been raised, and is awaiting the erection of machinery at Cargo. Another mine is at work on this line of reef, and 6 tons of ore has, I am informed, just been sent away to be tried at the Clyde Smelting Works.

On the Golden Clad, a mine about 1 mile due west from Cargo, 28 acres are held under lease by the Golden Clad Co. This mine has been working for about two years, and a great deal of money has been expended on it. About 1,400 to 1,500 tons of stone is at grass, and will shortly be crushed. Some stone from this mine, treated at the Clyde Works, gave 1 oz. 6 dwt. per ton and 18 dwt., an average of 1 oz. per ton. The main reef is very large, being 9 feet wide. Other reefs in the same ground are 2 and 3 feet wide respectively. The Company are not working at present, having ordered machinery from England suitable for treating what must be considered refractory ores.

This is considered, and probably is, a very valuable property, and should, with economical and careful management, prove a very remunerative investment. It is proposed to erect a public crushing battery at Cargo, and I am informed the arrangements are nearly completed; and when this is an accomplished fact, doubtless many reefs now lying idle will be worked and prove remunerative.

Canowindra.

At Canowindra the principal mine is that known as the "Blue Jacket," and belongs to Messrs. Mylecharane and Smith. This mine has been a fortune to the lucky owners, and has been constantly at work for the last five years. The reef averages 18 inches in width. During the past year 650 tons has been crushed for a yield of 1½ oz. per ton. 22 tons of tailings gave 10 oz. 12 dwt. per ton. The ground is soft, and easy to work. This and Hazlehurst's are the two most valuable mines in the district. Last year the Blue Jacket lease gave 1,976 oz., and since the mine was started 7,000 tons have been crushed from it, giving an average, with tailings, of 2 oz. per ton. The main shaft is 275 feet deep, and has been stoped out for 260 feet, 226 feet north, and 118 feet south along the line of reef. Messrs. Boyd and Croncher are working an adjoining lease of 2 acres, and are raising a crushing. They had to sink 175 feet to cut the reef which the Blue Jacket owners are working. On Hayes' line of reef two leases are at work, a 5 and a 3 acre. This mine is let on tribute, part of it, and the other portion is let on contract to deepen the present shaft 50 feet. McIntyre and Co. are the owners. They have crushed about 90 tons of stone for 1½ oz. per ton. The reef is narrow, only 6 or 7 inches wide, and the country is very hard. McIntyre and party have been working for four years. A great many permits were issued in this division of my district, but so far I do not think any of the holders have discovered payable stone. The difficulty here, as in other parts, is that no crushing machines are available near the mines.

Molong.

At Gumble, 14 miles south-west of Molong, in 1885, a lode of tin was discovered, and a number of leases were taken up. About 200 tons of ore was raised, and the property sold to a syndicate, but the results were, so far as I can ascertain, unsatisfactory, as work was stopped two years ago, and has not since been resumed. In 1888, gold was also found at Gumble, and a lease of 8 acres was taken up by Messrs. Kelly and Delaney. Extensive crushing and gold-saving appliances have been erected at the mine. I had occasion to visit this mine in April last, and at that time there were, I was informed, forty men employed on the mine.

Condobolin.

At Condobolin, I regret to say, very little mining is being carried on at the present time. Gold was discovered in a reef about 20 miles west of Condobolin, and several permits were applied for; two or three were issued, and some work was done, but the results, so far, are unsatisfactory. At Tingha, a good many leases were taken up, and probably a payable lode of silver has been discovered. A good deal of work was done by a private company, but the mine is now, I am informed, the property of a syndicate. The great drawback is the distance the mine is from a railway; the carriage of ore would be very expensive. I have no doubt if smelting works were erected at Mount Tingha many of the leases now idle would be worked. About five miles on the main road from Condobolin, both copper and silver were discovered several years ago, but I am not aware that any defined lode was found.

Grenfell.

At Grenfell during the past year very little mining has been done. As regards alluvial, within a radius of 12 miles, three claims are at work—two at the 7-mile prospecting, and one at the Quondong is on payable gold.

As regards quartz, five mines are working—one on the Prussian Reef, one on the Lucknow, and one at Star Gully prospecting. One mine is working on the "Enterprise" reef, and raising payable stone. Another is raising stone alleged to be payable at Lawson's reef. There is only one quartz-crushing machine at Grenfell, and the charge for crushing is prohibitive, viz., 15s. per ton, which probably prevents poor stone from being treated.

A Mr. Brevern is engaged in treating tailings, and has been at this work for the last 18 months. I have not been able to ascertain whether he has been successful, but some time ago he informed me that the return was very small.

At Sandy Creek the claims were abandoned except one, which is under application to lease. Messrs. Alsop and party raised 80 tons of stone from this claim, and got a yield of about ¾ of an ounce per ton; if this is payable, probably work will be resumed on some of the claims.

At Uramajong, about 15 miles from Grenfell, is what is known as the Great Southern Silver Mine, which consists of about 100 acres of land, portion of a freehold area. A shaft has been sunk on the lode about 40 feet, and the lode is over 20 feet wide; a vertical shaft has been sunk about 70 feet, so as to cut the hanging wall of the lode at about 40 feet from the surface. This shaft is connected with the underlay one by a short drive. The matrix of the lode is fluor spar, and the ores are argentiferous; sulphides and carbonates of lead, which assay from 63 oz. to 20 oz. of silver to the ton. The fluor spar being an excellent flux, will add to the value of the mine greatly.

I presume the company will erect furnaces, and when this is done I think there can be little doubt that the Uramajong, or Great Southern Silver Mine, will prove, under proper management, a very valuable property.

In conclusion, I venture to express an opinion that some valuable discoveries will be made during the present year as regards quartz reefs in that part of this mining district which lies south of Alicktown, about half-way between that place and Parkes, on the Coobong leasehold area. This locality contains several

several lines of reef, which were some years ago profitably worked, and were then abandoned. I refer to the "Young Australian," the "Bachelor," and others. I am aware that several parties are prospecting in this locality. If one valuable discovery is made, there are plenty of experienced miners at the Peak and Alicktown who would give the place a proper trial.

LACHLAN DISTRICT—Young Division.

(*S. Robinson, Warden.*)

I have the honor to forward my annual report for the period ending 31st December, 1890. The report for 1889 showed that we had an increased gold production to the extent of £4,292 6s. 9d. over the previous year. We have now a still further increase shown. The yield of gold for 1889 was 3,872 oz. 12 dwt. 23 gr., equal to £14,904 3s. 8d. Last year (1890) it totalled, at least, 4,829 oz. 2 dwt. 23 gr., representing cash value £18,477 14s. 11d., an increase over the previous twelve months of £3,573 11s. 3d. The South Burrangong Gold-mining Leasehold contributed to the above about £9,000 in value, and Cunningar Reef (say) £1,300. Four gold-mining leases have been taken up, comprising 22 acres 2 roods 3 perches, also two mineral leases (silver) of 25 acres each. There has been a falling off in issue of miners' rights, business licenses, and also in mineral licenses. The disposal of miners' rights stands at 422 as against 534 for the previous year. Business licenses have diminished; for 1889 we sold 33; 1890 records a sale only of 20. Mineral licenses have come down to an issue of 7, the previous year being 33. Murrumburrah office contributed 67 miners' rights and 3 business licenses. The value of gold bought by the Murrumburrah banks was £2,081 4s. 10d. The managers at Young, and also at Murrumburrah, have been good enough to furnish me with accounts in detail of their gold purchases. In addition to the above, there is the unknown quantity that passes through other channels than that of banking institutions. It may be considered moderate to estimate the gold won in this division during the year at quite £20,000. There has been a diminution in the number of miners at work; throughout the district, all told, they would probably not exceed 200. The South Burrangong Company employ about 50 men; Cunningar, 15. The remaining miners may be accounted for as follows:—50 are located about Murrumburrah, a few at Wombat, and fewer still at Good Friday Gully, several at Spring Creek, Young, and others fossicking about everywhere. Chinese diggers, hereabouts, are things of the past. We do find one here and there, but whether they belong to the Chinese fraternity of diggers it would be difficult to determine. The South Burrangong (amalgamated with six other holdings) is full of work. The machinery employed consists of three engines—six, nine, and twenty horse-power respectively, and valued approximately at £1,200. The shafts and drives on these properties are very securely timbered—one drive is 1,000 feet long, running nearly north and south. At Cunningar the machinery employed is extensive, all of "newest patterns." The value is given at £13,900. At Wombat, Mr. W. S. Barnes' reefing, on his own private property, is a success. Attention may be drawn to the fact that all the quartz claims at Sherlock Creek were in a state of abandonment. This locality is worthy of attention from prospectors and capitalists. During the last quarter of a century three or four well-defined and extensive reefs have been discovered at this place; pockets of rich gold-bearing quartz have been obtained, but from want of capital or lack of enterprise the place has been deserted.

LACHLAN, TUMUT, AND ADELONG DISTRICTS—Temora, Barmedman, Junee, and Cootamundra Divisions.

(*James Baker, P.M., Warden.*)

Here follows my annual report as Warden of the above named divisions under my charge for the year 1890:—

I regret to say, speaking generally of each and every division under my charge, that the state of mining during the past year has been the reverse of satisfactory. Of what is called "alluvial mining" there is very little in the very large territory under my charge. The places where gold in payable quantities has been discovered have been fairly well exhausted of their auriferous wealth and of the numerous prospecting parties, nearly all of whom have been subsidised from the prospecting votes for several years past. I do not know of one that has been a success in searching for gold in alluvium. The country, however, is teeming with quartz lodes, commencing (say) at Barmedman to Temora, thence *via* "Mother Shipton," "Cross Reef," Rich's Hill," "Hibernian," "Homeward Bound," "Evening Star," "Morning Star," by way of Sebastopol, Mitta Mitta, Wantiool, and Junee; thence to Coolac, Muttama Reefs, &c. Some twenty at least of these lodes have actually been proved to be payable; but by a variety of adverse causes they have nearly all been neglected and left unworked. All practical miners will understand that efficient quartz-mining involves a large outlay for mechanical appliances, even under favourable circumstances, and then, as the workings deepen and underground water has to be contended with, the difficulties and expenses increase, and are beyond the power of the ordinary working miners to overcome. Large capital is required to work these lodes. A man with sufficient wealth, enterprise, and practical skill would, I think, make large profits in working many of these lodes, but unfortunately these men are "not to the fore." When capital has been introduced it has been by a combination of persons forming a company, with its legal manager and Board of Directors in Sydney, mining manager, &c., on the ground. This kind of management is very expensive; but what is of far more importance, it has been very inefficient. In the majority of cases neither the Sydney manager nor the directors know anything at all of mining. A man may be a very successful merchant, and yet be an utter failure as a mining director. Large and rich mines might yield profits enough to cause expensive and inefficient management to pass unnoticed. When shareholders are reaping large dividends, they are, as a rule, not careful to closely scrutinize management; but when poor mines are worked bad, and expensive management frequently turns what ought to be a profitable mine into a ruinous one. The foregoing remarks apply, with a few exceptions, to the whole of the districts under my charge.

Temora.

Population.—The general population is steadily increasing, and, if one may judge from the buildings and other improvements which meet the eye at every turn, the permanence of the town and the prosperity of it and the surrounding district is regarded as a certainty. For years past I have incidentally, in my annual and other reports, invited attention to the magnificent land surrounding this town stretching away

away for miles and miles in every direction—land suitable for any purpose—pastoral, agricultural, horticultural, &c., and every year confirms the faith expressed by me. We are now growing more grain than we can consume—grain of a quality that would hold its own in a world-wide competition. In fruits, apples, peaches, plums, grapes, nectarines, &c., the produce, both in quantity and quality, has been abundantly successful. As far as I can see, with ordinary care and prudence, nothing can prevent this town and district being prosperous, even if mining should wholly fail, which it certainly will not.

There are about 100 miners in this Division, but even these are not fully employed at mining. Many of them have all but abandoned mining and turned their attention to fencing, gardening, &c.

Sergeant Buckley has kindly furnished me with the following return of the population of the town and its environs:—

RETURN of the population of the area of country supervised by the Temora Police, year 1891-92, collected from the 6th to the 23rd January, 1891 :—

Town of Temora.					District of Temora.					Remarks.
Europeans.				Chinese.	Europeans.				Chinese.	
Males.		Females.		Males.	Males.		Females.		Males.	
21 years and over.	Under 21 years.	21 years and over.	Under 21 years.	21 years and over.	21 years and over.	Under 21 years.	21 years and over.	Under 21 years.	21 years and over.	
333	284	240	266	14	354	393	211	328	12	Town, 1,137; country, 1,298; total, 2,435.

That return speaks for itself. I may, however, point out that for the last three years, notwithstanding the falling off in mining and the decrease in the number of miners, the general population has been steadily increasing.

The population in January, 1889, was 1,960; in 1890, 2,018; in 1891, 2,435—or an increase on the last two years of 475. The population, too, is one of stable and permanent character, and one which is gradually converting the wild bush into farms, orchards, vineyards, gardens, &c., which, besides adding to the wealth and comforts of the town and district, are very much improving the landscape scenery.

Yield of Gold.—The following is a return kindly furnished me by Sergeant Buckley, Gold Receiver at Temora:—

RETURN of the quantities of gold received by the Gold Receiver at Temora for transmission per Gold Escort to the Mint, Sydney, during the year 1890 :—

Dates.	oz.	dwt.	gr.
22 January	.....	.....	..
19 February	245	16	22
19 March	108	10	2
16 April	.....	.....	
14 May	98	3	2
11 June	.....	.....	
9 July	32	18	15
6 August	53	8	17
3 September	79	5	10
1 October	.....	.....	
29 „	133	13	9
26 November	.....	.....	
24 December	50	1	7
Total	801	17	12

For the purpose of comparison, the following table, showing the yield of gold, may be useful:—

Year.	Gold transmitted by Escort. oz.	dwt.	gr.
1881	29,652	14	4
1882	33,348	0	7
1883	17,347	8	6
1884	14,381	16	1
1885	7,865	15	9
1886	7,161	10	3
1887	3,406	14	13
1888	2,353	12	10
1889	1,369	4	19
1890	801	17	12

The above table, however, includes the gold won at Temora and at Barmedman. How much each produced respectively I cannot exactly say. The Mining Registrar, however, gives for Barmedman for the year 1890 at 327 oz.; that would give 474 oz. for Temora. The average price of gold has been £3 17s. per ounce.

In this Division there are a number of quartz lodes that ought to, and I think would, pay if economically and systematically worked, including Mother Shipton, Cross Reef, Homeward Bound, Evening Star, Morning Star, &c.; and if those persons who hold the ground cannot or will not work it, it is about time they stood out of the way and gave others a chance of doing so. I know some of the holders have lost money, and my sympathy goes with them; but loss of money is not uncommon in mining speculations. It does not entitle men to lock up the mineral wealth of the country; and even if it did, playing the "dog in the manger" cannot recoup the loss. All these mines need large, say £3,000 each capital at least. The question—How can the capital be got, and yet secure efficient and economic management?—is one of paramount importance.

Barmedman

Barmedman.

Mining in this Division is in a very depressed condition, and has been so during the past year. This is all the more to be regretted on account of its splendid possibilities. Several of the lodes have been proven to be not only payable, but highly so, notably the "Fiery Cross," "Neversweat," "Hard-to-Find," and the "Phœnix." The Division, too, is fairly well supplied with machinery, the value of which cannot be less than £10,000. Unfortunately, however, this machinery, as it is at present situated, does not suit the requirements of the mines. The several mines have been worked down to what is called "water level," and the machinery, as now placed, fails to drain the country, and some of the pumping machinery, even if better placed, would be too small to overcome the water underground. Steps were taken some time ago for the purpose of "amalgamating" the several small holdings at Barmedman proper, and then removing a portion of the old Barmedman United Company's machinery for pumping, leaving the crushing battery as now; but from some cause or other, chiefly local jealousies, the scheme fell through. I am, however, hopeful that ere long better counsel will prevail.

Junee.

The several gold-mines in this Division are widely apart. The chief localities are Junee Reefs, Mitta Mitta, Wantrool, and Eurongilly. At Junee Reefs, Wantrool, and Eurongilly a little work has been fairly regularly done throughout the year, but at Mitta Mitta I am not aware of any work having been done during the year—certainly none that is worth naming; and in the other three localities mining is in a very languid state. In the whole Division there are but twenty-nine miners at work. During the year they obtained 230 oz. of gold, valued at about £900. Of this gold, about 100 oz. came from alluvium, and the balance from quartz workings.

Cootamundra.

This Division includes the Muttama and Mooney Mooney Goldfields. During the year some twenty miners were employed, and they obtained 321 oz. of gold of the value of a little over £1,200—all obtained from two quartz mines, the Excelsior and the Mount Morgan. These are the only mines that have been actually worked during the year; at least, I am not aware of any others having been worked. The alluvial workings appear to have been entirely neglected.

Conclusion.

I should perhaps say that, with the exception of the Barmedman Division, the whole of the other Divisions are very poorly supplied with machinery, both as to quantity and quality; and some of that machinery is not at all convenient to the mines they are intended for; and I cannot see much chance of improvement in mining in any of the Divisions under my charge until we get more and a better class of mechanical appliances, and these placed in more convenient places, so as to economise money, labour, and time.

LACHLAN DISTRICT—Alectown Division.

(G. A. Cavanagh, Mining Registrar.)

According to a record kept by the proprietors of the puddling machines at Alectown, they washed for the year 1890, 11,161 loads, which averaged ½ oz. per load, making a total of 5,580½ oz. of alluvial gold, independent to the numerous prospects washed, of which a return could not be made, but may be taken as a total of 6,000 oz. There are six quartz claims being worked in the vicinity of Alectown, all of which show gold in more or less quantities, the veins of reef ranging from 6 inches to 3 feet wide. No test of any of the ore raised has as yet been made, but the immediate erection of a battery appears to be a settled question, the leading men of the goldfield combining in the undertaking.

The population of Alectown, dating from the original rush, has been of a fluctuating character, in consequence of the "various rushes" to and from Peak Hill. An average of 500 miners since the commencement of this goldfield can be safely recorded, the present population being 600.

All mining business of Alectown was transacted through the Warden's Clerk's Office at Parkes until the 12th day of September, 1890, from which date, until the 31st December, 1890, ninety-five miner's rights were sold.

LACHLAN DISTRICT—Barmedman Division.

(Thomas Love, Mining Registrar.)

I have the honor to forward herewith my annual report of the mining industry in the Barmedman Division of the Lachlan Mining District for the year ending 31 December, 1890.

I regret to have to report that the depression that existed on this field during the year 1889 has continued throughout the year just ended. The cause of the depression appears to be not that the mines are exhausted, but that they are worked below water level, and there being no adequate means on the field of contending with the water, the owners of the mines (which are all held under lease) are simply holding the ground without attempting to comply with the labour conditions, with the view of holding on, "Micawber-like," for something to turn up; the result being that the working miners, not being able to find employment or work the mines without paying tribute, have had to leave the field; hence the small output of gold and the falling off in the mining industry in this Division, which is solely dependent on the reefs, no alluvial having yet been discovered. Amount of land held under lease, referred to above, about 50 acres; labour conditions, fifty miners. Total number of miners employed on above land, on wages, during last six months, nil. The following are the results of the crushings from the various mines worked during the year:—

	tons.		oz.	dwt.	gr.
Hard-to-find Reef	96½	for	95	9	0
No. 2 Ada ,,	205	,,	43	9	0
Phœnix ,,	22	,,	13	6	12
Fiery Cross ,,	570	,,	108	1	0
No. 1 South Fiery Cross Reef	4	,,	2	19	0
Neversweat ,,	78	,,	35	17	9
Little Ada ,,	9¼	,,	24	1	0
Fanny Park ,,	2	,,	2	17	15
Hunted-to-death ,,	16	,,	1	0	0
Total	1,002¾		327	0	12

Total

Total number of miner's rights issued, 57; business licenses issued, 8.

Number of miners who found employment—About 28.

Rainfall for year, 26 inches 31 points; number of days on which rain fell, 54.

Total quantity of gold won during year, 327 oz. 0 dwt. 12 grs.; average price, £3 16s. 6d. per ounce; total value, £1,250 17s. 5d.

Total value of machinery on field, including two pumping plants and one 25-head stamp battery, £9,950.

Present population of town—About 200. Considerable agricultural settlement is taking place, and farming pursuits are rapidly superseding the mining industry.

LACHLAN DISTRICT—Forbes Division.

(*E. A. T. Pery, Mining Registrar.*)

I have the honor to submit my report and statistics for the Forbes Division of the Lachlan Mining District for 1890. The amount of gold "won" in this Division for the year is 618 oz. 7 dwt, showing a very material decrease on last year.

Britannia Co-operative Gold-mining Company (Limited).—This company has sunk their main shaft to a farther depth of 100 feet since my last report, and has opened out at the 250 feet level, where the reef has "split up" into veins, which, I regret to say, have not proved payable. Suspension of the labour conditions have now been granted for the purpose of obtaining further funds for opening out the mines. Great delay and loss was caused during the early part of the year in experimentalising with a new class of crushing-machine, which did not "turn out" a success. A powerful stamp-battery has lately been erected, with all the recent improvements.

Pinnacle Reef Quartz-mining Company.—During the early part of the year this company was unable to work through want of water. About 800 tons of quartz have been raised during the year, about 200 tons of which have been crushed, with fair returns. Additional machinery is now in process of erection for crushing and pumping.

Barnett's Reef Gold-mining Company (Tichbourne).—This company has been prospecting most of the year, and have been following a narrow vein of from 3 to 6 inches of gold-bearing quartz, from 16 tons of which they have realized 170 oz. of gold.

Bald Hills Extended Gold-mining Company.—After a considerable amount of prospecting, I am sorry to say that this "alluvial" lead has not proved payable, and the company has now ceased to exist. Six hundred loads of dirt were raised, which only realized, in all, 137 oz of gold.

Owing to the superior attractions of Peak Hill and Alectown the majority of our miners have temporarily left the District, but it is probable that at some future time prospecting will again be resumed in the immediate neighbourhood.

During the past year I have issued 242 miners' rights, 4 mineral licenses, and 11 business licenses, and have received only 3 applications for gold-mining leases.

LACHLAN DISTRICT—Parkes Division.

(*James Millar, Mining Registrar.*)

I have the honor to report an increase of gold purchased by the Banks at Parkes.

Miner's rights issued for the year 1890, 882; business licenses, 116; mineral licenses, 6.

Mining is very brisk in this Division. The following companies are in full work:—Haslehurst's Proprietary Company—capital, £22,000. Quayle's Proprietary—capital, £12,000. Gladstone Gold-mining Company—capital, £6,000. South Gladstone—capital, £10,000. New Bushman's—capital, £10,000. And the Koh-i-noor has been sold for £8,000.

I am preparing a history of the old leads and reefs, which will be ready for reference next month.

Total value of mining plant in the Division—£19,000.

LACHLAN DISTRICT—Cudal Division.

(*A. Minslow, Mining Registrar.*)

I have the honor to forward my report of the mining industry in this Division for the year 1890. I regret to state that mining has declined slightly, owing principally to want of machinery; but Mylecharane, who has a large interest in the best claims at Boney's Rock, is about to erect machinery there, and intends to crush for the public. This will cause the industry to prosper, as all the claims will be found to pay when machinery is on the ground. At Paling Yards, very little work has been done during the year. Courts and party have a 5-stamp battery there, and are now engaged putting through about 50 tons of lode stuff, which they estimate will yield 12 dwt. per ton.

During the year 27 miner's rights; and 1 mineral license, has been issued, and 3 applications for gold leases at Boney's Rock have been received.

Total value of mining plant in the Division—£450.

LACHLAN DISTRICT—Grenfell Division.

(*W. H. Hazleton, Mining Registrar.*)

I have the honor to submit my report for 1890, on the state of mining in the Grenfell Division of the Lachlan Mining District. The principal event of the year has been the forming of the Arramagong (now the Great Southern) Silver-mine into a company of 80,000 shares. This mine is situated about 13 miles in a southerly direction from Grenfell, and within A. Aston's conditional purchase of 640 acres. The company have secured a lease from the owner for a term. The manager of the mine reports having sold 20 tons of ore, which realised about £900, and that he is at present engaged raising ore, which will be forwarded for treatment to the Clyde Works, Sydney.

On

On the *Lucknow Reef*, Miss Spence's leases, very little progress has been made, owing to a great quantity of water met with in the main shaft.

The Enterprise Reef 3-acre lease, Pettit and Co.—This party have made fair progress, and are at present engaged raising stone which, from appearance, should give the owners a good return.

Lawson's Reef, Hinchcliffe and Co., and the *Prussian Reef*, Deneke and Co.—In these tenements the owners are at present prospecting, and are sanguine of success.

At Sandy Creek, one party, viz., Alsop and Co., have crushed 80 tons of stone for a yield of ¾ oz. to the ton.

In alluvial, there are three parties working at the Quondong, two of which are on gold, and one is prospecting. There were twelve applications for gold-mining leases received at this office. The recent rush to the Peak has, I think, done much to retard mining in this Division, but I now look forward to better prospects, as in a short time many of the leases applied for will have to put on the labour, and that at the end of 1891 I will have a good report to forward.

Total value of mining plant in the Division—£3,700.

LACHLAN DISTRICT—Cargo Division.

(*E. Lord, Mining Registrar.*)

I HAVE the honor to forward my report for the year 1890.

The Ironclad Mine, owned by an English company, and managed by Mr. Walter Marsh.—The main shaft has been sunk 156 feet, making the total depth 326 feet. At 200 feet a cross-cut 30 feet in length struck the lode which proved to be small and of low grade. Communication with the 300 feet level from whim shaft was made by a cross-cut. Sinking is being continued, and it is thought probable the lode will prove of higher value in depth. A winding engine and boiler have been erected at this shaft. After clearing out No. 1 shaft, the 100 feet level was driven to meet No. 2 shaft. Only low grade ore was found in this portion of the mine. A fresh make at 265 feet north of whim shaft was prospected, by driving 30 feet, which with a winze 9 feet deep proved that though rich was very limited in extent. New and improved dry crushing machinery has been erected and works satisfactory. The wet crushing plant consists of a 10-head battery, thirteen Frue concentrators.

The Dalcouth Mine.—During the year very little work has been done at this mine, owing to the death of the owner, Mr. James Power. 6 tons of stone sent to Sydney, and crushed at the Clyde works, yielded 13 oz. 19 dwt.

The Golden Clad Mine adjoining the Ironclad Mine, owned and worked by P. J. Frank of Sydney.—Very little work has been done during the year, owing to the continuous wet weather. Samples of ore sent to the Ballarat Exhibition, crushed from 1 oz. to 9 oz. per ton. Machinery is about being erected at this mine. The mining around Cargo during the past year has been very dull. A public battery is being erected, and which will no doubt greatly improve the mining interests around Cargo, as there are a number of payable reefs, if the stone can be crushed at a reasonable rate.

Three men have been engaged prospecting during part of the year, but have had no success. Four gold-leases have been taken up during the year. Thirty-four miners' rights issued. Gold won during the year, 508 oz.

LACHLAN DISTRICT—Molong Division.

(*J. Atkinson, Mining Registrar.*)

I HAVE the honor to report the only place in this Division where mining is being carried on is at Delaney's Dyke Gold-mining Company, Gumble, distant about 14 miles from Molong. There an extensive mining plant has been erected during the year, value £5,000. 1,630 tons of stone have been raised, yielding 820 oz. gold.

There is an abundant supply of water in two large dams on the property.

During the year I have issued seventy-one miners' rights, three business licenses, and three mineral licenses, and received one application for a mineral lease.

Total value of mining plant in the Division—£5,000.

SOUTHERN DISTRICT—Bombala, Bega, Eden, Cooma and Nimitybelle Division.

(*M. S. Love, Warden.*)

THE Warden's Clerks and Mining Registrars at Cooma, Bombala, Nimitybelle, and Kiandra have, in their respective reports, afforded detailed information of the official business transacted during the past year, and I regret to say that the anticipations and hopes, as regards mining matters generally, have not been realised.

Continuous rains throughout the past winter—the severest known for many years—considerably retarded operations, and in many cases rendered mining impossible. "Want of capital" is the text in various localities, and as the mining industry is merely in its infancy in my District, I have favourably entertained the numerous applications to suspend labour conditions, intending in the future to be less generous.

There is, apparently, a tendency to hold land under suspension, with the view of floating companies on a minimum prospect. Rich discoveries will doubtless produce local capital and energy.

Numerous grants from the Prospecting vote were offered by the Board to applicants in the Cooma sub-division, and in some cases work was performed as undertaken. Several claim and leaseholders, however, refused to avail themselves of the aid, thus losing opportunities which may not again be presented.

Little Bog, Victorian Border.

Authority was granted to E. L. Kitchingman, representing a Victorian syndicate, to search for gold on John Campbell's conditional lease, No. 4,189, embracing land known as "The Bog," and within a short distance of the border line.

Boring appliances were worked by a party of men for several weeks, the colour of gold only being obtained, when, by reason of heavy and continuous rains, operations had to be abandoned. This is to be regretted, as "The Bog" can be tested by boring only, and local residents anticipated favourable results beyond

beyond all doubt. The west side or bank of this swamp has been thoroughly prospected by Chinese and Europeans, a few of the former still remaining to search; but I found it impossible to obtain reliable information as to success or otherwise.

Mathew Sharp's Claim, near Quinburra.

Mathew Sharp, under aid from the Prospecting Vote, sank a shaft to a depth of 45 feet on his own land, with no satisfactory result, and the work has been discontinued for the present.

Nelbothery.

The great loss by floods sustained by the Delegate River Gold-mining Company at these claims (referred to in Mining Registrar's report) has caused work to be suspended.

Bombala River, Bombala.

These mineral leases are under suspension of the labour conditions, no work having been done recently. The holder, however, who has been absent from the Colony for some time, advises me of his intention to commence operations. The areas are about 2 miles from Bombala.

Little Plain.

No work has been done in connection with the alluvial claims held in this locality. In view of alleged intention to form a company to thoroughly test the land, suspension has been granted.

Tantawanglo.

Beyond prospecting on a limited scale, little has been done, in the absence of capital, to discover payable tin on the Tantawanglo Range. The leases are a short distance from the Bombala, Eden, and Bega road. Very good samples of stream tin were obtained, and H. M. Joseph recently put on a number of men to work his freehold and leasehold areas; operations will be watched with interest, and I hope to report favourably at an early date.

The Government prospecting party found patchy stream tin in many places near the range, but not in payable quantities.

The Mining Registrar at Bombala reports the total amount of gold purchased by banks at Bombala and Delegate at 348 oz. Most of this is obtained from Chinese in alluvial workings.

The bailiff, under my instructions, visited many of these individuals in the vicinity of Delegate and Craigie, with the result that miners' rights and business licenses were disposed of to some who had previously ignored the regulations.

Nimitybelle.

There is nothing to record in connection with this portion of my District. The gold leases at Kydra not having been worked are notified for cancellation.

Michelago.

Leases, formerly held by Messrs. Lyons and O'Leary, now in the name of the Bowery Company, are being well tested. Two shafts of 160 and 135 feet respectively (with drives at 100 feet level) have been sunk on a reef running from 6 inches to 4 feet in width. Assays of stone are reported to be 14 dwt. and 16 dwt. Sinking is comparatively easy, and no difficulty has been experienced from water.

A crushing machine (8-head stamper) is being erected near the workings, on the bank of the Michelago River, and about 150 tons of stone await crushing.

Murray and party continue tunnelling—present length 350 feet—but have not been fortunate enough to cut reef. A 5-head battery worked by waterwheel is held in conjunction with lease.

Colinton.

The original prospector, W. W. Quigg, has continuously worked area held under permit, the quantity of quartz raised, 390 tons, yielding 254 oz. for 1890.

The reef, varying from 4 inches to 3 feet 6 inches, no pyrites, has within the last few days shown good prospects, fine gold being visible, and this claim will doubtless prove a steady source of revenue to its holder.

Messrs. Welch, Berrigan, and party sunk shaft to a depth of 100 feet, and failing to cut reef or veins, are driving at 95 feet level towards claim No. 1 North, and, it would appear, must soon strike payable stone.

Bradley and party, No. 1 North, by reason of want of capital ceased operations. Three shafts have been sunk on this area, 45 ft., 24 ft., and 30 ft., all showing gold-bearing veins, crushings averaging ½ oz. per ton.

No. 1 South (R. Swan).—After sinking shaft to a depth of 170 feet, and failing to strike reef, work was discontinued. The work in this claim and Berrigan and others was carried on perseveringly under great expense, sometimes through the hardest of ground.

John Koppman and party.—No work done on this area. Aid from Prospecting Vote was offered to continue 86 feet shaft to a depth of 116 feet at 20s. per foot but was not availed of.

C. Solomon and party.—It was suggested by Prospecting Board to sink a shaft from the surface to a depth of 100 feet at 25s. per foot aid, but the owners declined the offer and no work has been done.

The areas at Colinton are all held under the Crown Lands Act of 1884 or 1889 Mining Act, being embraced within H. Warr's conditional lease No. 1727. The richness and extent of the discovery, in my opinion, justified the cancellation of portion or the whole of such leases. Notification having been duly made as to the cancellation, making land Crown land within the meaning of the "Mining Act 1874," claims or leases will be instituted.

A 5-head battery erected at the Murrumbidgee River treats all stone raised on this field. This machine is far too small for requirements.

Bredbo.

Richard Goode was allowed from Prospecting Vote 20s. per foot to continue his 50 feet shaft to 100 feet, and 15s. per foot to cross-cut. John Brogan, on mineral prospecting area, was offered 15s. per foot to continue his 60 feet shaft to 120 feet. No work was done on former holding, and Brogan soon abandoned his operations.

The

Fiery Creek.

The Mining Registrar has referred in his report to claims and leases on this field worked under aid from the Prospecting Vote.

Work is being prosecuted in other holdings, the total crushings being 193 oz. from 182 tons of stone. The miners having worked hard deserved the satisfactory result obtained.

A four-stamper battery at Numeralla, close to the field, and a 5-head battery at Cowra Creek, treated the stone, but I hope machinery of an improved character will be erected in the near future.

Mr. Anderson, Geological Surveyor, visited this field not long since, and in his report, states:—"From the nature of the formation it will be seen that individually they will not be permanent reefs at a depth, but they will be found to follow the angle of dip of the slates, and either give out at a comparatively short distance, or make their maximum thickness, and then gradually tail off to nothing. Individually, unless exceedingly rich, they are not likely to pay, for they will not as a rule be found to be of great extent, but if numbers of them were worked together to a depth such that the cost of mining would not be very great, they could probably be worked to advantage."

Paupong.

No work done.

Cowra Creek.

"Polar Star."—Messrs. Solomon and O'Rourke have sunk several shafts on this lease; trial crushings of a gossan reef (traced in all shafts) yielding 3 oz. to the ton.

"No. 1 North."—Messrs. Jackson and others. Two shafts on this lease, but little or no work done beyond prospecting.

Prospecting is being attended to in this locality by several miners.

Messrs. Bertram and Chapman hold 5 gold leases (aggregate area 80 acres) and have erected a 5-head battery to work in connection with land. Fair assays have been obtained from stone raised, and the first crushing will shortly take place.

Kiandra.

"New Chum Hill."—This lease and adjoining leases are now held by the Kiandra Gold-mining Company, the work during past year being done by tributors. The cleaning up resulted in a yield of 73 oz. 15 dwt. (about £285), the most disappointing return ever obtained here, but Mr. Gorman, Messrs. Hardie and Gorman, and Mr. Winckler, on behalf of the Company, very generously gave the whole proceeds to the miners, declining to participate to the extent of one fraction. This praiseworthy act has been duly appreciated by the miners generally. Hydraulic sluicing at this mine will be discontinued, and the blocking out system substituted. Two tunnels 1,000 feet intersect, and the work of blocking is being carried on vigorously. This lease will now be thoroughly tested, and in a great measure the future of Kiandra depends upon present operations. There is nothing of interest to record as regards other workings.

Tantawanglo Prospecting Party.

Under the direction of the Secretary for Mines and Agriculture a party of four wages men was appointed in June last, to thoroughly search for payable deposits of minerals, the country lying near "Tantawanglo," in the Cooma district. Prospecting was carried on until 8th October, the various camps being as under:—No. 1. North of J. W. Edmonds conditional purchase, No. 195, parish of Cathcart, county of Wellesley, the men working to the top of Tantawanglo, and H. M. Joseph's mineral lease, No. 4. No. 2. "Badgery's Swamp," south of J. Harper's conditional purchase, No. 189.

The specimens and samples forwarded for assay in connection with the above camps, and duly reported on by the Geological Branch of the Mines Department, were:—1. Samples rich in tin, supposed in each case to be concentrated products of washings. 2. Galena and felspathic rock, yielding 1 oz. 1 dwt. 18 gr. per ton. 3. Gem stones, consisting of topaz, zircon, and beryl, but none of them in a condition to be commercially valuable.

Stream tin was found distributed in most of the gullies, but not in payable quantities. General formation of country granite, containing white mica and quartz. Several outcrops of reefs and leaders were tested with unsatisfactory results.

Camp No. 3, near Cowra bridge, Billenluke River, on line of road, Tea Gardens to Tantawanglo, an extensive tract of country was searched to the dividing range, and outcrops I submitted for assay were reported to be:—Ferruginous felspathic rock, brown iron ore, ferruginous chlorite rock. No specimen yielding gold or silver. As previously, tin was found in small quantities and colours of gold only.

Camps were subsequently fixed at "Greenlands," north of Glenbog, Kybean River, near Bald Mountain and Kytrun River, respectively. By reason of continuous rains and heavy falls of snow, the operations were at the beginning, greatly interfered with. The men were competent, worked well under disadvantages, and it is to be regretted that results were not more satisfactory.

By special communication I am recommending the extension of the Colinton and Nimitybelle Gold-fields areas, to include Fiery Creek, Cowra Creek, Badger, Umaralla, and Kybean Rivers.

	Miners.		Business Licenses.	Mineral Licenses.	Gold Lease Applications.	Mineral Lease Applications.	Gold won. Approximate value.
	European.	Chinese.					£ s. d.
Cooma	82	4	3	29	17	12	2,075 0 0
Bombala	38	26	26	5	.....	4	653 10 0
Kiandra	84	10	2	.....	7	.....	4,160 0 0
Nimitybelle	6	.....	.....	.....	.....	.....	11 12 6
	210	40	31	34	24	16	£6,900 2 6

SOUTHERN DISTRICT—Moruya Division.

(G. Maunsell, Warden.)

I have the honor to submit my annual report for the Moruya division for the year 1890.

During that period 248 gold-mining leases, 9 mineral, 1,029 miners' rights, 29 business licenses, and 18 mineral licenses have been applied for, and the estimated number of men employed in mining is 1,500.

On the Pambula or Youaka Gold-field 211 applications for 1,180 acres of auriferous country have been received.

Though many of those areas are being developed, the absence of experienced miners at the commencement and the delays in the erection of machinery has retarded the progress of this field. There are now three crushing plants completed, two in course of erection and two very large ones projected.

The field has attracted experts from all the Colonies, none of whom profess to have seen a similar formation. A very large area has been pegged out on Crown and private lands for alluvial workings, the holders of which are awaiting the results of the prospectors' shaft, which is 120 feet deep. There are 700 miners at work here.

At Nerrigundah, Messrs. Anderson and Mitchell, who are in the receipt of aid from the Prospecting Board, have struck a rich lode at a depth of 115 feet, from 2 to 3 feet wide, in black slate, below water level, a circumstance which must tend to induce considerable enterprise on this old field. The Nerrigundah Company have erected a 10-stamper battery, and is satisfied with results.

At Tin Pot, the Wandella Gold-mining Company has erected a most compact 5-headed battery, and is working from the 80-feet level.

At Coolagalite several leases have been applied for, in consequence of the finding of a very rich leader in Riley's prospecting claim, which yielded 5 oz. to a ton.

At the Dromedary the old leases are being worked and several new ones applied for. Efforts to join the eastern and western tunnels through the mountains are being made. The results from Bailey and Miles' lease have been most satisfactory.

The Prospecting Board has aided a party to search the almost vertical western slope of this mountain.

At Punkally, gold has recently been got below high-water mark, and traced to a reef on the adjoining main land. Several permits to mine in this locality have been applied for.

At Bermagui, in addition to the fossicking which is always being done, there are a few prospectors at work, who believe that the large find of former days came from the country rock.

At Bumbermala, on the Clyde, a 5-stamper battery is being erected, though the miners here appear to be less active than they were during last year.

At Currowan good work is being done on Hobbes' lease, which is over 3 feet wide. It has 600 tons of ore at grass. The adjoining lease shows fair gold.

At Bullock Creek a few leases and several claims have been pegged out. Ray's prospecting claim and other mines here show good gold. I anticipate good results from this field, though the reefs run east and west.

At Mogo the prospecting party have earned good wages during the year. It has removed its pumping gear further up the creek. Several applications for permission to mine in this locality have been received.

At Moruya the Little Gem Gold Mining Company's plant has been idle for some time, it having been found necessary to raise funds for the purpose of sinking a vertical shaft. I am informed that this mine has paid its working expenses. The Moruya Silver-mine is continuously sending away its stone for treatment.

At Turlingah first-class work is being done at the Italia mine, which receives aid from the Prospecting Vote. Its workings are considered to be the best in the Division, and reflects great credit on Mr. Leoni, its manager.

At Bendithera several mineral lease areas are pegged out as well as some land under mineral licenses. There are large ironstone and gossan lodes in this limestone country, which appear to have warranted many of the inhabitants of Moruya and its neighbourhood in prospecting for silver its very high and rough mountains. The Prospecting Board has granted aid to this place.

As prospectors are at work in the undermentioned places, viz., the Pigeon-house Range, Dead River, Wadbilliga, Tuross, Bermagui, Nelson, the vicinity of Robinson's Hole, Schollie's Creek, Mount Imlay, Tarrowang, and Countaguinea. I anticipate that during the present year there will be other finds to report on as specimens from several of the places named have been shown to me.

SOUTHERN DISTRICT—Braidwood, Araluen, Major's Creek, Captain's Flat, Queanbeyan, Little River, Nerriga, and Nowra Division.

(John L. King, P.M., Warden.)

Having taken charge of this very extensive district so late in the year as the 1st July, I have not had the opportunity of visiting other than such places as required my immediate presence.

The Mining Registrars have forwarded full accounts of the work in their respective districts.

At Jembaicumbene.

The alluvial claim upon the Dansfield Estate has been worked, and over 1,000 oz. of gold have been won therefrom. About 40 men have been constantly employed.

A new claim has lately been opened out just opposite this claim, and very good prospects have been obtained, in consequence of which two more claims have been registered, but having no water nothing can yet be done. Old races are being cleaned out, and in a short time this land (which has been lying idle since the wheelbarrow men left) will probably yield a handsome return, because it is mostly undisturbed country, the former miners having merely run the gullies up, and some of the richest prospects are now found under old tips. There is a great quantity of private land in the vicinity of Jembaicumbene Creek yet untouched, but prospecting is now talked of.

At

At Major's Creek.

The Major's Creek Gold-mining Company, after having gone to enormous expense, have closed up, with very little chance of reopening, owing to the impossibility of paying off the company's liabilities from the proceeds of the mine. This has thrown a large number of resident miners out of work. The only mining going on is by fossicking and sluicing drift in the bed of the creek, which has been so often done before.

At Araluen.

One or two sluicing claims are on gold; and Smith and Company claim to have picked up one of the many old rich leads, and are getting a fair quantity of gold per week. However, as a large sum of money was expended to enable them to get into this claim, viz., an expensive tail race, it will be some time before the proprietors will be repaid.

There is always a little fossicking going on here.

At Captain's Flat.

The Kohinor is working the gold lode with satisfactory results; and the Commodore Vanderbilt Company have erected a new calciner, and will probably be in full work again after the holidays. A certain amount of prospecting is going on on several of the other leases; and were there a demand for land in this district, it would be necessary to have many of the leases either worked or cancelled.

At Queanbeyan.

The Goodradijbie Gt. S.M. Co. have ceased work, and with the exception of Mac's Reef, and one or two prospecting parties, no other mining is going on. The most promising of these being Thos. Walsh's copper lode at Bywong.

At Little River.

The only lease working is the Day Dawn (amalgamated leases), owned by a small company. This property was lately inspected by the Prospecting Board, but as the gold had been found in payable quantities at the 130-foot level, and a shaft had been sunk into 200 feet, aid was only approved of to enable the shaft to be further sunk. This was not accepted; and since then a drive has been put in from the 200-foot level, and a crushing from this level and from a winze at the 130-foot level, of 25 tons, yielded 120 oz. (8 tons of which went 12 oz. per ton); and at the 200-foot level the crushing material is about 4 feet wide. This promises to be a very valuable property. In this locality there are a number of abandoned reefs, which only, judging from their past, require capital to develop them into payable mines. The old alluvial ground in this locality is all idle for want of water.

At Nerriga.

All the leases are idle, and the sluicing claims in the Shoalhaven are not being worked as the water is not yet available. The constructing of these races being an expensive, long, and tedious work, it is to be hoped the results will be payable. The large dam in the Bull River was washed away some little time back, and this will greatly delay the operations of Messrs. Burril and Davis. The Corang and Golden Terrace Company are proceeding but slowly with their races; and the 500 acres special leases on the Shoalhaven are still idle, but as there is no chance of profitably working them without the expensive race that the company is constructing, no public harm is done. A quantity of land has been taken up for sluicing at the spar.

At Boro.

Owing to some assays from Griffin's prospecting shaft giving a high percentage of silver, a large number of leases have been applied for, and Miller and Company, who had ceased work on their lease, commenced a new shaft, which is looking well, and is the only lease being worked; the other lessees holding off till the leases are delivered.

A large area of land is also held under mineral licenses (which, I consider, is detrimental to the best interests of a new field); a lot of surface prospecting (of little or no value) is being done on these for the purpose of holding them. Until a greater depth has been reached it will be impossible to say what the future of this field is likely to be.

At Wyambene.

One party of prospectors is at work here; and a number of old leases are now in course of cancellation, owing to the labour conditions not being carried out.

At Nowra.

Most of the leases are suspended to enable machinery to be erected; and during the coming year I expect some good results to be reported. All the works going on are now of a prospecting nature.

The gold purchased by the local banks here was 4,321 oz., but this does not in the least give an idea of the correct quantity of the precious metal found and won, for private sources are continually being availed of to convey it away, which is very unsatisfactory for statistical purposes; and if the Mint authorities would devise some means to ascertain where the gold is won, it would be a good thing for the auriferous districts.

SOUTHERN DISTRICT—Berrima Division.

(*F. R. Wilshire, Warden.*)

I have the honor to report for your information concerning mining interests during the past year in the district assigned to my charge. First, with regard to gold-mining, little or no increase has taken place during the year, except, perhaps, the fact of several special protection areas, each of some 25 acres in extent, having been taken up at Yellow Spring Creek on the great auriferous drift deposit on the Shoalhaven River, to the existence of which I called attention by special report to you on the 14th April, 1890. In addition to these, two or three companies have already been formed to work this drift on an extensive scale in the same manner. One at Oallen Crossing, and another at Spa Creek, have commenced operations; and between these several companies some £100,000 of capital has been provided (principally from Victoria)

to

to start this work. I am pleased to state that this desirable result has been brought about through the wide circulation in the newspapers of the special report I made to you concerning this important auriferous deposit, so long hitherto untouched on any large scale; and it is to be hoped the result of these present efforts will prove merely the commencement of many more extensive undertakings of the kind there. To convey the necessary supply of water a race some 30 miles long is, I am informed, about being constructed, indicating in that respect the extent of the undertaking.

Should these companies succeed, it will doubtless have the effect of bringing this immense deposit of valuable auriferous material into prominent notice, and will probably prove the commencement of opening up on a large scale what may become one of the most valuable gold areas the Colony possesses. I am not aware that any report on this apparently valuable deposit by experts has yet been made, the desirability of which I ventured to suggest in my said report to you on the subject in April last. If this were done (and I still think the locality well deserves it) beneficial effects would probably result, and tend greatly to stimulate the gold-mining industry of this neighbourhood.

Speaking of this drift, I may here perhaps be permitted to mention that the auriferous drift bed, which I find underlying large areas of the basaltic hills at Kangaloon, &c., in this district, of the discovery of which I furnished special report to you on the 13th December ultimo, appears to be precisely similar in character to the great Shoalhaven deposit, though carrying less gold here, and so fine as to be exceedingly difficult to save, as experienced at Messrs. Southey & Co.'s claim on Diggers' Creek, near Mittagong, and where diamonds also have been found. So alike are these deposits in constituents and general character, that I feel convinced they once formed part and parcel of one immense bed of marine, river current, or glacial (Moraine) origin, similar to those existing elsewhere, as in the Mudgee and Tenterfield gold-fields, and in so many other localities; in this case trending (clearly established from local evidences I have seen here) in a general direction from south to north. As this is the directly opposite direction of the present ocean current on our coast, it would seem to dispel the idea of a marine origin for this particular drift bed, at any rate; and it would be interesting to know the general trend of similar drifts at Mudgee and Tenterfield, and elsewhere in the Colony, whereby the actual origin of this formation (in this Colony at any rate) might be determined, a geological point of interest not yet, I believe, finally settled.

As affording some indication of the importance and value of these auriferous drifts, I may mention that one in California forms a bed 600 feet in thickness, and is worked by hydraulic process from top to bottom. Again, in New Zealand, where they are worked extensively, they form an important factor in the annual yield of gold for that country; and as considerable interest (geologically and otherwise) may yet be attached to the existence of this auriferous bed at Kangaloon, &c., I venture to furnish the following particulars that I have now gleaned concerning it. Its first occurrence is at Wild's Meadow, Burrawang, where it out-crops under a basaltic hill known as Grice's Farm, and thence in many other places trending northerly to the Mittagong Gold-fields, a distance of 8 or 10 miles. Its various out-crops show it to be some miles in width (probably 2 or 3), and from tests I am having made, there is reason to believe it will prove in places upwards of 100 feet in thickness.

It consists mostly of quartz pebbles, intermixed with water-worn fragments of felspar, jaspar, granite, flinty slate, &c., &c., up to 1 or 2 inches in diameter, with numerous balls of rolled pipe-clay, but a few feet at bottom are of much larger size, representing water-worn boulders up to several inches in diameter, in some instances embedded in stiff pipe-clay, underlying the Wianamatta shale, as at Mittagong Gold-field, &c, or, where this has been denuded, on the solid sandstone itself (Hawkesbury rock).

Where the basaltic outflow has taken place this drift is almost entirely obscured from view by it, and it would be quite unsuspected and unnoticed by ordinary observers; the quartz pebbles and boulders contain gold, and I am informed that tests thereof, taken from the neighbourhood of Kangaloon, made at the Department of Mines some two or three years ago, yielded gold to the extent of several dwt. to the ton, and portion of this deposit may yet be remuneratively worked in this manner.

On the whole this drift bed, considering the extensive area of it now found to exist, even in this district, appears to be worth investigation by some officer of the Department who could furnish a scientific report upon it, and I recommend this suggestion to your favourable consideration, and that several tons of it may be crushed and carefully tested in Sydney for gold.

With regard to silver-mining, considerable areas have been taken up for this purpose near Boro, in the vicinity of Lake Bathurst, and there appears to be every reason to believe that this locality, ere long, will prove very rich in silver ores, and be extensively worked, but it is too soon yet to judge, or to furnish results of present prospecting, which is being carried on by several different parties with zeal and determination, one or two of which are deservedly receiving assistance from the Prospecting Vote.

With regard to coal and shale, little or no movement has been made since my last report beyond the fact of considerable areas of land for coal-mining purposes having been taken up in the interests (as alleged) of a company being formed in England by Mr. A. Abigail, M.L.A., and another by a Sydney syndicate, represented, I believe, by Messrs. Bennett & Co., of the *Evening News*.

I have seen samples of the coal owned by the latter from the seam opened out at Meredith Forest, which appears to be of good quality, and will, doubtless, in time prove a valuable property. In conclusion, I may perhaps mention that, in accordance with instructions, I have men at work prospecting the Wingecarribee River and its tributaries, &c., &c., for gems, with the view of tracing them, if possible, to a source in this district, assuming them to have a local one.

The result, so far, has been to trace the gems and gem sand in large quantities, comprising sapphires, topaz, zircon, garnets, pleonast (the latter largely predominating), brookite (lavender-coloured corrundum), and emery (deep-blue corrundum), &c., and a little gold, all along the river course, but, so far as I can discern, no diamond as yet, though ultimately I believe this valuable mineral will be found here also, as having (in conjunction with many of the other gems mentioned) a local source, either in the basaltic hills so extensively developed at the head of the river, at Robertson, Burrawang, Kangaloon, &c., &c., or in some one or other of the volcanic-breccia pipes of the neighbourhood, though none of which, so far as I can observe, resemble much in material those at Kimberley, S.A., in which the diamond is there found, apparently *in situ*, though something approximate does exist at Southey and Company's claim. Mittagong gold-field, and where a few diamonds have already been found, as you are aware, I believe, I have already sent to the Department small samples of the gems, &c., traced along the river, and some of which, no doubt, are derived from the ancient drift bed already herein referred to, whilst some from their lustrous, unabraded appearance, &c., indicate a local source, and which I hope (with the assistance

of

of the prospecting party) to yet be able to find. In fact, the pleonast is already manifested from a source in the neighbourhood of Kangaloon, and doubtless some of the gems (zircons, &c.) will be found in conjunction with it *in situ*.

I append a rough tracing indicating, approximately, the position of the drift bed referred to herein, as existing at Kangaloon, &c., &c.

Next week the prospectors will have a cradle at work, and the result will be sent on to the Department as soon as possible.

LACHLAN DISTRICT—Temora Division.

(*James Davoren, Mining Registrar.*)

I HAVE the honor to submit the following as my report for the Temora Division of the Lachlan Mining District for the year 1890.

I have issued 169 business licenses, being an increase of 106 over the number issued in 1889; 204 miners' rights, 38 less than was issued in 1889; 3 mineral licenses, being 8 less than was issued in 1889.

The cause of the increase in the number of business licenses is the expectation of the railway being extended from Cootamundra to Temora.

There were about 1,800 loads of wash-dirt puddled at the various puddling machines, which the puddlers state gave an average return of 2½ dwt. to the load; taking this estimate, at £3 17s. 6d. per oz., it would be worth £871 10s. from alluvial alone, besides the value of the gold obtained from the quartz crushed at Woods and Company's machine, which I am informed was about 300 tons. No accurate return of this can be given, as the machine was let by the hour to the party crushing, and therefore the owners of the machine knew nothing of the returns obtained.

Heansler's Prospecting Claim.—18 tons were crushed, which gave a yield of 100 oz., and 30 tons for 60 oz., which, at £3 17s. 6d., would give a return of £580; this added to £871 10s., supposed to be taken from alluvial, would make £1,451 10s., besides the proceeds of 252 tons unaccounted for.

The gold sold at the banks was, according to return received by me, 297 oz. 16 dwt. 2 gr., value for £1,075 9s. 4d. This shows that a large amount of gold was obtained which did not pass through the banks. The only way I can account for the discrepancy is that many of the miners, after washing up, left the district, and took the gold won away with them.

The shaft in Heansler's claim is 60 feet deep. The leader or reef is narrow, averaging 4 inches. The sinking is through hard slate.

The Evening Star, Sebastopol.—The lessee states the shaft in this lease is down to a depth of 300 feet, with 700 feet of drives, 100 feet of which were put in during the year. He also states there are 100 tons to grass on the surface and 50 tons in the drive.

There has been no crushing during the year, as the nearest machine is at Temora, 9 miles from the claim.

In the 4-acre lease, adjoining the Morning Star, the shaft is 160 feet. There are 35 tons of stone stacked in the drive and 20 tons at the 70-foot level.

I received during the year 3 applications for gold-mining leases, comprising 22 acres 1 rood 15 perches, as against 1 in 1889 for 5 acres 1 rood 4 perches.

The only machinery in the district is Mr. King's crushing machine at the Homeward Bound, which is estimated to be worth £1,500, and Mr. Wood's machine at Temora, estimated to be worth £700.

SOUTHERN DISTRICT—Berrima Division.

(*P. E. B. Barnett, Mining Registrar.*)

I HAVE the honor to state that during the past year very little gold-mining has been carried on in this district. With the exception of Dunstan and party, who hold a 3-acre gold-mining lease at Diggers' Creek, and have been granted suspension of labour since August last on account of heavy floods, and Reddan and Son, who were prospecting at Paddy's River for a time, no work appears to have been done. In coal-mining the Great Southern Colliery and the Australian Kerosene Oil and Mineral Company have been busily employed, especially during the recent strike, when the Australian Kerosene Oil and Mineral Company despatched a considerable amount of shale to Victoria for the gas companies, and I believe also forwarded some to England, and disposed of it at a good price.

The Mittagong Coal Company reopened their mine about the middle of October last, but appear to have now discharged all the men who were working there, while no coal has been raised at the Wingello Coal Company's mine.

During the past year 21 applications for mineral leases were received, covering an area of 10,701¾ acres, the greater portion of which (10,000 acres) was formerly held by James Collins and Garrett and party under mining permit. No applications for gold-mining leases were received. 26 miners' rights, 4 mineral licenses, and no business licenses were issued during the past year.

Returns, &c., from which particulars of Mining Registrar's report were obtained, are included herewith.

SOUTHERN DISTRICT—Major's Creek Division.

(*J. Heazlett, Mining Registrar.*)

IN presenting this my statistical report for the year ending the 31st December, 1890, I beg to state that, with the exception of the work done by the Major's Creek Proprietary Gold-mining Company, nothing has been done in the shape of quartz-mining, and very little progress made in the alluvial workings.

The above company had a good start made at the commencement of the year, when it was hoped it would be a success, but, unfortunately, time, and a very short time too, has proved that said hopes were not to be realised, the company having suspended operations in October last, but whether temporary or permanently I know not. The result of the work done, mode of treatment of pyrites, description of machinery, &c., &c., will be found in tabular form herewith.

Regarding alluvial workings, the owners of flooding-off or ground-sluicing claims, have made but little headway. The rains which fell here during the months of February, March, and June last year, although enough for all other purposes, was not sufficient for the flooding-off claims, the freshes being but light, and of short duration; hence, but little show in this description of mining, and the remainder may be termed fossicking.

The

The puddling mill owners, finding that they could make better wages by working for the company, took advantage of the opportunity and left their old mills to rest awhile. Another reason was a scarcity of water, which not unfrequently occurs.

The gold purchased here during 1890 compares favorably with that of 1889, in which year 256 oz. were produced from quartz, leaving 477 oz. 12 dwt. 13 gr. as alluvial gold. The company's gold was not sold here. Last year, *i.e.*, 1890, the quantity amounts to 545 oz. 13 dwt. 8 gr., being an increase of 68 oz. 0 dwt 19 gr., thus showing that if the means of obtaining it (*viz.*, water), were procurable, there is yet a deal of gold in the ground, waiting to be unearthed. Again, the above figures speak well, when it is considered that the majority of the miners have worked for the company about nine out of the twelve months ending 1890.

I have sold only 37 miners' rights, as against 41 during 1889. It is, however, a fact that some parties obtain these documents at other offices, say Araluen and Braidwood, thus reducing the number at this place. I have sold only 1 mineral license, as against 2 in the year 1889, and as against 18 during 1888. This falling off may be attributed to failure, or partial failure of the silver discovery at Wyambene.

The Snob's Reef, Big Hill, Major's Creek, is not being worked, nor has it been during the past nine years and ten months, and in the meantime three different parties have been inquiring about it, but being held possession of, they could not get it.

In August last a party of two men discovered some 5 miles from here in a southerly direction what they believed to be a silver-mine, and from which they had some stone tested by assay, and the result showed from 10 to 15 oz. silver to the ton, and a small percentage of gold, but being poor men, were unable to prosecute the search for more than a few weeks, when they gave it up.

NUMBER of days on which rain fell at Major's Creek, 1890.

January.—Rain fell on	.....	5 days		August.—Rain fell on	(a little only).....	8 days	
February.—	,, ...	13 ,,		September.—	,, (showers only) ...	4 ,,	
March.—	,, ...	20 ,,		October.—	,, ,, ...	6 ,,	
April.—	,, ...	5 ,,		November.—	,, ,, ...	5 ,,	
May.—	,, ...	9 ,,		December.—	,, ,, ...	7 ,,	
June.—	,, ...	12 ,,					
July.—	,, (a little only).....	9 ,,				103 days	

FROSTS, 1890.

April, 2; May, 3; June, 4, July, 10; August, 13; September, 8; October, 2; November, 1; total frosts, 43.

SOUTHERN DISTRICT—MORUYA DIVISION.

(*H. Bragg, Mining Registrar.*)

I HAVE the honor to submit my report for the year 1890 for the Moruya Division of the Southern Mining District. During the year twelve applications for gold-mining leases have been applied for, containing an area of 127 acres. They are all situated, with the exception of one, at Brimbamalla and Currawan, at the northern end of this division. T. Hobbs, Wray, and party, and others have a quantity of stone raised from their several leases, waiting to be treated. Machinery is now being erected.

The Italia Mine, at Turlingah, 11 miles south from Moruya, is looking well, and a great quantity of stone has been raised, and Mr. Leoni, the lessee of the mine, is now absent looking for suitable machinery to treat the quartz. Four mineral leases have also been applied for at Bendithera, containing an area of 222 acres. Bendithera is situated 32 miles to the west of Moruya, and miners travelling there have a very mountainous tract to get over. A ton of stone, which was brought from Bendithera to Moruya by thirteen pack horses, has been sent to Sydney for treatment.

Alluvium.

There is nothing new to report in alluvial workings during the year, although a prospecting party have been out for some time searching for new ground. The alluvial diggings at Mogo are in about the same state as previous years. Sometimes a good patch of gold is found, and the run of it is then lost for a time, but on the whole a good return of gold has been obtained from these diggings.

Silver.

There is one mine about 4 miles from Moruya, and about 900 tons of ore have been raised from this mine during the year; 600 tons is at grass, and about 300 tons have been crushed and refined at the mine and then sent to Sydney for further treatment, as the zinc-blende in the quartz renders it very difficult to treat.

During the year 65 miners' rights, 22 mineral licenses, and 3 business licenses were issued.

SOUTHERN DISTRICT.—MILTON DIVISION.

(*J. Rainsford, Mining Registrar.*)

During the past year reefing operations for gold have been carried on within the newly-proclaimed gold-field Brimbamalla. At Currawan the prospectors' party (Messrs. Hobbs and party) have opened up a quartz reef about 13 feet wide, carrying gold. They have opened this up for a distance of 70 yards. Another smaller reef has also been opened on the north side of the gulley. They are now engaged in sinking and tunnelling. They have at present about 600 tons of stone at grass. The No. 1 North claim have also opened out the reef, about 4 feet wide, carrying gold. Several other claims have also been taken up at this place, and the reef struck, but not much work done. The values of these reefs are as yet unknown, as no machinery is erected, but it is expected that a move in that direction will shortly be made. At what is known as Brimbamalla Creek, about twenty claims and leases have been taken up and are at work. The prospectors (Moult and Rixon) have sunk four shafts on the reef, and have a quantity of stone at grass. No. 1 North (Hobbs and party) have five shafts down, at an average of about 60 feet, and a tunnel driven in the side of the hill about 100 feet. They have about 80 tons of stone ready for crushing. The Milton Mineral Prospecting Company have three shafts sunk and a quantity of stone up.

Wray

Wray and party have apparently one of the best claims on the field, having a good quantity of stone up, rich looking, and ready for the battery. The Gem Company have also a rich vein showing good gold, and have about 80 tons of stone at grass. Several other claims are at work. At this place the whole of the machinery for a 5-stamper battery is on the ground, and is now being erected, and, it is hoped, may be in working order in about three or four weeks, when a fair trial will be given as to the capabilities of the field. Of course, during the past, operations have been very much restricted owing to the want of machinery. From the reports of experts who have visited this place there appears a big future before this field. I issued 112 miners' rights and 4 business licenses during 1890. Total value of mining plant in the division about £2,000.

SOUTHERN DISTRICT.—Cobargo Division.

(*L. J. Clifford, Mining Registrar.*)

In forwarding my annual report for the year 1890 I have the honor to state that the mining industry at Montreal and Coolagolite shows a vast improvement on the work done during the past few years.

At Rileys and Son's lease at Coolagolite there are three men employed, 50 tons of stone are at grass, all showing gold; one ton of stone was sent to the Mount Dromedary battery last September which went 15 oz. to the ton; the gold was sold in Sydney at the rate of £4 3s. 9d. per oz. They have one shaft down to a depth of 100 feet, and have several drives; they are now driving to the south-east on a vein 3 feet 6 inches wide showing splendid gold.

Gins and party, by the aid recently granted by the Prospecting Board, have been able to sink their shaft 101 feet, also to cross-cut 15 feet each way in order to cut their reef, which is dipping to the south, but up to the time of suspension of work for the holidays they have not cut it, but expect to do so in about 10 feet more. They have also another shaft down 30 feet, the reef or vein at that depth being 6 feet wide, carrying a little gold. They have about 20 tons of stone at grass, but during the year they have not sent any away to be crushed.

Henry and party have two men employed on their lease, and have two shafts sunk—one at 40 feet and the other at 34 feet. The vein is 12 inches wide in this claim. Gold is plainly visible in the stone, and prospects taken at different times have been excellent. They have about 2 tons of stone at grass.

There are several other leases applied for in the locality of Coolagolite. Some are already on gold, and, taking all things into consideration, this field, judging by the stone at grass, promises to be of great importance.

At Montreal several parties have been prospecting and fossicking during the year, and I hear on reliable authority that some have come on small finds, yielding 1 oz. to the dish. Several leases have been applied for, and it is their intention to erect machinery in order that they may carry on ground sluicing on a large scale.

During the past three months prospecting has been carried on energetically throughout the district, but up to the present nothing of any great importance has been reported.

During the year I have sold miners' rights and business licenses to the amount of £19 5s. Numerous complaints are being made as to the great inconvenience to which miners are put, in having to traverse a distance of 60 miles to and from Wagonga, the nearest Warden's Clerk's office, to apply for gold-mining leases.

SOUTHERN DISTRICT—Wagonga Division.

(*J. Foster, Mining Registrar*).

In submitting my general report I have the honor to state there is evidence of a considerable improvement in the mining industry. Although the results in amount of gold won have not equalled anticipations, yet upon the whole the developments are very promising and encouraging.

Mount Dromedary.

In the early part of the year the exceptionally heavy rains retarded mining operations very much, resulting in damaging the works more or less, and in two or three instances causing the tunnels to collapse altogether, and forcing a suspension of labour on most of the holdings for a time. The mountain is most favourable for working in large areas by means of tunnels, and, if so worked, the gold would be won at a much less cost than it is at present—being held and worked in small holdings now.

During the last quarter of the year there was an increased activity in taking up land for mining, 40 acres having been applied for to lease; 20 acres of this amount being upon a new line of reef, and distant about 1 mile in a south-easterly direction from the old, or Star of the South, line of reef.

There is a prospect of capitalists embarking in mining upon the mountain, which, if done, will inaugurate a new and prosperous era in mining in that locality.

Wagonga North-head.

The Bodalla Gold-mining Company, which embraces five leases—in the aggregate 44½ acres—has been idle most of the year, and towards the end of the year the machinery was removed to Pambula. Whether the Company was unable to make the mine pay, I cannot say, but the removal of the machinery gives that appearance.

I have been informed by men who have worked in the mine, and whom I consider competent judges that, if the mine was properly worked it would pay small dividends, and might sooner or later lead to rich deposits.

The Lady Carrington has seven leases, covering 25 acres nearly, upon which no work has been done during the year, the labour conditions having been suspended the greater portion of the time for various reasons.

In the private holdings little or no work has been done. In the latter part of the year some prospecting was done, and is still continued; encouraging prospects have been found, sufficient to induce further search.

Montreal.

No work has been done in alluvial, except fossicking by three or four men, who have eked out a precarious living. To make the old ground, or even the new, pay, will require a large expenditure of money in the erection of suitable machinery for dealing with large quantities quickly of the auriferous earth.

On the Progress and Poverty Reef, which was abandoned, a 4-acre block, embracing a portion of the prospecting claim, was applied for to lease during December, 1890, and is now pending.

Coolagilite Creek, Parish of Bermagui.

On the 5th of March, 1890, the prospectors, Messrs. Riley, reported payable gold discovered in their prospecting protection area, 40 feet from the surface in a quartz-lode, 9 in. wide, and yielding 4 oz. per ton from mortar tests. Later on, about the middle of the year, they took 1 ton to Mount Dromedary for trial, which was treated by Messrs. Bailey and Miles in their battery, and gave a yield of 14 oz. 15 dwt. This result was considered highly satisfactory, and has induced the taking up and application to lease for gold-mining of about 50 acres. Their main shaft is sunk to the depth of 100 ft., and at that depth the reef or lode has widened out to 2 ft.—carrying good gold.

A person has taken up a selection—portion 96—on the southern end of the lode, which was then recently surveyed, at the time the Mining Surveyor was upon the field, that is to say, the 31st October and early part of November, 1890. The northern boundary-line of said selection is only about 10 to 12 chains distant southerly from the southerly boundary of the prospecting claim. I am informed that the selected land is not of any value for agricultural or grazing purposes, and it is evident the selection was made for the purpose of blocking mining in that direction, except upon paying toll to the selector.

I respectfully submit this is a case in which the Department would be justified in moving to have the selection cancelled.

Alluvial.

In alluvial mining there are no fresh discoveries to record, and what work has been done during the past year has been simply fossicking.

Wagonga.

About the 1st of October, 1890, Mr. John R. Reid, of Wagonga, discovered gold below high-water mark at the south-east end of portion No. 106, in the parish of Wagonga. The eastern end of this portion is bounded by the Wagonga River. Mr. Reid is not a practical miner, but he, with another "new chum," worked the ground in a desultory and very primitive way, as the tide served, as it could only be worked for a short time at low tide, during the last quarter of the year. They obtained some 6 oz. of gold, of bright colour, but angular, not at all water worn, and, from its general appearance, is what miners call reef gold. The largest piece obtained was about 1 oz. 3 dwt., and it was from that size down to very fine. The discovery being upon the alienated land of Mr. Frederick W. Brice, has prevented the search being prosecuted above high-water mark. So far as it can be seen at the water's edge, there is a small quartz reef of a few inches thickness, in a diorite dyke of about 10 feet in width, the strike of which is about north-west and north-east. The same dyke (or assumed to be the same), in November last, was found about a mile north-westerly, in portion 26, also alienated, the property of Mr. James Pollock. In this property the dyke is 14 feet wide.

I am informed that this diorite in appearance is substantially like that at Pambula and Yalwal, if not identical. One ton from Mr. Pollock's land has been forwarded to Nerrigundah for treatment, when an approximate idea of its value will be obtained. Two mining experts now here express a decided opinion that, on Mr. Pollock's land, the lode will turn to silver-bearing as depth is attained. It should be mentioned that very fine gold is obtained with the dish from this diorite, in both portions of land.

SOUTHERN DISTRICT—Nerrigundah Division.

(*D. F. Stinson, Mining Registrar.*)

I have the honor to herewith submit my annual report for 1890.

Quartz-mining, with a few exceptions, is making very little progress in this division, chiefly through men with limited means being in possession of the majority of the mines.

Nerrigundah Gold-mining Company.—This Company have erected a 10-head stamper battery on their property during the year. A large amount of sinking and driving has been done on the several veins running through the property. About 300 tons of surface stone, in which very little gold could be seen, was put through the battery as a test, the result being 50 oz. of smelted gold. This, the manager states, is very encouraging. Between 20 and 30 men are continually employed in connection with the mine.

Wandella Gold-mining Company.—The Company have erected a 5-head stamper battery, with stone-breaker attached, on their mine at Tinpot. About 318 tons of stone crushed yielded $109\frac{3}{160}$ oz. smelted gold. The vein, which varies in width from 1 to 3 feet, has been worked to the water level, beyond that some stone has been taken up which surpasses in richness anything yet discovered in the mine. The Company contemplate erecting machinery to successfully contend with the water, which is a source of much trouble to them.

Nil Desperandum Reef.—Work has been carried on in this mine throughout the year with aid from the Prospecting Vote. In the eastern drive, at the 100 feet level, a vein 4 inches in thickness was passed through; in driving along course of this vein for 11 feet it has increased to 8 inches in width, and gold can be seen in almost every piece of stone taken out. This mine, which, had it not been for the Government aid, would have been abandoned, is now considered a valuable property.

Eureka Mine.—The main shaft in this mine has been put down to 124 feet 6 inches with aid from the Prospecting Vote. So far nothing of importance has been struck.

The Perseverance Gold-mining Company have erected a 4-head stamper battery on their mine during the latter end of the year, but have not commenced crushing on account of the scarcity of water. The manager states he has 2,000 tons of stuff ready to be crushed.

Work is being carried on in several smaller mines, but it consists of trenching, prospecting, &c., no stone being raised.

Alluvial.

Alluvial.

Alluvial mining is confined principally to creek claims on old ground. Several parties are getting good gold. As will be seen by the returns, the quantity of gold won from alluvial more than doubles that taken from the reefs.

M'Vitty and party and Hume and party are getting payable gold on North's Creek, as also Pillow and party and Eager and party on Gulph Creek.

During the year 127 miners' rights and 20 business licenses were issued; 6 applications for gold leases were received, representing an area of 23 acres.

SOUTHERN DISTRICT—Bombala Division.

(W. A. Dovers, Mining Registrar.)

I have the honor to forward to you my annual report as Mining Registrar for the Bombala Division of the Southern Mining District during the past year, and regret that the returns do not show that the mining industry in the Division has been prospering in the period referred to.

Owing to a difficulty in raising capital to go on with the necessary work, all the claims of any importance and nearly all the leases are under suspension; but I believe that the first four months of the coming year will see them all in commission. At present Mr. Croaker and Mr. Campbell, lessees of tin-mining leases at Cathcart, are preparing their ground for its more effectual working. Mr. H. M. Joseph, lessee of a tin-mining lease in the same neighbourhood, is similarly engaged. Both parties hope to be in full work of searching and winning within a very short time.

The Delegate River Gold-mining Proprietary have their claims at Nilbothery under suspension of labour conditions. This Company spent a large sum of money in constructing races and flumes to bring their claims into operation, and just as they were fairly at work a flood in the Little Plain River of utterly unprecedented height broke into their race at various places and completely swept away their flumes, which were the best and most substantial I have ever seen, and the Company thus lost in one day several thousand pounds worth of work and material. The directors hope to start again in a few months.

Mr. E. L. Kitchingman prospected Qumburra Bog with a bore, but owing to excess of water found it unworkable, at any rate, for the present. The Chinese at Craigie still carry on their mining with the same amount of success as usual. A new company is being formed to work some alluvial claims at Little Plain, and I think that the coming year will probably see a large impetus given to the mining industry of the district.

Miners' rights issued for the year—42, as against 32 for the previous year; business licenses—26, as against 15; and mineral licenses—5, as against 5. These figures show that though the mining is in temporary check it is not dead in the district.

The total amount of gold purchased is 348 oz., for a value of £3 17s. 6d. per oz.

Four mineral leases have been applied for during the year.

SOUTHERN DISTRICT—Burrowa Division.

(T. Foley, Mining Registrar.)

I have the honor to report that during the year 1890 I issued 10 mineral licenses and 8 miners' rights. Ten mineral leases were also applied for, 8 to search for silver and lead, and 2 for tungsten. Some prospecting for gold has, I believe, been done, and some specks discovered, but on this head I have no reliable information.

It will be seen from the annexed report of Mr. Rowe, the mining manager, at the the Wallah Wallah Silver Mine (about 20 miles from here), that work is being carried on with considerable energy at that mine, and that the result is encouraging. It is, I understand, in contemplation to erect a smelter for the purpose of treating the ore on the field, instead of despatching it elsewhere for treatment as has hitherto been the custom. Wilson and Stephenson, Harrison and Acraman, and M'Donald and Metcalfe would also appear to be working their blocks, and with some degree of success.

The annexed return kindly supplied by Mr. Thomas Channon, manager of the copper mine at Frogmore (about 18 miles from here), would indicate that work is being actively carried on at that mine. It appears that the working of smelting has only been in operation for about three months of the year, the remainder of the time being occupied in sinking a new shaft, and draining the old workings. The mine looks well at the deepest level.

SOUTHERN DISTRICT—Nowra Division.

(F. H. Galbraith, Mining Registrar.)

The Homeward Bound Gold Lease, No. 14, formerly owned by Thorburn and party, has hitherto been regarded as the richest holding on the field. In August, 1889, it passed into the hands of a Victorian proprietary, who soon after its purchase for £19,000, registered it in Melbourne under the Companies' Act as a Company of 120,000 £1 shares fully paid. This Company has spent £7,156 in improving the crushing plant, and providing cheap and efficient means of conveying the stone to the reducing plant. The adit from the fall of the cliffs to the underground workings in the quarry was at once widened by the new owners so as to carry a double line of trams. This having been completed, a tramline was constructed from the mine to the hopper at the battery site, so as to deliver the stone by gravitation into a stone-breaker. A new 20-stamp Californian battery, with adequate new steam-engine power, all enclosed in a substantial sawn timber and iron-roofed shed, has been placed on the Company's lease, close to Danjera Creek, where there is an abundant supply of never-failing water, which is forced up the cliffs some 80 feet into a large wooden cistern, convenient to the reducing plant. Owing to the heavy rains and the flooded state of the roads in the early part of last year, it was late in June before the new plant was started. The workings are about 1,000 feet up the cliffs eastward of the battery, and 300 feet above the level of the ore-bin.

The workings consist of an immense excavation or quarry, 80 to 90 feet in diameter, and 60 to 70 feet deep. From the bottom of this excavation a tunnel carries the ore down to a hopper, where the trams are filled, and sent on their way by gravitation to the rock-breaker and ore-bin attached, the trucks being

being regulated as to speed by the up trucks and a brake-wheel. The battery crushes about 180 tons per week, at a gross cost of about 12s. 10d. per ton. The old 10-head battery, owned by the former proprietary, has been refitted with new gold-saving plates, and also kept working. The late Manager expected to reduce the cost per ton to 9s. by the erection of twenty more stamps, and with this end in view I understand the additional plant is in course of transit. The stone being raised of late has not been as rich as it was anticipated it should be, judging by the previous history of the mine; and as some prospecting of the mine is in progress the labour has been reduced, but is still considerably above that required under the lease covenants. The wages paid in the first half-year amounted to £1,606, while the gold and public crushings is set down at £2,413. The new Company appear to have poorer stone than was hitherto crushed from this mine; but the quarry will now be pierced by prospecting drives, so that the old and rich shoots may be picked up again.

The Pioneer Gold Lease, No. 11, of 5 acres, lies immediately on the north of the Homeward Bound, and is bounded by it on the south. This claim, which was worked for many years by Messrs. James Monaghan, Kennedy, and party, changed hands to a Victorian purchaser in September last for £15,000. Since the purchase a tunnel to carry tramline has been driven from west to east into the ridge to crosscut the lode stuff, and an immense excavation has been made near the creek for new and extensive machinery, which it is said the new proprietor contemplates erecting for crushing and gold-saving.

The oldest mine on the field, the Pinnacle, has also changed hands since last year. This mine is on gold lease, portion No. 1, of 3 acres, north of the Danjera Creek. Mr. King, of Sydney, has had possession of this property for over six months, and has added shaking-tables to the crushing plant. These tables save the pyrites, from which it is said payable quantities of gold are extracted by roasting process.

Adjoining the last-mentioned lease is the Eclipse Mine Gold Lease, Nos. 2 and 3, of 6 acres. The ore is run out of this mine into a hopper by expensive though less costly tram process than in the Homeward Bound. The full complement of labour has not resulted in much profit in this mine during the past year, as it is said much gold is lost by not saving the pyrites. The battery, too, is old, and often causes stoppages for repairs. The total quantity of gold saved to date is valued, according to the Mint returns, at from £9,000 to £10,000.

On Gold Lease No. 52, Messrs. McGavin and party have tunnelled extensively, but without payable results.

The Golden Crown Gold Lease, No. 21, has also been worked by a new proprietary of Sydney capitalists, but so far no satisfactory result has been reported.

The Caledonian Gold Lease, Nos. 20 and 27, of 18 acres, lying east of the Homeward Bound, is still on payable stone. The proprietary have upwards of 200 tons of stone at grass, which they estimate will yield 3½ oz. to the ton. The lode in this mine is pierced by tunnels—one 300 feet below the apex of main range, and the other 100 feet lower. In both the payable lode is tapped—in the second at a distance of 100 feet from the mouth of the adit. In the first the stone has been saved right from the mouth of the tunnel. Stone sent from this mine to the Royal Mint yielded 14 oz. to the ton, and 50 tons crushed at the old Homeward Bound Company's battery yielded over 3½ oz. to the ton.

On the Victory Gold Leases, Nos. 12 and 40, of 10 acres, a large amount of work has been done in prospecting-tunnels, which are still being carried into the main ridge.

Gold Lease, No. 13, of 5 acres, called the Fountain Head, bounds the Pioneer on the north-east. Work has been carried out on this mine for twelve months, and now stone estimated to yield 1 oz. to the ton is being saved from a shoot 7 feet wide. The gold is visible in the stone, which is, however, of a hard, vitreous character, carrying much pyritous matter.

The Robert Bruce.—This mine consists of three leases, Nos. 18, 19, and 24, amalgamated, and has been working regularly during the past year, with partly-suspended labour, prospecting. A good many shoots of low-grade stone have been cut through, with occasional fairly rich patches, but nothing to warrant the holders putting on machinery, and there is no machinery on the ground for "public" crushing yet.

Kennedy's 3-acre lease, No. 32, has been intersected by tunnel from east to west at the bend of Sawpit Creek, but no payable stone has been yet met with.

During the past year a number of new leases, taken up south of the older mines, have been worked with partially-suspended labour, and much valuable work has been done in trenching and tunnelling, but as yet no rich finds have rewarded the labours of the prospectors. All the leases follow a main ridge, which runs south and north, and as this spur or range is formed of metamorphic slate and quartz, the latter and cap of modern sedimentary formation may be said to rule. Quartz may be struck in almost any lease, and the prospecting is done with drill and dolly, as the tunnelling or trenching proceeds.

I should mention that gold lease, No. 93, The Star, one of the earliest taken up on the old line, and joining the Homeward Bound on the south, has, after many years of unsuccessful work, struck a shoot of stone in the fall of the cliffs, about 2 chains in from its eastern boundary. Two tons from two classes of lode, side by side, were broken into size of round metal and sent to the Royal Mint, Sydney, for crushing, the results being 5 dwt. from one and 11 dwt. from another. As there is some 12 feet wide of this stone, quite free from pyrites, it is estimated the find is a valuable one, and some 40 tons of stone has already been saved for crushing.

Gold leases 26, The Albion, and 17, The Usher, have been efficiently worked by adits and trenches, and large quantities of highly pyritous stone, carrying gold, have been cut through, but it has not been deemed sufficiently good to justify erection of crushing plant.

The crushing plant on the field is hardly adequate to requirements, but when the extra plant, in course of transit, shall have been erected, wants will be fully met. During the past year the township has been connected with the telegraph system of the country by telephone, connecting with Nowra, 19 miles distant, and mails are received and despatched three times instead of twice a week.

An hotel, containing twenty rooms, has been licensed, and the roads have been improved a good deal; but complaints still continue to be made about the want of a bridge over Yarramunnum Creek, which, when flooded, stops all traffic and mails. The new deviation road, to reduce the grade of the Gap Road, is also looked forward to, and as both these improvements are in contemplation by the Roads authorities, it is hoped that the needs of this mining community, in the direction of roads, will soon be compassed.

SOUTHERN DISTRICT.—Nerriga Division.

(P. J. Galway, Mining Registrar.)

I have the honor to forward my annual report for 1890.

A revival in the prospecting for and working of alluvial deposits has taken place in this Division during the past year; water-races and reservoirs for hydraulic sluicing are being constructed on an extensive scale; systematic prospecting has revealed immense deposits of auriferous wash—in some instances 130 feet in depth.

The bed of the Shoalhaven River has been tried at the Horshoe Bend, a driving plant being used, and prospects obtained that has induced the Horseshoe Bend Company to drive a tunnel through a tract of land, and thus divert the river from its usual course, partly drawing 170 acres of the river-bed and foreshore. The tunnel will be completed in the beginning of May.

Messrs. Simmers, Ross, and party have held some 525 acres for sluicing purposes a mile above Oallen Crossing, and expended large sums in prospecting the ground. From some shafts put down, 10 pennyweights to the load was obtained from a depth of 40 feet of wash. The course of a water-race was surveyed and laid out. The length of race would be some 30 miles.

The original Company have now amalgamated with the Corang Company, who hold a water-race from the Corang River, and this race is to be extended to the property, which is now known as the Golden Terrace Hydraulic Sluicing Company.

Another water-race, starting from the Bewley or Endreck River, is being constructed to wash large alluvial deposits at Peggy Hill. A dam, some 55 feet in height, for conserving flood-water and diverting the river into the race was in course of erection, but was destroyed by a sudden fresh in the river before the dam had obtained sufficient elevation to allow the water to flow into the bye-wash.

A site 2½ miles further up has been selected for a new dam, and work will commence at once.

The Endrick River Company have also made a race to their mining tenements at Primrose Point, and the manager is now prospecting the ground to discover the most eligible portion of the ground to commence operations.

The Nerriga Freehold Company, prospecting on private land, have sunk several shafts, going 130 feet through basalt before reaching the wash, which is some 7 feet, but at present the propects are not payable. A width of 300 feet has been tried, and a further attempt, where the basalt is more confined, will be made.

The quartz-reefs are nearly at a standstill, but some new blood and capital have been obtained from the Victorian side, and a fresh start will soon take place.

That there are payable reefs here is certain, but at present they have been only scratched on the surface.

A large portion of ground is held on the western side of the Shoalhaven, both as leases and mining tenements, but, with the exception of surveying the course of the proposed water-race, little work has been done.

Several alluvial leases have been taken up at Spring Gully, and at Oallen's no work has yet been commenced.

Very little gold has been won in this Division during the past year, the miners having been chiefly employed race-cutting for the Companies.

131 Miners' Rights and 3 Business Licenses were issued; 3 special leases, covering 270 acres, were applied for; and 11 alluvial leases for 145 acres, and 5 quartz leases for 40 acres, were taken up. Eleven mining tenements in old ground, for sluicing purposes, amounting to 145 acres, have been surveyed and registered.

SOUTHERN DISTRICT—Araluen Division.

(E. F. Carlile, Mining Registrar.)

As was expected, the floods which have occurred during the past year have interfered very materially with mining operations in this Division, and the out-turn of gold is consequently less than that of the previous year by 344 oz. 10 dwt.,—83 oz. 15 dwt. of the decrease being in the quartz returns from Bell's Creek. The quantity and value of gold I have to report as being won during 1890 is 2,675 oz. 10 dwt. = £10,250 13s. 6d., viz., 2,600 oz. from alluvium, and 75 oz. 10 dwt from quartz.

The largest claim at work has come on very fair gold lately, after blasting a tail-race for a considerable distance through the bed-rock. Some of the other claims are also giving satisfactory returns. The work of constructing a tail-race with drain-pipes (mentioned in my last report) has been stopped for some time, owing to a hitch in the arrangements; but there is a rumour of it being again started.

Though the returns from quartz are less than for 1889, the average yield is better, being at the rate of 18 dwt. 10 gr. per ton.

SOUTHERN DISTRICT—Little River Division.

(P. J. Galway, Mining Registrar.)

I have the honor to forward my report for the year 1890.

The rainfall during the first portion of the year was taken advantage of by the parties whose races were in working order; but many had allowed the dams and flumes to get out of repair, and were not able to take advantage of the supply. Most of the water-races are now repaired, and the owners anxiously await another downpour.

Prospecting for quartz reefs has occupied the attention of miners, and with very fair results as to surface indications; but no attempt has been made to test the reefs formerly worked to a depth of from 70 to 120 feet, and then abandoned from want of proper appliances to contend with the influx of water. An impression also prevailed that the reef did not carry gold to a depth, but this theory is completely upset by the Day Dawn Company in their new shaft, cutting the reef at a depth of 200 feet, and obtaining from the first crushing from that depth 120 oz. gold from 25 tons of quartz. This reef being situated in low ground, and taking the level of reefs previously worked, clearly proves that it only requires that reefs already proved to be highly auriferous to a depth at which the want of proper appliances prevents further working will amply repay the investment of capital.

The solid stone in Day Dawn is 12 inches thick. The entire crushing stuff between the well-defined walls ranges from 2 to 3 feet, highly charged with pyrites, returning 20 per cent. of concentrates, which, after chlorination, returned 7 oz. per ton.

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The alluvial portion of this Division, which is very extensive, holds out great inducement for ground-sluicing, which has hitherto been retarded by the intermittent supply of water; but this obstacle could be overcome by the erection of storage reservoirs, the western slope of the coast range for fully 25 miles discharging its rainfall in to the Mongasome or Little River.

Number of miners' rights issued, 1890, 144; number of business licenses, 3.

SOUTHERN DISTRICT—Gunning Division.

(*A. J. Chisholm, Warden.*)

I regret to say that my report for the past year is not so satisfactory as I could wish.

In the Yass District there is really nothing being done in mining matters.

Gunning.—In this portion of my district, it will be seen from the report of the Mining Registrar, very little business is being carried on.

Burrowa.—From the attached report of the Mining Registrar, things look a little more cheerful. At the Wallah Wallah silver-mine great hopes are entertained that in the future this mine will be one of the best in the district.

TUMUT AND ADELONG DISTRICT—Albury Division.

(*T. A. Brown, Warden.*)

In forwarding my report for the past year, I have the honor to state that mining operations in the Albury District must be held to have retrograded rather than otherwise. The ordinary claims are working with more or less satisfactory results, but the mining companies, whose expenditure has been commensurate with highly-raised expectations, are suspending operations. The percentage of gold in the stone raised from reefs remains high, but from the expense incurred in treatment or otherwise profits are understood to be but moderate.

The Hume Gold-mining Company, working a lease on the Hawksview Estate, has, with the exception of the Black Range Gold-mining Company, expended a larger amount of capital in developing their property than any syndicate in the district. In tunnelling and other expensive work they have demonstrated the faith which they continue to hold in their investment. This mine has always been remarkable for the richness of its lodes. Under the present system of management it is to be hoped that deposits worthy of the ancient fame of the locality may be discovered. Gold has been won during the past year, in this mine, to the value of £192.

The Bungowannah Mine, worked under the superintendence of Mr. F. Joubert, has suspended work for the present. This mine, which is on freehold property, gave promise of a large auriferous area which could have been cheaply worked. The early prospects were rich, and considerable expense was incurred for machinery; but lately receipts have receded below the payable line, with the result of enforced suspension of work.

The claim of Hertzog and party upon the freehold land of Mr. H. C. Smith, of Mount Pleasant, is still working with reasonable success. A royalty is payable to the Mines Department upon all gold raised in this mine, and also from the Bungowannah Mine. Messrs. Hertzog and party have won gold during a portion of the past year to the value of £218 8s., being 56 oz. from 36 tons of stone.

Subsidies from the Prospecting Vote have been granted to Messrs. O'Donnell and party, at Portuguese Gully, as also to the Albury Gold-mining Company, and to Messrs. Tyrrell and party, of the Clina. Messrs. O'Donnell and party have sunk their main shaft to a depth of 157 feet, and Messrs. Wilson and Day, after sinking 103 feet, have come upon an apparently valuable body of stone, which, however, a heavy fall of rain and consequent flood have prevented them from working. The other subsidised claims have not as yet availed themselves of the vote.

The claim known as that of Meredith and party, once favourably known as producing exceedingly rich specimens, has also received a subsidy. It is to be regretted that this possibly very rich mining property, now applied for under lease, is in litigation, on account of which work has been suspended for some months.

Prospecting for tin and silver, both of which are said to exist in payable quantity near Germanton, is still hopefully persevered with. No finds of importance have as yet been reported.

The miners' rights issued for the year number 89; business licenses, 7; mineral licenses, 10.

The total yield of gold in this district during the past year reaches £1,155, a value which redeems the district from any fear of collapse. It is to be hoped that the coming year may prove more propitious in the matter of mining results, and that those who have given time and money to the development of an important industry may be adequately rewarded.

TUMUT AND ADELONG DISTRICT—Gundagai, Adelong, and Tumut Division.

(*C. W. Weekes, Warden.*)

In presenting my annual report on the Gundagai Mining Division, I regret not being able to record any great progress in mining matters during the year. There are indications, however, that the year 1891 will open up a new era in mining for Gundagai. There is every prospect now of determining the value of our large "river flats" as alluvial mines. These "flats" extend for many miles on both sides along the course of the Murrumbidgee, and as the mountain ranges on either side which form the valley are all more or less auriferous, it is the opinion of many intelligent miners that a very valuable deposit of gold will be found all along the river valley.

Three separate Companies have already been formed to test the "flats" round the town, the boring having given them good indications of a heavy gold-bearing deposit at a depth varying from 60 to 100 feet. If payable gold is found by any one of these parties, a large area will at once be taken up, giving employment to a large number of miners. This ground can only be worked on an extensive scale with a fair amount of capital, as the water will necessitate powerful machinery being employed.

At South Gundagai, about a mile from town, Mr. Lindley has opened a valuable alluvial gold-mine on the bank of the river, on his private property. This property is being worked by the owner with a few hands. Up to the present he has saved about 300 oz. of gold. With a more rational system of working 3,000 oz. might have been raised during the same time at very little additional cost. It is a great

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pity to see so valuable a property so injudiciously managed. The deposit worked in this mine seems to trend across the river. The "wash" is deeper and the gold heavier as the drives approach the river. A large area has been taken up opposite this property on the North Gundagai side of the river and a Sydney company is now about to start operations, the boring having proved that the same deposit exists on this side, although at a greater depth, viz., 80 feet; the deepest level on Lindley's side being about 40 feet. The chief drawback as regards mining on these river flats lies in their liability to floods. Occasionally, but at long intervals, the whole area is covered with water for a few days, and special arrangements would have to be made for the security of the works.

Adjoining Lindley's on the east, Mr. Higgins has secured a lease of 20 acres on a reserve bounded by the river. This land has been bored right across and a deposit similar to Lindley's proved to exist. This should prove a valuable property.

About 5 miles further south from Gundagai Mr. M'Inerney is opening up an alluvial lead on his private property on Stoney Creek. This is looked upon by competent judges as a most valuable discovery. Several Victorian experts who have visited and inspected the ground say it will be a second "Chiltern Valley." The prospecting shaft first struck a payable lead at 40 feet on a "false bottom"; continuing the shaft to about 85 feet the lower or main lead was found, disclosing a deposit of much greater depth, and carrying more gold than the upper lead. A main shaft, capable of working both leads, is now being put down. Two iron puddlers are being erected (one is already at work), and all the necessary appliances for efficiently working this mine are being provided with all despatch. I fully expect this property will turn out one of the most valuable of its kind in the Colony. Mr. McInerny has upwards of a mile in length of this "lead" running through his private property. The lead is said to have been proved to be nearly 200 feet in width. This lead should extend for several miles down the Big Ben Valley to the Murrumbidgee. Two properties below Mr. Inerney's, known as "Annett's" and "Edwards'," have been tested with the boring machine and the same "lead" proved to extend through them. Arrangements are, I believe, in progress for working these properties on a large scale. As the whole length of this "lead" is on private property there is no scope for individual miners. These various discoveries have given quite a spurt to mining, and "prospecting for alluvial" is now being actively prosecuted, and I should not be surprised if other valuable deposits are found. The ancient water-courses long since buried should certainly be auriferous as the whole country round Gundagai is gold-bearing. A "prospect" can be obtained in every little creek and on almost every hill-side, proving that the reefs and dykes which have long since disappeared through disintegration were highly charged with gold. What is termed a "rush" took place a few months ago to a place on Jones' Creek, about 9 miles north-west of Gundagai, and in a few days nearly 200 men were on the ground. The reports, however, proved to be unfounded. After being tested for a week or two (the sinking being only 20 to 30 feet) the ground was practically deserted. Very little has been done in quartz-mining during the year. Some of the old deserted reefs are about to be tested again—notably the "Emu" line of reefs about 10 miles from Gundagai. Parrott and party have obtained aid from the Prospecting Board, and there are some hopes that the "Old Emu," as miners term it, will again come to the front and uphold its old reputation. This reef is looked upon as one of the few true lodes in this district. It carries perfect walls, and has been worked to a depth of 200 feet without showing any signs of breaking. It paid remarkably well some twenty-five years ago, but in those days if a reef began to yield anything less than an ounce to the ton it was at once abandoned. Williams and party have taken up some 15 acres on this reef, including the deep shaft, and intend to open it up again in a thorough manner. From what I can learn of its history this reef ought to be payable if properly worked, but it will require the expenditure of some capital. I understand that the owners are about to apply for some assistance from the Prospecting Board. I would strongly recommend their application for approval, as if one of these deserted reefs can be proved payable at a greater depth it would lead to a very large area being at once taken up and worked. The developments of this ground will be anxiously watched by a large number of miners who have great faith in the old reefs, but are unable to work them for want of capital. A few miles from this lease the Bongongolong Mine is met with, at present worked by Mr. Walters under great disadvantages for want of capital. Mr. Walters is a most enthusiastic miner, and believes he has a perfect "El Dorado" under his feet. I am pleased that he has been granted some aid by the Prospecting Board, and only hope that he will now be able to verify his own predictions. If he proves successful there is a large area of the same line of country open to speculators. The lode or dyke he is working is undoubtedly gold-bearing, but does not pay at the upper levels. Mr. Walters contends that the walls are gradually coming together as he sinks deeper and that presently a true lode will be found. There should be a valuable alluvial deposit somewhere in the neighbourhood as these large dykes must have shed an immense quantity of gold in the course of their separation by the action of air and water in past ages. Beyond these two localities there has been very little done in quartz-mining round Gundagai. At the Adjungbilly Creek there are some extensive alluvial works in progress. At present operations are confined to bringing up the "tail races." When these are completed the proprietors anticipate large returns.

For details as to number of miner's rights issued, &c., I beg to refer to the Mining Registrar's report attached.

TUMUT AND ADELONG DISTRICT—Tumbarumba Division.

(J. F. Makinson, Warden.)

In this Division, 1890 has seen a little improvement on the previous year in mining. The principal event has been the opening out of the deep lead under the basalt at Cherry Hill, about 10 miles from Tumbarumba, by Tumut A.G.M. Company. This ground has yielded well, and now it is properly opened, continued good results may be looked for. There are great natural facilities for working it, the working being by driving into the hillside and blocking out. There is abundance of water in a race at the mouths of the tunnels, and plenty of good timber at hand. The success of this company would be hailed with great satisfaction by everyone, as there is some 20 miles of the lead—with breaks here and there—on the west side of Tumbarumba Creek, and a great length of a similar lead to the east of the town at Paddy's River, Neuramerramang, &c. John Alves & Co., a Victorian partnership, is vigorously at work opening the eastern lead at Watson's, about 5 miles from Tumbarumba. This Company intends to use a new patented gold-saving contrivance, and is confident of saving an appreciable proportion of fine gold, which has hitherto been lost. The gold from under the basalt, when smelted, has brought £4 2s. per oz. at the Mint.

All

All the gold won has been from the alluvial, and a very large proportion of that by ground-sluicing. The principal sluicing holding of this Division, the Burra Company, has been at dead work nearly all the year, and so the yield has been much smaller than usual. Of the others, Richard Cook's Claim at Meragle has paid best, giving about £7 per week per man. The gains from Reed's, Burke's, and other claims in the same locality have been fair. The gold got at Meragle has been mostly coarse, and of the highest value.

Of the sluicing claims on Tumbarumba and Back Creeks, George Heinecke's has given an especially good return, while several others report an average yield. On the Tarcutta Creek, Watson and Hanson have done very well. They are working miners, who started with very little capital, and worked nearly four years at making their races before they got any gold, but now they have payable ground, which will take them many years to work out.

At Coppabella and Lanky's Creeks gold-mining is now only represented by a few fossickers.

There has been no quartz-mining during the year, but steps have been taken to start work at the Pilot, at Meragle, and at Storey's Reef, at Paddy's River. Some quartz showing very good gold has, just as this is being written, been brought in from a fair-sized reef, about 20 miles from Tumbarumba. The prospector expects to have it worked at once.

From the Coppabella silver-lead ground, Donnelly and party have sent 2 tons to Sydney and 2 tons to the Ballarat School of Mines, and the result has been such as to determine them to go to work on a larger scale as soon as their leases are granted. At Silver Valley, Coghlan and party have not, despite Mr. Anderson's unfavourable report, been discouraged, for they have sent a ton to Footscray, which, I am informed, yielded 40 oz. silver, 6 dwt. gold, and 3 cwt. lead; this was picked ore. Their shaft is down 46 ft. The lode, which was 6 in. at surface, is 7 ft. wide at the bottom. Some picked ore from this mine (chlorides) assayed 467 oz. to the ton at the Department of Mines, Sydney.

Some oxide of manganese, containing a small quantity of cobalt, was brought in from Rosewood, but it is not rich enough to give much hope. A sample of asbestos from the surface near Tumbarumba was also brought in, but it is as yet of poor quality.

The quantity of gold raised, as nearly as can be ascertained, was 1,600 oz.

Issued at Tumbarumba:—Miners' rights, 217; mineral licenses, 55.

Fourteen gold-mining leases were applied for; total area, 160 acres. Eighteen mineral leases were applied for; total area, 684 acres.

Total receipts at Warden's Office, £586 12s. 6d.

Upon the whole, mining prospects are brightening in this Division.

TUMUT AND ADELONG DISTRICT—Albury Division.

(C. A. Conley, Mining Registrar.)

I have the honor to report a quiet year in mining matters, owing to different causes, the "strike" in particular having prevented two strong companies from developing their claims. The Hume Gold-mining Company at Hawksview, near Albury (private property), have a very valuable property, on which considerable work has been done. Their tunnel is 234 feet in length, running east and west (lode north and south) which averages from 2 inches to 6 feet, and there are fully two hundred different lodes in 70 acres leased. At the bottom of an old shaft in the tunnel, at 56-ft. level, 3 tons yielded 12 oz. of gold, and it is noteworthy that, when worked some years ago, this lode always averaged 4 oz. to the ton.

During the past year four claims were granted a subsidy from the Prospecting Vote, and two companies have to date availed themselves of the Vote, viz., Messrs. H. F. Jackson and party, at Portuguese Gully, north-west of Black Range, and Messrs. Wilson and Day, of Nine-mile Reserve, near Thurgoona. Wilson and Day have, owing to the subsidy received, been enabled to open up what promises to be one of the most valuable claims in the District.

Taking everything into consideration, the year has not been an uneventful one, as there are a number of steady miners, as well as backers, who, year after year, devote their time and money, and still have faith in the district.

TUMUT AND ADELONG DISTRICT—Batlow Division.

(J. T. Hely, Mining Registrar.)

I have the honor to forward my annual report for the year 1890 as under:—

Mining matters in this Division are very quiet at present, and unless the reefs or the alluvial under the basalt turn out well, this place has a very poor prospect for mining in future, as all the available sluicing ground is nearly worked out.

The number of miners' rights issued in 1890 were, 59 at 10s., and 12 at 5s.; business licenses, 3 at 20s., and 2 at 10s.; and the amount of gold won was 450 oz., valued at £1,745, and 20 or 30 oz. may not be accounted for, having been taken to other places for sale.

I could not obtain the amount of gold won, or I would have submitted my report sooner.

TUMUT AND ADELONG DISTRICT—Junee Division.

(A. Elliott, Mining Registrar.)

I have the honor to submit my report for the year 1890, and in doing so regret to say that the mining industry in this Division is not in such a progressive state as I hoped it would have been.

During the year M'Grath and party, having been awarded a portion of the subsidy granted by the Government for the purpose of assisting prospectors, have sunk several shafts in the alluvial at Specimen Hill, Junee Reefs, but so far without very much success, only a few colours of gold having been obtained. I am of opinion that by sinking in deeper ground the results would be much more satisfactory.

T. H. Hutton, who also obtained assistance from the Prospecting Vote, sunk three shafts, viz., 32 feet, 106 feet, and 110½ feet respectively, within the gold-fields' reserve on Bethungra Park Station. All these shafts bottomed on wash showing no indication of gold.

I have just heard that Dillon and party, who are prospecting about 3 miles from Junee Reefs, have just bottomed a shaft at 30 feet on good quartz wash, showing colours of gold.

Lynch, Jamieson, and party (also assisted from the Prospecting Vote) are sinking a shaft on the Pioneer line of reef at Eurongilly. At the date of my last visit they were down 83½ feet. The sinking was through slate from the surface, and for the last 10 or 12 feet was extremely hard.

A few miners are still working in the alluvial at Wantiool, and, as far as I can learn, are making fair wages.

At Eurongilly during the year the following crushings were obtained :—

Enterprise Claim	41¼ tons ;	yield,	67 oz.
Pioneer Claim	7 ,,	,,	19½ ,,
Victoria Reef	35 ,,	,,	41½ ,,

A number of reefs were worked in this Division during the year, bearing a low percentage of gold in small leaders or veins, which pinch out. In my opinion, by sinking to lower depths, payable gold would be obtained. This would require more capital than seems likely to offer.

This Division contains many reefs which will, no doubt, remain unworked until machinery capable of saving fine gold is introduced into the district.

The gold returns kindly supplied to me by the local Managers of the Bank of New South Wales and the Union Bank show that during the year they purchased 230 oz. 1 dwt. 12 gr., value £882 19s. 3d.

The price of gold in this Division during the year has been from £3 11s. to £3 17s. 6d. per oz.

During the year I issued 30 miners' rights, and received 3 applications for gold-mining leases.

The total value of mining plant in my Division is £800.

TUMUT AND ADELONG MINING DISTRICT.—Adelong Division.

(J. James, Mining Registrar.)

I have the honor to transmit to you my annual report for the information of the Honorable the Minister for Mines :—

Gold forwarded by escort in 1890 :—

	oz.	dwt.	gr.
Commercial Banking Co.	4,537	0	0
Bank of New South Wales	1,035	9	6
Total	5,572	9	6

Representing a money value of £21,454. Nearly 641 oz. from outlying districts are included.

The returns for the Division are as follow :—

	oz.	dwt.	gr.
Alluvial gold	3,390	9	2
Quartz	1,541	0	4
Total for the Division	4,931	9	6

The crushing returns are as follows :—

	tons		oz.	dwt.	gr.
Reefer Battery	869	=	1,062	8	0
Perseverance Battery	499	=	500	0	0
Total	1,368	=	1,562	8	0

Two hundred and fifty-seven miners' rights were issued, as against 145 during the preceding year. This increase is the outcome of measures to enforce the license, a duty performed by the police, consequent on a large number of Chinamen arriving here from outlying tobacco-growing districts, and invading all the available old alluvial workings ; 5 mineral and 3 business licenses, were also issued. Other business consists of 2 conditional and 25 unsurveyed registrations. Four applications to lease land for gold-mining purposes, comprising 49 acres, were received.

It is satisfactory to note that the figures for 1890 double those of 1889. Alluvial yield again takes the lead, the bulk coming from Mr. A. D. Shepard's lease.

Messrs. S. Phillips and party in their creek claim, near the town, with a working plant valued at £50, have obtained 100 oz. during the year. The run of gold is likely to be traced into private property.

Quartz.

Mr. A. W. Molineaux, mining manager of the Perseverence and Great Victoria Co., reports that 499 tons of quartz were crushed at the Perseverance Gold-mining Co.'s battery during the year 1890, for a total yield of 500 oz. of gold. Of this quantity, 351 tons from the Perseverance Co.'s "Little Victoria" yielded 267 oz. 1 dwt. From the Great Victoria Co.'s Mine 129½ tons yielded 153 oz. 1 dwt., and 18½ tons from the Flagstaff Mine yielded 78 oz. 18 dwt.

The Perseverence Company have confined their operations entirely to the north shaft of the Little Victoria Mine. The shaft has been sunk a little more than 100 feet, and is now a total of 300 feet from the surface. A gold-bearing reef was struck the beginning of January, 1891. It looks promising, being 6 inches thick, and is estimated to be worth 2 oz. to the ton. This reef is situated on the hanging or eastern wall. For some distance down, the footwall has been heavily charged with mundic, and strings of quartz in the granite. The manager expects, ere long, having a payable reef on that side of the channel also. . . . . A considerable amount of driving and stoping has also been carried out. A small bunch of stone above the 186 feet south drive treated at the "Dry Creek" works, South Australia, yielded over 6 oz. to the ton, whilst from the same shoot of stone below this drive, the manager obtained at the Perseverance Company's battery 54 oz. for 3 tons, or 18 oz. per ton. The yield is the highest recorded for this field. The reason assigned as to the cause of the small average for the total quantity crushed during the year is, that the whole of the channel stuff was usually included in the crushing.

The Great Victoria and Flagstaff Mines have been worked by small tribute parties with fairly satisfactory results.

Mr. K. A. McKenzie Clarke, mining manager of the Proprietary Gold-mining Company, reports having crushed 300 tons quartz, firsts, and 143 tons seconds. The former quantity yielded 683 oz. and the latter 85 oz. The vein is 1 foot in width, with a dip or underlay to the east of 1 foot in 5 feet, and bearing, or strike, about north and south. One shaft is 285 feet in depth, with deepest level at 258 feet. Another shaft which is still sinking is 240 feet in depth. Hitherto the hauling has been done with whips. Steam winding engine has now been procured, and as the machinery is on the ground to be erected, this addition will ere long materially help the work. Twenty men are employed. No method of treating the pyrites has been adopted. It is saved here and sent to Sydney and sold.

Mr.

Mr. John Channon, secretary of the "Lady Mary" Gold-mining Company, Gap Reef, Adelong, reports that during the past twelve months the main engine shaft was sunk a further depth of 36 feet, making the total depth of the shaft about 250 feet. At 245 feet a level was driven south for 330 feet, or to within 60 or 70 feet of the southern boundary of the company's lease. A winze connecting this level with level at 185 feet was also sunk and, quartz taken out from the stopes, in all 194 tons firsts and 76 tons seconds. The former quantity yielded 129 oz. 6 dwt. 14 gr., and the latter 22 oz. 11 dwt.

The channel throughout is still very broken and unsettled, and the opinion is that the mine wants further sinking for developments, as an eastern line of reef is approaching, which will probably have to junction before the country gets settled with a well-defined reef.

The shaft on the western channel was sunk a further depth of 9 feet 6 inches only. It was subsequently let to a party of tributors, who raised about 12 tons of quartz, which yielded 30 oz., or 2½ oz. per ton. In this channel the country is hard and the vein well defined but small. It carries a large percentage of pyrites requiring special treatment to obtain the best retults.

The Company are trying now to reorganise, in order that the lease may be further developed by sinking.

The late Currajong and William's Gold-mining leases, which were cancelled and retaken, will no doubt figure as producers in the incoming year. The Challenger Company may also take steps to reorganise. This should be a most valuable mine and a steady producer.

The Proprietary Company may be cited as an instance where the employment of capital has the mastery for developing old ground of good repute. This Company has eclipsed the innumerable individual efforts of the past in the short space of about eighteen months.

The belt of auriferous country stretching through Adelong, Batlow, and Tumbarumba has a special interest. During the year particular attention has been drawn to those parts where deposits of gold lie under the basalt, and should these places obtain, in the near future, the much-needed railway communication, a beneficial change and a prosperous settlement are certain to follow.

In concluding, it may be stated that the expectations for 1890 are somewhat realised, yet it is far short of that estimate which an important old gold-field should give in view of larger yields from greater depths than yet attained.

TUMUT AND ADELONG DISTRICT.—Captain's Flat Division.

T. Canning, Mining Registrar.

I have the honor to forward my report for the information of the Honorable the Minister for Mines, for the year ending 31st December, 1890, and regret to state a marked decrease has taken place here in mining during the last twelve months, owing to the ores raised from the different mines being of such a refractory nature, the treatment with present machinery not giving payable results, which has caused the decrease complained of. Great anticipations were predicted by the different mining managers employed here in 1889, which I am sorry to say did not realise expectations. The silver ores, previous to going through the water jacket furnaces, has to be roasted. At the Koh-i-noor (now known by the New Koh-i-noor Gold and Silver No-liability Company), large logs of wood are laid on the surface of the ground to a height of about 2 feet or so. About 3 feet of ore is then placed on top, which covers the logs over. A number of kilns are built in the open space in the manner described. When complete, the wood is then ignited, which burns. As the ore roasts the sulphur melts, and keeps burning for a stretch of about fourteen days. Roasting the sulphide ores greatly depends for its success to the weather keeping dry. This method of treatment is a very expensive item, and does not appear to be a success. Should some cheaper method of treatment be discovered, so as to do away with the roasting, I am informed the mines would pay here handsomely. Ore having to be handled too often whilst undergoing the treatment referred to, is too expensive, and considerably reduces its value.

Commodore Vanderbilt Gold and Silver Mining Companies (Limited), Captain's Flat.—The Company purchased a second-hand Howell's patent desulphurising furnace, which has formerly been in use in New Zealand, working there successfully. The metallurgist, Mr. H. Levine, has been experimenting at intervals since erection of furnace. I am informed he has been unable to run it successfully. The service of a second metallurgist has been obtained, Mr. Levine having resigned his position. Great hopes are entertained that the rotatory furnace can be run successfully under the supervision of the new metallurgist, G. F. Beardsley. If so, every thing will be in good working order here again by the end of January, 1891, or perhaps earlier. Following is the amount of work done in the Vanderbilt Mine during 1890—185 feet of drives has been put in 50 feet high, ore averaging 4 feet 6 inches wide. Commodore mine, 570 feet of driving for 102 feet of backs taken out a distance of 380 feet, ore averaging 5 feet wide, 160 feet of rises put up, and 200 feet of sinking. The following is the result produced from 3,986 tons of gosan ore treated by the furnaces, 33,857 oz. of silver, 80 tons 1 cwt. of lead, and 602 oz. 16 dwt. of gold, valued at £9,375 4s. Ore at grass, 3,000 tons; total ore raised during the year, 4,986 tons; estimated value, £24,744.

North Vanderbilt Gold and Silver Mining Company, Captain's Flat.—Work has been carried on upon several of the Company's leases up to the end of July, 1890, without discovering ore of a payable character, when the mining manager, Mr. John Hewith, was instructed to sell all the mining plant here, and return to Melbourne. No further work has been done on the Vanderbilt Company's property which has been abandoned (since).

New Koh-i-noor Gold and Silver Mining Company (no liability), Captain's Flat, formerly the Koh-i-noor Gold and Silver-mining Company (Limited).—This Company has been reconstructed and a change of managers taken place. I am unable to get the returns for smelting which was carried on by the old Company from the 1st of January to the end of March, 1890, present manager, Mr. B. Bone, being unable to find any record kept by the old Company. The crushing battery and Huntingdon mill has worked about seven months during the year, for the following results:—4,860½ tons ore crushed for 823 oz. 12 dwt. of gold; estimated value of gold won £3,170 19s 3d. I am also unable to get the amount of ground worked, no account having been kept. I am informed by the Chairman of Directors that it is the intention of the Board to experiment with the silver ores before deciding to commence work again, with a view to discover the cheapest and best mode of treating the refractory ores. Number of hands employed in the mine, and about the battery, 30.

Prospecting Leases, Captain's Flat.—Messrs. Gibson and Canning are still prospecting mineral lease No. 8; good show of gray sulphides and green carbonates of copper.

Mr. William M'Grogan is also still prospecting on his mineral lease No. 48; good show of gray sulphides and green carbonates of copper.

In consequence of the several applications for aid from the Prospecting Board, Harrie Wood, Esq., Under Secretary for Mines, visited Captain's Flat on the 29th day of November, 1890, and inspected the following properties, viz.: Messrs. Gibson and Canning's mineral lease 8, Mr. William M'Grogan's mineral lease 48, Messrs. Harkness, Batty, Canning, and Hall's mineral lease 51, Mr. Henry Singleton and Party's mineral lease 47. Samples of ore were obtained by direction of Harrie Wood, Esq., Under Secretary of Mines, and handed to the Warden's Clerk for transmission to the Department of Mines for assay, some of which gave satisfactory results.

Number of hands employed at Commodore Vanderbilt Company's Mine, 20.

Sale of Miners' Rights, &c.—Miners' rights, 65; business licenses, 22; mineral licenses, 3; population of Captain's Flat proper, 300.

Total value of mining plant, £8,200.

TUMUT AND ADELONG DISTRICT—Cooma Division.

(*Jas. B. Spence, Registrar*).

I HAVE the honor to submit my annual report of the Cooma Division of the Tumut and Adelong Mining District for the year 1890.

142 miners' rights, 3 business licenses, and 29 mineral licenses have been issued.

Gold Leases.—Seventeen applications have been received, comprising an area of 160 acres, and taken up chiefly at the Fiery Creek and Cowra Creek diggings.

Mineral Leases.—Twelve silver leases have been applied for, comprising in the aggregate an area of 320 acres, and principally located at the Big Badja. Little or no work has been done on them, and silver-mining is very dull throughout the whole of this district.

Mining Tenements.—Twenty-six claims have been conditionally registered, the majority of them being quartz claims at Fiery Creek.

Machinery.—The total value of the mining plant in this Division is about £2,850.

Gold.—I estimate the approximate value of alluvial and quartz won during the year to be about £2,075. The greater part of this, viz., 480 oz., is from quartz, and with the advent of another crushing machine, now being erected at Cowra Creek, I anticipate this return will be considerably increased during 1891.

Mines aided from the Prospecting Vote.

Fiery Creek.—W. H. Goodwin and party commenced a vertical shaft on their quartz claim, to cut the reef on the east side, but after sinking to a depth of 31 feet, they abandoned the claim, which has since been taken up, and is now being worked without aid by another party.

P. Myers was granted the balance of the aid from this party to sink a monkey shaft on his claim adjoining, and is now down about 40 feet, the reef being from 3 to 12 inches wide, a crushing from which returned a little over 1 oz. per ton free gold, and on the pyrites being treated separately assayed, I am informed, as high as 6 oz. to the ton.

W. Goodwin, sen., and party were aided to sink an underlay shaft to a depth of 200 feet; but after sinking 100 feet, they did not think the prospects sufficiently encouraging to proceed further, and have abandoned. The width of the reef was never more than 1 foot, in one place pinched out altogether, and at the 95 feet level was about 3 inches wide, showing plenty of pyrites, but no free gold.

Little Plain.—H. T. Foster and party were granted aid on their mineral lease to continue their vertical shaft, which was 50 feet deep, to a further depth of 50 feet, and then drive 100 feet; but after sinking the requisite depth, they were not able to cope with the water in the shaft, and have suspended operations until they can obtain the necessary appliances. One pyrites leader, about 3 inches wide, was cut at the 70 feet level.

This is all the work done in the Cooma District under the above heading, although several other parties were granted aid from the vote, but have not availed themselves of it.

Total value of mining plant in the Division, £2,850.

TUMUT AND ADELONG DISTRICT—Nimitybelle Division.

(*H. J. Lea, Mining Registrar.*)

I HAVE the honor to furnish you with my annual report of the Nimitybelle Division of the Tumut and Adelong Mining District for the year 1890.

Nine miners' rights and one mineral license have been issued in this office during 1890.

Gold.

Mr. John M. Hart had a gold lease at Kydra, which has been cancelled for not carrying out the labour conditions. Mr. Samuel M'Donald, whose leases are at Kydra, has been unable up to the present time to float a company to work them

There is no person at work on the leases at the present time.

In the beginning of the year, Mr. M'Donald made an arrangement with a party of miners to prospect the different shafts on the leases, who informed me that they did so, without obtaining any good results; consequently they did not carry out their arrangements with Mr. M'Donald, and left the ground.

Bismuth.

Samuel Maxwell & Co.'s lease has been cancelled for not carrying out the labour conditions.

There are no alluvial diggings in this district.

No mining leases have been applied for during the year.

Mining in this district at the present time is very quiet, but it may improve.

Total value of mining plant in the Division, £1,000.

TUMUT AND ADELONG DISTRICT—Queanbeyan Division.

(*C. T. B. Helm, Mining Registrar.*)

Mining operations during the past year in this Division have been quiet. The Goodradigbee Gold-mining and Silver Company, after constructing extensive sluicing works at Brindabella, on the Goodradigbee River, at a cost of £5,000, have had to suspend operations on account of the poor returns obtained.

On the Molonglo River, Guyormand and party are constructing a head race and dam for sluicing. The race will be about 2 miles long. They expect to start operations early in the year. Excellent prospects have been obtained in the locality.

At Mac's Reef, the Mac's Reef Gold-mining Company are still tunnelling into the hill, and are now in 490 feet. Four men are employed, and a tramway has been put down. No gold has yet been won.

At Michelago, the Bowery Gold-mining Company have twelve men employed, and have purchased an engine and 10-head battery, which they expect soon to have at work on the ground. About 150 loads are at surface ready for crushing. There are two shafts—one down 156 feet, the other 135 feet. The width of the lode is from 2 feet to 6 feet.

J. T. Walsh and party, at Bywong, have two shafts down 50 feet and 30 feet respectively on their mineral lease. A lode widening from 2 feet to 6 feet has been cut, from which rich assays of copper and silver have been obtained. Four tons of ore have recently been sent to Sydney for treatment; but the result is not yet known.

Aid from the Prospecting Vote has, in two or three instances, been obtained, which has encouraged recipients, and enabled them to carry on operations when they would otherwise have been unable to proceed.

During the year, 9 mineral leases were applied for, but 7 of them were refused. No gold leases were applied for, or tenements registered, at this office.

Total value of mining plant in Division, £2,000.

TUMUT AND ADELONG DISTRICT—Narrandera Division.

(*L. S. Donaldson, Warden.*)

The mining operations for the year have been almost nil. Ferrier has crushed 30 tons of stone from the Four-mile, yielding 4½ dwt. per ton which is not considered payable. Grennell and Party have done some work at the Seven-mile, with aid from the Prospecting Vote, but without any result. They think the reef runs into a conditional lease immediately adjoining, and have applied for authority to search there. Permits have been granted to Ferrier and to O'Farrell to work in Bear's Paddock; but as each party wants the same ground, and refuses to give way, nothing has been done except to commence legal proceedings. Both parties are confident that there is good gold in the coveted ground, but nothing has happened since the Division has been under my charge to warrant their expectations.

PEEL AND URALLA DISTRICT—Bingara Division.

(*Corbett Lawson, P.M., Warden.*)

I have the honor to forward my annual report upon the Bingara section of the Peel and Uralla Mining District. During the first months of the year, at several points in this district, work was vigorously pushed forward; but as each venture revealed the fact that results were not up to investor's expectations, operations were suspended, and in some cases abandoned. In spite of all drawbacks, the output on the various fields is in excess of last year, amounting to between 1,600 and 1,700 oz. of gold. At the various diggings, the following changes and operations have taken place.

Bingara Diamonds.

Mercer's party still continue to test their leases, keeping a party of men prospecting. Some of the interested capitalists have lately visited the ground, together with a mining engineer from Transvaal, who expressed themselves as satisfied with the prospects of the company. The Adelaide Gold and Diamond Mining Company continue operations. Main shaft down 160 feet to wash. Tunnels are driven along the wash for 200 feet.

Gold.

The pumping machinery erected by the Gwydir Gold-mining Company on the alluvial flat near the town still stands idle.

The Bingara Gold-mining Company are now down on the "All Nations Reef" 185 feet, reef from 5 to 8 feet wide, with tunnels on two levels for stoping down quartz. On the flat below the reefs, the Companies' plant of 10-stamper battery and concentration is in full swing, crushing and saving the pyrites for future operation.

The flat known as Flemming's Flat, about 6 miles from the town, has furnished profitable employment to a number of diggers, and fresh pockets are constantly discovered.

Spring Creek.—Several claims were tried and found unprofitable and abandoned. Latterly some leases were taken to open up a cinabar lode.

Top Bingara.—Last year, Mr. John Carney opened a reef on limestone formation. Several tons of stone were forwarded to Brisbane and Sydney, yielding 4 oz. to the town, that caused a rush for adjoining leases. Some speculators erected a plant on Mr. Carney's ground, consisting of engine, stone-crusher, battery, &c. Several tons were put through, but the return of gold was unsatisfactory, although a considerable quantity of amalgum was recovered from the tailings. This plant was dismantled and removed.

Mining operations were never quieter on this "old field."

Barraba, Tea-tree.—A large portion of this old gold-field was alienated to conditional purchasers, for pastoral purposes. The Black Mountain claim and Black Mountain North both idle.

Reading's Reef.—Hughes and party suspended work.

Wood's Reef.—The Euroya Gold Hydraulic Sluicing Company, after working for some months, are idle, pending some fresh appointments.

The Mount Moore Company have stopped work for the present. Future prospects are not very encouraging; but we are endeavouring to unearth something—that is, cinabar—in payable quantities.

PEEL AND URALLA DISTRICT—Tamworth, Nundle, and Bendemeer Divisions.

(*R. Frappell, Warden.*)

I have the honor to forward my report of the Divisions of the Peel and Uralla Gold-field, which must necessarily be short, owing to the late period of the year I took charge.

Nundle Division.—Mining is very dull here at present, a reaction having taken place after the large amount of capital expended in many cases without adequate returns.

Mount Sheba, Hydraulic Sluicing Company.—This company, one of the best of its kind in the Colony, with large dams and races, giving ample water supply, has washed away an enormous quantity of ground, but, I am sorry to say, with not payable results. The enterprising manager, Mr. Parkinson, has now removed his operations to Red Hill, and from recent prospects I trust the mine will have a payable career.

Mr. Norris, of Mount Misery, has a shaft down 264 feet on the cement lead, and after many months of unprofitable working, he has now got on a payable run of dirt, 8 feet high and of a good width. The cement is hauled to the surface with a whim, and carted to his 10-stamp battery. A tunnel has been driven 1,000 feet near the machine. This tunnel will now be proceeded with to avoid the expense of hauling and carting.

Isaacsohn and Thompson have obtained some very rich specimens from their claim under the Hanging Rock. Thirty-three tons gave 8 oz. to the ton. This is the best claim in my district.

Lady Mary.—In this mine a tunnel has been driven over 1,000 feet along a narrow vein, with no results. This company has the best plant on the field, a 10-stamp battery, but it is idle many months in the year.

Woodley and & Co. have two 40-acre leases working for antimony. In the lower lease some good 65 per cent. ore has been met with, and the lode is from 12 to 18 inches wide. In the upper lease the lode is worked by shaft and drive. Equally good ore is there found, but the lode is scarcely so wide or well defined as the lower one, but the mine generally is full of promise. Several isolated parties in the gullies and ranges are making fair wages, and a fair amount of gold is weekly purchased. Nearly all the capable miners are profitably employed.

Bowling Alley Point.—The John Bull Mine, having an excess of water, has to be suspended for a time. The Peel River Proprietory Mine, under Mr. Stanning, has carried out operations in a most energetic manner, having tunnelled some 1,000 feet, but, unfortunately, with no result; but the manager is in hopes that the present tunnel will cut the reef. One or two sluicing parties are making good wages on the old ground, and so are, it is stated, two parties of Chinese, while a few of the old miners eke out a living by fossicking along the points of the river.

Tamworth Division.—Very little is doing among the mineral leases in this Division. Want of capital seems to be the great complaint. Gold—A few miners at Spring Creek found a gutter with payable gold, and having pointed out a likely place for a deep run of gold, I obtained aid from the Prospecting Vote to enable the search to be made, but up to date no one has applied for it.

Niangala and Swamp Oak Division.—These are two new fields, situated, the former 30 miles from Walcha and 47 miles from Tamworth, the latter 35 miles from Tamworth.

Swamp Oak is on the silurian formation, and the veins are of a settled character, and carry gold from the surface. The quartz is of a dark, flinty character, and good to crush. Some eight or ten good claims, and several more promising ones, and from present indications, if the stone only carries the gold to a depth, I predict a great future for this field. Some 20 miles of the same formation, with veins crossing the track at intervals, exists below the Swamp Oak rush, on the Swamp Oak Creek. A township has been laid out on a fine site, and some fifty lots taken up. A battery is sadly needed to test the stone, but one is promised shortly. The place wants a road made to enable supplies to be carted to the mines. At present most of it has to be packed or carted by a circuitous route from Walcha.

Niangala.—This field is situated on the table-land, some 1,000 feet above Swamp Oak, and is on a more recent formation, the alluvial overlying the reef in some cases 15 or 20 feet deep. There are three or four payable claims, one or two of which have been formed into public companies. The greatest depth attained is the prospectors, 65 feet, who say their stone will pay. The veins run very uneven, sometimes bunching out, other times pinching in very narrow. This field requires sinking to a depth to test the reef, as the surface formations are, from their loose nature, unreliable, but very little work was being done at my late visit, most of the miners being anxious to sell out. A Warden's Court has been established here, and the office of the Mining Registrar and Warden's Clerk likewise, which is a great convenience to the miners.

Bendemeer Division.—Mining here is principally composed of tin and antimony, but owing to want of capital many of the mines had to suspend operations, and mining matters are dull. Lately a large quantity of ground is being applied for. It is thought some of the antimony mines, at the present price, will pay well. Some of the tin mines, it is stated, under more economical management, would give payable returns.

Extracts from Report by Mining Surveyor Cambage on the Swamp Oak Gold-field.

24 January, 1891.

This gold-field is on the Swamp Oak Creek, about 1,000 feet below the table-land of New England. The country is a slate formation, the reefs averaging about 15 inches wide. The surface shows are good, but the greatest depth yet tried is 40 feet. This claim is known as the Tichbourne. The reef is 18 inches to 2 feet wide, and a trial crushing by Park and Lacye, at Pyrmont, is said to have yielded at the rate of 11½ oz. to the ton. Other claims, both north and south, show well. Other reefs have been found containing more or less gold. A new reef, 3 feet wide, has just been discovered on the eastern edge of the township. Leases are being pegged out all round.

Owing to the steep country on all sides, it is very difficult of access. So far, goods have come from Walcha, but drays are expected from Tamworth. It is situated about 30 miles from either Tamworth or Walcha. Niangala is on the table-land, on the very head waters of Swamp Oak Creek. The two fields are about 10 miles apart. The prospects of the Swamp Oak field are decidedly promising.

PEEL AND URALLA DISTRICT—Scone Division.

(*W. F. Parker, P.M., Warden.*)

I do myself the honor to forward my eighth annual report upon the Scone Division of the Peel and Uralla Mining District, under my charge, during the period 1st January to 31st December, 1890.

Several Companies and mining syndicates have been formed and worked during the year with more or less satisfactory results.

About 4,500 tons of stone have been crushed at the various batteries, which yielded 3,800 oz. of gold, of the value of about £14,500.

141 miners' rights, 6 business and 2 mineral licenses were issued during the year (being 37 miners' rights less than 1889). The machinery erected on the field exceeds the value of £8,000.

Stewart's Brook.—The United Bluey Gold-mining Company (Limited); capital, £27,000; manager, Mr. R. Bennett. This Company have crushed during the year 2,000 tons of stone, which yielded 1,560 oz. of gold, of the value of £5,300. Twenty-five men are employed on the mine. The machinery consists of a 10-stamper battery, driven by a 16 horse-power portable steam engine, with double-acting up-pump, to supply water to battery, of the value of £1,600. At the back of the battery a large hopper has been erected, to hold 1,500 tons of quartz. A dray road has also been made, 21 chains in length, from mine to battery. The Company have sank a shaft 135 feet deep; the depth of lowest level, 400 feet below the top of hill. Average width of vein or lode, 2 feet. No pyrites have been treated by the Company. A change has lately taken place in the management, Mr. R. Bennett having resigned from the beginning of December, being succeeded by Mr. John Robinson, a mining engineer of large experience. The directors of the Company secured the services of Mr. Thomas Hosking, a mining engineer of experience to proceed to the mine and thoroughly inspect the same, both as to its present and future development.

The Royal Standard Gold-mining Company.—This Company have been actively engaged all the year in dead work, viz., in driving a low-level drive to cut the reef at a depth of 480 feet, which will be 220 feet deeper than their deepest workings; the drive is now in a distance of 619 feet, and will require to go another 100 feet to cut the Standard Reef; if the reef turns out good at this depth when cut it will be a good thing for the field because it will prove that the gold goes down, and other reefs that formerly proved rich near the surface and now lying idle may be again taken up and worked with good results. The Standard Company have a 10-stamper battery worked by water and steam power combined, of the value of £1,200, and employ about twenty-five men.

The Ethel May Gold-mining Company have crushed during the year close upon 1,300 tons of stone, yielding 555 oz. of gold, of the value of £2,150. The machinery consists of a ten stamper battery, erected on Stewart's Brook, driven by a 12 horse-power portable steam engine, distant about 1¼ mile from the mine; value of plant, £1,200, the quartz being brought to the battery by means of a tram line and drays. The tram-line is 44 chains in length, and worked by wire rope. The reef is large (at times as much as 10 feet wide); the Company intend to erect concentrators at the battery to extract the gold from the pyrites, which will add considerably to the yield of gold. This mine is worked in a thoroughly systematic manner, the Company having no less than five drives, which are on the course of the reef, and each drive 100 feet deeper than the other. Depth of deepest level:—No. 1, 85 feet; No. 2, 90 feet; No. 3, 272 feet; No. 4, 20 feet; No. 5, 100 feet; average width of lode, 3 feet.

Teddy Morgan Claim.—This is a lease of 8 acres held by a syndicate in Scone, situated at Upper Stewart's Brook, and taken up during last year; a tunnel has been driven about 58 feet; a trial crushing of 2 tons returned 5 oz. 5 dwt. of gold; two men have been engaged working this claim during the past four months.

The Terry (Limited) Liability Company, of 140 shares, seventy being fully paid up to £10 each, and seventy contributors of £10 each. This Company have a lease of 13 acres, and have had two crushings, viz.:—First, 42 tons of stone, yielding 24 oz. 9 dwt.; the second crushing consisted of 59½ tons of quartz, yielding 52 oz. 9 dwt. of gold. Six men have been employed in this claim; the stone was crushed at the Standard Battery and taken from a tunnel driven 71 feet.

Little Nell Claim.—Messrs. Giro Brothers, situated south of the Great Britain and Mountain Maid claims, and adjoining the latter reef in prospecting works at a depth of 60 feet varies from 1 to 3 feet in thickness, and shows very fine gold. At the present time this claim is worked through the adjoining claims works (a tunnel of 123 feet long) the reef being driven in a length of 60 feet, with about 90 feet of backs to be stoped; width of reef in this drive averages 7 inches. Messrs. Giro are now driving for reef found in prospecting works; estimated length to reach such, 42 feet; length completed, 11 feet; when drive is completed, estimated backs from surface, 160 feet. 20 tons of stone has been crushed from this claim, yielding 9 oz. 13 dwt. of gold.

The Alice Gold-mine.—This claim consists of a 4-acre lease of quartz ground, situated at the top end of Stewart's Brook, taken up in the beginning of the year (1890). The claim was formed into a syndicate of fifteen shares, mostly by Maitland residents; there is a shaft down 42 feet, and a drive in about 35 feet, besides a quantity of stoping done. There has been two crushings from this claim—one of 13 tons, averaging 1 oz. 4 dwt. per ton; a second crushing of 12 tons yielding 1 oz. 10 dwt. per ton, both crushed at Bluey battery; the reef runs from 4 to 8 inches wide, improving towards the bottom of the shaft.

The Pride of the North Claim.—This is a lease of three acres, divided into six shares. Since the beginning of the year the shareholders have driven in about 70 feet south at the 40-feet level. This claim was granted assistance from the prospecting grant to the extent of £50, but owing to so much wet weather they were unable to take advantage of it. Though the Company made different trials they could not get beyond 10 feet, owing to the heavy expense of bailing out water. They have now started a tunnel on the lowest level, and are driving in for the reef on an angle. The drive is now in about 20 feet, and they expect to strike the reef in about 7 or 8 feet more. Width of reef, from 1 foot to 2 feet 6 inches. There has been two crushings from the claim, viz., one of 18 tons, crushed in Sydney, yielding 2 oz. 5 dwt. of gold per ton. The second crushing consisted of 45 tons of quartz (an inferior lot), crushed at the Standard Battery, yielding 14 dwt. per ton. There is about 25 to 30 tons of stone at grass.

The Lady Maude Claim.—Since last report a lot of work has been done in sinking and driving, but sinking had to be abandoned in consequence of the heavy influx of water, and the Company are now busy putting in a low-level drive on the course of lode. Crushing payable, a crushing of 7 tons of stone yielding 13 dwt. per ton.

Cook's Patch Claim.—Further work has been done in this mine, and a large crushing took place about two months ago, but the results were very disappointing. Work suspended.

On the Blue Mountain, and *en route* to the Denison from Stewart's Brook, all work on the different claims and leases has been abandoned, the reefs being so broken and patchy, and not sufficient to justify further work so far away from crushing power.

The Denison Gold-fields.

The Newcastle Gold-mining Company.—This Company, formerly known as "Fuller's Reef," have a lease of a large area of quartz ground, situate about 2 miles from the village of Moonan (The Denison). Mr. Walter Donnelly is the manager of the Company. They have crushed during the year 600 tons of stone, yielding 1,076 oz. of gold, of the value of £4,200. The main tunnel has been driven a distance of about 200 feet. The stopes are in good working order, Nos. 1, 2, and 3 stopes are showing good gold, the average thickness being about 16 inches. The Company have a good substantial dam and plenty of water. The tailings are heavily charged with pyrites, which, no doubt, will be profitably dealt with at some future time. The Company are now pushing ahead with their new incline tunnel, which has been driven a distance of about 130 feet to strike the reef at a level of about 150 feet below the present tunnel. They intend to provide a boiler and engine at the mouth of the incline tunnel for hauling purposes, and a suitable steam pump at the bottom of the incline for the purpose of disposing of the water. A neat cottage has been erected for the use of the mine manager, and a magazine constructed for the storage of explosives. A small shaft has been sunk in the old tunnel, from which good stone has been got. I have every confidence in the future prospects of this mine, and I hope the Company will be rewarded for their spirit and enterprise. This Company regularly employ twenty-seven men.

The Welshman's Reef Company.—Their low-level tunnel has been now extended nearly 700 feet, but without striking the expected payable shoot of stone proved on surface and in shafts. Operations temporarily suspended.

Collit's Reef, Harle and Company.—Have been putting in a low level tunnel to cross-cut the reef under prospecting aid, and expect shortly to strike it.

Taylor and Party.—Have struck very good stone.

The Jeweller's Shop Reef.—Situate close to the village of Moonan; consisting of two leases containing an area of 10 acres each. This celebrated reef, so well known as the Denison about twenty-five years ago, and from which stone was procured that went 12 to 15 oz. to the ton. This ground had been locked up for a number of years without any work being done to develop it, but in the early part of last year the leases were cancelled, and the ground was taken up by the Messrs. Baker, and by them sold and transferred to the present holders (a Newcastle syndicate), Messrs. Russell, Campbell, Donnelly, and others, who have started work in the old tunnel and continued the 450-foot drive a further distance of 50 feet. The reef is about 18 inches wide and promising well. No stone has yet been taken from this reef, and should same turn out well it will give a fresh start to mining enterprise at the Denison, which at present is in a depressed state. In conclusion, I may state that mining operations have been greatly retarded at Stewart's Brook and the Denison in consequence of the continuous wet weather, 25 inches having fallen 1st January to 30th June, 1890. Work had to be discontinued in a good number of claims that were being effectively worked through the great pressure of water, and this has continued up to the present time and requires both capital and labour te cope with it. I estimate the number of miners at Stewart's Brook at about 350, and at the Moonan (the Denison) about sixty-five. Respecting the number of miners' rights issued here, many rights held by miners were obtained in other districts. Although the field has not progressed as well as I anticipated, I still have great hopes that there are better times ahead for Stewart's Brook and the Denison.

PEEL AND URALLA DISTRICT—Armidale, Hillgrove, and Walcha Division.

(*C. E. Smith, Warden.*)

I have the honor to report that during the year 1890 the yield of gold in the Armidale, Hillgrove, Uralla, and Walcha divisions of the Peel and Uralla mining district is considerably less than in the previous year, as the quantity won is estimated at 17,400 oz. as against 30,550 oz. obtained in 1889.

It is, however, satisfactory to observe there is a large increase in antimony, as over 1,000 tons was procured; whereas, during the previous twelve months, 195 tons was the output.

The increased value of this mineral has induced a large number of miners to turn their attention to mining for this ore, which is found in payable quantities in several localities in the neighbourhood of Hillgrove and in other parts of the district.

After a discovery of about 800 oz. of gold at Postman's Creek, Melrose, the prospects of the field were not sufficiently encouraging to induce capitalists to continue the search, and nearly all the miners removed towards the close of the year to new discoveries of a promising character made at Bungadore Creek and Swamp Oak by prospecting parties organised at Walcha.

PEEL AND URALLA DISTRICT—Gunnedah Division.

(*P. Brougham, Warden.*)

I have the honor to submit my report for the year 1890, upon the Gunnedah Division of the Peel and Uralla Mining District over which I exercise supervision as warden.

The only mineral which has been worked during the year is coal, and the following quantities have been raised.

From Centenary Coal and Coke Mining Company, Curlewis:—

	Tons.
Quarter ending March 31, 1890	1,089
" " June 30, 1890...	2,295
" " Sept. 30, 1890...	3,703
" " Dec. 31, 1890	1,710
Total	8,797

The

The other mines, viz., those of Pryor, Mary Melvil, and Patrick McCosker, have not been worked, and owing to some mistake about the permit of the last named, the district has suffered considerably from the want of coal from it, as it certainly is much superior to any yet raised either here or at Curlewis, and should it be worked during the present year, I feel confident my assertion will be proved to be correct.

PEEL AND URALLA DISTRICT—Glen Innes Division.

(*G. Martin, Warden.*)

Tin.—Emmaville.

The season was a most favourable one for alluvial mining, but the returns of ore won show a reduction on the output for the previous year, although an increased number of miners were employed in the industry.

The falling off in production was owing principally to the exhaustion of the opened deep leads, from which but little ore is now being raised; and exploration under the basalt by the Basaltic Prospecting Association has not as yet led to the discovery of payable deposits to take the place of the leads now worked out. The failing supply of stream tin is causing greater attention to be given to the lodes so abundant in the district, and from this source 152 tons were obtained during the year. Of this amount the Ottery Mine, at Tent Hill, contributed 67 tons, and as the facilities for work on the property are now well opened out by shafts and tunnels, the cost of extraction will be much lessened in future, and the profits increasingly greater as sections of the drives became available for letting on tribute. The stone is not rich, but the vein is a wide one—extending to 14 feet in places—and the machinery for crushing the matrix and saving the ore is as perfect as the embodiment of all the latest improvements can make it.

At the Butler's reef further down Glen Creek, some thousands of pounds have been expended in erecting a crushing plant, buildings, and tram line, and in opening the mine; but at present and for some time past operations have been at a standstill in consequence principally of some dispute as to title between conflicting claimants. The lode is rich in ore, and has been driven on for about 350 feet, between well-defined walls holding a body of tin stone 5 feet wide; and at intervals on the rise of the ground, shafts have been sunk on the course of the vein showing its continuity over a distance of about a quarter of a mile.

At the Dutchman's, the machinery has been idle during the year, and the mine shut down.

100 tons tin-stone have been put through at the Torrington establishment for a return of 11 tons dressed ore. Most of this came from the outside public, and but little from the mine.

The Castle Wellington Company have been employed principally in erecting machinery and making other initial preparations, but it does not appear that the extensive plant at the mine has as yet been worked to its full capacity.

The deepest level at this mine is 45 feet upon a small but rich vein of tin stone.

In the parishes of Muir, Landsend, and Flagstone, there are numerous uncovered lodes and veins more or less rich in metal, and it is surprising that the attention of capitalists has not been drawn to so promising a field for mining adventure.

From the returns before me it appears that twenty-six European miners, resident at the Gulf, obtained 21¼ tons of ore from one or the other of these reefs during the twelve months, and as there is not any machinery available in the locality, the whole of that output had to be dallied and hand-dressed.

A recent discovery by Storner Brothers in the Parish of Flagstone is illustrative of the richness of these lodes. From a small hole, 3 feet by 2½ and 16 feet deep, these two men excavated and hand-dressed 2½ tons of ore in three weeks, leaving, it is estimated, about half-a-ton more ore in the stone and tailings cast away. The lode here is more than 9 feet across. The mass of ore occurred in the centre of the vein, about 2 feet in width, and was nearly pure.

Another lode 2 miles distant from this averages 2 feet in width, and has returned 1½ tons clean hand-dressed tin ore for the labour of three men (Hooper and party) for a like period. A heavy percentage of the mineral in this case also was carried away in the tailings in consequence of the rudeness of the appliances in use by the miners for saving the ore.

In all, 1,150 tons of tin ore were won in the Emmaville District by the labour of 301 Europeans and 500 Chinese miners. 745 tons of this total were purchased and reduced at the Tent Hill Smelting Works, giving 538 tons of refined tin. The balance was forwarded by train to Newcastle.

At an average price of £53 per ton, the value of the ore would be £60,950.

Glen Innes.

In the Glen Innes portion of the Mining District tin has been always mined for in the alluvial, although lodes of a promising character are known to exist on the Glen Elgin Run at Pheasant Creek.

The gross returns have never been large, but the output does not show any signs of falling off. The deposits are found from Hague's Creek to Oban, over a distance of about 50 miles, following closely the eastern border of a long line of hills of basaltic formation for more than half way to the last-named place. Recently a very rich deposit has been opened out in shallow ground on reserve No. 11,170, about 8 miles from Glen Innes, and it is probable that the tin may yet be traced under the basalt, which here forms the western watershed of the Mann River. I myself saw about 7 lb. of tin ore washed from one bucket of the drift taken from an excavation 5 feet in depth on this reserve. There is little doubt that an old river course underlies the basalt capping the range, and if a lead of ore should be followed into it the indications point to the probability of its continuance over a considerable extent of country An average of 32 Europeans and 60 Chinese have been employed mining for tin and gold combined in the alluvial, principally at Oban, for a return of 151 tons 18 cwt.; value, £8,050 14s.

Silver.

This phase of mining has not made as rapid headway as was anticipated, in great measure owing to the difficulty experienced in treating the ores by concentration and in reduction to refined silver, but as the ore is rich the necessary skill will in time be gained as a result of many failures, and eventually, as in other countries, even the comparatively poorer grades may be expected to return a profit on their manipulation.

Much money has been wasted in the purchase of machinery, found on trial to be useless for the purpose for which it had been erected, and shareholders very naturally refused to further contribute where the chances of profit seemed so remote, and the certainty of outlay in the acquirement of experience so immediate.

Nothing

Nothing will so effectually give an impulse to the silver industry as the erection of smelting works at some easily accessible point on the northern line of railway where the miners would find a ready market for all the hand or machine dressed ore they could produce, and whence reliable information of value in directing their labours at the mines could easily and promptly be obtained.

Webb's Silver-mine.

Under the able management of Mr. R. Adams this mine has taken the first place in development and production, and returns a total of 92,750 oz. of refined silver for the year. By the labour of 70 men and 20 boys there were raised 6,500 tons of lodestuff, which on being hand picked and machine dressed gave 833 tons concentrates for shipment to the smelting works at Dry Creek, South Australia, where it was treated at a cost of from 50s. to 70s. per ton, according to the percentage of zinc blende in the ore. There are two main shafts down 350 feet each, and the greatest depth reached is 410 feet by Winze; the width of lode ranges from 4 to 8 feet. Cartage from the mine to Deepwater costs 35s. per ton, on which work three teams were constantly employed.

Webb's Consols.

There were 16 men employed at this mine during the greater part of the year, and about 560 tons of lode stuff raised, from which 270 tons concentrates treated at Dry Creek gave a return of 4,070 ounces of silver. A Chilian mill and the ordinary miners sluice box, were the only kinds of machinery in use at the works. Towards the end of the year the hands were discharged and the mine shut down, under suspension of labour conditions applied for, to enable the proprietors to reform the company. Mount Galena Mine is in the same granite formation as Webb's Consols, and close to it on a parallel vein two shafts are down 45 and 60 feet respectively, showing good bodies of argentiferous galena, assaying it is reported, an average of 40 ounces of silver and 50 per cent. of lead per ton.

Webb's South Extended.

On this property several shafts have been put down exposing bulky veins of lode matter, the widest being 10 feet. The average assay of the vein is reported to have given 20 ounces of silver and 50 per cent. of lead. About £2,000 have been expended in mining on the property, but it does not appear that under conditions of the industry the mine can be made to pay, as the works have been closed for some months past.

Castlerag.

The very complete concentration plant erected at this mine did not realize the expectation formed of it, and in consequence of this check the shareholders were much discouraged and operations put a stop to for a time. The manager reports that the main tunnel is in on the course of the lode 560 feet, and 4,000 tons of ore are at grass, giving an average assay of 30 ounces of silver. 20 tons of concentrate sent to Dry Creek for treatment gave a return of 90 ounces per ton. 26 tons of crude ore forwarded to Adelaide gave a return of 60 ounces per ton, and 50 tons shipped to London 50 ounces silver per ton of ore. Besides the concentration plant there is a 10-horse power engine with winding gear and Tangye pump, placed in a position at the main shaft at a cost of £450. An average number of 30 men were employed during the working period.

Castle Queen.

About £800 have been spent on this mine, and a main shaft put down 120 feet. About 4 tons of ore at grass is reported to average 30 ounces of silver.

Castle King.

An expenditure of about £600 has been incurred on this mine, and a tunnel driven in 194 feet, with air shaft 62 feet and winze 53 feet in depth. 26 tons of hand picked ore treated at Dry Creek yielded an average of 30 ounces per ton.

The Castle Wellington Company have been developing a silver lode on their property at the nine-mile, and have shipped 10 tons to Germany for treatment, averages of which gave 37 ounces, but the ore is reported to be very refractory.

Pye's Creek.

This mine after lying idle for a considerable time was let on tribute to a party of miners, who, it is reported, netted about £200 on returns of ore forwarded to Adelaide within a few weeks.

About £4,000 had previously been expended by the Pye's Creek Company without any return for the outlay.

Clarevaulx.

Several attempts have been made to float the promising mine on Clarevaulx, near Glen Innes, into a company without success, and the work there is at a standstill for want of capital.

South-east of Glen Innes the silver-bearing lode of copper pyrites on the Paddy's Land ranges has been taken in hand by a Sydney syndicate, who have had eight men at work on the mine raising ore during the last four months. There are three parallel lodes on the land, 6 feet, 4 feet, and 4 feet respectively, and 300 tons of ore at grass awaiting treatment. Assays give an average of 40 per cent. of copper and 41 oz. of silver per ton. The syndicate contemplate erecting a reverberatory furnace for producing copper matte, and in that state shipping the ore direct to Europe for sale.

Emeralds.

At the Glen, a few miles from Emmaville, in a slate formation on the flank of a granite range, an interesting discovery of emeralds has taken place during the year, and of 2,225 carats forwarded as a trial shipment to London account sales are just to hand stating that some of the gems were sold at the rate of £4 per carat. The lode formation is a dense quartzite about 3 feet wide, carrying a softer core of fluor-spar, in which are embedded masses of small quartz crystals with emeralds at intervals throughout the masses. Thirteen men were engaged in this new industry during the last five months of the year, and as a parallel lode about a mile distant is also being opened it is probable that the industry will be of importance to the district.

Wolfram.

Wolfram.

Two lodes of this metal are reported to exist in the Emmaville district, but nothing appears to have been done to forward any of the ore in bulk as a test of its commercial value.

Gold.

The production of this metal is steadily increasing as the reefs at Kookabookra are being opened out, and there is every reason to anticipate, from present appearances, that the field will be a permanent and valuable addition to the mining resources of the country.

Bear Hill Proprietary is at present the best opened and the most promising mine on the field. There is not as yet any crushing plant available for reduction of the stone, but the machinery has been ordered, and a battery of twenty head of stampers, with engine and appliances complete, will shortly be erected on Cedar Brush Creek to connect with the mine by a tram line half a mile in length. Under the intelligent supervision of the mining manager, Mr. Vellenoweth, the well-planned shafts and tunnels gave easy access on the course of the lode at several points, and there will not be any difficulty in largely and readily adding to the daily output should the demands of the crushing plant at any time necessitate an increase on the present rate of production.

The management is to be commended for the forecast displayed in opening this mine so as to be prepared for continuous crushing when the battery is started, and thus afford a fair opportunity to the shareholders and the general public to judge of the value of the property. Twenty-five miners have been constantly employed during the year.

Butcher's Reef.

About 600 feet lower down the spur of the mountain is a narrower vein underlying more to the south, but showing gold with greater freedom in the stone. 150 tons of quartz treated at the five-head stamper battery belonging to this Company on Nowland's Creek gave a return of 400 oz. of gold, value, £1,590; but as the mine was not sufficiently opened out to keep the battery constantly running operations in reduction had to be temporarily suspended and more labour set to the work of excavation. An average of twenty-seven men were employed on this lease.

"The Welcome Stranger"

has been hampered and its operations impeded by the want of sufficient capital to work the mine, as negotiations with an English company to take over the management, on satisfactory terms, which were apparently completed, eventually and finally fell through.

It was thought by the present Proprietary that the lode exposed over 300 feet in the tunnel, and the returns of nearly 2 oz. of gold per ton afforded reliable data on which to form a company, but as investors are evidently becoming more cautious in mine adventure, it has been determined to put down two shafts on the lode, 100 feet each, below the floor of the tunnel, as a further test, and all the labour is now being centred at these two points.

The New Dominion is a narrow vein, supposed to be a continuance of the Welcome Stranger, from which 35 tons of stone gave a return of 92 oz. gold. A five-head stamper battery has been erected in connection with this mine, but its work has been intermittent hitherto, as it takes a considerable time to open a reef sufficiently to keep even five head of stampers running. Other reefs in this locality are being operated on, but have not yet got beyond preliminary prospecting, and it is therefore too early to form an opinion as to their probable value. Money, however, is being freely spent on trial shafts, and the lessees seem confident of success in their ventures. At the Starlight, Oakwood Gulf, a great deal of work has been done since the commencement of the year, and about £5,000 expended on battery, sawmill, residences, and tram line 88 chains long to connect the mine with the crushing plant. A shaft has been put down 90 feet, and the tunnel on the course of the lode extended to 150 feet. The reef is from 2 ft. 6 in. to 3 ft. wide, and is reported to be showing gold freely at the end of the drive. From the situation of this mine and bulk of stone exposed the venture ought to be a very profitable one, even if the stone should yield a much less per centage of gold than is anticipated. That the syndicate in possession of the reef is satisfied with the prospects disclosed is evident from the amount of money being spent on fixed improvements, and the costliness of the plant erected to work the mine. Twenty-three men have been at work on the reef and improvements, and a new centre of mining activity is being established which promises to be as permanent as the neighbouring field at Kookabookra, 14 miles distant. A few men are operating on the other reefs in this locality, but the work is yet exclusively of a prospecting nature.

Glen Elgin.

Simpson, Drew, and party have transferred their working interest in the 50 acres taken up by them to an English syndicate, and the capital necessary to start work has been lying for some time in Sydney to the credit of the manager. A slight delay having occurred in securing the full area of land guaranteed operations were held in abeyance pending the issue of all the leases, but that difficulty having been overcome it is now anticipated that a start will soon be made on the reef, and that £10,000 will be spent in testing its value. Bertram and party have been operating on other reefs in this locality, and report a yield of from 6 dwt. to 2 oz. from roughly dollied stone obtained from a 3-foot lode on their property. Unlike the slate and granite formations at Kookabookra and the slate formation at Bear Hill and Oakwood, the gold-bearing country at Glen Elgin is wholly of granite crossed by an intrusive range of felstone, diorite, and slate, into which the auriferous reefs have not as yet been traced.

Bismuth.

The mines at Kingsgate still remain closed under, it is reported, some arrangement with the bismuth ring in London, to lessen the amount being placed on that market.

Antimony.

Land has been taken up to mine for this metal in the parish of Rampsbeck, but nothing has been done to test the value of the find.

I subjoin an abstract showing the amount of minerals and number of miners employed in my division during the year :—

ABSTRACT Mining Report, Glen Innes Division, for year ending 31st December, 1890, showing Output of Minerals and Average Number of Miners Employed.

	£	s.	d.
Emmaville District.			
Tin Ore—1,150 tons, value	60,950	0	0
Silver Ore—1,075 tons concentrates, yielding, as per assay, 102,150 oz., estimated gross value	20,430	0	0
Copper Regulus—2 tons, value unknown	.....		
Emeralds—2,225 carats, no return of sale	.....		
Glen Innes District.			
Gold—941 oz. 4 dwt. 19 gr., value	3,514	16	0
Tin Ore—151 tons 18 cwt., value	8,050	14	0
Total value	£92,945	10	0

District.	Minerals worked for.	Europeans.	Chinese.
Emmaville	Tin	301	500
	Silver	95	...
	Emeralds	13	...
Glen Innes	Tin	32	60
	Tin and gold	21	25
	Gold	80	17
	Silver	4	...
	Total	546	602

PEEL AND URALLA DISTRICT—INVERELL DIVISION.

(*W. W. Fraser, Warden.*)

I HAVE the honor herewith to forward my report for the year 1890 on the workings on the Tingha and Inverell Divisions of the Peel and Uralla Mining District.

Owing to working out of the alluvial deposits the output for the past twelve months is somewhat less than last year. Still the numerous reefs showing all over these fields justifies the conclusions I arrived at some years ago of the permanency of this industry here. The recent syndicate mania has proved disastrous to this field. Some have been successfully floated, but there they end. As a rule, too much has been paid the promoters, leaving too small a balance for working the land. Attempts are then made to gain time by applying for suspension to obtain necessary machinery. The evil day is thus put off for a time, and the Department, I must say, act liberally with lessees, but, having paid too much originally for undeveloped ground, they must ultimately collapse from impecuniosity. So long as there are ready speculators, there will always be found investors. It is difficult to contend with this scourge, but I would suggest that no suspension of work be allowed unless it can be shown that machinery has actually been purchased, and is on its way to the mine.

Suspension of labour conditions greatly militate against the advancement of the field. *Bonâ fide* miners and their families cannot remain idle, and have to leave for places where they can get permanent employment. These and other causes have decreased our population, especially of those most suited for the work. It has been suggested, and I think the idea a good one, that the mineral license be abolished, and that the miners' rights be the only and necessary authority issued, and that no one be allowed to work in raising gold or minerals other than gold on any field unless he is the holder of a miners' right. Of course provision would have to be made for the area of land allowed to those working for gold and those who work for minerals other than gold. It is contended that thereby a better class of miners would be created. At the present cost of a miners' right it is thought there would be no decrease of revenue under that head by suggested alterations.

With the decrease of the alluvial deposits there is a decrease of the Chinese population. They do not care for reefing operations.

The diamond industry is making but slow progress. Badly got up syndicates have had much to do with this. There is no doubt, however, of the existence of the diamonds.

The silver find at Elsmore is not turning out so far a success ; but at Ashford, some 40 miles north of Inverell, there have been large finds of antimony with indications of gold. Several parties are prospecting, and if they can afford to continue the search I anticipate good results from the appearance of the country.

Some stimulus is needed to assist in prospecting, and, I think, we here are fairly entitled to the use of a diamond drill for testing the grounds. Its services would be largely availed of if charges were moderate.

PEEL AND URALLA DISTRICT—BARRABA DIVISION.

(*P. Sinclair, Mining Registrar.*)

I HAVE the honour to report for the year ending 1890, which has been a very quiet year in this division, the few tons of quartz that have at different times been crushed not coming near the expectations.

I have this year sold 84 miners' rights, 6 mineral licenses, and had 8 applications for gold-mining leases.

The Euroya Hydraulic Sluicing Company will be starting to work shortly. The machinery is all in working order ; the cause of delay in working is caused by some alteration in the management by the Company. There has not been a great number of miners on the mines lately ; in fact, there has not been much done the last twelve months.

I think there will be reaction this coming year, 1891. Crowley Brothers have been the only ones that have been getting any gold to speak of. They have at different times crushed 87 tons of quartz for a yield of 65 ozs. 8 dwts. 16 grs. of gold. There has been more gold won, but I cannot ascertain the quantity, owing to the scattered population.

Some of the old diggers think there will be more gold won this coming year.

PEEL AND URALLA DISTRICT—Hillgrove Division.

(*S. Matthews, Mining Registrar.*)

I have the honor to forward herewith my report on the Hillgrove Division of the Peel and Uralla Mining District for the year ending 31st December, 1890.

The past year has been a fairly prosperous one with regard to mining in this division, and the present year bids fair to be even more prosperous, especially with regard to antimony, of which this field has been proved to contain vast deposits, of excellent quality.

During the year 1890 there were 103 applications made for gold leases, for an aggregate of 722 acres; and 28 applications for mineral leases, for an aggregate of 958 acres.

Number of miners' rights issued, 727; mineral licenses, 25; business licenses, 68. Total amount collected for the year, £1,619 11s. 7d.

Comet Reef (J. J. Wilkinson and party), about 12 miles north of Hillgrove.—Since my last report this property, which was on freehold property, has been purchased by the abovenamed Company; the lode is from 5 to 7 feet wide, and can be traced for 40 chains, strike N.N.E. by S.S.W., underlaying about 1 in 5; average prospects from the lode give a return of about 1 oz. of free gold to the ton. About 10 tons were treated in Sydney, giving a return of 1 oz. per ton, the concentrates from which assayed 8 oz. per ton. The walls of the lode are diorite, the country on the hanging wall side is of granite formation, and that on the foot wall is of slate formation. No. 1 shaft, 30 feet deep, showing lode 6 feet wide at the bottom; No. 2 shaft, 30 feet north-west of No. 1, is 30 feet deep, on lode same as in No. 1; No. 3, 7 chains N.W. of No. 2—this is an open cutting, 50 feet long by 6 feet deep, and 6 feet wide; No. 4 shaft, 15 feet deep, about 8 chains N.W. of No. 3; and No. 5, 12 feet deep, about 12 chains N.W. of No. 4. In all these the lode shows plainly, and is of an average width of 6 feet. There is an abundance of wood and water in the neighbourhood, and every facility for working the mine at very little cost.

Little Nell (Monk and party), about 1½ mile south of the Comet.—Main shaft sank about 50 feet on lode about 1 foot wide, containing quartz veins, carrying a little gold. The lode is traceable for about 8 chains.

Little Beauty Reef (Chilton and party), about ½-mile west of the Little Nell.—Main shaft sunk about 30 feet on lode about 8 inches wide, prospects from which show a little gold.

Mineral Lease, portion 150 (K. Finlayson and party), about 1 mile east of the Little Beauty.—There is a large lode about 40 yards wide of felspathic rock, intersected by quartz veins, which contain a large percentage of silver. About 5 miles easterly of M.L. 150 there have been several portions pegged out, and authorities granted to dig and search for silver, as the land is alienated, but as very little work has been done on them at present, I cannot say what the prospects are.

Garibaldi Gold and Antimony Company.—The main shaft is sunk 210 feet, on lode 9 feet wide of slate and quartz, intersected by a sandstone dyke at the 100-feet level. They have driven for a distance of 100 feet in a northerly direction, and southerly for a distance of 130 feet on the lode, strike of lode N.E. by S.W.; also a second shaft to the south, which is down a depth of 100 feet on the same lode as in No. 1. Have crushed 842 tons of stone for 739 oz. of gold, valued at £3 3s. per oz. Since my last report this Company have erected a 20-head stamper battery, with Frue, Vanner concentrators and Chilian mills, also steam-winding plant, at a cost of £10,000. Forty men employed.

Cosmopolitan Gold and Antimony Company.—No 1 tunnel driven 220 feet on lode 2 to 5 feet wide of quartz and antimony, carrying a little gold. No. 1 winze, 120 feet; No. 2 winze, 40 feet; and No. 3 winze, 90 feet; also a second tunnel driven 40 feet; all of which are on the same line of reef. Strike of lode north and south, underlaying east about 1 in 10. This Company have erected a 12-head stamper battery, which is driven by water-power; value of machinery, £2,500. During the year have disposed of 130 tons of antimony, which was sold in England at an average price of £30 per ton. I hear that the Company are about to erect smelting furnaces to treat all the ore, which will thus save all the antimony, and the residue will be crushed at the battery, which system, I have no doubt, will greatly enhance the value of this property. Thirteen men employed.

Sunlight Gold-mining Company.—No. 1 tunnel driven westerly 250 feet, thence easterly 205 feet, on quartz lode about 6 feet wide, strike N.W., underlaying easterly about 1 in 10; No. 2 tunnel, which is 118 feet east of No. 1, is driven a distance of 318 feet on same lode as in No. 1; No. 3 tunnel, 110 feet east of No. 2, is driven 239 feet on same lode, also 113 feet westerly on the lode. No. 1 shaft sunk 55 feet; No. 2 shaft, 47 feet; No. 3 shaft, 73 feet: No. 4 shaft, 80 feet; No. 5 shaft, 68 feet; and No. 6 shaft, 78 feet; all on the same lode as in the tunnels, thus proving the enormous amount of stone that this Company have to work on. They have crushed 2,009 tons of stone for a return of 1,550 oz. of gold, valued at £3 12s. 6d. per oz., and 310 oz. silver, valued at 3s. 6d. per oz. The machinery consists of a 20-head stamper battery, with four percussion tables and Berdan pans, and an amalgamating concentrator, which latter is an invention of Mr. Hy. Martyn's, the mine manager. They are at present excavating the site for a foundation on which to erect more stampers. Value of machinery, £5,000; 62 men employed.

Baker's Creek Gold-mining Company.—No. 1 shaft, 195 feet deep; No. 2 shaft, 111 feet deep; and No. 3 shaft, 81 feet deep, on lode consisting of quartz and antimony, carrying gold; average width of lode, 15 inches; strike N.E., underlaying 1 in 7. This is known as Smith's reef. There are several tunnels driven on this reef, viz., Plietner's tunnel, 200 feet; Cornish's tunnel, 220 feet; Smith's tunnel, 450 feet; and Barnsfield's tunnel, 804 feet; all on the same lode, which averages 2 oz. of gold to the ton of quartz. There is also a second reef, known as the big reef, running nearly parallel with the above, about 2 feet wide, on which the following tunnels have been driven, viz., Wendt's tunnel, 120 feet; Miller's tunnel, 200 feet; and Murray's tunnel, 416 feet; average return from stone, about 12 dwts. to the ton. They have lately come across a third reef, which is known as Hill's reef, on which a trial shaft has been sunk 20 feet, the stone giving an average return of 25 dwts. to the ton. The machinery consists of a 30-head stamper battery, air-compressers for working rock-drills, roasting furnaces, Berdan pans, and Watson & Denny pans, all driven by steam-power, valued at £11,785. They have crushed 5,725 tons of stone during the year, for 11,476½ oz. of gold, valued at £39,302 13s. 7d. Number of men employed, 170.

No. 1 Freehold (situated at the head of the Baker Creek Falls).—Shaft sunk 130 feet on lode of quartz and antimony, carrying gold, about 1 foot wide, at the 100-foot level; have driven 50 feet N.W. on lode, and 60 feet S.E. on lode; strike of lode, N.W. I believe it is the intention of the proprietors to erect smelters shortly to treat the antimony. Four men employed.

Mineral

Mineral Conditional Purchases, Nos. 122, 123, *and* 124 (*Brereton and Party*).—On this property, which consists of 120 acres of freehold land, situated about half a mile east of Hillgrove, there are several very good antimony lodes, mixed with quartz; average width of lodes, from 1 foot to 10 feet; strike, N.W.; notably a lode on No. 122, about 1 foot wide, which is traceable for 14 chains, carrying 60 per cent. antimony, and quartz from which as high as 1 oz. of gold per ton has been obtained, and a second lode on Mineral Conditional Purchase 123, about 6 feet wide, of which about 2 feet are nearly solid antimony, averaging about 50 per cent. of pure metal. This property is at present placed on the London market to be floated, and I am informed there is every prospect of its being formed into a company shortly. At present there are about 10 men employed raising antimony.

No. 2 *Freehold* (*known as the Hillgrove Antimony-mining Company*).—Shaft sunk 75 feet on lode 18 inches wide of antimony and quartz; strike, N.W., underlying about 1 in 10. To the south of the above there is another lode of similar formation; the antimony averages 50 per cent. pure metal. About 400 tons of antimony were obtained from this property some five years ago. A company has just been floated to work the mine, nearly the whole of the shares being applied for by local people. Tenders have been accepted for the erection of melting furnaces and other works necessary to treat the antimony. The lodes can be traced a distance of 28 chains; 12 men employed.

Lady Carrington Gold-mining Company.—No. 1 shaft, 50 feet, and No. 2 shaft, 35 feet, on lode of quartz and antimony carrying gold. No. 1 tunnel, 60 feet; No. 2 tunnel, 270 feet; and No. 3 tunnel, 245 feet, on same lode, No. 3 driven easterly a distance of 40 feet, and a cross-cut 70 feet, all on the same lode. The machinery consists of a 10-head stamper battery, with 10 concentrators and 1 Berdan pan, driven by a 60-horse power steam engine; also pumping gear and engine, at the top of the falls, for the use of the tramway. This Company are about erecting furnaces to treat the concentrates, of which they have about 160 tons ready for treatment. Value of plant about £10,000. Number of men employed, 50.

Baker's Creek North Gold-mining Company.—Main shaft 230 feet deep; at the 125-foot level there is a cross-cut 82 feet; No. 1 drive, 85 feet with a cross-cut 69 feet; No. 2 drive, 130 feet; and No. 3 drive, 84 feet, on lode, about 8 inches wide, of quartz carrying gold, strike N. and S. No. 2 shaft 150 feet, and a winze 129 feet. The machinery consists of a 10-head stamper battery with erasters, also pumping and winding gear, the whole being driven by steam engines, of which there are three, value of machinery £10,000. 20 men employed.

Starlight Gold-mining Company.—No. 1 tunnel 50 feet; No. 2, south of the above, driven 60 feet, both on lode about 6 inches wide of quartz and antimony, a trial crushing of 8 tons gave a return of 6 oz. of gold per ton. There are about 3 tons of stone at grass. 5 men employed.

Eleanora Gold and Antimony Company.—Considerable improvements have been effected on this property since my last report, notably the erection of a large smelting plant to treat the antimony, of which this mine has a considerable quantity; also new poppet heads and steam winding gear. They intend shortly erecting steam jiggers for separating the smaller particles of antimony from the ore. The shaft known as Brakin's shaft is about 300 feet deep on a lode of quartz and antimony, about 8 feet wide, intersected by a sandstone dyke, about 4 feet wide. The main shaft is down about 300 feet on the same lode; strike of lode N.W., underlaying about 1 in 4 N.E. There are about 1,100 feet of stoping done to date. The smelting plant consists of five furnaces capable of turning out 50 tons of crude antimony per week, at an average value of £45 per ton. They have also erected a new duplex pump to supply the whole of the machinery with water. Gold won for the year, 1,640 oz., valued at £5,867 14s. 2d. Antimony ore sold during the year, 348 tons 6 cwt., for which they received £10,499 7s. 6d. Value of machinery, £23,430, consisting of 25-head stamper battery and 5 reverbatory furnaces. No. of men employed, 95.

Mineral Lease 280 (*Burke and Party*).—A shaft sank 30 feet on lode of antimony 14 inches wide, strike N.W., underlaying 1 in 10, traceable for 12 chains, in slate country. Have sold 12 tons of ore to date, at an average price of £11 per ton at the mine. 2 men employed.

Gold Lease 421 (*Wilmott and Party*).—No. 1 shaft, 23 feet on antimony lode, 6 inches wide, strike N.W., underlaying 1 in 10. No. 2 shaft 35 feet east of No. 1, 6 feet on same lode as above; and No. 3 shaft 50 feet east of No. 2, 8 feet deep on same lode as above. The ore assays 50 per cent. of metal. 6 men employed.

Gold Lease 474, *late Mineral Lease* 9 (*H. Cock and Party*).—Several drives have been put in on this property, the main one being 100 feet. There are 4 distinct lodes of antimony running through the ground, averaging 10 inches in width, assaying 50 per cent. of pure metal, there are numerous smaller veins of antimony on this portion, have sold about 40 tons of ore at an average price of £10 per ton on the mine. Number of men, 12.

Golden Gate Mine (*M'Kinlay and Party*).—Main tunnel driven 207 feet on reef about 2 feet wide of quartz, a crushing of 300 tons from which gave a return of 170 oz. smelted gold. There are two other reefs on this property, samples from which give fair prospects when crushed. Four men employed.

General Norman Mine (*Scholes and Party*).—No. 1 tunnel 90 feet, and No. 2 tunnel 90 feet; also a shaft 23 feet on lode about 18 inches wide of quartz and antimony, carrying gold. Several other lodes on the property which have not yet been prospected. Six men employed.

Earl of Hopetoun Gold-mining Company.—No. 1 tunnel 330 feet; No. 2 tunnel 180 feet; east of No. 1 is driven 109 feet; No. 3 tunnel 70 feet; north-west of No. 2 driven 55 feet; No. 4 tunnel 80 feet; north-west of No. 3 driven 134 feet; No. 5 tunnel 200 feet; north-west of No. 4 is driven 70 feet. Nos. 1 to 4 are on a lode of quartz and antimony of from 6 to 60 inches wide. The lode is mixed in some places with the country formation, which is of granite. Dip of lode easterly about 1 in 10; strike north 50 west. A trial crushing of 5 tons gave a return of about 4 oz. per ton. There are about 250 tons of stone at grass, waiting the erection of machinery which will shortly be erected, as at present the company are preparing the site for same. They have also started to excavate the reservoir for water to supply the machinery, and are laying a tram-line to connect the mine with the machinery. Number of men employed, 29.

Gold won for the year, about 16,025 oz., valued at £54,505 4s. 7d.
Antimony won during the year, about 1,000 tons, valued at £19,460 8s. 6d.
Silver, about 300 oz., worth 3s. 6d. per oz.
Total value of machinery on the field, £70,715.
Number of men employed in this division, about 650.

PEEL AND URALLA DISTRICT—Walcha Division.

E. Marriott, Mining Registrar.

I have the honor to submit herewith my annual report for the Walcha Division of the Peel and Uralla Mining District for the year 1890.

Some delay has arisen in the preparation of this report, owing to the non-receipt of returns from the various claim-holders in the district, and in consequence of duties in connection with the other offices held by me requiring my immediate attention.

Considerable activity in mining has taken place during the past year, principally owing to the new discoveries at Niangala and Swamp Oak. The prospectors of both places registered their claims here, this office being the nearest mining office to the localities named, and a large number of leases were subsequently applied for and miners' rights issued.

Niangala and Swamp Oak gold-fields having, however, been placed under the jurisdiction of Mr. Warden Frappel, of Nundle, and a Mining Registrar and Warden's Clerk having been appointed to Niangala, doubtless these new gold-fields will be fully reported on by the officers in charge of same.

Glen Morrison.

The Glen Morrison United Gold-mining Company's property at Glen Morrison is still being worked, and a large sum of money has been expended on the mine.

Mr. Barbour, the working manager in charge, reports as follows:—"One hundred tons of stone raised awaiting crushing. There is a 15-head stamper battery held by the company, which was erected some years ago at a cost of about £3,000."

No further returns are to hand respecting the other companies' holdings at Glen Morrison, and, as I have not been able to visit the locality for some time past, I am not in a position to report more fully. In the event, however, of my receiving any additional information from that quarter, I will report fully to you.

Tia River

There was a small rush to this place some months ago on a new alluvial find; several claimholders obtained a good return, one fortunate digger finding a nugget weighing over 2½ oz., which was lodged in the Commercial Bank here. A number of miners are still working alluvial ground here, but I have no reliable information to hand as to the result.

Messrs. Oxenbridge and Party still hold on the claim known as the Mountain Maid; they report as follows:—"16 to 18 tons of stone raised, 2 tons recently crushed, yielding 3 oz. 7 dwt."

The claim known as the Sleeping Beauty is still held by David George, who reports as follows:—"Two gold reefs, one north and south, the other nearly east and west, reef over 4 feet wide at 55 feet depth. No stone raised, as a great quantity of water has to be contended with. A drain cut over 100 yards long in the gully, and a drive in at the face 27 feet 6 inches long. North and south reef fully 2 feet wide. Race cut from Matheson's Tunnel 1,500 yards long. Gold too fine to save in sluice boxes; at present making an open drain with a 40-foot drive to drain the east and west reef. Three trenches cut from the race to the gully, each about 100 yards long."

No returns to hand respecting the Tia River Company's workings.

Nowendoc.

Mount Carrington claim, situate at the head of Nuggetty Gully. Henry Whitham, part owner, reports:—"I have been working in this claim over six years; during the past four months have been engaged in procuring timber and driving the tunnel on the north side of the mountains 55 feet, a sinking shaft 95 feet; shaft timbered from top to bottom, and tunnel securely timbered."

Mr. Thomas Laurie, also part owner of the Mount Carrington Claim, reports:—"Tunnelling into mountain about 1,200 feet, showing traces of gold, and, coming to cement formation, will take about 1,500 feet more tunnelling to reach centre of the mountain. Depth of ground at centre of mountain to tunnel, about 600 feet; no doubt having undergone great volcanic action in ages past."

Boggy Creek Hydraulic Sluicing Company.

Mr. Thomas Laurie reports that the average earnings are about £2 per man.

Mumble Creek Company.

Mr. W. W. Walsh, the manager reports:—"The Mumble Creek lode is situate about 40 miles south-east from Walcha. It presents on the surface a remarkable appearance. The lode is bearing north and south, with an average width of 7 chains running for many miles in an uninterrupted line of mangonide ironstone. Porphyry, jasper, and quartz assay on the surface 2 oz. of silver and ½ oz. of gold per ton. The locality abounds in metals and minerals. I have recently discovered a copper lode 100 feet wide, a supposed lode of chrome iron in serpentine, red ochre; also galena, asbestos, heavy spar, rubies, and alluvial gold. I have been three years prospecting in the locality. Description of mine, mangonide ironstone; men employed, 3; no machinery; winding gear, poppet head, capstan, &c., value, £50; depth of shafts, 45 feet, 30 feet, 25 feet, and 20 feet, all timbered; depth of deepest level, 45 feet; lode, 7 chains wide with a dip or underlay of 1 in 20, bearing north and south. I have been sinking through basalt, of which I have raised hundreds of tons, but no quartz yet at grass. The lode is rich in pyrites, none treated yet."

Miners' Rights issued	317
Mineral Licenses	3
Business Licenses	7
Leases applied for	51

Quantity of gold purchased in the district for the year amounts to 175 oz. 13 dwt. 8 gr.; average value, from £3 13s. 6d. to £3 15s. per oz.

PEEL AND URALLA DISTRICT—Bendemeer Division.

(L. S. Stumbles, Mining Registrar.)

In submitting to you my report of Bendemeer Division, Peel and Uralla Mining District, I have the honor to inform you that I have issued during the year 1890—13 mineral leases; 10 miners' rights, and 2 business licenses. There has been three applications for mineral leases for purpose of mining for manganese and antimony. Rowland's prospecting shaft is now down 200 feet, has cross-cut 15 feet, driven 38 feet to north and 8 feet south, the lode is 6 feet from wall to wall, and a shoot of antimony about an inch wide has come in at the southern end, and has every appearance of making into a body of metal. To the north of Rowland's prospecting shaft, Tait and Gillman have taken up 40 acres, and are now busy opening out on same reef as that passing through Rowland's tin-mining.

The Giant's Den Tin-mining Company for the year have won 20 tons of tin; Watson's Creek, Anderson (and party of Chinese) have won 4 tons 15 cwt. 2 qrs. 18 lbs.; Skeurs (and party of Chinese) have won 5 tons 7 cwt.; total tin ore won for year 1890, 30 tons 2 cwt. 2 qrs. 18 lbs., valued at £1,870.

PEEL AND URALLA DISTRICT—Melrose Division.

(W. A. Corbett, Mining Registrar.)

In January, 1890, the population of this gold-field was about 300, and a substantial township has sprung up; there were several reefs found in the locality which were supposed to carry payable gold. At a trial crushing of 10 tons of stone, from property known as the Enmore Consolidated Gold-mining Company's, 11 oz. of gold per ton was obtained, which result caused a big stir on the field; a battery was erected at a cost of £2,500, and the first crushing did not realise 2 oz. per ton, and no improvement has since been made. On November 20th the mine closed up, the company not being able to pay expenses. The property and plant is now for sale. Through this failure the other reefs supposed to carry payable gold are not worked, and mostly abandoned; all the miners have left the field, with the exception of a few who are erecting a small 5-head battery for the purpose of prospecting a reef with the hopes of finding something that will again revive the field. This is not probable, as speculators have lost faith in this locality.

Total value of mining plant in the division, £2,500.

PEEL AND URALLA DISTRICT—Tingha Division.

(W. Norton, Mining Registrar.)

I have the honor to report that during the past year, 1890, there has been a falling off in the output of tin of 352 tons, and of the value thereof of £18,343. Large numbers of Chinese have left the field in consequence of the failure of the alluvial claims—no new ground having been discovered; there are several reefs being worked, but as yet they have not been sufficiently tested, though there is every hope of their turning out well. The prosperity of the field mainly depends upon their doing so.

Tin—1,000 tons, £52,000; total value of mining plant in the division, £7,050.

PEEL AND URALLA DISTRICT—Narrabri Division.

(Walter Scott, Mining Registrar.)

During the past year a Government prospecting party has been engaged in prospecting at the following places near Narrabri, viz.:—Bobbiwa, distant about 25 miles; Eulah Creek, distant about 6 miles; and at Bullawa Creek, about 10 miles from Narrabri. At each place fine gold has been found, but not in payable quantities, under basalt. Formation—generally sandstone, basalt, and granite boulders.

At Bullawa a shaft was sunk through 30 feet solid basalt and 4 feet rotten basalt in spur of hill; bottomed on sandstone drift, similar to the bed of an old watercourse. Drive put in 40 feet to north, drift varying from 4 inches to 2 feet in thickness, carrying fine gold, not in payable quantities. Drive 30 feet south with similar result. About ¼ mile lower down same spur four shafts sunk, varying 14 to 17 feet deep, all carrying fine gold; formation similar—apparently old river bed. About 50 yards still lower down same spur, bottomed hole at 5 feet, and prospected 1 grain to dish, fine gold (rough). To the south of last-mentioned hole about 14 yards shaft sunk 70 feet, not yet bottomed; and about 13 yards south bottomed hole at 5 feet, prospecting fine gold. Stripped and washed one load of drift, giving 1 dwt. 17 gr. gold and twelve diamonds. The diamonds are small, mostly straw colour, and averaging about seven or eight to carat, similar to those found near Bingera.

No leases have been applied for during the year; 24 miners' rights were issued.

The prospecting party is now engaged on the 70-feet shaft.

PEEL AND URALLA DISTRICT—Nundle Division.

(P. B. Harrison, Mining Registrar.)

I have the honor to submit my annual report for the Nundle Division of the Peel and Uralla District. As I have only very recently been appointed to this office my report must be necessarily brief.

Leases.—18 gold leases were applied for, an aggregate of 79 acres. 4 antimony leases, aggregate of 120 acres.

Miners' Rights, &c.—301 miners' rights, 10 business licenses, and 7 mineral licenses were taken out during the year 1890.

Royalty on Gold.—No gold has been found under these leases, so consequently no returns.

General Mining.—Mining throughout the district generally has been dull during the past year. Out of forty odd forms sent to different mine-holders for the information required by the Department only four were filled in and returned to this office.

The Peel River Proprietory G. M. Company, Bowling Alley, have raised 1,005½ tons of stone, which was crushed by their own battery, and yielded 298 oz. 7 dwt. 23 gr. of gold.

The Lady Mary Gold-mining Company, situated at the head of Happy Valley, only finished erecting their machinery in October. It consists of a stationary boiler and engine, with a ten-head stamp battery, and valued at about £1,600. 250 tons of stone were crushed, and 50 oz. of gold obtained.

The Royal Mountain, Hanging Rock, crushed some 28 tons of stone, and obtained 33 oz. of gold.

Isaacsohn

Isaacsohn and Thompson's reef, under Hanging Rock, is undoubtedly the richest quartz-mine in the whole district. The first crushing this year averaged 20 oz. to the ton, and the two later crushings have averaged 10 and 12 oz. to the ton respectively.

Mount Sheba Sluicing Company have left work at Sheba, and are now sluicing away at Red Hill, where they are getting more gold than previously.

Mount Ephraim left off work under suspension granted in June, and has since gone into liquidation.

Mr. Norris, at Cement Works at Mount Pleasant, had a very satisfactory crushing at the end of the year, but he did not make known the result.

The appointment of a resident Warden in November last has given great satisfaction among the miners, &c.; and the results of his presence is being felt, some three leases having been cancelled, and also all disputes are settled once a month.

The general revenue collected at this office during the year 1890 is £336 4s. 10d.

HUNTER AND MACLEAY DISTRICT—Kempsey Division.

(J. Ducat, Warden.)

I have the honor to forward for the information of the Minister my annual report for the year 1890, for the Macleay Division of the Hunter and Macleay Mining District.

At Deep Creek field the only lease in which stone has been struck is the prospectors,' known as the "Deep Creek Gold and Silver Mining Company." The stone is a mispickle quartz carrying a large percentage of pyrites. This is an immense and very valuable lode. The shaft is down about 170 feet, and from 25 feet to 30 feet they have been sinking in the heart of the lode, nothing but rich stone all around them. They have lately been driving, and for 12 feet they have not yet come to the outer walls. There must be thousands of tons of stone in the lode. A small parcel of stone was sent to England, but from some cause little good arose from the trial. It was sold there for £7 per ton. A second quantity of 52 tons was sent to the Clyde Works, near Sydney, and was sold to the Company at the average of three separate assays, namely, 4 oz. 17 dwts. per ton of gold, the gold bringing £4 per oz.; there was likewise a small percentage of silver. The Company have now a large quantity of pyrites at grass, over a hundred tons of first quality, with some hundred tons of stone lying around, all of which will, I have little doubt, give a paying return to the company when their own machinery is erected on the ground, which they expect to do at an early date.

A number of the other leases have been vigorously worked. C. Christensen and party have a shaft down 110 feet, but have not struck stone yet; they are to drive to the west at the 100-feet level. No. 1 West, D. Anderson and party, have their shaft down 87 feet, and are on very encouraging prospects—a felspathic quartz having good sized patches of pyrites all over it. Lease 4,827, Buckman and Christensen, have two shafts down 57 and 72 respectively, but with no results. In no lease except the prospectors' has auriferous stone been found, and in all the leases from the 50-feet level the water becomes very troublesome, greatly retarding the workings, requiring heavy outlay to provide power to cope with it. In no instance has this failed to be the case. Applications for three gold leases were lodged here, situate county Macquarie,—two on the Hastings River, and one on the Wilson River. The latter has been abandoned on account of the return from three assays of the stone giving only traces of gold with 6 to 7 dwts. of silver to the ton. Those on the Hastings have not been sufficiently tested yet to prove if payable.

Three prospecting areas for alluvial workings have been pegged out on the sea beach,—one at Deep Creek, one at Crescent Head, and one at Tacking Point. As the gold found is exceedingly fine, it requires special appliances for saving it, which the prospectors are endeavouring to procure, when they will give it a fair trial.

Six permits, schedule 61 under the Land Act of 1884, have been granted to dig and search on private property. At Taylor's Arm some rather coarse gold has been found. Enough work has not yet been done to enable the parties to judge whether it will be a payable field.

There are 23 mineral leases applied for to mine for silver, both at Deep Creek and on the head waters of the Nambucca, but no lease has been sufficiently worked to prove them being payable. Shafts are down to depths of from 50 to 100 feet, but in no lease have they struck reefs that are encouraging.

On the South Arm, Nambucca, a large reef or rather three parallel reefs were discovered upon which leases have been applied for, and it is reported that an assay had been obtained that showed a payable return per ton with good traces of gold; however, the parties interested are reticent about it; more may be known soon.

The very numerous discoveries of antimony-bearing veins, extending from near the sea coast at the Bellinger, through by Pickett Hill to Bowra and the head waters of the Nambucca and Taylor's Arm, over the dividing range from the Macleay River to Corangula Mines, covers a very extended line of country, the whole of the line being through very mountainous rough country of granite and slate formation, great belts of porphry intervening throughout.

On two of the antimony leases companies are being formed to work them, and who intend to invest capital to work them systematically, combined with such necessary machinery as will be required. From 40 to 50 tons of antimony ore has been shipped from the Nambucca to Sydney to test it on the market.

What is required to fairly start the fields is capital. The leases are all in the hands of persons who have not the means to properly work reefing, nor to procure machinery and open up the various leases. Should companies with capital come in there is a big and valuable extent of auriferous country to be operated upon, when the division would be a great mining centre. No doubt many new discoveries will later on be made.

HUNTER AND MACLEAY DISTRICT—Stroud, Copeland, Bullahdelah, and Taree Division.

(W. M. Cooke, P.M., Warden.)

I do myself the honor to submit my annual report for the year 1890 of the three divisions of the Hunter and Macleay Mining District under my charge, viz., Copeland, Bullahdelah, and Taree. The Mining Registrars of the two former divisions inform me they are reporting fully *re* the statistical and other information required of them for their respective divisions, giving detailed returns of the number of miners'

miners' rights, business, and mineral licenses issued, number of applications for leases, &c., &c., issued and received, up to 31st December, 1890. I need not, therefore, occupy either time or space in reporting what they, from the records of the different offices under their charge, are so well able to report. Mr. David Bruce having resigned his appointment as Mining Warden at Taree, and no one, so far as I am aware, having been appointed in his place from whom a report may be furnished, I submit a return of the miners' rights, business, and mineral licenses issued at that place during 1890, together with the number of applications for leases made for that division:—

Miners' rights issued, 1890	38
Mineral licenses issued, 1890	Nil.
Applications for gold-mining leases received	Nil.
Applications for mineral leases received	Nil.

At present no active mining business is in operation in that neighbourhood. The state and progress of mining in the divisions of the Hunter and Macleay Mining Districts under my charge, is, I regret to report, at the present time in a very depressed state, brought about by the unprecedented heavy fall of rain and unusually long continuance thereof during the latter portion of the year 1889, and during the first seven months of the year 1890, thereby completely retarding progressive mining operations, and consequently many of the miners became quite disheartened at their continual and ineffectual efforts of bailing and keeping the water down; such an unusual and long continued wet season had not been experienced ever before, and the period from 1st January, 1890, to well into the middle of July, and, allowing a sufficient time for drainage, it may be said to the end of August, was a period of very great trial and particular hardship to all engaged in mining pursuits in this district. In quartz mining, the principal and you may say almost the only mining in these divisions of the mining district, very little progress during this year has been made. From want of good management, want of sufficient capital, or from want of both, or from some other cause, the quartz mines of this district have never been fairly tested by proper, systematic, and economical working. One party after another have gone in to work them, but in a very limited way, and in few instances have practical managers been put in charge, and when this has been done, before these men could do either themselves or the mines justice, the money has run out, or from some other cause operations have been suspended. There has been a large and wasteful expenditure of labour and expenses in the working on the majority of the gold leases hitherto, and real, practical, and efficient mining operations appear to me in this district, more than in any other that has ever come under my notice, to be entirely wanting, the natural result of which has been disappointment and loss. The aggregate quantity of quartz crushed and operated upon, and the yield therefrom, in the Copeland Division of my district, during the year, has been 243 tons, yielding 132 oz., and of a value of £455 10s.

In the Bullahdelah Division no crushings have been made, very little work has been done, and no gold won, owing to the causes before stated of wet weather and want of good management. There is, however, every prospect of these mines, known as the "Coolingolook," in the Bullahdelah Division, being now properly developed under proper and systematic management, and I have every hope and belief that under the present experienced and careful supervision of one or two practical mining managers recently appointed, and who are working on an entirely new and improved principle from the old and primitive style of working, that these mines will develop excellent results, and that an impetus will be given by the good example shown of the way of working economically and systematically to all the other gold leases on this field The only mines at present working on this, the Coolingolook gold-field, are the Coraki mine, which includes conditional lease No. 711 of 10 acres, and the Mountain Maid mine, including conditional lease 697 of 8 acres. In the former mine, viz., the "Coraki," the management has lately been handed over to an experienced man from Victoria, and I have every confidence and belief that the mine, from the favourable prospects already developed, will prove very rich. At present a new shaft is being sunk at a distance of 300 feet from the old shaft to enable work being carried on at both. New machinery is being erected, and blacksmiths' and carpenters' shops already up, with every appliance for systematically developing the resources of this mine, and they are also erecting a battery at the mine.

The Mountain Maid mine has only just commenced work after a delay pending results of Court proceedings. This mine lately sent 2 tons of stone to Sydney to be tested, but I have not been able to ascertain the result of the crushing. At the present about 30 tons of stone is at grass, raised by the former owner of this mine, and in dispute. This stone, at the last crushing, yielded 2 oz. of gold to the ton. The proprietors, Messrs. Abigail and Perry, intend now to fully develop the resources of this mine, and carry out the work expeditiously. They have a battery on the ground, but it is stated to be of little use, and new machinery will have to be provided.

In the Copeland Division.—In the majority of the gold leases in this division very little mining has been done during the past year, and I may say that the holding of leased land without reasonable observance of the labour covenants is a general failing throughout the whole of the mining district under my charge, and I propose, immediately time and opportunity will permit, reporting fully upon this and other matters which, I think, should be brought under the special notice of the Department. The gold leases extant in this division have, in most instances, been amalgamated and formed into companies, and which consist of,—The Centennial Gold-mining Company, the Mountain Maid Company, the Lady Belmore Company, the Granville Blocks Company, the United Reefs Company, the Hidden Treasure Company, and the Black Prince Company.

The Mountain Maid Gold-mining Company, which embraces the leases Nos. 666, 690, and 729, containing 12 acres, and has been formed with the prospect of picking up again the once richly celebrated and well known Mountain Maid Reef. This reef has been proved by workings, extending over a period of over twelve years, to be enormously rich. During this period £110,000 to £112,000 sterling value gold has been won. The gold-bearing reef has been followed and worked from the different workings during this period, known as Mountain Maid Prospecting Claim, as the Mountain Maid No. 1, Mountain Maid No. 2, and Mountain Maid No. 3. At this last shaft the miners were driven out by the water, at a time when they had every prospect of again striking the reef, having come upon a conglomerate reef, which had been traced as in conjunction with the gold-bearing reef from the first finding of the Mountain Maid Reef. When they were driven out by the water, and having insufficient means to provide machinery to cope with it, determined to endeavour to cut the reef by means of a tunnel, at which they are now at work. This tunnel has been driven in an east and west line from the foot of the hill on which the last

shaft

shaft is situated for a distance of 192 feet, from which a cross-cut south has been driven of 22 feet, and another cross-cut north of 27 feet. This company is receiving assistance from the Prospecting Vote of 25s. per foot for driving the tunnel, under an arrangement recommended by Mr. Slee on his last visit to these mines. The aid received from the Government from this source during 1890 amounts to £233 15s. The character of the rock through which they have so far cut is of an intensely hard nature, and very slow progress can be made. The lessees assure me the cost of driving this tunnel is fully 50s. per foot, and by their books and accounts submitted to me I find about £200 over and above the assistance obtained from the Prospecting Vote has been expended during the past twelve months. As to the expediency and results to be obtained by the driving this tunnel in the position and direction in which they are driving, and that without a previous survey (which has not been made) of the probable lay and direction of the reef they are striving to cut, I will not venture to pass any opinion upon, after the personal inspection of Mr. Slee on the ground, at the time the Prospecting Vote was granted them.

Gold lease No. 675, of 1 acre, held by Andrew Clark.—On this lease they are working slowly and getting stone which looks fairly well, but as yet no crushing has been done, and no returns. The depth of the shaft is 103 feet now, and the width of the lode or vein varies from 6 inches to 2 feet 6 inches, with an underlay southerly of about 1 foot in 10 feet, and the bearing is east and west.

Belmore Mining Co. comprises lease No. 718 of 5 acres. This company was granted suspension for three months, the term of which terminated about three months ago. They are now driving a tunnel along the line of reef, and from which they have taken 33 tons of stone which returned 47 oz., at a value of £153.

The Granville Blocks Gold-mining Co. embraces leases Nos. 719, 720, and 757, and contains an area of 10 acres. In this mine the water in the shaft has been so great that the proprietors are about to drive a tunnel. The present depth of the shaft is 89 feet, and the deepest level is 82 feet, with vein 6 inches in width, with underlay of 1 in 3. Thirty tons of stone has been raised, which yielded 15 oz., of a value of £52 10s.

United Reefs Gold-mining Co., embracing gold leases 721 and 722, of about 28 acres. No work is being done at this mine at the present time. Suspension was applied for and refused as no sufficient grounds shown. This company have a 15-head stamper battery on the ground, of a stated value of about £800 or £1,000. 150 tons of stone has been raised, yielding 70 oz. of gold of a value of £250. The depth of the shaft is 75 feet, and lowest level 70 feet, and the lode is about 1 foot in width.

Hidden Treasure Co., embracing gold leases 723, 748, 759, and 760, of 22 acres 2 roods 20 perches. This company have a 10-head stamper battery on the ground, and a pumping engine, the value of machinery being about £700 or £800. They have had suspension for six months which has now just expired. The shaft is down 480 feet, and lowest level 470 feet, with a lode of 3 feet width. No work has been done in consequence of the water which hitherto beat them. This company has been getting assistance from the Prospecting Vote, and are not at the present time working.

Black Prince Gold-mining Company, which comprises gold lease 732, and contains 24 acres 3 roods 6 perches. This mine is being worked in a more practical, systematic, and regular mode than any of the other leases on this field, and I may safely say is the only company who are carrying out faithfully the covenants and conditions of their lease. This mine has a shaft down 128 feet, and the depth of deepest level is 128 feet. They have gone down with the reef in the shaft. A tunnel has been driven 229 feet to meet the shaft, and the reef has been cut in the tunnel; the lode is from 2 feet to 4 feet wide; the depth or underlay is 1 in 10 feet S.E. This company have erected a 10-stamper battery about 1 mile from their workings, of value about £1,000, and have formed a good road from their workings to the battery for carting the stone. They have a large number of men employed, and are in every way taking substantial measures for the full development of the resources of this mine. At present they have about 30 tons at grass, but have not yet started to crush, the plant not yet being finished.

At a place 14 miles from Copeland, called Wild Cattle Creek, a new company, called the Dead Bird Company, has been formed. The lease of this has not yet been granted. It has recently been surveyed by Mr. Surveyor Pennington, and six men have been at work for the past three months. As the lease has not yet been issued—so far as I am aware—I am unable to say if any reef has been struck, or if they have any prospect of gold or not.

Sawyer's Reef, which was abandoned and again taken up by a Sydney syndicate, has also been recently surveyed. Seven acres applied for 26th June, the lease of which has not been delivered yet. This, I believe, will be a legitimate working, and tend to develop portion of the field that will be beneficial. It was abandoned on account of the water, and it is now proposed to drive a tunnel into the reef.

These are all the gold leases on this field which are now working, and on which I can furnish any report. Within the whole of these three Divisions of this Mining District very little alluvial gold has been won. In and around Copeland, during the present year, about 28 oz. or 30 oz. have been obtained in some of the gulches between the precipitous and steep hills. I have not been able to learn of any being won in the Bullahdelah Division. In the Taree Division, in August last, a report was made to me of the discovery on the sea beach, between Camden Haven and Port Macquarie, of a large area of gold-bearing black sand, from which some twelve or fourteen miners were getting gold. At the time, from the severity of the weather, I was not able to proceed to the locality at once to inspect the place, and by the time I was able to do so, it was reported to me that all those mining there had deserted the place, being unable to make wages, or save the gold, from its very fine nature and want of proper appliances to retain it.

The general working of all the gold-mining operations in the district under my charge have been carried out in a most primitive style, and no new methods have in any case been introduced for the extraction of and saving of metals from ores, &c., &c., and nothing whatever in this way has been ever attempted or tried, and no waste has hitherto on this field been stored for future treatment. The Black Prince Mining Company are, however, now, after their first crushing, going to test all the waste taken from their tunnel and shaft. And no parcels, so far as I can ascertain, have been ever exported for treatment abroad.

Antimony.

In the Bullahdelah Division, and about 5 miles north of Coolingolook, are the gold and antimony mines at Wangwank, situated about 500 yards from the main road to the Manning River and northern coast country. They are under the charge of a gentleman, Mr. Schouler, also in charge of the Coraki gold

gold lease, previously reported on, who is managing the mine for a Victorian syndicate. He has opened up two shafts, from one of which some very fair antimony has been taken. In one shaft they are down 54 feet. The side walls are of slate formation, with sandstone roof, the lode being about 2 feet thick, running north and south and dipping westerly. The underlay is patchy, and I fancy it requires a lower depth to widen out, but the ore at grass appears very fair. As the reef widens out the prospects improve, and it may be fairly anticipated by continuance of the works they may strike the heavy lode that has run out. The work at this mine is very good, and the shaft particularly so. In the other shaft, about 50 yards away, they have gone down about 24 feet, and the soil here appears to change. This country requires thoroughly testing, and which can only be done by cutting a tunnel through to try the cross country. There are a number of reefs running at right angles all over this field, giving evidence of the auriferous character of the country on all sides. There is water in abundance, fuel is plentiful, and the country is well timbered.

Alum.

A very large and important industry, and one which is not, I think, widely known or appreciated, has sprung up in the formation of the Australian Alum Company, the works of which are situated almost within the little village of Bullahdelah, and the rugged mountainous hills backing up this quiet and picturesque village are portion of the company's leases, and are composed almost entirely of solid alum rock. The ground held by this company consists of nine mineral leases, containing an area of 575 acres 3 roods and 17 perches. The first of these leases was taken in November, 1888, increased in 1889 by an addition of 40 acres, and again in 1890 by a further addition of 480 acres, and which all amalgamated are now worked conjointly as the company named. One of the great natural advantages is the position of this land, which is situated about 35 miles from Port Stephens, one of the finest harbours in Australia, and the largest vessels find safe anchorage there; and from Port Stephens to this land is the Myall River, navigable for small craft up to 100 tons burthen right up to the mine, of which the summit of the Bullahdelah Mountain is only about 1¼ miles distant. All these cliffs consist of alumnite of varying quality, and the average has a composition which, with proper treatment of chemicals, will yield 600 tons of alum and 1,500 tons of sulphate of alumina per 1,000 tons of stone. The mountain is composed of rocks which penetrate beds of carboniferous ore. These carboniferous rocks dip away east and west, and lap round the mountain at northern and southern ends. The extent of this deposit is truly wonderful and enormous. It can be traced over 100 chains, with a width of from 3 chains at the top of the cliff to fully 20 chains at the foot. The stone runs in bands, with an approximately north and south course. These bands vary in quality, but almost all is of good enough quality to work with paying results. The stone forming the wide body, fully 6 chains wide, has a composition of—

Water	7·80
Alumina	34·70
Oxide of iron	1·00
Potash	6·10
Sulphuric acid	32·30
Silica	18·10

The stone on these leases contains sufficient mineral in sight to supply the world with alum and sulphate of alumina for hundreds of years, and the alum has been proved to be of the very finest and first quality. The works erected on these leases for the working of this industry are of the most complete and efficient character, with kilns, tanks, boilers, tramways, mining plant, and splendid machinery for full development of the resources of the mine, and the expenditure to the present time has been, I should estimate, from £18,000 to £20,000.

Notwithstanding the general depression of the mining industry during the year just ended, the prospects of the Mining Divisions for the future in the Mining District under my charge, taken on the whole, appear favourable, only requiring a small amount of capital, judiciously expended, and the rigid enforcement of the labour conditions on the leases granted, to ensure the profitable employment of a large number of miners on these fields for many years to come.

I am forwarding with this, per coach and steamer, samples of all the stone I have been enabled to procure from the different principal mines, with full particulars as to locality, depth, &c., &c., labelled on each sample.

HUNTER AND MACLEAY DISTRICT—Bulladelah Division.

(R. Quayle, Mining Registrar.)

I do myself the honor to report as follows respecting the Bulladelah and Coolongolook portion of the Hunter and Macleay Mining District for the year ending 31st December, 1890. Very little work has been done on the gold-fields at Coolongolook since my last report.

The Coraki lease has lately changed hands, and is now being worked by a Melbourne syndicate, who are erecting machinery which will be in working order in two months. Eight men are employed.

The Mountain Maid has about 40 tons of stone to grass, but has not crushed for twelve months.

Suspension of labour granted on gold leases 755 and 672 (Jas. Stuart and party) for three months. Several leases have been cancelled during the year. Six gold leases have been applied for, containing an area of 41 acres. No gold has been obtained.

Eight mineral leases (to mine for antimony), containing 320 acres, have also been applied for.

The Australian Alum Company have made extensive alterations and improvements by erecting machinery to treat the rock by a different process. About 1,000 tons of rock have been treated by the new process, and yielded about 220 tons of alum. The manager is forwarding 500 tons of rock to their works in England. Twenty men employed.

Messrs. Partridge and Company's limestone quarry, situated on the Myall Lakes, near Bungwall, has forwarded 1,000 tons of stone to their asphalt works in Sydney. Five men employed.

Fourteen miners' rights and four mineral licenses have been issued.

NEW

NEW ENGLAND DISTRICT—Tenterfield, Fairfield, Dalmorton, Lionsville, and Wilson's Downfall Divisions.

(*W. A. Steel, P.M., Warden.*)

I do myself the honor to submit my annual report for the Mining District of New England for the year 1890. Having only arrived and taken charge of this district at the end of last October, consequently my time has been too short to admit of my furnishing a lengthy report; and the Christmas holidays intervening, little or no work has been done by the miners. I have, however, visited the various Divisions of Fairfield (Drake), Wilson's Downfall, Rivertree, and Boonoo Boonoo. The tin-mining industry seems to have been languishing for some very considerable time, both at Wilson's Downfall and Boonoo Boonoo, once famous for their richness; and the attractions of the Rivertree Silver-mines (some 20 miles distant) have induced many to remove there.

Wilson's Downfall Division.—The Rivertree Silver-mines, which have caused considerable excitement in this district, as well as in the neighbouring Colony of Queensland, being near the border, and about 30 miles from Stanthorpe (Q.) railway station. A large amount of work has been carried out by the Rivertree Proprietary Silver-mining Co., the Rivertree United Silver-mining Co., and No. 1 Rivertree Silver-mining Co., during the year. At the time of my visit in October a trial crushing had been made by the former company at the Wongabah Silver-mining Co.'s smelting furnace, which was not satisfactory, owing, it is said, to a want of proper treatment of the ore, a quantity of silver having escaped in the process. The manager has been succeeded by a Mr. Ashcroft, who has had a large experience in mining, and will shortly test the value of the mine, it is hoped with better success. Should it prove payable, an impetus will be given to mining in this district, which will give permanent employment to a very large number of miners and others. An area for a township has been recently laid out by Mr. Surveyor Hawkins.

Fairfield, or Drake, Division.—This, the most important mining centre in my district, does not, I regret to say, seem in a very prosperous condition, and the results of the past year, as far as I can ascertain, have not reached expectations. The White Rock Proprietary Silver-mining Co. still employ a large number of hands, though the returns for the year have not been satisfactory. The Great Northern Gold-mining Co., the Mascotte, and Rivers Co. have worked with fair results. The amount of gold won exceeds that of the previous year.

At Tenterfield little or no mining is being carried on; while I have been too short a time in the district to report on the Dalmorton or Lionsville portion of the Clarence and Richmond River Mining District.

NEW ENGLAND DISTRICT—Wilson's Downfall Division.

(*Thomas Oliver, Mining Registrar.*)

I have the honor to transmit my annual report of the mining industry of this Division for the year ending 31st December, 1890. The tin-mining industry has not increased since my last report, and is, if anything, in a more depressed state, but those who still stick to their old claims seem to be satisfied with their returns. The returns of tin ore raised and sold will compare favourably with last year. The two 40-acre leased blocks belonging to Tommy Cook has opened out a nice display of washdirt, averaging over 2½ feet in depth to a width of 60 or 70 feet, and with very good prospects.

Jones and party, late Warren and party, three 20-acre blocks, are still working steadily, having a pretty fair supply of water for the most part of the year. They have fifteen hands at work. Jensen, Canopi, and party have marked off a prospecting area just above Jones and party, and have got some very fair prospects. Messrs. Seaman's leases have from ten to fifteen men at work with varying success. There has been a small rush to a spot on the ridge or high ground dividing Wylie from Bookookoorara Creeks, four leases of said ground being applied for. There are also four prospecting areas marked off and shafts being sunk, one of them bottoming at 45 feet with no results, and the three others have to commence sinking second shafts, the first one caving in as soon as water was touched. They are slabbing the new shafts from the start, the most of them in the belief they will find a deep lead, many of them saying that if the Department would spare one of their Tiffin borers they would very soon prove the ground, as there is a large amount of ground in the vicinity.

Graphite.

The Borrodaile Graphite Mine.—Little or nothing has been done for the last twelve months; the cause I am unable to state.

Silver.

The Rivertree Silver-mines, situated 18 miles east of Wilson's Downfall, have received a great impetus since my last report, by the floating of several companies and consequent development of the various properties, and have succeeded in proving that the metal is there, also large quantities of ore, the only apparent trouble being the treatment of the said ore, as they are of such a refractory nature that they will require special treatment. I am given to understand that a scheme has been submitted whereby reducing works on a large scale should be established at the joint expense of the various companies, and be under the control of a first-class man. Should such come to pass it would be a great boon to the district, giving a large amount of employment.

No. 1. The Wangabah and Silver Wave Companies, who hold ten leases, have done a large amount of work, but as they are being reformed any work more than necessary has been temporarily suspended.

No. 2. The Richmond River Prospecting Syndicate have ten or twelve leases under the management of Mr. Jas. Glasby, who has done a large amount of prospecting work and showing some of the best ore on the field.

No. 3. The Rivertree Proprietary Mining Company (Manager, Mr. Ashcrofts), representing fourteen 40-acre blocks, have done an enormous amount of work, several of their shafts fully 100 feet in depth, also several tunnels; dam for the supply of water and a very large reverberatory furnace, with 50-feet chimney, the bricks for same being made close at hand.

No. 4. The Rivertree United Silver-mining Company (Mr. Gus. Klein, manager), representing 12 blocks. There are seven shafts averaging 60 feet in depth; also three tunnels, averaging 70 feet in length, and all on good ore.

No. 5. Rivertree Freehold Syndicate (Mr. Pettegrew, manager), representing one 40-acre lease and 400 acres freehold, has done a large amount of work in the short time since they started, and have come across some very good ore, having sunk four shafts and driven three tunnels with a 40-feet winze in connection No. 1 tunnel. They have also a saw-mill at work, which supplies the district with sawn timber, there being a large supply of almost all classes of timber, both hard and soft.

No. 6. Maryland Prospecting Syndicate (Mr. H. Trenear, manager), representing eight 40-acre blocks. Prospecting has been carried on this Company's ground with great vigour for the past five months, and with very great success as to value of ore.

No. 7. No. 1 Rivertree Proprietary Company North (Mr. G. Rodda, manager), representing two 40-acre blocks, having sunk four shafts averaging 60 feet, and are preparing to take drives in from the river bed, which will give them a large amount of stoping power.

The amount of tin-ore won from all sources amounts to 220 tons, valued at £11,248.

The amount of revenue collected during the year is as follows:—

	£	s.	d.
Deposits with mineral lease applications	838	10	0
Collections for miners' rights	5	0	0
Collections for mineral licenses	123	0	0
Collections for business licenses	12	0	0
Sale of calico notices	0	6	0
Deed fees and stamp duty on mineral leases	7	15	0
Total	£986	11	0

On account of Trust Fund:—

Survey fees, mineral leases	310	10	0
Survey fees, mining tenements	4	0	0
Deposits with objections to lease	5	0	0
Total	£319	10	0

Miners' rights issued	13
Business licenses issued	12
Miners' licenses issued	123
Applications for mineral leases	89

NEW ENGLAND DISTRICT—Fairfield Division.

(J. P. Curran, Mining Registrar.)

I have the honor to forward my annual report for the year past, ended 31st December, 1890, on the present condition and future prospects of the mining industry in my division.

In the early part of the year a great deal of depression in mining existed on this field, but I am happy to say the latter part of the year has shown a decided improvement in mining generally, and the metal won shows a considerable increase in quantity and value on that of previous years. The sudden rise in the price of antimony has caused some excitement in this locality, and a number of parties have directed their attention to mining for that mineral, of which there are some rich deposits in the district, and if the present price of antimony remains as it is for any length of time this mineral will be one of the chief products of the district. It is satisfactory to note that a number of the claims and leases which were taken up some years ago for speculative purposes have recently been cancelled, and are now taken up by small parties of genuine miners, who are going earnestly to work to give the ground a fair trial, and the results of their labours have in several cases proved highly remunerative, and, from the appearance of many of the claims which I have inspected, I am of opinion that the year 1891 will show a marked increase in the output of the different minerals and metals with which this district abounds. I regret to say that the very liberal assistance granted by the Department of Mines to prospecting in this district has not been productive of beneficial results. A great many who were granted aid from the prospecting vote have failed to avail themselves of it, whilst others have gone to work earnestly, and made good use of the means given them to thoroughly test their land. The only party who has obtained payable results from the prospecting vote is Rivers, at Long Gully, who has certainly opened up one of the richest gold mines in the Northern district, of which I shall give you descriptive particulars in another part of my report.

The White Rock Proprietary Silver Mining Company.—In consquence of much delay being experienced in the completion of a portion of their reducing works, and a disappointment through defective concentrating appliances, 20 head of stampers, out of a total of 60, have only been in operation for some five months, during which time about 4,000 tons of ore have been put through, for a yield of 135 tons of concentrates, of an average value of 125 oz. of silver per ton, making a total of 16,875 oz., with fully 20,000 oz. still remaining in the tailings. During the first two months not more than 35 per cent. of the silver contained in the ore was saved in concentration, the system adopted being very imperfect, but during the last three months the silver saved has come up to 50 per cent., and much better results are yet expected by the introduction of additional appliances, arrangements for which are now under consideration by the directors, who have decided to complete the full plant of 60 stampers, with all necessary amalgamating plant, in order that the whole process of silver extraction may be performed on the company's works. The mine, which is worked in quarry fashion, is capable of producing any quantity of ore at a very small cost, an average of only 60 men being employed with the whole milling, mining, and other works in connection with the mine. There is now about 20,000 tons at grass, of the value of 120,000 oz. of silver.

The

The Mascotte Mine, which is situated about 2 miles south-east of the town of Drake, has been worked by an English syndicate during the last four years. The work on this mine has been more of an exploratory nature than otherwise. It has been proved long since that the ore in this mine is rich both in gold and silver; but as it is a class of ore that requires special treatment, which necessitates the erection of costly appliances for that purpose, the company have very wisely continued to sink and drive levels through the mine, with a view of ascertaining the quantity of ore in their possession before putting up expensive reduction works.

The results of past and present operations have proved that they have an unlimited quantity of ore in their mine, and they may now at any time commence to erect the necessary chloronation and amalgamation works, as they are confident of obtaining good returns from the ore in sight. The manager, Captain Bryant, a thorough practical man, who has had charge of the mine during the past four years, informs me that the value of the ore in sight is about £100,000. A shaft has been sunk through the main body of ore to a depth of 200 feet, and levels have been driven at the 50-feet, 100-feet, and 200-feet levels. From the present appearance of this mine, I am of opinion that before the end of the year 1891 this will be one of the largest metal-producing mines in the Northern districts. Twenty-seven men are constantly employed in this mine. A powerful winding engine has been erected at the main shaft. I estimated the value of the whole plant at £1,000.

The Adeline Gold-mining Company.—This company's mine was in the early days of the field worked for gold, and from surface indications gave promise of being a very rich mine. The ore at shallow levels has given very good returns of gold; but in sinking, when the main body of the lode formation was met with, the ore was found to be of such a complex nature (being composed of copper, iron and galena), that it baffled all attempts to save the gold by the ordinary gold-saving appliances. Operations were then suspended in the mine, pending the treatment of a few parcels of this ore by the best known method at some of the principal reduction works in this Colony. The results obtained from a parcel treated at the Clyde Works in Sydney, under the supervision of Captain Bryant, of the Mascotte Mine, and Mr. T. W. Horton, another well known mining expert, were of such an encouraging nature that the Adeline Company, acting on the advice of Captain Bryant, decided to secure the services of Mr. Edgar Hall, a metallurgist of some experience, in dealing with the kind of ore to be found in the Adeline Mine. Mr. Hall's first assay was the treatment of about 40 tons of this ore by smelting at the Glen Smelting Company's Works at Tent Hill, by which it was reduced to matte, consisting of gold, silver, and copper. The treatment of this parcel, and the results obtained, confirmed the opinion of the company that the mine could be worked at a profit by having their own appliances on the mine, and they at once decided to erect smelting furnaces, and place Mr. Hall in charge. This has been done, and about 100 tons of ore reduced to matte. Though it has been proved that this method can be employed, and the ore reduced to a marketable condition, the expense in so doing has been so heavy as to exceed the value of the matte produced; hence a temporary stoppage has taken place for the purpose of devising some cheaper method of working. The ore hitherto, previous to smelting, required to be broken by hand, which was rather expensive. I think with the aid of a rock-breaker, and concentration of the ore, a very great amount of expense would be saved.

The deepest shaft in this mine is 100 feet; the deepest level driven is 100 feet; and the lode is 4 feet 6 inches wide. The machinery on the mine consists of one horizontal engine with Cornish boiler; one portable winding engine; 15-head battery, with 8-wheeler pans. Value of plant, £5,000; the quantity of ore raised, 447 tons, of which 140 tons have been treated; bullion won (gold, silver, and copper), to the value of £450.

Rivers' Claim, or The Lady Jersey, by which name this mine is now known, is situated about 6 miles south of Drake, and will be remembered as one of the claims to which aid was given from the Prospecting Vote of 1889. The prospectors of this mine were not long in receipt of Government aid when they struck payable gold, and have not since operated on the money which was granted to them, but have in a spirited manner paid all working expenses out of the proceeds of the mine. The ore in this mine is a quartzite, composed of copper, iron pyrites, zinc blende, and free gold, the lode or vein being about 18 inches wide. The deepest shaft is 88 feet, and the deepest level driven 45 feet, and is driven 263 feet along the course of the lode, and payable gold has been obtained from one end of this level to the other. One peculiar feature in connection with this lode is that on either side of the vein the associated rock is impregnated with gold for a distance of 2 feet, so that the body of auriferous matter is about 5 feet, and in some parts 6 feet, wide, and is payable. On the hanging wall side of the reef other veins or feeders intersect it, and at these points the deposit of gold is found to be very rich. The appliances for treatment of the ore consist of one elephant ore-stamper, driven by a 6-H.P. portable engine, and is capable of crushing 30 tons of ore per week. The value of plant, including battery, engine, dams, offices, &c., I estimate at £1,000. Thirty men are regularly employed on this mine. During the year 480 tons of ore have been treated for a yield of 1,617 ounces of gold.

The remarkably good luck that this party of miners have met with has induced others to try their fortune in this locality. Small local companies have been formed for the purpose of supporting parties who are out prospecting. By this means I am sure the mineral resources of the district will be developed without a sacrifice of much individual capital. Some of the parties who are prospecting in this manner have what is termed good "shows," and I have no doubt in time discoveries equally as rich as Rivers' will be made in the vicinity of Long Gully, as it is all very likely-looking country for minerals, and very little prospecting has been done.

At Mount Carrington several parties are working on good ore, particularly Monley & Co. and Barker and party. The first-named have taken up a portion of the Mount Carrington Company's property, which was recently abandoned, and is held by them as an extended claim under the Mining Board Regulations. They discovered a small vein of auriferous matter, which, when sunk on, opened out, and is now at a depth of 20 feet, 5 feet wide, and is estimated to yield from 3 to 4 oz. to the ton. The reef is running north and south, and the dip or underlay is east.

Barker's Claim, which is south-east of Monley and party, is a block of 4 acres, and is held under gold-mining lease. This land was originally held by Shannon and party, but has been abandoned by the lessees for more than two years, and has recently been taken up by the present party, who have already had a crushing of 12 tons of ore, which yielded 5 oz. per ton. They are now, at a depth of 40 feet, raising stone that will, I think, yield between 5 and 6 oz. to the ton.

Hanneman

Hannèman and party are another small company of miners who have set in between Barker's claim and Monley's, and the prospects of their claim are good.

A number of other parties have taken up land in the vicinity of the parties just mentioned, and all are of the opinion that the ore, if carefully picked, will be found to pay very well. On the whole, the outlook of the field is rather brighter than it has been for a long time.

In the neighbourhood of Tooloom, which is situated at the most northern part of my division, an increase is noticeable in the output of gold for the past year. The mining in this part of the division is chiefly alluvial. There is only one quartz claim at work that I am aware of, from which the holder has obtained about 70 oz. of gold during the year by hand-crushing.

At Pretty Gully the amount of gold won this year exceeds that of past years, which may be accounted for by the number of Chinese that have been making their way back to these old diggings during the past year.

At Lunatic Reefs no gold has been won this year. The principal mineral sought in this locality is antimony, of which a fair quantity has been won this year, and the output of that mineral is expected to be large in the next year.

The old Boorook silver mines are likely to have another trial, a number of mineral leases having been applied for during the year. In past years some of the Boorook mines gave very fair returns, and I have no doubt, by the judicious expenditure of capital, some good mines may be opened again. The great drawback to the place in former years was the want of capital. I expect before the close of 1891 this part of the division will give a good account of itself.

Through the courtesy of the manager of the Drake branch of the A.J.S. Bank and the storekeepers at Pretty Gully and Tooloom, I have been enabled to obtain reliable information as regards the quantity of gold and other minerals won during the past year:—

Gold, 3,283 oz., at £3 10s. per oz.	£11,490	10	0
Silver, 16,875 oz., at 4s. per oz.	3,375	0	0
Antimony, 26 tons, at £30 per ton	780	0	0
Copper matte	450	0	0
	£16,095	10	0

I have issued 239 miners' rights, 20 business licenses, and 23 mineral licenses.

I have received 18 applications for gold leases, and 26 applications for mineral leases.

Population of the division, 723—386 males and 337 females.

NEW ENGLAND DISTRICT—Tenterfield Division.

(F. Burne, Mining Registrar.)

I have the honor herewith to submit my report for the year ending 31st December, 1890, for the Tenterfield Division, in which I am Mining Registrar.

Gold.

Mining at Boonoo Boonoo has been very slack during the past twelve months.

Alluvial.—A few men have been working the gullies, with very moderate results. The creeks have been too flooded to touch.

Reefs.—Hurtz and party down 80 feet with Government aid, and are now driving at the 56 feet level. No returns.

Funnell and party have a 3-head stamper erected, with which they crush stone from neighbouring claims. They have just finished 5 tons from Hinitt and party's claim, giving a return of 3 oz. gold per ton.

Stevenson and party, in Specimen Gully, are sinking a shaft, which is down 70 feet, with Government aid; gold showing in the reef they are sinking on.

Benjamin and party's Golden Crown at present idle. A lot of work has been done, and a large amount of money expended on this claim. They have had a fair return from several crushings—quantity of gold won not disclosed.

Silver.

The Andrew Jackson claim has been idle for some time.

Bland and party, at the 8-mile, Boonoo Boonoo, have been sending parcels of stone to Germany for treatment; result not known to date.

Jensen and party at work prospecting their claim, but the ground being so wet retards the work.

Morgan and Kermode's claim at present idle. They have a quantity of ore bagged ready to be sent away for treatment. The veins very rich, but narrow.

Tin.

Kennedy and party, on the Tenterfield Creek, have done little or no work of late, waiting the arrival of machinery.

During the past 12 months I have issued 68 miners' rights, 16 mineral licenses, and 2 business licenses, as against 121 miners' rights, 14 mineral licenses, and 4 business licenses issued for the year 1889.

There have been 5 gold-lease applications and 7 mineral-lease applications made during the past 12 months, as against 4 gold-lease applications and 6 mineral-lease applications for the year 1889.

NEW ENGLAND DISTRICT—Lionsville or Solferino Division.

(R. Wilkinson, Mining Registrar.)

I have the honor to herewith submit my annual report on the Solferino Division of the New England Mining District.

There appears to be a little more attention paid to the mining industry in this district than there has been for some years past, owing principally to the recent rise in the value of antimony, which has induced parties to prospect for this mineral, and it is more than probable that some of the lodes discovered will be placed into the hands of capitalists for the formation of companies for the purpose of erecting

smelters

smelters near the lodes, as they are mostly situated in positions which are rather difficult of access, and without the ore goes a very high percentage, would not pay to cart to water carriage for shipment. A résumé of the antimony properties here given are :—

The Burnt Down, taken up by T. G. Beatty and others in May last.—This property was worked some 12 or 14 years ago by Mr. Henry Maurice, at that time a general storekeeper at Lionsville, who took out some 60 to 70 tons of ore of an average of 66 per cent., but the carriage being high at the time, and the value low—something like £14 a ton in Sydney—it would not pay. Messrs. Beatty have done very little upon the property, it having been found out some little time after possession was taken that the land was locked up in the shape of a mineral conditional purchase, and although endeavours have been made by them to get the mineral conditional purchase cancelled, the reputed owners not caring to bother about the property, no intimation of such cancellation has been given by the Lands Department, although the party in whose name the thing stands has failed to pay up interest and instalment overdue. Following upon the taking up of the old Burnt Down antimony mine, other parties began to prospect in this neighbourhood, and the first new discovery was made by Messrs. Kelly Bros., in the Horse-shoe Bend, on the west bank of Clarence River, and about 3 miles south-east of Lionsville, where Mr. M. R. Kelly has secured a 40-acre block under mineral lease. Subsequent operations of the Messrs. Kelly have demonstrated the fact that their lease contains two or more antimony lodes.

Shortly after Kelly's discovery Mr. J. F. Adams opened up a parallel lode about 40 chains further south, and later still several other lodes.

Almost simultaneously a well defined lode was found by a Mr. Bryce on the Washpool Creek, near the junction of that creek and Cullum Cullum Creek, and lying about 3 miles west of Horse-shoe Bend. So far operations on these lodes have been, for pecuniary reasons, of a very limited character. All the ore raised up to the present has been taken from within a few feet of the surface, and is not as good a quality as may be expected to be met with at a lower depth. It has been found that in order to dress the ore up to about 50 per cent., a proportion of antimony, amounting to, in some cases, three-fourths has to be discarded. The only way to obviate this trouble is the erection of smelting works on the ground, put everything through, and convert into regulus. The only ore despatched from the several leases are: From Kelly's, 5 tons; Adams', 2 tons; Washpool, 3½ tons; Burnt Down and adjacent, 3½ tons; total, 14 tons.

Quartz.

The Garibaldi prospectors have two men at work putting in a cross-cut from the surface, and expect to cut the reef within the next two months.

No. 1 *North Garibaldi* (C. Harkin, owner) has been constantly employed driving, and has some magnificent gold showing along the main drive. This claim is now under offer for £6,000, half cash and half scrip.

Nos. 2, 3, *and* 4 *North Garibaldi*, lately taken up under lease by the last-named to enable him to have good scope of ground to hand over to a company should they come to terms in buying No. 1.

The Shallamelia.—Tamini and party have been sinking and driving all the year, but have unfortunately not met with the success anticipated; hope shortly to be under the level, where some very rich gold was got on the surface, and then they expect to get something to pay for all this outlay.

Band of Hope.—Adams and party have had two men driving on the course of the reef, but no luck has so far attended their efforts during this past year.

Lombardy.—Tubman and party have secured a 10-acre lease on this once famous claim, and have now been working for last three months with three men sinking a winze. There is a large quantity of stone at grass on this mine which contains a great quantity of iron and arsenical pyrites, which would pay well for reducing by the now improved methods of "chloromitation."

The Kaw Kaw (Gidley's and parties) *Porphyry Claim*, discovered somewhere about three months back, near the Yulgillar Crossing, and where some very rich gold was obtained near the surface and in the bed of a creek, are sinking a shaft, and are down on the lode some 25 feet with a little gold all through the stone. 1 ton from this claim, treated at Parks and Lacey's works, Sydney, realised 25 dwt. to the ton.

Silver-mining.

A Yulgillar syndicate has two men employed sinking on a very promising silver lode situated between the Horse-shoe Bend and the Yulgillar Crossing, The argentiferous material, which consists of sulphide of lead and zinc blende, is distributed pretty freely through a large porphyrite dyke. An average sample of the vein stuff yielded by assay 25 oz. silver per ton. At the Horse-shoe Bend another silver lode, consisting of chlorides and bromides, has been lately discovered, but, so far, no work has been done on it.

Cinnabar.

A discovery of this mineral has recently been made by the Messrs. Kelly Bros., on the Horse-shoe Bend Fall, and the proprietors are about raising capital to develop the property, consisting of a 40-acre block.

John Bull Reef, on Cangi, is about being reopened again, and a syndicate has lately bought machinery for erecting on the mine.

In alluvial very little has occurred worthy of special mention. The several creeks in the neighbourhood are still being worked by a few old hands with very satisfactory results.

As far as I have been able to ascertain, the amount of gold won in this division is: From alluvial, 3,170 oz. 10 dwt., and from quartz I can get no account. The foregoing alluvial gold is the net amount passed through the local storekeepers hands, and I can get no account of the amount which goes away by other sources.

Total number of miners at work, 53.

I have issued 66 miner's rights and 11 mineral licenses; also received 10 applications for mineral and 3 for gold-mining leases.

NEW ENGLAND DISTRICT—EMMAVILLE DIVISION.

(L. A. M'Dougall, Acting Mining Registrar.)

I HAVE the honor to transmit the annual report for the year 1890.

The number of miners employed during the past year differs very little from the year previous, yet the output of tin has lowered considerably, notwithstanding the favourable season for alluvial working. The deep lead at Rose Valley is abandoned, and there are only five miners at work on the shallow lead in Flannery's block. For the last four months a party of five men have been doing very well on a patch of surfacing in Lennon's paddock, to the west of Partridge's old Red Hill lead, which was lost some years ago. The deep leads at Y Water and Graveyard have also become fossicking grounds. There are only 26 Europeans and 32 Chinese working on the whole of Cadell's and Mitchell's and the Vegetable Creek Co.'s properties. Vegetable Creek proper is now almost wholly in the hands of Chinese, working on tribute. An attempt was made during the year to develop the basaltic country at Nine-mile, but had to be abandoned owing to want of funds.

The Basaltic Company at Kangaroo Flat have suspended operations, and there is no prospect of work being resumed, as nothing payable has been uncovered. Hall Brothers are still working at Kangaroo Flat, employing 14 Europeans and 11 Chinese, and have returned 38 tons for the year. The sinking varies from 30 to 100 feet deep. Considerably more attention has been devoted to lode-mining than formerly, and, as far as can be gathered, 152 tons of lode tin has been produced from the various lodes in the district.

At the Gulf there are 26 miners employed, having produced 21¼ tons of lode tin, which was all hand dressed. A recent discovery was made by Stormer Brothers in the parish of Flagstone, and 2½ tons of tin has been obtained, hand dressed and ready for market. Another lode is being worked, about 2 miles from Stormer's, by Hooper and party. The lode averages about 2 feet wide; and in three weeks three men had obtained 1¼ ton clean ore, hand dressed. The majority of the lodes in this country strike N.E. and S.W.

The Ottery mine at Tent Hill produced 67 tons of lode tin during the year. Several distinct veins and lodes run through this property, being in most cases nearly parallel, striking N.E. and S.W., and underlying to the west.

At the Castle Wellington, at Nine-mile, very little reefing has been done. Most of their time has been devoted in erecting a crushing plant and tin-dressing machine. There were 14 tons 4 cwt. 3 qr. of ore raised, and machinery to the value of £2,000 erected. This company has lately acquired some property at Battery Mountain, about a mile from the Castle Wellington, upon which are several large tin bearing lodes, and operations have been recently started to develop them.

At the Torrington mine there have been no fresh developments, and very little work done during the year. The battery has been employed at intervals, and about 100 tons of stone put through for a gross return of a little over 11 tons of tin.

At the Dutchman's mine no work has been done. The machinery at this mine is valued at £2,000.

Silver.

A great falling off has taken place in the number of hands employed in silver-mining.

The Mount Galena mine has been making fair headway in prospecting within the last few months, and it is intended to give the mine a thorough test.

The Webb's South Extended S. M. Co.'s property joins the above mine on the south, and has been idle for about eight months. No ore has been sent from this mine for treatment.

Webb's Consols S. M. Co. has been shut down for some months. There were sixteen men employed during the greater part of the year. There was about 560 tons of ore raised; 270 tons were treated for a return of 4,070 oz. of silver, and 38½ tons of lead.

Webb's Silver M. Co. or Little Plant.—During the early part of the year 1,100 tons of ore was hand-picked, giving 183 tons shipping ore. Since April last the bulk of ore raised has been 5,400 tons, which by concentration has given 655 tons of shipping ore, which ranged from 85 to 180 oz. per ton. The average for the last six months has been 111 oz. silver per ton. The expenditure on the mine for the year for labour and cartage was £12,911 15s. 10d., and the cost of explosives and general supplies is set down at £1,000. The cost of the reduction plant on the ground is £8,625 19s. 6d., and machinery, £3,982 0s. 4d. Only the machinery of reduction plant is in use, and the actual value has depreciated considerably below original cost and expense of erection. There are ninety hands employed at the mine.

At the Centrals, The Silver Prince, Jubilee, and Hell Hole all work has been suspended, and the mines abandoned.

A new feature has been developed in mining during the year in the shape of emeralds, which caused a considerable amount of excitement. Several parcels have been sent to London as a test, but no return has come to hand as yet. On the Emerald Proprietary three men have been employed for the last five months, and an expenditure of £450 has been already made. There is one shaft sunk to a depth of 50 feet on the reef, which averages about 2 ft. wide. A tunnel has been driven 60 ft. on the course of the lode. The matrix occurs in bunches, or vrys, at intervals of several feet in the lode, and is principally fluorspar, the emeralds being entirely coated over within the matrix.

A party of four men are prospecting about a mile north of the Proprietary, and have unearthed some good specimens.

The following are the number of men employed in mining during the year:—

Working tin	301	Europeans,	500 Chinese.
„ silver...	95	„	
„ emeralds	13	„	
Total	409	„	500 „

The total amount of tin obtained during the year is 1,250 tons 10 cwt. 8lb.

Twenty-four miner's rights, 12 business licenses, and 239 mineral licenses were issued during the year.

PEEL

PEEL AND URALLA DISTRICT—Kookabookra and Bare Hill Goldfields.

(W. A. Kelly.)

Constable Kelly begs respectfully to forward a report of the claims at work at Kookabookra and Bare Hill for the half-year ending 31st December, 1890.

The progress made in the working of the reefs at Kookabookra for the present six months exceeds that of the former as regards the employment of labour and development of the reefs on a more substantial basis than originally adopted; but so far the reefs that have been sunk to a depth of from 40 to 80 feet are very narrow and of a "mullocky" formation. The richest quartz are found principally on the surface in the form of leaders, varying from 2 to 4 inches. The expressed opinion of experienced miners is that the reefs about Kookabookra will never pay, and the permanency of the place is questionable. The principal reefs of any magnitude are:—

The Welcome Stranger.—This claim has been proved to the extent of about 80 feet deep, besides tunneling and other excavations along the reef. No work has been done on this claim for the last ten months, owing to a suspension of labour having been granted. The crushing plant in connection with the claim consists of a 10-head battery, with all other appliances, driven by a 12-h.p. engine. Fourteen men have been employed on the works for the last month. The average width of the reef is about 8 inches.

The New Dominion.—A small crushing has been obtained from this claim of about 30 tons of quartz. The result is stated to be about 1½ oz. to the ton. A shaft is sunk about 60 feet. The average width of the reef is about 6 inches. A small 5-head battery has been erected by the company in connection with the claim. About fourteen men are usually employed.

The Dead Finish.—This claim has been proved to the depth of about 50 feet. The average width of the reef is about 12 inches, carrying very little gold. About 7 tons of quartz has been crushed. The result is not made public, but is generally supposed not to be as good as anticipated. At present no labour is employed on the claim.

The Golden Road.—Three shafts have been sunk on this reef about 50 feet each. The width of the reef is about 15 inches, carrying gold. No crushing has as yet been obtained. Four men are employed.

These are the only claims of any magnitude that labour has been employed on about Kookabookra. Several leaders are worked by small prospecting parties in the vicinity, but are not developed to any extent.

The township of Kookabookra consists of two hotels, three stores, two butcher's shops, police station, Court-house, C.P.S. and Warden's office combined, Public School, with an attendance of forty scholars. Population, about 120.

Bare Hill is situated about 5 miles from Kookabookra. The future of this place is more encouraging than that of Kookabookra. The reefs are more defined in solid quartz, the dimensions are larger, and they are situated in a better formation. The companies have during the last three months considerably increased the number of labourers. About 120 men are continually employed. The principal claims are:—

The Meehan's Proprietary.—About thirty-five men have been employed for the last twelve months on this claim. Three tunnels have been driven some considerable distance along the reef. The average width of the reef varies from 12 to 15 inches in the three tunnels, carrying gold. The estimated quantity of quartz on the surface ready for crushing is about 800 tons. It is generally reported that a 20-head battery, with all other appliances, has been purchased by the company in Melbourne, and is at present *en route* to the field. This claim is considered one of the best on the field and likely to prove payable.

The Butcher's Reef.—This claim has employed for the last three months about fifty men. The reef averages about 6 inches, showing good gold. A 5-head battery has been erected, driven by an 8-h.p. engine. Several crushings have been obtained from the reef, averaging about 1 oz. to the ton. It is generally supposed that this claim will never prove payable unless the reef developes into a softer formation than at present exists.

The other claims consist of the Golden Crown, the Butcher's North, Butcher's South, and the Caledonian. No work of any great extent has been done on these claims. From four to ten men are generally employed on each, sinking shafts.

There are several other leaders in this locality worked by prospecting parties, who so far have not discovered anything payable. There are also a small number of miners working alluvial ground about Skipper's Gully and Nowland's Creek.

The township consists of one hotel, two stores, one butcher's shop, a public hall, a Public School, with an attendance of thirty-five children. Population, about 300.

The Starlight Reef, Oakwood Gully, is distant 10 miles from Bare Hill, About forty men are employed. A 10-head battery is in course of erection, and a tram-line three quarters of a mile in length. The reef averages about 3 feet. The prospects are generally considered good.

CLARENCE AND RICHMOND MINING DISTRICT.—Lismore, Casino, and Ballina Division.

(E. Jones, Warden.)

I do myself the honor to submit my report upon mining in the district assigned to my charge, during the year 1890.

In March last was the first time I was able to visit any mining operations in the district; then I travelled from Broadwater to Ballina, along the beach. I found but few miners working, owing to the inclement weather.

From inquiries made, I was led to believe that there were about forty miners at work, earning small wages.

The principal gold-mining operations during the past year were upon the several beaches between Ballina and Byron Bay, over 100 miners being at work there for several weeks. It is only after heavy gales "beach mining" is taken up, and then worked in a very small way—only fossicking. The sand is rich in places to give the good returns obtained by some of the claimholders, averaging, in one instance, 4½ oz. per man of a party of four, for several weeks.

Evans' Head has a few miners at work, and some washdirt was sent to Sydney by Mr. Crofton. He has not to date received the result. Upon

Upon one of my visits to this locality, Cochrane and party were upon very rich sand. They were under the impression, from the prospects obtained, that they were on the lead known as the New Zealanders'. That party won a large quantity of gold, as did others also, in the locality; but their system of working and appliances were better than any used at present.

A prospecting party (receiving Government aid), in the locelity of Byron Bay, were at work for some time. They found coarse gold in several places, but were unable to contend against the heavy influx of water. The last stone sent for assay by this party contained silver, but not payable. I estimate the amount of gold won in the district at 800 oz., the beach gold realizing a very high price—as much, in some instances, as £4 1s. per oz.

Recently I heard of alluvial gold being found between Lismore and the Tweed. I have not received any official notification of such being the case.

Coal has been found at Bungawalbin, and several hundred acres of land taken up for coal-mining. One, of Nicolai and party, called the Aberdare Coal-mining Company, have about 50 tons of coal grassed. Their tunnel is about 100 feet, with a seam of about 6 feet, and the assay from the Department of Mines was very favourable.

About 500 yards from the Aberdare Colliery is situated the Coraki Company's property. They have about 40 tons of coal out. Considering both these mines are situated within easy access to deep water, I am of opinion these properties will, in the near future, become very valuable. The local consumption of coal is about 30,000 tons annually.

CLARENCE AND RICHMOND DISTRICT.—Grafton Division.

(*A. L. McDougall, Warden.*)

I now have the honour to forward you my annual report as Warden for the Clarence River Mining District for last year.

Mining pursuits have made great advances in the Dalmorton Division of this Mining District. 650 acres having been applied for gold-mining leases, 70 acres for chrome, and 50 acres for silver. At Nana Creek, 102 acres have been applied for as gold-mining leases, and 220 acres for mineral leases during the year.

Three or four batteries are now being erected in the Dalmorton Division, and one at Rangai, which are expected to be ready for crushing in two or three months from this date.

The battery at Nana Creek has crushed 271 tons of quartz, yielding over 376 oz. of gold.

Capital is being introduced both from Melbourne and Adelaide for mining purposes, and I fully expect that by the middle of this year that there will be great advances made in mining matters, and a large increase in the population both at Dalmorton and Nana Creek, and that the coal mines at Copmanhurst and Myen's Gap will be yielding good and abundant supplies of coal for this district.

CLARENCE AND RICHMOND DISTRICT—Grafton Division.

(*W. Clarke, Mining Registrar.*)

Owing to the greater portion of my Division having been transferred to other Divisions I have little to report. A few men have been fossicking for gold, and some have been prospecting for coal.

See and party worked for a considerable time on their coal prospecting area of 640 acres at Myen's Gap, with fair prospects of success, some good coal having been procured; but towards the end of the year they ceased work, and, I believe, will not resume work unless they can obtain the aid of foreign capital.

Harding and party have the shaft on their prospecting area for coal at Smith's Creek down 110 feet. They have cut through ten seams of small inferior coal, and one seam (the last) being of excellent quality, but only a foot thick. They have expended £148, exclusive of the £50 received from the Prospecting Vote. I understand that it is their intention to apply for further aid, as they are almost confident of success at a greater depth.

During the year I issued 90 miners' rights, 41 mineral and 1 business licenses, the majority to persons interested in other Divisions.

The usual return of gold contains the gold from the adjoining Divisions that passed through the banks here.

CLARENCE AND RICHMOND DISTRICT—Nana Creek Division.

(*G. Geddes, Mining Registrar.*)

For the information of the Honorable the Minister for Mines, I have the honor to forward my report, showing particulars of mining matters in this Division of the Clarence and Richmond District for the year 1890.

Fifteen Acre.—It is known by this name, and is in close proximity to T. R. O'Grady's battery at Nana Creek proper. Application was, on the 23rd June of this year, made for a gold-mining lease of 10 acres, by Messrs. Thompson and Matthews. They have since worked it. The main shaft has a depth of 100 feet. The reef is 18 inches in width, its bearing being north-east and south-west, and it is almost plumb, with well-defined walls. In it is found a quantity of pyrites, difficult of extraction. The formation of the ground is blue sandstone. From the 60 feet level to the surface, stoping has been done, with payable results. A crushing of 25 tons was carried out at T. R. O'Grady's battery, giving a return of 23 oz. of retorted gold, the value thereof, per Mint return, being for smelted gold £85 9s. 4d., and silver, at 3s. 6d. per oz., 5s. 11d. A small shaft, about 30 feet distant from the main one, is sunk some 15 feet, and gold in fair samples has been got in a reef 6 inches in width.

Jubilee.—This is a prospecting claim owned by Mr. Alexander Nicholson, situated on the Matilda Hill at Nana Creek. Since last year the tunnel on the north side of the hill at the 50-feet level has been driven 32 feet, with the object of cutting the reef at that level. The tunnel on the south side at the 200-feet level is driven 108 feet 6 inches, the last return being on the 23rd April, 1890, for 3 feet 6 inches, but on account of the extreme hardness of the ground work had to be suspended, the expense being too heavy. This work has been carried on under a grant from the Prospecting Vote of £1 per foot, and although a

further

further sum of 5s. per foot was awarded the party, they could not, even with that concession, continue the drive, and the men in the venture are not those who are easily deterred from engaging in work did they see their way clearly to do so without incurring heavy liabilites. At the 30-feet level a crushing of 12¾ tons has been taken out and put through the battery, yielding 24 oz. 3 dwt., the average being 1 oz. 17 dwt. 21 gr. per ton. The reef bears north-east by south-west, and averages 1 foot wide. The yield of gold from this claim, I am told, is, for 197 tons 5 cwt. crushings, 224 oz. 5 dwt. 13 gr., or an average of 1 oz. 2 dwt. 17 gr. per ton.

No. 1 West.—This is gold lease 136, portion 169, and is also the property of Mr. Alexander Nicholson. It adjoins the prospecting claim, and is on the same line of reef. A shaft 37 feet in depth has been sunk, and from that level 25 tons 10 cwt. have been taken out by stoping upward, giving a return of 25 oz. 5 dwt.

Bella.—This is the property of Messrs. Forbes and Wood. It is an 8-acre lease, No. 140, portion 180, and is considered a valuable claim. In it are three shafts on the east and west line of reef—No. 1, a depth of about 75 feet; No. 2, about 70 feet; and No. 3, about 40 feet. The reefs in them dip to the north, and, on the average, are some 15 inches in width. They go from 6 inches to 2 feet. There is also a shaft down about 30 feet, the reef running north and south, and dipping west. The formation is slate. There have been three crushings during the year, consisting of 159 tons, yielding 247 oz. 19 dwt. 12 gr., or an average of 1 oz. 11 dwt. 4 gr. per ton. A considerable sum of money has been expended to so far develop the claim. Six men have been employed thereon.

No. 1 West, Bella Line.—This is gold lease 141, portion 181, and was originally taken up by Messrs. O'Grady and Nordberg, but has since passed into the hands of Messrs. Denning and Driscoll. Two shafts have been sunk on the east and west line of reef, one 30 feet and the other 40 feet in depth. In the former a reef is found about 7 feet in width, but the stone, from tests made, is not thought to be payable; still, the work will, after the holidays, be resumed. The ground is of like formation as that of the Bella Prsopecting Claim. No quartz has as yet been crushed from this claim.

Nana's Daughter, No. 1 East Bella Line.—This is gold lease 142, portion 182, and is now the property of Mr. T. R. O'Grady. A shaft has been sunk to a depth of 60 feet. The deepest level is 50 feet. The reef is from 4 feet to 6 inches wide, dipping slightly to the north, and its bearing is east 10 degrees north. A drainage tunnel of 80 feet, cutting the lode at the depth of 50 feet, has been driven from the south side of the hill. A distance of 150 feet of level has been driven on the lode from the shaft, 60 feet in depth. A large cutting on a new reef recently discovered is formed in the same ground. Mr. O'Grady tells me that 53 tons of quartz have been crushed for 58 oz. 10 dwt., and there are now at grass 7 tons of similar stone. No stoping has been done as yet. The reef carries payable gold throughout, except where disturbed by a slide. Owing to the disturbed nature of the ground at the depth stated, it varies very much in size, but in places, as before mentioned, it is 4 feet wide. It generally has good smooth walls, with a clay dig. The gold in this and the adjoining claim does not appear to be in shoots but throughout the reef. 32 tons of quartz yielded 33 oz. 13 dwt. 19 gr.; value of same, £125. 6 tons of oxidised tailings and 6 tons of poor stone were put through the stampers for 10 oz. 14 dwt. Free milling only treated. Three men are employed upon the work of this claim.

Victor.—A lease of 2 acres on the Benson line was, on the 21st December, 1889, applied for by Mr. T. R. O'Grady, but it is not yet granted. A shaft was recently sunk some 25 feet, but the recent rains caused it to cave in at the bottom, filling it with water. This unfortunate mishap will entail much expense to put the shaft in order again.

Illabo.—This is the property of Mr. O'Grady also, and is gold lease 152, portion 184, and is held unworked, although the lease was executed on the 3rd June, 1890.

Lady Carrington.—This is owned by Mr. George Fauvel, and is gold lease 137, portion 164. The depth of the shaft is 102 feet 6 inches, and the depth of deepest level 60 feet. The width of the reef is from 6 inches to 8 feet, and its dip is 1 foot in 2 feet, and its bearing north-north-east by south-south-west. Two men have been engaged working the claim. A grant from the Prospecting Vote to drive a tunnel 200 feet was, on the 25th April, 1889, made to him. 65 feet 6 inches were only driven when, under advice of the 9th July, 1890, Mr. Fauvel was allowed to sink a shaft on the underlay from the 50-feet level, at the rate of 30s. per foot, until the sum granted is exhausted. Of the sinking, he completed 52 feet 6 inches on the 13th December. A crushing of 11 tons of indifferent stone took place, giving a return of 4 oz., only valued at £3 12s. per oz.

Caledonian.—In my report for last year I stated a 10-acre lease was applied for on the 21st December, 1889, by Messrs. Nelson and Thomas. This has not yet been granted, and it being abandoned ground, they are not compelled to work, hence it remains in abeyance. It is viewed as an eligible property, but, until they have a complete title to it, they object to put capital in any form into it.

Unnamed.—This was applied for by Messrs. Nelson and Thomas, as an 8-acre lease, on the 9th January of this year. Not yet granted. It adjoins the Homeward Round gold-mining lease.

Homeward Bound.—This is the property of Messrs. L. R. and F. J. Rudder. It consists of 2 acres, and is gold lease 149, portion 176. There is a shaft down 80 feet. The lode is 2 feet 6 inches wide, its dip 1 foot in 12 to the west, and bearing north-east. A crushing has been had of 8 tons, yielding 13 oz. 15., dwt., valued at £55. Three men have been working the claim. After the crushing a suspension of labour was granted to the applicant, Mr. L. R. Rudder, for six months, but upon what grounds I cannot, without applying to the Warden, ascertain. Such a length of time was not needed, and what his representations to the Warden were to induce him to grant the stay of labour he did, I know not. I feel assured, and many of the miners are of like mind, that they were, from information to hand, hardly, if at all, consistent with facts.

Day Dawn.—This is an ordinary claim. Was for some time worked by Messrs. Sharpe and Morrow. It has not been worked for some time past—in fact, it is abandoned. I reported fully upon it last year.

Nymboi.—This is gold lease No. 131, portion 162, owned by Mr. S. H. Jones. It is a 7-acre lease, and, if systematically worked, would, I think, turn out to be a remunerative claim. It, however, like some other claims here, needs capital to develop it. There is a perfect network of reefs all through the ground. From the Prospecting Vote Mr. Jones was granted £75 to assist him to sink the shaft, now 50 feet deep, to a further depth of 50 feet, but of the grant he has not availed himself, nor has work of any kind been done in the claim during the present year or that of 1889.

Eureka.—An application for a gold-mining lease of 2 acres was made by Messrs. M'Vicar and Osborne of their claim. It is old ground. They have not started to work it. They intimated to me their

their intention of applying to the Minister for Mines for the use of the sum set apart from the Prospecting Vote, viz., £75, for Mr. S. H. Jones, to assist them to drive a tunnel a distance of 150 feet upon the same terms as those granted to Mr. Jones, who has not performed any work under the grant generously made him by the Prospecting Board when solicited by him to do so.

New Hidden Treasure.—This was, on the 4th November, 1889, applied for as a 9-acre gold-mining lease by Messrs. H. Feldheim and party, and approved of on the 25th March ensuing. A shaft to a depth of about 30 feet was sunk, and a ton of quartz got therefrom was sent to Sydney for assay—10 cwt. to the Mint, which gave under the ordinary process at the rate of 12 dwt. to the ton; the other 10 cwt. was chlorinated, returning 22 dwt. per ton. These returns were not deemed a sufficient inducement to go on with the work, and they, consequently, upon the issue of the lease, declined to execute it.

New Year's Gift.—This claim belongs to Mr. Oliver Anderson, and is a 4-acre lease, numbered on the register 132, portion 156. The only work done of any consequence during the year is that in connection with his grant from the Prospecting Vote. He had 100 feet to drive in the tunnel, at 15s. per foot, and that was completed on the 27th September. The distance driven this year was but 13 feet. Under the same grant he has to sink his main shaft, now down 66 feet, a further depth of 30 feet at 15s. per foot, but nothing has been done as yet to it. I am informed that he intends to get some, if not all, of his quartz, of which there is a large quantity at grass, crushed at Mr. O'Grady's battery. That he should have done long ago. He has for a long time past been in treaty with various persons for the sale of his leases, but has not up to date been able to dispose of them.

The Challenge.—This is gold-mining lease No. 128, portion 165; its area, 4 acres; and is also the property of Mr. O. Anderson.. No labour has, I believe, been put on it since the lease was issued.

Advance Australia.—This, until lately, was gold-mining lease No. 134, portion 173, consisting of 6 acres, the property of James Wilson and party, but, on account of the labour conditions not being observed, it has been cancelled.

Advance Orara.—A lease of 10 acres, as stated in my last report, was on the 18th November, 1889, applied for by Messrs. J. M'Leod and party, but no lease to date has been issued to them. Some work has been done in the claim, but what I am not in a position to state. I learn stone has been sent to Sydney for assay, and that the result was highly satisfactory. Mr. M'Leod promised me all particulars, but, I regret to add, he has failed to do so.

Unnamed, 6 acres, as per my last report, was on the 17th September, 1889, applied for by G. Kelly and party. The lease is not yet granted. Not having been on the ground, I am unable to give any information respecting it. Its locality is Blick's River.

Jessie Smith.—This, a prospecting claim, is owned by Messrs. S. See and party. It was fully referred to in my report for the year 1889. The only work done in it has been to drive the tunnel under their grant, from the Prospecting Vote, a further distance of 11 feet, making a total of work done of 93 feet 6 inches, leaving 6 feet 6 inches to complete 100 feet—the length to be driven under the grant. The length of the tunnel is now 138 feet 6 inches, and the reef, about 18 inches wide, is still to the east in the drive, and shows galena, iron pyrites, and manganese in a country of blue diorite. The drive was being worked by two practical miners, but the country proving so difficult to be worked they had to abandon it, the grant of £1 per foot not being, as they asserted, anything like sufficient to remunerate them for their labour and other expenses.

Batteries.—Of these, there are three upon the field,—one a 10-stamper, the other two are small. The former is the only one that has been worked during the year. Full particulars as to their value, &c., will be found on a form annexed to my report.

QUANTITY of Stone crushed, Yield of Gold, and on whose account.

Owners.	Name of Claim.	Quantity crushed.	Yield of Gold.	Average.
		T. c. q.	oz. dwt. gr.	oz. dwt. gr.
Forbes and Wood	Bella	36 0 0	63 0 0	
,,	,,	60 0 0	101 11 0	1 11 $4\frac{32}{53}$
,,	,,	63 0 0	83 8 12	
Alexander Nicholson	Jubilee	12 15 0	24 3 0	
,,	,,	25 10 0	25 5 0	1 4 $11\frac{17}{19}$
,,	,,	9 5 0	8 15 13	
George Fauvel	Lady Carrington	11 0 0	4 0 0	*Refuse stone.
L. R. and F. J. Rudder	Homeward Bound	8 0 0	13 15 0	1 14 9
Thos. Robt. O'Grady	Nana's Daughter	32 0 0	33 15 18	1 1 $2\frac{26}{32}$
Thompson and Matthews	Fifteen acres	25 0 0	23 0 0	0 18 $9\frac{3}{5}$
		282 10 0	380 13 19	1 7 $17\frac{514}{543}$

* Being refuse stone this quantity is not included in the average.

Thos. R. O'Grady.—Free milling, only treated 6 tons of oxidised tailings and 6 tons of poor stone, by putting through the stampers, for 10 oz. 14 dwts. retorted gold. During the year there have been 11 claims worked for gold and about 5 or 6 for antimony.

Gold-mining Leases.—Fifteen applications have been received, with an average of 102 acres.

Mineral Leases.—Seven of these have been applied for, consisting of 220 acres.

Some of the claims applied for, both gold and mineral, have been, and are at the present time, being worked.

A machine site was applied for by Messrs. Nelson and Thomas (1st March, application No. 55). Upon the field there are 48 men engaged in quartz mining and other work in connection therewith. Other miners working for antimony under mineral lease applications number about 15.

During the year I have issued—Miners' rights, 55; excess over 1889, 27. Business license, 1; mineral licenses, 6; none issued here before.

Total value of mining plant in the division, £1,020.

CLARENCE

CLARENCE AND RICHMOND DISTRICT—Dalmorton Division.

(W. F. Poole, Mining Registrar.)

I have the honor to transmit herewith my annual report for the year 1890.

I have issued during the year 190 miners' rights, 18 business licenses, and 4 mineral licenses; received 97 applications for gold-mining leases, comprising an area of 650 acres 1 rood 3 perches, 4 mineral leases, 120 acres, registered 2 quartz-prospecting claims, 1 ordinary claim, 1 dam site, 5 stream-water rights, 7 machinery areas, 8 business areas, 22 residence areas, 1 fossicking claim, and 1 river claim.

About 20 men are employed alluvial mining, and 150 quartz.

About 60 oz. gold from alluvial and the same amount from quartz, making a total of 120 oz., has been won, value £420.

Total value of mining plant in the division, £4,600.

ALBERT DISTRICT—Broken Hill, Silverton, Euriowie, and Mount Gipps Division.

(A. N. Barnett, Warden.)

I have the honor to forward herewith my annual report upon the state and progress of mining in the Broken Hill and Silverton Divisions of the Albert Mining District for the year 1890.

Upon the main Broken Hill lode the work of development on the various mines has been carried on with great success.

The following figures show the quantity and value of minerals exported from the district last year:—

	Tons.	cwt.	qr.	lb	Value. £
Silver lead bullion	40,755	9	1	7	1,844,262
Silver lead ore	88,870	13	2	0	774,500
Copper ore	580	6	1	0	9,774
Total	130,206	9	0	7	£2,628,536

As compared with the value of ore exported in 1889 these figures show an increase of nearly £1,000,000.

The value of ore raised during the year over and above that despatched may be estimated at about £100,000.

The Broken Hill Proprietary Company alone raised 192,546 tons, valued at £1,778,362. Of this, 174,807 tons were smelted at the mine, resulting in a return of 7,490,654 oz. of silver and 30,486 tons of lead, of the total value of £1,690,986.

During the past year this company have substituted 5 of their 30-ton smelters with 8 80-ton smelters, the plant now consisting of 13 80-ton furnaces, smelting in all about 5,778 tons of ore weekly.

The accompanying returns show the state and progress of the work done on each of the mines on the Broken Hill lode.

During the past year a concentrating plant, with a capacity for treating 90 tons of ore per day, has been erected and successfully worked at the Broken Hill North Mine, and at the Central Mine the erection of 3 80-ton smelters has been completed. At the South Mine a considerable amount of successful prospecting has been carried on, resulting in valuable discoveries of ore, and powerful machinery has been erected to assist in the work of development.

A smelter is now in course of erection at the British Mine, for the purpose of treating refractory ores.

At the Australian Broken Hill Consols Mine, two valuable discoveries of rich ore were made during the year, in a lode running at an angle from the Broken Hill lode, and prospecting work is being steadily proceeded with.

On that part of their land adjoining the north-west boundary of Block 14, the Broken Hill Block Company (Brisbane Blocks) have recommenced boring with a new diamond drill, made to their own order in Melbourne. The drill is working well, and has reached a depth of about 500 feet. The efforts of this company to prove the existence or non-existence of the lode in their property have been untiring.

At Round Hill, the company's main shaft has reached a depth of 632 feet; sinking has been discontinued for the present, and work has just been commenced with a diamond drill, with the intention of boring, if necessary, for a distance of 1,000 feet below the present depth of the main shaft.

The efforts of this company have not as yet been rewarded with success, although they have involved an expenditure of about £20,000.

At the Umberumberka Mine, a new leaching plant and roasting furnace have been erected at a cost of £1,000. The ore from this mine is of a low grade, but, under able management, the financial aspect of the company is better than it has been for some time past.

Much the same may be said of the Pinnacles Mine, which is now being worked to advantage by the Pinnacles Amalgamated Silver-mining Company.

The Pioneer Company at Thackaringa have recently purchased an ore-dressing plant at a cost, with improvements, of £8,000. The mill has been running fairly successfully since October last, but a scarcity of water compels the management to work the greater part of the time with only one shift.

The limestone flux quarries at Black Hill, Thackaringa, and Acacia Dam have been actively worked during the past year, employing a large amount of labour.

Of this class of flux the Proprietary Company use about 1,850 tons per week.

The Tarrawingee Flux and Tramway Company are rapidly pushing on the work of tramway extension from Broken Hill to Tarrawingee, a distance of about 40 miles.

In the latter place an extensive lime deposit has been discovered, and a number of mineral leases have been taken up for the purpose of quarrying the stone and trucking it to the mines at Broken Hill. Bulk assays of this stone have demonstrated it to be so valuable for fluxing purposes that the Proprietary Company contemplate entering into a four years' contract with the Tarrawingee Company for a full supply of this lime flux.

At Corona, a considerable amount of prospecting for silver has been done in the ironstone lodes, but hitherto without success. The ironstone, however, is valuable as flux, and has recently been used for that purpose at the Proprietary Mine.

Copper

Copper has not received much attention throughout the district during the past year, but payable copper ore is now being raised at Mount Badgerrigadu, near Corona, and this has led to the recent leasing of about twelve blocks of 40 acres each in that locality.

Prospecting for tin has lately received an impetus in the neighbourhood of Euriowie, where payable tin ore is being raised by various parties, notably the Wheal Byjerkerno Company, who have 150 tons at grass, and are arranging for the purchase of machinery to develop their property. Applications to lease about 2,400 acres in this locality were received at Silverton during the last few weeks of the year.

The rainfall for the past year was registered at Broken Hill as 12·10 inches, and at Silverton as 10·65 inches.

The district is entirely dependent at the present time upon the rainfall for its water supply, and the scarcity of this element is one of the chief difficulties which the principal mines have to contend with. The Broken Hill Water Supply Company's Works, in connection with the pumping of the water from Stephen's Creek to Broken Hill, a distance of about 10 miles, are now in course of construction, and it is hoped that in the course of the next six months the mines and the town generally will be able to look for a supply of water from that source.

Prospecting for silver throughout both divisions has been fairly active during the past year, though a large number of mineral leases have been cancelled for non-compliance with the labour conditions and other causes. The prospector's chief difficulties in this district are a want of water and the expense attached to the transmission of small lots of ore for treatment. A tentative effort in the direction of mitigating the latter evil has been made at the Mayflower Mine, near Purnamoota, where a smelting plant, costing about £650, with a capacity for treating 25 tons of ore per week, has been erected. If this venture proves successful, it is intended to erect other plants on a similar scale in other parts of the district.

The Broken Hill Smelting and Ore-dressing Company is also being formed for the purpose of erecting a mill capable of dressing 100 tons of ore per day, furnaces for smelting 400 tons per day, and retorts for copper ores, at the Acacia Siding of the Silverton Tramway Company.

The number of miners (European) employed in the Broken Hill division is about 4,500, and in the Silverton division (inclusive of limestone quarrymen) about 900.

The aggregate value of machinery on the various mines is about £406,885.

The population of Broken Hill at the end of last year was about 25,000.

The following figures show the amount of revenue received, and the business done at the Warden's offices at Broken Hill and Silverton:—

Revenue received.

Broken Hill. £	s.	d.	Silverton. £	s.	d.
5,850	0	6	4,649	10	6

Miners' Rights, &c., issued.

	Broken Hill.	Silverton.
Miners' rights	1,462	51
Business licenses	3,810	130
Mineral licenses	190	145
Mineral lease applications	170	362
Gold lease applications	12	7

ALBERT DISTRICT—WILCANNIA DIVISION.

(*W. C. Rodgerson, Warden.*)

I HAVE the honor to submit my report for the Wilcannia Division of the Albert Mining District, for the year 1890.

Considerable activity has been displayed in mining operations, principally in the direction of silver and other minerals, and prospects are very encouraging for the future. Gold-mining operations are very quiet, owing to the scarcity of water and insufficient machinery, and many of the claims are under suspension from these causes. The same remark applies to minerals other than gold; but there seems to be a determination on the part of leaseholders to overcome these obstacles, by the erection of tanks and the introduction of requisite machinery.

There is a noticeable increase in the issue of business and mineral licenses over that of the previous year, whilst there has been a falling off in the number of miners' rights sold. In 1889, no mineral leases were applied for. Last year we had 169 of this class, and 12 gold-mining leases as against 4 of 1889. The revenue for 1889 was £129 10s.; that of 1890, £2,897 10s., being an increase of £2,768. In addition to the above, a valuable opal mine has been discovered, to which I shall again refer.

Gold-mining.—The Cawker's Well gold-field is situated about 37 miles west of Wilcannia, and 7 miles from Cawker's Well station, and about 10 miles from the River Darling. This field was discovered about two years ago, by Messrs. Watson and Ritchings, when tank-sinking. They noticed surface indications and found quartz showing gold, and commenced work, their claim being known as the "Golden Ridge," and comprising 25 acres. The appearance of the country, at first sight, being ordinary saltbush and grass, with a few iron and quartz pebbles scattered over the surface, is not of promising appearance. The ground is soft, and can be easily worked without the use of explosives. The lodes have been worked to a depth of over 100 feet, and to judge from appearances, and also from the fact that station wells have been sunk to a depth of from 200 to 300 feet in the same soft class of material, it may continue for many hundreds of feet. The ground seems to stand well, and shows no sign of falling in. The "Golden Ridge" No. 1 shaft is down to a depth of 105 feet; they cut the reef, when trenching, about 2 feet from the surface. The reef, at the top, is about 18 inches wide, with a casing of rotten slate and lime, which contains payable gold. There is a drive at the 32-feet level, and also at the 85-feet level and the bottom of the shaft; in all, about 40 feet of drives. At the bottom, the reef has improved, and widened to about 2 feet 6 inches, with thick casing. It is expected to further improve as it goes down. No. 2 shaft has been sunk 52 feet, and 200 yards of trenching has been done. The trenching has disclosed two other gold-bearing reefs, which run diagonally across the claim. Messrs. Watson and Ritchings have also a block of 8 acres adjoining the "Golden Ridge," but so far have done little work on it. Assays have been made of stone taken from the "Golden Ridge" claim, yielding as high as 19 oz. of gold per ton, but the average result has been from 1½ to 3 oz. Bulk crushings were obtained at Sandhurst, Victoria, of 5 tons stone sent from the "Golden Ridge" claim, which yielded 5 oz. 2 dwt. of gold. A small parcel of stone was forwarded to the School of Mines, Ballarat, which yielded at the rate of a little over an ounce to the ton.

The

The Pioneer claim is situated due north of the Golden Ridge, and consists of two 25 acre blocks. A shaft has been sunk to a depth of 111 feet and a drive put in westward 142 feet showing some small veins of quartz for about half the distance. A drive has also been put in eastward 90 feet. On No. 2 block a shaft has been sunk to a depth of about 20 feet but with no favourable indications. The "Multum in Parvo" claim which is 10 acres in extent, is situated north-west of the Golden Ridge and due north of the Prospectors 8 acre claim and it is the general opinion that the two diagonal reefs on the "Golden Ridge" property traverse this claim. By trenching, two reefs have been discovered, one showing a breadth of about 18 inches, and the other 12 inches. A shaft has also been sunk but the indications met with did not justify a further expenditure and work has been suspended for the present.

A claim known as the Broken Hill Syndicate is being worked by several Broken Hill speculators and covers an area of 25 acres. This lies due south of the Golden Ridge. Three shafts have been sunk 40 feet, 12 feet, and 10 feet respectively, three reefs have been discovered, and stone taken from their No. 2 shaft assayed 2 oz. 17 dwt. per ton. In addition to the shafts 54 yards of trenching has been done. The chief drawback to the field is the want of water, the only supply being from a station tank about a mile distant, and this in a dry season would be quite inadequate for requirements.

The Peak Tank Gold Mine is situate about 82 miles from Wilcannia, on the Mount Browne Road. Operations are suspended at present, owing to scarcity of water supply, and inadequate machinery and appliances. The field was discovered about three and a half years ago. Two syndicates, the Mystery and the London, have been formed. On the Mystery three shafts have been sunk 40 feet, 50 feet, and 100 feet respectively, at a cost of £800, but no payable reef has yet been found.

The London has also sunk three shafts. At the Sandy Peak Proprietary Mine two tunnels have been driven into the hill about 70 feet each, and a shaft sunk about 40 feet.

Silver.—The Black Mountain Proprietary Silver Mining Company consists of four 40-acre, three 80-acre, and one 10-acre blocks. This place is situated about 90 miles from Wilcannia. The prospectors sunk a shaft to a depth of about 110 feet, and have driven about 30 feet. Finding their means insufficient to prove the property, it was formed into a syndicate, and afterwards floated into a company in Sydney. Captain Piper, late of Broken Hill, was then appointed manager, and a new shaft was started on the side of the lode 13 feet by 5 feet 6 inches, and they are now down between 80 and 90 feet, going through very promising-looking manganese and rotten ironstone, with veins of kaolin clay. The first contract is for 150 feet, when a chamber will be put in, and probably a drive into the lode. On another block prospecting is still being carried on, and at the time of knocking off for the Christmas holidays the cap of a large body of ore was struck a few feet only from the surface. Whim work and timbering is going on vigorously, and some 20 tons of timber is now on the ground for securing and working the property in a thorough manner. In connection with this property there are also some 25 other mineral leases, which will all be worked when the leases are granted. Cook and party, holding three 40-acre blocks, are sinking, and are down about 70 feet. At 50 feet they drove in and struck a large body of ore, which gave fair assays, but they now intend going another 100 feet before driving into the lode again. This field presents a very likely appearance. A general store is kept by Mr. Sydenham, who appears to be doing fairly well. The working population at present at Black Mountain is about 40, but this number will be largely increased when the other blocks start working. Seven miles from the Black Mountain are seven blocks leased by Riley and Co., and 4 miles further south are four more blocks, which are being vigorously tried.

Nuntherungle Silver Field.—These mines are situated about 80 miles north-west of Wilcannia on a series of low-lying ridges between the Copper Mine Range and Miller's Hill. The ground is a soft clay slate formation, the surface carrying large deposits of friable lime. The Proprietary Mine consists of seven 40-acre blocks, upon which two shafts have been sunk to a depth of 30 feet, and some costeening has been done. The ore obtained from this claim has been assayed at 26 per cent. lead, and 55 oz. of silver.

The "Nil Desperandum" (Mathieson and party) consists of four blocks. A 60-feet shaft has been put down, and about 10 tons of rich ore showing chlorides very freely have been bagged for testing. Aasays of specimens from the shaft have given 3 per cent. lead, and 88 oz. silver.

The Tarella consols, consisting of five blocks, have also a shaft sunk to about 60 feet, disclosing some narrow veins of nice ore, and some good assays have been made.

At the time of my visit to the field about two months ago there were thirty men on the ground working, but I believe this number has since been increased to seventy.

I consider the prospects of this field to be very good; but until the ground is thoroughly tested, it is difficult to form any opinion as to its value or permanency. It only needs one mine to be proved to give a good start to the field. Capital will have to be expended to develop the field. There is an excellent supply of water afforded by a station tank which, in view of a probable large settlement of miners, I would recommend should be resumed by the Government. It has a capacity of 25,000 yards. During my visit to the field I laid out a site for a township, but I understand that this has since been pegged out for leasing. A site close by has, however, been chosen, and a township laid out.

Opals.—The opal mines are situate on the Momba Pastoral Company's run, 60 miles north-west of Wilcannia. Some 600 acres have been leased. Opal was first discovered here about 6 years ago, but no notice was taken of it at that time. Hooley and Company's claim has turned out some excellent samples, some specimens of which I forwarded to the Department some months ago. An English company has, I believe, been formed to work the claims. A shaft has been sunk to a depth of 50 feet, but opals have been found within a few feet of the surface in layers between a hard silicious sandstone. The field is at present in an undeveloped state, and owing to the scarcity of water many of the claims are at present under suspension. Much of the opal that has been obtained is of an unsaleable description, whilst a large quantity has brought a very high price, as much as £5 per ounce for good specimens being offered locally.

ALBERT DISTRICT.—Milparinka Division.

E. L. Maitland, Warden.

The past year commenced under the most favourable auspices for this portion of the Albert Gold-field. A splendid fall of rain (some four and a half inches) early in January filled the dams, creeks, and natural water-holes, while frequent showers until August brought the total rainfall for the year up to 12 inches

inches 73 points, or nearly double the average quantity. Notwithstanding these favourable conditions, 1890 has shown a decline in the mining industry so far as this division is concerned; and to a very great extent this may be attributed to the non-success of the Mount Browne Company, in which the hopes of the district were centered, which has had the effect of at least delaying the floating of companies formed for the purpose of working the Warratta Reefs, the Nuggetty Cement Hill, &c., and in this manner delaying the advent of capital available for mining purposes into the district. The great distance from water or railway communication has had much to do with the present state of affairs, the carriage on machinery amounting to a sum equal to a considerable portion of the first cost.

Stringer's Hill continues to support a large number of miners. A fair amount of work has been done, and the returns if not so good as in 1889 are still promising. With a more plentiful water supply, double the number of miners now employed could find payable ground in this locality. The average depth of the ground now being worked is 90 feet, and the average return so far as I have been able to ascertain has been 9 dwt. to the load, the wash-dirt being from 4 inches to 10 inches.

The principal returns are:—Campbell and party, 240 loads for 222 oz., depth of claim 75 feet, wash-dirt 10 inches; Mercer and party, 197 loads for 96 oz., depth 80 feet, wash 9 inches. For the purpose of providing water for the inhabitants of Stringer's Hill, a bore was commenced a short distance from the Hill; but after having been put down a depth of some 230 feet was stopped and the plant removed.

At Mount Browne little but surfacing has been done, the returns being from ½ dwt. to 2 dwt. to the load; and as this supply is practically unlimited, with proper appliances and on a large scale, it would pay more than handsomely. Some effort has been made to find the run of gold supposed to exist in the deep ground at the One-mile, but so far unsuccessfully.

The Mount Browne Company commenced driving operations in February last, but from some unexplained reason the management appears totally without energy. The whole of the work performed at the present time could, if actually pushed on, have been accomplished in less than half the time taken. In the main drive from the Company's shaft to the All Nations' workings, a distance of 350 feet, payable wash (from 3 to 12 dwt. to the load) was cut in several places; but the wash appears very patchy, with no defined lead. However, as there is an immense amount of wash-dirt from 1 to 5 feet thick, with proper management the returns should at least be sufficient to pay working expenses. Drives have been put in towards the east, but with small success, as there appears to be no run of gold in that direction. Recently the manager has put in a drive towards the north-west. This seems to be the deepest ground met with so far, and as both wash-dirt and gold are of a more promising character the manager is sanguine of meeting with more payable stuff in this direction.

The water pumped from the mine has averaged, for the past twelve months, 45,000 gallons in the twenty-four hours, and about that quantity is being pumped at the present time. Had it not been for this water the residents of Mount Browne and Stringer's Hill would have been without water for their stock, and with little for domestic use. As the supply from the mine is apparently inexhaustable at the present output, and fit for domestic use, it has proved of immense benefit to the miners, some of whom have utilised the surplus water for mining purposes.

Some little work, principally surfacing, has been done at Good Friday, the returns, an average of 1½ dwt. to the load, being the best on the field for this description of work. The soakage here has improved, as might naturally be expected, now that the ground has been opened up, and is sufficient to maintain the present population for a considerable time.

The Warratta Reefs are again idle for the want of machinery. The lessees of the Whittabranah and Warratta lines of reefs are endeavouring to float their leases into a company in order to obtain improved gold-saving appliances and work their ground on a large scale.

It is difficult to understand why these valuable properties have been allowed to remain so long idle. Several reports, all favourable, have been made by experts. The surface indications are really good, while the returns, from the primitive appliances on the ground, have averaged 17 dwt. to the ton; and the fact that the best work in the shaft by a tribute party of working miners paid handsome dividends, proves that good stone exists in the lowest level of the Whittabranah shaft, a depth of 220 ft.

At Evan's Gully some fair returns were obtained so long as the water lasted, but since July little except making and repairing dams has been done. With a supply of water there is room for a considerable number of miners in this locality.

The efforts to float the cement hills at Nugetty into a company having failed, no work has been done, and, consequently, the leases have been reported for non-fulfilment of the labour conditions. However, as the lessees have implicit belief in the value of their holding, further steps will, doubtless, be taken to fully test the value of the property.

Around Tibooburra, as may be expected after upwards of ten years work, gold is becoming scarce, still good wages can be made in any portion of the field so long as water lasts. Several attempts have been made to trace the gold into deeper ground, but hitherto unsuccessful.

Portion of the Prospecting Vote has been granted to assist prospecting in the Tibooburra Division which should encourage search for new ground.

The Koomingberry Mines have been at a standstill for greater part of the year. However, a company is now being formed for the purpose of working the Alliance and adjoining lease, and hope to commence work early in the coming year.

Capital and improved gold-saving appliances are greatly needed in the district, and if these were available it would greatly tend to the development of this division. At the present time a large quantity of quartz is at grass awaiting the arrival of machinery. Thousands of acres remain without prospecting, for, were payable stone found, it would be valueless as things are at present. Promising reefs are to be met with throughout the whole of the division, especially at Mount Browne and Good Friday which, for the same reason, have never been tested.

So much gold is now sent away privately that it is difficult to give an estimate of the quantity won during the year, but from inquiries made I believe the following to be correct:—Milparinka Division, 1,450 oz.; Tibooburra Division, 760 oz.

The value of the "noble opal," of which 195 lb. weight were got in this district during the year, cannot be computed with any pretensions to accuracy, as it has no ascertained commercial value, and does not rank as a gem, having what is known to lapidaries as a "fancy value." It is often sold at £5 and over per ounce. At one time a jeweller in Wilcannia had a standing advertisement offering to purchase at that price. Taking £5 per ounce as the standard value, that would give £15,600 as the value of the whole, assuming that the weight stated is avoirdupois.

ALBERT

ALBERT DISTRICT—Wilcannia Division.

(A. W. Pratt, Mining Registrar.)

Collections for miners' rights, mineral licenses, and business licenses for year 1889, £49; for year 1890, £166, showing an increase of £117.

For gold leases—Year 1889, £80 10s.; for year 1890, £261 10s.; showing increase of £181.

For mineral leases—Year 1889, nil; for year 1890, £2,470.

The mining industry throughout the district has received a general impetus during the year 1890, especially with regard to opal and silver. The gold mines at Cawker's Well are at a standstill on account of lack of machinery.

COBAR DISTRICT—Cobar Division.

(T. C. K. M'Kell, P.M., Warden.)

In forwarding my report of the Cobar Mining Division for the year 1890, I have the honor to state that very little progress was made in this district during the year, and in consequence of the apathy displayed by various leaseholders a large number of leases were cancelled for non-fulfilment of the labour conditions, and in many instances where a considerable amount of capital had been expended, and the funds became exhausted, suspension of labour had to be granted.

The business during the year was not equal to former years, only seven applications for 63 acres for gold, and two applications for 80 acres for silver, were received; but my attention was fairly occupied by a number of cases in the Warden's Court.

The Occidental Company did a large amount of work in opening up the property, but in consequence of the Company having undertaken the erection of machinery, very little crushing was done. A battery, consisting of a 10-head stamper, was erected, and an 8,000-yard tank constructed, at a cost of about £2,000. Since the completion of the battery early in December last 140 tons of indiscriminate quartz were passed through, yielding 118 oz. 10 dwt. of gold, valued at £474.

The Fort Bourke Tunnel, Chesney North, and Chesney South have done good work, but have not been successful in striking payable stuff. In the Chesney North a lode of blue and green carbonates about 8½ feet wide was struck, and from two trial crushings a return of 12 dwt. of gold to the ton was the result.

The Chesney Cobar Mine worked continuously during the year, employing about 30 men. I am unable to ascertain the return for the year from this mine, through the present manager being lately appointed, and the books kept by his predecessor being in Melbourne, but during the last five months of the year 880 tons were crushed at the Company's battery, yielding 586 oz. of gold, valued at about £2,000.

Billagoe.—A number of leases were forfeited on this field. The only mine there that has made any return is the Mount Billagoe Gold and Silver Mine. Twenty tons of ore were raised, of which 5 tons 14 cwt. 2 qr. were treated in South Australia, and sold there for about £510; the actual quantity of gold and silver realised not being procurable. A small quantity of good ore and about 30 tons of seconds still lie at the mine.

Copper.

The Nymagee Mine during the year raised 7,865½ tons of sulphuret ore, which was smelted at the mine, realising 794 tons of copper, valued at £43,868 10s. Through the boggy state of the country during the winter months, and the difficulty in procuring firewood the mine was not in full swing, only 250 men being employed.

The New Burra Burra Company raised 500 tons of ore, of which 5 tons 17 cwt. were smelted at the mine, yielding 98 per cent. of metal, which was shipped to London for sale.

The Great Cobar Copper Mine.—Nothing has been done in this mine since it closed in August, 1889; but now that the railway will shortly be completed to Cobar, it is to be hoped that this valuable property will not remain much longer idle.

Machinery.

The field has now three crushing plants, valued at about £7,500, namely the Chesney Cobar, the Occidental, and the Cobar Quartz Crushing Company; the two former finding full employment for themselves, and the latter crushing for the public.

So far as I can ascertain the gold won during the year was 1,752 oz., but during the new year there is every confidence of this amount being more than doubled.

Rainfall for the year, 27 inches 74 points.

COBAR DISTRICT—Hillston Division.

(N. C. O'Neill, Warden.)

In presenting my report for the year 1890, I am glad to be able to state that discoveries have been made at Ironstone Hill, near Mount Hope, and at Creamy Hills, near Euabalong, which give promising indications of permanently payable gold. A metropolitan syndicate has taken in hand the Ironstone Hill mine, and some 15 tons of ore have already been despatched to the Clyde works for treatment. A neighbouring mine, known as Mount Dromedary, is also sending away stone for treatment in the interest of an English syndicate. At Creamy Hills Cabot and party's shaft has been sunk to a depth of about 65 feet. The reef is about 2 feet 6 inches wide with 9 or 10 inches showing gold freely. As the shaft deepens the character of the reef improves, and the prospects give abundant encouragement to the enterprising party at work. Two other parties—Daley and Co., and Eason and Co.—are at work close by the original prospecting claim; but up to the present they have come upon nothing of any importance. I fear, however, that they lack the masculine energy and patient industry that are essential to the success of prospecting efforts. My opinion is that the country around Creamy Hills deserves the attention of bona-fide gold finders, and that this should be made known to the public. The only drawback, and it is a serious one, is the want of water; the nearest stream being the Booberoi Creek, about 7 miles distant. There are, however, good catchments for water, and a sufficient supply of this necessary element will very soon be

be had if the wherewithal in the shape of payable gold shows itself. Neither gold nor any other mineral has been won from lands in the neighbourhood of Cudgellico. At the same time, the old Foster's Reef claim at that place, as well as the contiguous country, are hereby brought under the notice of enterprising mining speculators. It is the opinion of persons, professing a knowledge of mining, that good returns would result from the investment of capital, under good management, in developing the claim in question.

During the year the New Mount Hope Copper Company's mine, which has been worked on tribute, raised 1,143 tons of ore, the value of which on the mine amounted to £10,900. If sold as ore, the value is put down at £7,450, and, if smelted, the quantity of copper is given as 218 tons. The depth of the shaft is 340 feet; the depth of the lowest level, 340 feet; the width of the lode, 68 feet; the dip or underlay, east; and the bearing, south. Forty-six men and six boys have been employed; and the value of the plant is given as £7,000.

The Great Central mine at South Mount Hope employed 70 men during the year, and raised 1,855 tons of ore; smelted 1,667 tons; the quantity of copper is given as 228 tons. The depth of the shaft is 244 feet; the depth of the lowest level, 192 feet; width of lode is irregular at present depth, and the bearing is one in ten. The value of the raised ore has not been supplied in this case; and I may here add, that, owing to alleged mismanagement, this mine has been closed since the beginning of the current year.

During the year applications have been made for 9 gold leases, and for 1 mineral lease. The gold leases are for land at Creamy Hills, and the mineral lease is for copper-mining at Coan Peak, near Mount Hope. With respect to the latter, it is said that a splendid show of copper has been discovered, which, when worked, will completely put into the shade the New Mount Hope and the Central mines.

In closing my remarks, I again invite attention to the paramount importance of railway extension to this district. The high rate of carriage to and from the south-western line of railway at Carrathool and Whitton militates considerably against the successful operations of mining in these parts. Besides, in view of the steady progress of settlement and of the further advance in the same direction that will follow after the falling in of the Central Division pastoral leases, it is of the highest moment that an easy and a rapid means of communication with the metropolis should be afforded to this part of Riverina. The uncertainty of the rainfall, too, is a matter that must also be seriously taken into account, and this should urge the Government to lose no time in devising some scheme by which the country—the mineral country—out back from the Lachlan should be provided with a plenteous supply of wholesome water. Every pound expended on railway extension and water conservation in this remote part of the province means increased wealth to the general community in the healthful development of the productive capacity of the country.

COBAR DISTRICT.—Cobar Division.

(H. Holcombe, Mining Registrar.)

Mining matters in this district have been very quiet during the past year, only 9 applications for leases having been received, 7 for gold and 2 for silver. I issued 49 miner's rights, 14 mineral leases, and 10 business licenses.

Prospecting is being carried on in various localities at Bald Hills. On Tindarey, about 40 miles north of Cobar, the Newton Prospecting Syndicate has done a good amount of work; a quantity of stone is to be sent to Sydney for assay, and further action will depend on the result.

At Mount Billagoe nearly all the claims have suspended operations throught want of funds, the only one showing any results being the Mount Billagoe Gold and Silver-mining Co., their return showing 20 tons raised, 5 tons 14½ cwt. sold; value £454 18s. 11d., and 30 tons of inferior ore at grass.

The holders of the Phœnix prospecting claim, about 2½ miles north of Cobar, have twice during the year given notice of their intention to apply for a lease, but on each occasion the gold proved patchy and unpayable, and the applications were abandoned. Their shaft is now down over 150 feet.

On the Chesney line of reefs, about 2 miles south of the town, work is being carried on vigorously on several claims.

The Fort Bourke worked continuously, sinking a shaft 125 feet deep. Two trial crushings of stone from the lode 20 feet in width averaged 3½ dwt.

Fort Bourke United have sunk a shaft 100 feet, but apparently have not struck the lode.

The Jubilee have two shafts down, and are raising promising stone.

North Chesney have done a large amount of work. About 25 feet below the 75 feet level, blue and green carbonates were met with, and further down the copper ore became richer, and in addition the lode carried more gold. The lode is now 8 feet 6 inches wide. Two trial crushings averaged 12 dwt. gold.

Chesney Cobar return only the work done during the last 5 months of the year, viz., 880 tons, crushed for 586 oz., worth about £2,000.

Occidental, having just finished erecting their plant, only crushed 140 tons, yielding 118 oz. 10 dwt., value £474.

Great Cobar.—This company having, in May last, forfeited their claim of 20 acres adjoining the south boundary of the Occidental, the ground was immediately re-pegged by two different parties, and, after protracted litigation in the Warden's Court, was adjudged to Messrs. Wright and party. A new company, to be known as the South Occidental, is now in process of formation, with a capital of £3,000, and the leaseholders have already put men on in anticipation of that event. As the reef runs through the whole area, and the new crushing plant on the adjoining mine is within 100 yards of their shaft, this company has excellent prospects before it.

Copper.

The Great Cobar Mine is still lying idle, though it is hoped work will be recommenced about August next, when the Railway is opened.

The New Burra Burra, 30 miles east of Cobar, on the Nyngan road, continues to develop its resources, having raised about 500 tons of ore during the year, of which 5 tons 17 cwt. were smelted, producing 98 per cent. of copper.

Nymagee, employing only 250 men, raised 7,865½ tons of ore, yielding 794 tons of copper, valued at £43,868 10s.

Total value of mining plant in the division, £7,500.

COBAR DISTRICT—Euabalong Division.

(John Quirk, Mining Registrar.)

With reference to your letter of the 19th January, requesting me to furnish you with an annual report for last year, I have the honor to inform you that no mining business has been transacted here for 1890, in the way of issuing miners' rights, business licenses, &c., since my appointment.

At Creamy Hills, 12 miles from Euabalong, Cabot and party's shaft on the prospecting claim is sunk to a depth of 65 feet. The reef at that depth is about 2 feet 6 inches wide, with about ten inches showing gold freely.

Daley and party, No. 1 north of the prospectors', are now down with their shaft about 13 feet, but have not discovered any gold. Work in this shaft progresses slowly, as the country is very hard.

Eason and party, No. 1 south, have sunk their shaft to a depth of 23 feet. With the exception of obtaining a few colours, they have discovered nothing of importance. In this claim the ground appears to be of a softer nature and more easy to work. This appears to be about the only work carried on at Creamy Hills. There is no machinery of any description on the ground. There are no returns to be sent in, owing to the leases not being granted.

COBAR DISTRICT.—Mount Hope Division.

(F. Davis, Mining Registrar.)

I have the honor to submit my report for the year 1890, but regret I am unable to furnish returns for same, owing to the Mining Registrar at Hillston calling upon the mine owners in this division to furnish him with their returns for the year 1890, which I am informed has been done.

The two copper-mines have been working during the year, viz., the New Mount Hope and the Great Central. During the past half-year the furnaces at the New Mount Hope were closed down for nine weeks for want of fuel. This mine is worked by a party of tributors, and is said to be paying well. The Great Central was closed for a period of three weeks. This mine is in a very unsatisfactory condition at present, and is said to be heavily in debt. The mine is no doubt a very rich one, and if worked by an economical manager, it would pay handsomely.

During the year Joseph Reilly reported the discovery of payable gold at Ironstone Hill, 11 miles from here. Reilly's mining tenement is situated within the freehold lands of the New Mount Hope Copper Company. Reilly is the holder of a permit to dig and mine for gold upon this land. Reilly took possession of a protection area about the 17th August, 1890, but up to the present date Reilly cannot operate beyond simply prospecting. The formation is said to be Devonian. The gold occurs in a large slate dyke, and in an ironstone lode immediately adjoining the slate. The slate has been sunk upon some 60 feet, and driven east, 10 feet, and west, 60 feet; north, 40 feet, and south, 30 feet; and is found to contain about 8 dwt. per ton, for a distance of 60 feet across from east to west.

Upon the south and east occurs a lode composed of ferruginous felspathic ore, from 20 to 25 feet wide, carrying free gold in quantity apparently about equal to 2 oz. per ton. The lode here has been laid bare some 50 feet in length and of the above widths. This claim appears to be of a highly promising character. Fifteen tons of stone is now being despatched to Sydney for treatment, and it is understood that a strong company is being formed to work the mine.

The Mount Dromedary Gold-mine is situated about 10 miles north of Mount Hope. The land is held by John M'Donagh as a lease. Here the gold occurs upon rather a high hill; the formation, Devonian. The lode is in a joint between an igneous rock and a soft blue slate; is about 30 feet wide where opened, and apparently able to yield something like 1 oz. per ton. The lode-stuff is a ferruginous gossan, carrying ironstone and pyrites.

Some 200 feet of sinking and driving, also much costeening, has been done upon this mine.

This formation extends about 120 chains northward, and has, at various times, been prospected with indifferent results. Far the greater portion of this is now abandoned land, and well worth prospecting.

Ten tons of stone were sent to Melbourne for treatment, some time ago, which is said to have yielded 16 dwt.

Two men are now preparing another parcel of 5 tons for treatment at Parkes.

During the year the Government prospecting party have sunk 36 shafts in alluvial ground, with poor results, only the colour of gold being obtained.

COBAR DISTRICT—Nymagee Division.

(D. Dwyer, Mining Registrar.)

I have the honor to submit my report for the year 1890.

During the year 21 miners' rights, 1 mineral license, and 1 business license were taken out. A few miners were prospecting during the last quarter of the year about 12 miles from the township, but met with no success.

The Nymagee copper-mine is the only mining in this district; 250 men are employed at the mine; the value of the plant is £42,000. The amount of ore raised during the year was 7,865½ tons, which was smelted at the mine, and realized 794 tons of copper, valued at £43,868 10s. The depth of the mine is 734 feet; the width of the lode is from 8 to 20 feet.

CHIEF INSPECTOR OF MINES' REPORT.

In submitting my Annual Report for the year 1890, I have the honor to inform you that the following is a list of the accidents reported on by the Wardens, Coroners, Inspectors of Mines, and Mining Registrars, as having occurred during the year 1890 in the Metallic Mines of New South Wales.

No of Accidents	Date	Name of Mine or Company	Locality	Persons killed	Persons seriously injured	Occupation	Cause of death or injury	Fatal.				Non fatal.			
								Falling down shaft	Fall of earth, &c.	Explosion of shot.	Dynamite fumes	Scalded	Explosion of shot	Explosion of dynamite	Material falling down shaft	Fall of earth.	Miscellaneous
	1890																
1	10 Jan	Golden Gate G M Co	Hillgrove	Michael Greeney		Miner	Falling down shaft	1									.
2	15 ,,	Eureka Mine	Nerrigundah		Francis Lake	,,	Explosion of powder ..						1				.
3	17 ,,		Cudgegong	Henry Douglas		,,	Fall of earth		1								.
4	22 ,,	Junction Co	Broken Hill	John Ralph		,,	Fall of timber in shaft		1								
5	5 Feb	Royal Standard Mine	Stewart's Brook	Henry Caslick		,,	Explosion of missed shot			1							.
6	5 ,,	,, ,,	,,		Thos Gunning	,,	,, ,,						1				.
7	1 Mar	Baker's Creek G M. Co.	Hillgrove		C Johnson	,,	Explosion of dynamite							1			..
8	3 ,,		Rocky River		Peter Rewtrell	,,	Bucket falling down shaft	.								1	.
9	6 ,,	Mount Browne Co	Mount Browne		Michael Davis	,,	Rope broke								1		.
10	6 ,,	,,	,,		John Kirkpatrick	,,	,,									1	.
11	11 Apr	Sluicing Claim	Hill End	Wm Arnott		,,	Fall of earth		1								.
12	21 ,,	Bathurst G M Co	Trunkey		D Constantine	,,	Explosion of dynamite							1			
13	3 May	New Lewis Ponds Co	Lewis Ponds		John Townsley	,,	Fall of mullock									1	.
14	16 ,,	Baker's Creek Mine.	Baker's Creek	Richd. Courtier		,,	Caving in of tunnel		1								.
15	19 ,,	Great Extended Co.	Broken Hill	W. H Holder		,,	Fell down shaft	1									..
16	19 ,,	,, ,,	,,	W. J Pascoe		,,	,, ,,	1									.
17	13 June	Major's Creek Proprietary Co	Major's Creek		John Ellis	,,	Explosion of shot						1				.
18	9 July	No 5 Claim	Alectown		John Hall	,,	Fall of ground in drive									1	
19	19 ,,	Proprietary Mine	Broken Hill		William Davey	,,	Explosion of shot						1				.
20	5 Aug	Junction Mine	,,	J G Aronitt		,,	Dynamite fumes				1						
21	5 ,,	,, ,,	,,		John Robinson	,,	,, ,,										1
22	7 ,,	Proprietary Mine	,,		John Craig	,,	Fall of timber								1		
23	20 ,,	Umberumberka	,,		R. Rettalock	,,	Fall of ground									1	.
24	25 ,,	Proprietary Mine	,,	William Stott		,,	Falling down shoot	1									.
25	9 Sep	Gold Lease, Yawaka.	Pambula	Wm Johnson		,,	Explosion of shot while tamping			1							.
26	9 ,,	,, ,,	,,		Wm Taylor	,,	,, ,,						1				
27	19 Oct	Broken Hill North S M Co	Broken Hill	...	Henry Pringelle	,,	Injury to arm from concentrating machine										1
28	5 Nov	Underlay Blocks Mine	,,	D C Jones ...		,,	Falling down shaft	1									.
29	12 ,,	White Lead Proprietary Mine	,,		W Laurie, senr	,,	Scalded										1
30	12 ,,	,, ,,	,,	W. Laurie, junr		,,	,,					1					.
31		South Mine	,,	D Hislop		,,	Explosion of missed shot			1							.
32	24 Nov	,,	,,		Joseph Allen	,,	Truck of ore falling on him—broken leg							1			.
33	27 ,,	Proprietary Mine	,,		John Delbridge	,,	Explosion of dynamite—lost eye								1		.
34	10 Dec	,,	,,	James Pickering		,,	Explosion of shot			1							.
35	8 ,,	Block 14 Mine	,,		James Bennett	,,	Fall of stone									1	.
36	16 ,,	Kohinoor Mine	Parkes	W. Dean		,,	Rope broken—fell down shaft	1									.
37	11 ,,	Block 5 Mine	Broken Hill		W H Roberts	,,	Fell down shaft										1
								6	4	4	1	1	5	3	5	4	4
										16					21		
												37					

ABSTRACT

Killed.—5 Gold quartz.	Injured.—9 Gold.
2 ,, alluvial.	12 Silver.
9 Silver.	
16	21 Total, 37

TABLE B.

NUMBER of Men employed in the Metallic Mines of New South Wales, and value of Machinery, at 31st December, 1890.

Mining District.	Alluvial Gold.		Quartz Gold.	Silver.	Copper.	Tin.		Other.	Total.	Value of Machinery.
	Europeans.	Chinese				Europeans.	Chinese			£ s. d.
Albert	200	..	71	5,000	. ...	.. .	.....	514	5,785	412,485 0 0
Bathurst	445	62	747	530	302	.....	... .	151	2,237	129,620 0 0
Clarence and Richmond .	225	...	204	.....	... ..	. . .	...	27	456	5,620 0 0
Cobar ..	... .	.	90	4	378	..	.....	...	472	56,500 0 0
Hunter and Macleay	6	...	86	... ..	... ..	.....	.. .	90	182	26,500 0 0
Lachlan	1,200	. .	813	13	... ..	.....	... ..	... ..	2 026	63,203 0 0
Mudgee .	1,770	82	338	. ..	...	... .	....	6	2,196	26,000 0 0
New England .	67	32	258	195	...	361	630	29	1,572	38,450 0 0
Peel and Uralla	390	87	1,298	4	. . .	542	621	28	2,970	100,185 0 0
Tambaroora . .	247	178	400	...	.....	.....	... ..	... ..	825	20,450 0 0
Tumut and Adelong	529	88	324	30	. ....	... ..	. ....	6	977	73,300 0 0
Southern ..	518	178	1,656	30	36	18		17	2,453	113,910 0 0
Total	5,597	707	6,285	5,806	716	921	1,251	868	22,151	1,066,223 0 0
Percentage killed	·031	..	·08	·155	. ...	... ..	...	.....	·072	..... .
Percentage injured	.....	. .	·14	·200	..	.....	.....	.....	·094	.....

Table B gives, in addition to the percentage of persons killed or injured, the number of persons employed, and the value of mining machinery in or on the metallic mines of New South Wales during the year 1890.

Out of a total of 16 persons killed during the year, 5 lost their lives in auriferous quartz mining, 2 in alluvial gold-mining, and 9 in silver mining. Of the injured persons, 9 were engaged in gold and 12 in silver mining, being an increase in the number of accidents during the year compared with 1889, of 1 killed and 5 injured.

By the above it will be seen that the majority of accidents have occurred in the silver mines, in which no less than 9 have been killed and 12 have been injured, out of a total of 16 and 21 respectively. Although the accidents in number for 1890 have exceeded by 6 those which occurred in 1889, the percentage of killed and injured is only ·072 killed and ·094 injured, or slightly above those of 1889 for injured and less for killed; as during that year the total number of persons employed on the metallic mines or machinery in connection with said mines were 18,769, whereas during the year 1890 there were 22,151, or an increase on the year of 3,382 persons employed. At the same time the value of mining machinery has increased from £846,193 10s. in 1889 to £1,066,223 in 1890.

In March last candidates were invited by public advertisements for the positions of Inspectors of Mines. About 60 candidates presented themselves at the Department of Mines for examination before a Board consisting of the Under Secretary for Mines, Chief Mining Surveyor, and Chief Inspector of Mines, appointed by the Honorable Sydney Smith, Minister for Mines. The two successful candidates for the position were Messrs. David Milne and William Rue. These gentlemen were appointed on May 15th and entered upon their duties forthwith. Mr. Milne has since inspected numerous mines in the Western, Southern, and Northern Districts, and Mr Rue has been stationed at Broken Hill, and several times inspected the mines in the Albert Mining District. Both have, so far, performed their duties satisfactorily.

During the year the following mining centres have been inspected by me in my capacity as Chief Inspector of Mines and member of the Prospecting Board:—In the North: Maitland, Hillgrove, and Armidale. In the South: Nerriga, Braidwood, Queanbeyan, Bungendore, Gundaroo, Goulburn, Mittagong, Joadja, and Yalwal. In the West: Orange, Lewis Ponds, Mount M'Donald, Woodstock, Cowra, Broula, Lyndhurst, Sunny Corner (Mitchell), Clear Creek, Bathurst, Wattle Flat, Sofala, Palmer's Oakey, Hill End, Quartz Ridge, Pyramul, Windeyer, Hargraves, Mookarawa, Wellington, Dubbo, Tomingley, Peak Hill, Alictown, and Parkes.

GOLD.

In May last, in company with Inspectors Milne and Rue, we proceeded to Hillgrove for the purpose of inspecting the mines in that locality, commencing at the head of the falls which are in the granite formation. The only mines situated in said formation and on which progressive works were going on were the Earl of Hopetoun (late Root Hog), the Cosmopolitan, and the Lady Carrington. Very little work was carried on at the Centennial Mine.

At the Earl of Hopetoun the mining manager, Mr. Gabriel Faull, was carrying on progressive works such as tunneling on the line of reef. A lode from 4 to 12 inches was exposed to view, and gold could be seen in some of the quartz, which were also associated with antimony. At the Cosmopolitan Mine, which was under the management of Mr. A. J. Webster, great improvements in the opening up of the mine and the erection of machinery were in progress. The firewood or fuel question being the question of the day for the successful working of the mines in the Hillgrove district, Mr. Webster considered that sufficient force of water for motive power could be obtained by the erection of a reservoir on the tableland, such reservoir to be connected with 3-inch tubing or piping led into a 4-feet diameter pelton wheel through a ½-inch jet, equal to about 18 h.p., but the jet could be increased to 1 inch to obtain a correspondingly higher power. The length of the piping from reservoir to the wheel is 1,800 feet, and the vertical pressure about 680 feet. The wheel was set in motion in my presence, and the whole of the machinery worked smoothly and satisfactorily to those most interested. As the thickness of the reef is from 1 foot to 4 feet, 10 dwts of gold per ton ought to yield payable returns. At present only 12 stamps have been erected, but should future developments warrant it the motive power is sufficient to drive double the amount of stamps now in use. Great preparations were also carried on at the Lady Carrington Mine. A tramway 22 chains in length was constructed from the tableland down to the falls, to the machinery site and mine.

Whilst

Whilst the above-mentioned mines have obtained excellent prospects, it will be found that the reefs or lodes containing gold and antimony will occur very irregular and broken, both to width and length Some will occur in lenticular blocks, others in broken masses—a characteristic of the granite formation—which causes a great deal of unproductive work to be done and expenditure incurred, considerably reducing profits which otherwise might be made.

The Baker's Creek Mine is situated on the deepest part of the Falls, and has been fully reported on by me on previous occasions. About 150 persons are employed in and about the mine, under the able management of Mr. Thomas Eyres, who keeps the 30-stamp battery fully employed night and day. The Baker's Creek North Mine has also been fully reported on by me on former occasions. Extensive progressive works, both in the mine and in connection with hauling, crushing, and gold-saving machinery. At the Nimrod Mine the prospects were not bright; but Captain Cosgrove, the mining manager, had everything in connection with the mine in good order, and was very anxious to obtain payable returns. The Sunlight Mine, also fully noted by me in former reports, is erecting, under the management of Mr. Henry Martyn, a 20-stamp battery. The wire tram line referred to in a former report, and which gave no satisfaction, has been taken down and replaced by an iron railed tramway, which, in this case, owing to the contour of the country, is certainly an improvement. The prospects of the Sunlight Mine are good.

At the Golden Gate Mine, quartz is being raised to the surface under the management of Mr. Daniel Frew. In some of this quartz gold could be seen with the naked eye. The Ellonara Mine, W. H. Hill, manager, has on several occasions been fully reported on by me. At the time of my last inspection about seventy-six persons were employed in and about the mine. Deepest level worked, 312 feet; width of lode on bottom of said level, 4 feet. The machinery consists of 25-head battery, shaking tables, and berdans. The mode of procedure for the treatment of the antimony ore which is associated with the volcanic dyke in which the auriferous veins occur is thus: The ore, after it is raised out of the mine to surface, is broken and sorted by hand, the smaller stuff being put through the hand giggers, and from there is taken to the furnaces to be smelted. Of these furnaces (there are three) two are used for crude and one for white metal; whereas the auriferous quartz associated with the antimony is crushed in the battery for the purpose of saving the free gold, and the concentrated stuff is principally treated at the Clyde Works, Sydney. The Ellonora North Mine were sinking a shaft and tunnelling in the hopes of being fortunate to intersect the Ellonora lodes.

Progressive works were also carried on in the Garibaldi Mine, who obtained good prospects, both in gold and antimony, in quartz veins or lode in the volcanic dyke. The latter is a characteristic feature in the occurrence of gold and antimony of the Hillgrove District. A very complete crushing and gold-saving plant has been erected under the immediate care of Mr. James Giffard, a practical, clever working engineer; but the principal plant was designed under the general supervision of Mr. David Wilson, of Adelong, New South Wales. The battery consists of 45-horse power engine, of twenty stamps. The crushed stuff, after leaving the battery, runs over tables, each containing three copper plates; from here it is discharged into a ripple, from the latter into a classifier of a conical shape, and on to Frew vanners, of which there are four, one to each battery and table. These Frew vanners are driven by a special Tangye engine, of 6-horse power. From the Frew vanners the stuff is again discharged into Chilian mills, and from there into tailing-pits for farther treatment.

Mitchell.

The principal mine at work is the Sunny Corner Silver Mine, which employs about 300 persons. A large percentage of gossan ore is still obtained from near the former workings, which, however, requires skill and care on the part of the mining manager, Mr. Joseph Longton, and the miners themselves, to prevent accidents. The sulphate ores on the lower levels are also being worked to advantage.

At Dark Corner (Paddy Lacky), Cook and party were obtaining payable gold at the vertical depth of 350 feet from the surface This company of working miners were assisted out of the Prospecting Vote; hence, through the agency of said vote and the energy and perseverance of Cook's party, it has been proven beyond doubt that the quartz viens in the Mitchell District are payable auriferous to the vertical depth of 350 feet, or perhaps to an unlimited depth. The reef varies in thickness from 18 inches to 24 inches, is well defined, and payable, which should prove an inducement to others to test the quartz veins in this district to a greater depth than hitherto obtained.

Bathurst, Wattle Flat, and Sofala.

Gold-mining in the above districts is not very flourishing. At Clear Creek, Turner & Co., who formerly carried on extensive quartz-reefing and crushing operations, have suspended work, owing, it is believed, to the appliances being defective for the saving of fine gold.

At Mount Rosette, about 4½ miles north-east of Millamana Post Office, a tunnel has been driven in the Mount and some quartz-veins intersected. In one of these veins a nice patch of gold was discovered, but very little has been done to follow up said discovery. Mount Rosette is, however, well worth prospecting by extending of tunnel and driving along the quartz-veins, especially to follow the indications near where the patch of gold was obtained. The principal mines at work at Wattle Flat were the Big Oakey Proprietary and Ellis Bros'. Mine. The latter company were assisted out of the Prospecting Vote, and obtained payable gold, through which a number of persons will find profitable employment. Ellis Bros. have erected crushing and gold-saving appliances, and obtained payable crushings before the end of the year.

At the Big Oakey Proprietary Mine, extensive prospecting operations are still carried on under the able management of Mr. R. Spencer, of Sofala. A shaft has been sunk to a depth of 200 feet, and substantially timbered. The 200-feet level has been opened both easterly and westerly in a systematical manner, to the credit of all concerned. At the time of my inspection the western level was in 113 ft. 6 in., and the eastern level 250 feet from the shaft. A quartz-vein was intersected in the eastern level 85 feet and in the western level 35 feet from the shafts respectively, both veins carrying gold. In the former vein a patch of very rich auriferous pyrites was met with; but very little work has been done on this vein to prove its intrinsic value. It appears to me that if the company had raised up on the vein and opened out on it profitable results might have been the consequence. The characteristic of the diorite formation is that quartz-veins occur irregularly, and the gold occurs in shoots or patches.

This plucky and enterprising company's land embraces all the Big Oakey and Surface Hill quartz-veins, some of which have proven highly payable on the top levels, but none of which have been tested to a greater depth than 100 feet. It is advisable for the company to extend both their easterly and westerly levels, so as to intersect all the several quartz-veins known to exist in their property. A

A very promising quartz-vein has been prospected by Messrs. Kelly and Harrison on Palmer's Oakey, Upper Turon, known as the British Lion Reef, situated on a high hill near Lamb's Gully, and on the bank of the Turon River. A tunnel has been driven into the hill 150 feet in length, and a narrow quartz-vein has been intersected showing a little gold. This tunnel might be further extended with good prospects of success, as the geological indications are certainly very favourable for the occurrence of auriferous quartz-veins. In the Sofala District, the mine known as the Queenslander is the only one which employs a number of persons. The mine, or rather the quarry, from which the crushing stuff is obtained is a diorite dyke, through which occurs a network of small quartz-veins containing gold.

Pyramul, Windeyer, and Hargraves.

Very little mining with the exception of sluicing is now carried on on the once famous Pyramul Diggings. With the exception of the reefs near Clark's Creek, such as the Jubilee and one or two others, the searching for and working large quartz-veins is likely to lead to disappointment. The quartz generally throughout the district has a barren appearance, although a few isolated specimens of gold may be discovered. Small fragmentary or disconnected quartz-veins may, however, be met with, containing rich patches and short shoots of gold.

Hargraves, one of the oldest and richest gold-fields in New South Wales, is also very dull. The principal mine at work is the Hargraves or Eureka G.M.C., who have fair prospects of success.

The geological formations of the Hargraves District are certainly very favourable for the existence of payable auriferous quartz-veins. One of the greatest drawbacks of the district for successful mining is that water is generally met with at shallow levels, such as about 100 feet from surface, which, however, can be overcome by suitable pumping machinery.

Hill End.

Looking at the prospects of the mining industry of Hill End at its present juncture, they are on a more permanent and legitimate footing than they have been for years past; but there is nothing new to cause any great excitement. Any visitor to Hawkins' Hill must be impressed with the idea that a large amount of capital and labour has been wasted through the large number of shafts sunk in close proximity to each other. I have frequently expressed the opinion that the resources of the precious metal in Hawkins' Hill are not exhausted, but that their partial failure must be attributed to the small area of former holdings, each company being obliged to keep a staff of officers, such as legal managers, mining managers, board of directors, &c., &c.; also to the want of actual working capital. Hawkins' Hill has the natural advantage that most of its mines could be worked by tunnel, either commenced from the Turon or Sawpit Gully. Following the line of veins, within the short distance of 1 mile, backs could be obtained from 1,400 to 1,500 feet in height; the water could thereby be drained, levels opened at various distances, and the whole of the mines could so be worked in an economical and systematical manner, and a crushing and gold-saving plant could then be placed at the mouth of the tunnel. The Quartz Ridge Mines are situated about 15 miles from Hill End.

These mines yielded large returns of gold in former years, but, owing to the lenticular system in which these quartz veins occur, they in some instances pinched out, and in others the yield of gold fell off very considerably. Very little, however, was done by the then shareholders to sink for new shoots of gold or prospect for the continuation of these reefs at a greater depth, the deepest level being about 200 feet. There is, therefore, a great probability that if these reefs were sunk upon to a greater depth, and opened out in a systematical manner, that they may again prove remunerative, and profitably employ a large number of persons.

There is a 10-stamp battery on the reef near Read & Co.'s mine in fair order and condition, which with repairs and some additional gold-saving appliances, could be made efficient for present purposes.

Mitchell's Creek, Wellington.

The principal mining operations carried on are those of the Mitchell's Creek Freehold Gold Estate, which is situated about 8 miles from Wellington. This valuable mining property has been lying unproductive for about ten years until about two years ago, when Messrs. J. M. Finley, T. M. Dalveen, and Philip Davies purchased the property, which consists of 600 acres freehold, their object being to treat with improved machinery, and concentrate the 30,000 to 40,000 tons of tailings which had accumulated from former years' crushings, and which they believed contained a large percentage of auriferous pyrites and free gold; also to thoroughly develop at a greater depth than hitherto attained the whole line of auriferous quartz veins, which can be traced along the surface for over 3,000 yards. These reefs had on the top levels yielded large payable returns, but through the defective machinery then in use the brown or decomposed pyritous quartz was only sought after and considered payable, whereas the quartz, heavily charged or impregnated with auriferous sulphides, or refractory ores, was neglected and considered worthless.

The enterprising spirit of Messrs. Dalveen, Finley, and Davies, associated with Mr. James Dick, of Glasgow, has already proved that the supposed pyritous quartz in their mine is of great value, which practical results have fully demonstrated. These quartz veins occur in the porphyry and diorite formations, and I am not aware of any quartz veins in New South Wales which can be traced with greater regularity.

Several levels have been opened in No. 1 underlay shaft, to a depth of 437 feet, and along the line of reef for fully 175 feet, and although the yield of gold so far obtained out of these levels has been sufficiently large enough to meet current expenditure, the opening out and securing of the underground workings have so far prevented profits being made.

Already £15,000 has been well and judiciously expended under the general management of Mr. Philip Davies in purchasing and erecting the crushing, grinding, amalgamating, and other gold-saving appliances, ready to put into full operation as soon as the mine is thoroughly opened; and when it is considered that fully 6 per cent. of auriferous refractory pyrites, valued at about 4 oz. of gold per ton, are saved, results speak for themselves as to the future prosperity of the mine.

This is one of the most extensive and *bona fide* gold-mines in this Colony, and the present plucky owners deserve every possible justifiable encouragement, because, should they succeed, as very probably they will, the whole Colony will be benefited thereby.

I have, &c.,

W. H. J. SLEE, F.G.S.,

Chief Inspector of Mines.

The

The Chief Inspector of Mines.

Sir,

Sydney, 2 January, 1891.

I have the honor to transmit my first Annual Report of the various mines and Mining Districts inspected by me since my appointment on the 15th May, 1890, which is as follows:—

Western Districts.

Sunny Corner, Wattle Flat, Sofala, Hill End, Pyramul, Windeyer, Hargraves, Peak Hill, Parkes, Forbes, Grenfell, and Canowindra.

Southern Districts.

Young, Pambula, Bega, Dromedary, Wagonga, Nerrigundah, Moruya, Araluen, Braidwood, Major's Creek, Little River, Boro, Bungendore, and Captain's Flat.

Northern Districts.

Hillgrove, Stewart's Brook, Dennison, Tamworth, Nundle, Hanging Rock, Bowling Alley, Walcha, Niangala, Bywong, Glen Morrison, Uralla, and Melrose.

The total number of mines inspected is 194, of which 10 are silver, 4 antimony, and 1 copper; the remaining 179 are gold-mines.

In the principal mines inspected by me I found that the mining managers were generally careful, and left me very little, if any, cause for complaint, as they value their reputation, and know that by working their mine in as safe a manner possible they do so to the advantage of their employer, as well as persons employed in their mines.

In those mines worked by individual miners or by small companies less caution is practised, and some of these mines I found in an unsafe state; but I may add that attention has been drawn to me by mine owners to defects in the safety of any mine inspected by me, and that I have had the satisfaction of seeing many of these defects remedied.

I have, &c.,

DAVID MILNE,

Inspector of Mines.

The Chief Inspector of Mines, Sydney.

Sir,

I have the honor to forward you, for your information, my first Annual Report on the various mines inspected by me since my appointment to the Albert Mining District, on the 15th May, 1890.

Having inspected the mines situated at Broken Hill, Pinnacles, Thackaringa, Umberumberka, Day Dream, Purnamoota, Mount Gipps, Black Mountain, and Corona, I find, as a rule, that the managers of the various mines carry on the workings with a due regard to the safety of the men employed, and spare neither time nor expense to prevent accidents occurring to persons under their charge. Although accidents have been frequent of late, if it is taken into consideration the dangerous class of mining operations and the greater number of men employed, the percentage is not much higher than last year.

The conditions and prospects of the Broken Hill mines have considerably improved during the last six months, owing to the further development which has taken place in the lode, and erection of machinery for treatment of refractory ores.

The number of mines inspected are 77, the whole of which are being worked for silver and lead, the number of men employed being 4,977, irrespective of numbers of persons, such as carriers, ore sorters, and others, which would swell the number to about 5,200, directly employed in and about the mines.

I have, &c.,

WILLIAM RUE,

Inspector of Mines, Broken Hill.

SUPERINTENDENT OF DRILLS' REPORT.

Superintendent of Drills to The Under Secretary for Mines, reporting on the working of the Diamond-drills and Water-augers for the year 1890.

Sir, Department of Mines, Diamond Drill Branch, Sydney.

In submitting my annual report on the working of the diamond-drills and water-augurs for the year 1890, I do myself the honor to attach to said report the following appendices :—

Diamond-drills.

Appendix A.—Return showing the locality, strata, depth bored, percentage of core extracted, value of diamonds used during the year, and rate per foot, exclusive of office salaries, store wages, and rent, also Superintendent of Drills' travelling expenses.

Appendix B.—Summary of diamond-drills, showing the number of feet bored, total working cost to the Department, average cost per foot, and the amount receivable for the year 1890.

Appendix C.—Balance sheet for diamond-drills.

Appendix D.—Diagrams No. 1 to 14, sections of boring during the year 1890.

Water-augers.

Appendix E.—Return showing the locality, depth bored, and rate per foot, exclusive of office salaries, store wages, and rent, also Superintendent of Drills' travelling expenses.

Appendix Ea.—Return showing the cost of reaming and clearing the 106-mile bore on Milparinka to Wanaaring Road, exclusive of office salaries, store wages, rent, and Superintendent of Drills' Travelling expenses.

Appendix Eb.—Return showing the cost of clearing 121-mile bore, Milparinka to Wanaaring Road, exclusive of office salaries, store wages, rent, and Superintendent's travelling expenses.

Appendix F.—Summary of water-augers, showing number of feet bored, total working cost to the Department, and average cost per foot during the year 1890.

Appendix Fa.—Summary showing total cost of reaming and clearing 103-mile bore on the Milparinka to Wanaaring Road during the year 1890.

Appendix Fb.—Summary showing total cost of clearing 121-mile bore on the Milparinka to Wanaaring Road during the year 1890.

Appendix G.—Balance sheet for water-augers.

Appendix H.—No. 1 to , sections of boring during the year 1890.

Although the amount receivable is not so large as last year, the expenditure is nearly the same as last year. This is due to the greater depth the diamond-drill reached during the year, the hard strata bored through at Broken Hill and Gulgong, and the great depth of sea-beach sand (about 200 feet) at Anna Bay near Port Stephen, through which tubing had to be driven before actual boring could be commenced. Notwithstanding that more difficult, tedious, and expensive work had been undertaken and brought to a successful issue during the year, I am pleased to be able to state that the diamond-drill work has been no burden to the State, as the money earned and receivable is in excess of the total expenditure, including office and everything else in connection therewith, by £1,304 0s. 5d. Allowing, therefore, a fair percentage for wear and tear of machinery, the Diamond-drill Branch has proved to be self-supporting, irrespective of the large benefit conferred on the Colony at large by the search for and discoveries of further extensive mineral resources.

With No. A drill, which has been altered from a positive to hydraulic drill, three bores were put down in the hard basaltic formation near Gulgong, to the aggregate depth of 350 feet. No. 3 drill completed a bore at Buttai, boring 56 ft. 7 in., making the total depth of bore 1,300 feet. No. 4 drill completed a bore at Liverpool from the 1,972 ft. 10 in. level to a depth of 2,601 ft. 6 in.; and another bore in the Nowra district to a depth of 1,340 ft. 7 in. No. 7 drill completed a bore from the 241 ft. 5 in. level to 357 ft. 4 in., and a second bore at Cessnock to a depth of 952 ft. 9 in. No. 8 drill put down two bores near Anna Bay, Port Stephens, to the aggregate depth of 767 ft. 6 in. No. 11 drill completed a bore at Broken Hill from the 1880 feet level to 2,123 ft. 9 in., and with the same drill 1,585 ft. 1 in. were also bored at Cremorne Point, near Mossman's Bay. No. 13 drill completed two bores at Ravensworth, the aggregate depth being 1,991 ft. 11 in., of which 529 ft. 11 in. were bored during 1889. The same drill also bored 354 ft. 6 in. at Wyee during 1890.

From the above it will be seen that, notwithstanding the favourable results obtained during the year with the Government diamond drills, the latter have been made use of in deeper and more difficult strata than hitherto since the establishment of the Diamond Drill Branch.

The total depth bored with the diamond drills during the year 1890 is 7,857 ft. 4 in. or 3 ft. 6 in. more than in 1889. The average cost per foot of boring, exclusive of office salaries, store wages, and rent, also Superintendent's travelling expenses, is 11s. $10\frac{7}{16}$d. per foot, or $1\frac{5}{16}$d. per foot less than in 1889. The total working and field cost, exclusive of office salaries, store wages, and rent, also Superintendent's travelling expenses, amounts to £4,665 0s. 2d., but the total cost, inclusive of all office salaries and expenditure in connection with the Diamond Drill Branch, amounts to £5,690 9s. 5d., or at the rate of 14s. $5\frac{13}{16}$d. per foot, or $2\frac{9}{16}$d. more per foot than 1889; whereas the total earning during the year amounts to £6,994 9s. 10d., or at the rate of 17s. $9\frac{5}{8}$d. per foot, or 1s. $10\frac{6}{16}$d. per foot less than the year 1889. The latter is due to the great reduction in the rate per foot of boring and to the difficult work undertaken during the year, as above referred to.

Percentage

Percentage of core saved during the year is 87·17, or 2·16 less than during the year 1889. This deficiency in the percentage of core is satisfactorily accounted for by the fact that about 400 feet was driving tubing through the sand from which no core could possibly be obtained. Deduct this 400 feet of sand, and the percentage of core is even better than that of last year.

The loss by wear and tear of diamonds in the bore-holes, cost at per foot bored $7\frac{1}{16}$d., or $7\frac{6}{16}$d. per foot less than in 1889. See comparative statement of diamonds used per foot on Appendix B. The principal loss and wear and tear has occurred in the Broken Hill and Gulgong bore-holes.

The clerks in the branch, the storeman, and the foremen on the drill have all assisted me, and done their best to bring the drill work for the year to a successful issue, for which I tender them herewith, one and all, my sincere and heartiest thanks.

In conclusion, I beg to state that none of the bore-holes put down during the year has been less than 3 or 4 inches in diameter, with the exception of the Liverpool bore, which was about 2 inches in diameter, but was reamed when taken over by me to $2\frac{1}{2}$ inches, and carried down to the 2,601 feet. The rate per foot for boring has been greatly reduced during the year, and I hope to be able before long to recommend still further reduction in boring, without in the least interfering with the remuneration or privileges of persons employed in connection with the drills.

Liverpool Bore.

This bore was completed in April last at the depth of 2,601 feet 6 inches. As it is the deepest and most important bore as yet put down in search for coal in New South Wales, if not in the Southern Hemisphere, it appears to me to demand more than a passing notice.

On the 18th September, 1888, an application was made to the Mines Department by Messrs. Mills and Pile to take up and continue a bore which had been put down by a private company to a given depth, said company having had the misfortune of loosing their diamond bit and core-lifter coupling in the bottom of their bore-hole, which, consequently, formed an obstruction to further boring.

The Honorable the Minister for Mines and Agriculture having approved of my recommendation that the Diamond Drill Branch may take up the work, I lost no time in forwarding No. 4 drill to Liverpool under the charge of Foreman Symons, a careful trustworthy man. Within a month of the application the drill was landed on the Moorbank Estate and erected, having previously been informed that the diameter of the bore was $2\frac{1}{2}$ inches. The $2\frac{1}{2}$-inch rods were lowered, but stuck fast at the depth of 1,030 feet, proving that the diameter of the bore-hole was less than $2\frac{1}{2}$ inches, as stated by Mr. Mills.

Being anxious that the bore-hole should on no account be reduced to less than $2\frac{1}{2}$ inches in diameter, and holding a strong opinion that to secure a good coal bore at a depth of 2,000 feet or over, the diameter of a bore-hole should be at least from 3 to 4 inches, I advised Mr. Mills to have the bore-hole reamed from surface downwards to a 3-inch diameter, which could have been accomplished at a very small cost. This advice was, however, declined; I then instructed Foreman Symons to start reaming (*i.e.* enlarging the bore-hole) from the 550-feet downward, making it $2\frac{1}{2}$ inches in diameter. The bottom of bore-hole was reached on the 5th November, and the obstruction was brought to the surface with a tool specially constructed for the purpose. The obstruction consisted of a fully set diamond bit and part of a core-lifter, coupling, and spring, which, by authority of the Honorable the Minister for Mines and Agriculture (Mr. Sydney Smith, M.P.), was handed over to the rightful owner. The depth of the bore at that time being 1,485 ft. 2 in. from surface. Since then the boring was carried on with two shifts of men.

The first seam of coal was tapped at the depth of 2,485 feet from surface, but as that seam proved valueless boring was continued, and at the depth of 2,583 ft. 4 in. from surface, the second seam of coal was tapped. This seam was bored through in the presence of Mr. John Mackenzie, F.G.S., Examiner of Coalfields, and Mr. Inspector Rowan. The former officer reported as follows:—Have seen seam of coal bored through by No. 4 drill at Moorbank Estate, near Liverpool, in the presence of Inspector Rowan, which is 6 ft. $6\frac{1}{2}$ in. in thickness, apparently without a band; 3 ft. 10 in. of coal was brought up, and the coal lost in boring is evidently the soft bituminous portion of the seam brought up by the water. Mr. Mackenzie's report concurs with the report received by me from Foreman Symons. To give some idea of the care and patience which had to be bestowed on the boring operations I may state that owing to the silting up of bore-hole it took fully sixteen hours to lower the rods from the surface to the bottom of the bore. The silting could have been prevented by tubing the bore-hole from the surface to the bottom, but that would have meant the reducing of diameter, to which I objected, believing as I do that to secure a good coal-core from such a great depth a 2-inch diameter would be too small. The raising of the rods from the bottom of the bore to surface also took several hours, which is easily accounted for by the fact that the length of the rods from surface to the bottom of the bore measures half a mile all but 40 feet, and the weight of said rods was over 12 tons. These rods when lifted to the surface had to be unscrewed every 30 feet in length.

The discovery of this coal seam at such a depth proves beyond doubt that our coal seams are not thinning out towards the City of Sydney to such an extent as was commonly believed, and it may be a matter of consideration whether coal might not be worked in the near future under the City of Sydney at perhaps not much greater depth than that reached near Liverpool.

Mr. Geological Surveyor T. W. Edgeworth David, B.A., F.G.S., one of the highest authorities on the coal measures of this Colony, was right in giving the approximate depths which coal was likely to be tapped near Liverpool. After the examinations of the core obtained at the Woodford Bores (Blue Mountains), the result of this bore also confirms the opinion expressed by Mr. John Mackenzie, F.G.S., Examiner of Coal-fields, and Mr. C. S. Wilkinson, F.G.S., Chief Government Geologist, in their previous correlation of the coal measures of this Colony, that the coal seams in the southern and western coal-fields belong to the same formation which has been disturbed here and there by intrusive rocks.

Ravensworth Bore, No. 1 (3 *inches diameter*).

This bore was successfully completed in April last for the Land Company of Australasia, Limited, on their property at Ravensworth. The site was selected by me, and is situated within 100 yards of the Northern Railway, 15 miles north of Singleton. The total depth bored is 990 ft. 8 in. from the surface; but seams of coal were pierced through at various depths, which makes this not only a very interesting, but also a valuable bore. Time occupied from erection to completion was five months with three men, including

including Foreman Fryer who had charge of the drill, and who is a careful trustworthy man. This bore is of considerable importance, as it proves beyond doubt a further extension of payable coal seams north of Singleton, and greatly adds to the already known great mineral wealth of this favoured Colony, tending to strengthening the belief that it will be only a matter of time to place New South Wales as the manufacturing centre of the whole of Australasia.

The first coal seam in this bore was tapped at 78 ft. 9 in. from surface, and consisted of 2 ft. 2 in. coal and bands. At 103 ft. 6 in. in depth, coal and bands 6 ft. 10 in. not payably workable. At 128 ft. 3 in. in depth, coal a trifle dirty, 2 ft. 9 in. in thickness. At 197 ft. 7 in. in depth, coal 8 inches. At 231 feet in depth, coal 13 inches. At 261 feet in depth, coal 14 inches. At 327 ft. 6 in. in depth, coal 5 ft. 9 in. with bands, but of which 3 ft. 10 in. was good coal. At 367 ft. 11 in. a seam of good coal 2 feet 11 inches in thickness was passed through. At 426 ft. 6 in. in depth, the drill passed through a dirty seam of coal and shale mixed 16 ft. 8 in. in thickness. At 518 ft. 9 in. in depth, coal seam with bands 10 ft. 6 in. was passed through, of which 4 feet on bottom of seam is good coal. At 591 ft. 7 in., coal with bands was passed through 12 ft. 6 in. in thickness, of which on the top of the seam 4 ft. 5 in. is fair coal. At the 709 feet level, the drill passed through coal with bands 9 ft. 9 in., of which 8 ft. 10 in. is good coal. At the 733 ft. 9 in. in depth, coal bands 7 ft. 11 in., containing 6 ft. 11 in. of good coal. At 750 ft. 4 in. in depth, coal with bands 2 ft. 3 in. were passed through. At 785 ft. 3 in. in depth, good coal 4 ft. 7 in. in thickness was passed through. At 837 feet in depth, coal with bands 7 ft. 5 in. was passed through, of which 7 feet in thickness is good coal. At 913 ft. 8 in. in depth, coal and bands 3 ft. 2 in. in thickness were passed through not workable.

The original intention of the Company was to bore until the Upper Marine Series were reached; but finding that at the depth of 974 ft. 4 in. a soft porphyry dyke was struck, which by the core brought up, showed to extend vertically in the bore for 6 ft. 8 in., and below this dark sandstone with calcite veins 2 inches in thickness. I advised the Company to stop boring, although the marine beds had not been reached, as further expenditure in boring would not likely to have beneficial results.

Ravensworth Bore, No. 2 (4 inches diameter).

This bore is situated on the same estate as above described, with this exception, that it is about 5 miles northerly of No. 1 Bore. At 31 ft. 2 in. coal and bands were passed through 4 ft. 1 in. in thickness. At 92 feet, coal and bands 13 ft. 9 in. not payable. At 184 ft. 5 in., 14 feet 4 in. were passed through, of which 7 ft. 6 in. is coal. At 262 ft. 7 in. a dirty seam of coal 4 ft. 11 in. was passed through. At 293 ft. 9 in., seam of coal 3 ft. in thickness was passed through. At 351 ft. 8 in., 7 ft. 8 in. was passed through, of which 5 ft. 2 in. is coal. At 477 ft. 5 in., a dirty seam of coal 16 ft. 6 in. was passed through. At 510 ft. 1 in., coal with bands of no value was passed through. At 564 ft. 3 in., coal with band 4 ft. 8 in., of which 4 ft. 2 in. is coal. At 654 ft. 3 in., coal and bands 15 ft. 6 in., of which 6 ft. 10 in. on the bottom of the seam is clean coal. At 768 ft. 3 in., coal seam 21 ft. in thickness, containing 16 ft. 10 in. of coal. At 835 ft. 7 in., coal seam and band 7 ft. 5 in., containing 6 ft. 11½ in. good coal. At 871 ft. 11 in., coal seam 3 ft. 2 in. At 898 ft. 4 in., coal seam 2 ft. 2 in. The total depth of this bore is 1,001 ft. 2 in. Samples of the core from the lowest depth were examined by Mr. Geological Surveyor T. W. E. David, B.A.F.G.S., who thinks that the seam pierced through at the 835 ft. 7 in. level is probably the Dulwich seam, which is the last within workable depths of the Rix Creek coal measures. Boring was discontinued, and the results obtained have proved eminently satisfactorily to all concerned. The total percentage of core brought to the surface out of both bores is 96, but the coal core is 100.

Water-augers or Boring Machines other than Diamond Drills.

The boring for artesian water on the west of the Paroo River, on the road Wanaaring to Milparinka, has not proved satisfactory during the year, either in the progress made with boring or the tapping of artesian water. At Tibooburra a good supply of water, but not flowing over the surface, was obtained. At Stringer's Hill, near Mount Browne, the bore penetrated into devonian conglomorates without obtaining a supply of water.

At the end of 1888 application was first made by me for a supply of 5-inch tubing to be used in the 106 and 121 mile bores, on the road from Wanaaring to Milparinka. Tenders were called for, but as there was no supply in Sydney, months elapsed before the tubing arrived in Sydney; in the meantime, heavy floods occurring, teamsters were unable to reach the Bourke Railway Station, or travel from Bourke to Wanaaring. In consequence of this delay in supply of tubing to line, the 106-mile bore-hole, the latter caved in, and whilst so caving a wire rope to which was attached a sand pump brake and the pump became a fixture in the bottom of the bore-hole. There were only two courses left open for me to pursue, one to recommend the abandonment of the bore, and the other to start reaming, enlarge the bore-hole to admit of 6-inch instead of 5-inch tubing, and so get over and free the pump, clear the bore-hole, insert 6-inch tubing the whole depth, and start boring again; I adopted the latter course as the less expensive and more beneficial of the two.

The 121-mile bore was temporarily stopped, and on the arrival of the tubing it was ascertained that the 121-mile bore had partly caved in, and means had to be taken to clear the bore, as the inserting of the tubing progressed. The 106-mile bore was at the end of the year 1,206 ft. 6 in. in depth; and the 121-mile bore 1,112 ft. 8 in. in depth. Total number of feet bored during the year is 497 ft. 4 in.

The cost of boring at per foot, inclusive of carriage but exclusive of office expenditure is 25s. 6$\frac{3}{16}$d., but inclusive of all office salaries and all other expenditure is 32s. 0$\frac{3}{8}$d. per foot, or 7$\frac{1}{8}$d. per foot less than during the year 1889.

I have, &c.,
W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX A.

DIAMOND DRILLS' work, showing average cost per foot, exclusive of office salaries, store wages, rent, and Superintendent of Drills' travelling expenses.

No. of Drill.	No. of Bores.	Locality.	Diameter of Bores.	Strata.	Depths bored.			Days occupied.								Rate bored per hour.	Per-centage of core obtained.	Cost.		Remarks.
					At 31 Dec., 1889.	During 1890.	Total.	Moving.	Erecting.	Boring.	Repairing.	Reaming.	Delays.	Holidays.	Total.			Amounts.	Per foot.	
			in.		ft. in.	ft. in.	ft. in.									inches.		£ s. d.	£ s. d.	
A	1, 2, & 3	Gulgong	4	Very hard basalt	.....	350 0	350 0	15	17	58	28	..	..	5	123	9·05	49·69	416 15 5	1 3 9¾	The strata in this bore is basalt; at times it is very honey-combed, at other times it breaks into small pieces, which necessitates the lifting and lowering of rods frequently, and the hard nature of the basalt is very severe on diamonds, which wear away and fracture very considerably, hence the great cost of boring at per foot compared with bores in other localities.
3	1	Buttai	3	Coal measures, shale, conglomerates.	1,243 5	56 7	1,300 0	7	..	7	10	..	8	2	34	12·12	99·4	46 2 5	0 16 3⅝	This bore reached the depth of 1,300 feet, but ought to have been continued until the Greta coal seam had been reached.
4	1	Liverpool.....	2½	Coal measures	1,972 10	628 8	2,601 6	12	10	48	23	..	5	2	100	19·65	85·5	425 2 2	0 13 6¼	This is a very important bore, as it has proven the existence of a payable seam of coal at the depth of 2,583 feet 4 inches from surface.
4	1	Nowra	3	Illawarra coal measures	.....	1,340 7	1,340 7	12	11	115	35	3	31	6	213	17·48	98·25	536 12 10	0 8 0¾	The seam of coal bored through was not sufficient in size to prove commercially valuable.
7	1	Joadja	4	Coal and shale measures	241 5	115 11	357 4	9	..	18	2	..	9	2	40	9·66	91·73	75 2 11	0 12 11½	Boring was done in search for kerosene shale, but none was passed through in boring.
7	1	Cessnock	3	Greta coal measures	.....	952 9	952 9	12	11	96	62	..	4	4	189	14·88	85·65	538 15 6	0 11 3⅝	Coal was tapped and bored through, but not of sufficient value for commercial purposes.
8	1&2	Anna Bay	3	Beach sand and volcanic rock	.....	767 6	767 6	22	18	119	75	3	32	10	279	9·67	47·58	758 15 1	0 19 9¼	Tubing had to be forced through sea-beach sand for about 200 feet in depth before the rock was reached and boring could be commenced, which made the progress slow and boring expensive.
11	1	Broken Hill	3	Diorite, quartzite, and mica slates	1,880 0	243 9	2,123 9	17	..	60	35	21	9	6	148	6·09	97·64	545 6 3	2 4 8¾	Owing to the great depth—over 2,000 feet—and the hard nature of the strata, the boring is very costly.
11	1	Cremorne	4	Sandstones and shales.....	.....	1,585 1	1,585 1	1	22	77	6	..	..	5	111	30·88	96·25	541 1 6	0 6 9⅞	This bore, now 1,585 feet, is likely to reach the depth between 2,800 to 3,000 feet before coal is tapped.
13	1&2	Ravensworth	3&4	Rix Creek coal measures	529 11	1,462 0	1,991 11	4	4	183	31	..	12	4	238	11·91	96·00	620 16 6	0 8 5⅞	Very valuable seams of coal were obtained in both bores.
13	1	Wyee	3	Coal measures	.....	354 6	354 6	9	7	32	5	..	..	4	57	11·61	81·90	160 9 7	0 9 0⅝	Still boring in conglomerate.
					.....	7,857 4	.....	120	100	813	312	27	110	50	1,532	12·73	87·17	4,665 0 2	0 11 10 7/16	

J. S. MCNEIL.
D. MCCULLOCH.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX B.

SUMMARY of Diamond Drills' work, showing number of feet bored, total working cost to Department, average cost per foot, and amounts receivable for the year 1890.

No. of Machine.	Locality.	Bored.	Wages.	Carriage		Travelling expenses.	Repairs	Diamonds used.	Stores issued.	Sundries.	Proportion of balance of general account.	Proportion of balance of general stores issued.	Office salaries.	Store wages.	Rent.	Superintendent of Drills' travelling expenses.	Total.	Cost per foot.	Amount receivable.	Amount receivable per foot
				Railway.	Other.															
		ft. in.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d	£ s. d.	£ s. d.	£ s. d.	£ s d	£ s. d.	£ s. d.	£ s. d	£ s. d.
A	Gulgong	350 0	178 0 0	2 6 11	5 5 0	4 5 6	10 6 8	48 7 10	46 18 6	1 0 0	119 0 0	1 5 0	54 6 0	37 7 9	15 7 0	0 18 2	524 14 4	.....	287 11 11	.....
3	Buttai	56 7	22 8 0	1 0 10	0 1 3	. . . .	.....	.....	2 9 0	0 2 6	19 16 8	0 4 2	9 1 0	6 4 7	2 11 2	0 3 1	64 2 3	. ....	58 13 9	. . ..
4	Liverpool	628 8	289 18 8	2 4 6	1 16 3	0 10 0	2 2 0	.....	45 7 5	3 0 0	79 6 8	0 16 8	36 4 0	24 18 6	10 4 8	0 12 2	497 1 6	. ....	1,089 8 9	.....
4	Nowra	1,340 7	317 1 0	15 0 0	15 8 6	4 0 6	4 7 0	0 11 5	18 5 5	1 12 6	158 13 2	1 13 4	72 8 0	49 17 0	20 8 10	1 4 2	680 10 10	. ..	1,043 15 8	. ....
7	Joadja	115 11	32 5 4	0 2 2	.....	2 3 9	... ..	. ....	0 2 6	0 7 6	39 13 4	0 8 4	18 2 0	12 9 2	5 2 4	0 6 1	111 2 6	.....	87 18 11	. .
7	Cessnock	952 9	256 11 0	12 0 3	12 13 9	1 14 10	5 0 6	45 13 8	60 13 7	4 2 4	138 16 6	1 9 1	63 7 0	43 12 4	17 17 11	1 1 2	664 13 11	.. .	680 11 8	. .
8	Anna Bay	767 6	411 10 0	12 3 11	1 1 3	1 10 0	22 10 1	52 17 6	35 3 4	1 10 0	218 3 2	2 5 10	99 12 0	68 10 10	28 2 6	1 13 4	956 13 9	. ...	645 3 10	. ....
11	Broken Hill	243 9	365 8 0	.....	14 16 8	9 12 3	5 17 6	22 10 1	16 3 2	10 14 5	99 3 4	1 0 10	45 5 0	31 3 1	12 15 10	0 15 2	635 5 4	.....	396 7 11	. ..
11	Cremorne	1,585 1	307 2 0	.. ..	0 2 6	.....	31 0 4	22 11 0	99 8 4	0 14 0	79 6 8	0 16 8	36 4 0	24 18 6	10 4 8	0 12 2	613 0 10	.....	1,306 10 7	.. .
13	Ravensworth	1,462 0	366 13 4	21 0 5	1 6 3	.....	9 0 9	31 4 1	51 6 1	. ....	138 16 6	1 9 1	63 7 0	43 12 4	17 17 11	1 1 3	746 15 0	.... .	1,148 4 6	. ....
13	Wyee	354 6	77 16 0	0 18 1	1 1 3	2 7 4	2 14 0	29 4 9	6 5 6	0 1 0	39 13 4	0 8 4	18 2 0	12 9 2	5 2 4	0 6 1	196 9 2	. ..	250 2 4	.
		7,857 4	2,624 13 4	66 17 1	53 12 8	26 4 2	92 18 10	253 0 4	382 2 10	23 4 3	1,130 9 4	11 17 4	515 18 0	355 3 3	145 15 2	8 12 10	5,690 9 5	0 14 5$\frac{17}{20}$	6,994 9 10	0 17 9$\frac{5}{8}$

J. S. McNEIL.
D. McCULLOCH.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

Comparative statement of diamonds used per foot .....
1883 = 3/8
1884 = 2/0$\frac{10}{16}$
1885 = 1/5$\frac{11}{16}$
1886 = -/8$\frac{11}{16}$
1887 = 1/6$\frac{14}{16}$
1888 = 1/0$\frac{3}{16}$
1889 = 1/3$\frac{7}{16}$
1890 = -/7$\frac{12}{16}$

APPENDIX C.

Balance-sheet, Diamond Drills, 1890.

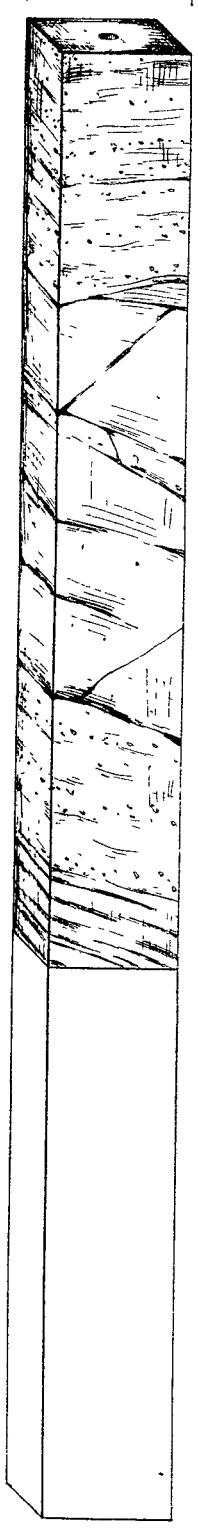
	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
To Value of plant and machinery in the field at 1st January	.....	12,512 2 11	By Amount receivable for boring during year	6,904 14 2		
Value of stock in store 1st January	531 9 6		Amount receivable for core-boxes	27 13 6		
Value of plant purchased through store	526 13 1		Amount receivable for tubing	62 2 2		
Value of stores purchased through store	420 16 9				6,994 9 10	
		1,478 19 4	Inspection fees		12 13 0	
Working expenses (exclusive of office salaries, store wages, rent, and Superintendent's travelling expenses)	4,665 0 2		Amount for diamond fractures sold		8 10 0	
Office salaries	515 18 0					7,015 12 10
Store wages	355 3 3		Value of plant and machinery in field at 31st December	12,512 2 11		
Rent	145 15 2		*Less* 5 per cent. for depreciation	625 12 2		
Superintendent's travelling expenses	8 12 10				11,886 10 9	
		5,690 9 5	Value of plant issued and not used		220 14 8	
Value of diamonds on hand 1st January	928 2 2					12,107 5 5
Value of diamonds at drills 1st January	493 0 2		Value of diamonds on hand at 31st December		810 13 7	
Value of diamonds purchased during year	189 0 0		Value of diamonds at drills		576 19 7	
		1,610 2 4				1,387 13 2
Amount receivable in excess of expenditure	.....	83 1 11	Value of stock in store at 31st December		.....	864 4 6
	£	21,374 15 11			£	21,374 15 11

J. S. McNeil.
D. McCulloch.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

Appendix D. 143 Diagram 1

Section of Bore N° 1
N° A. Diamond Drill
at Gulgong

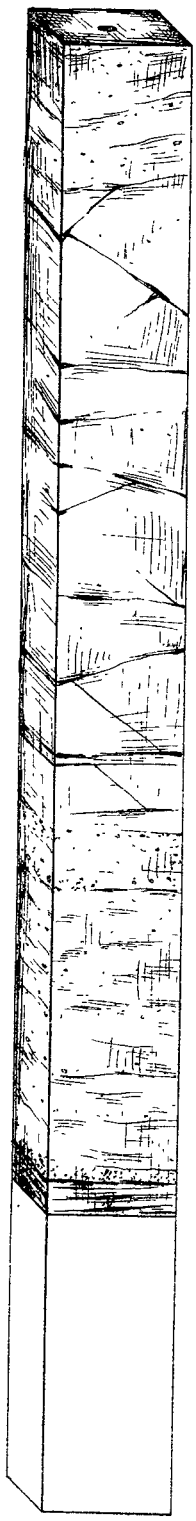


Borehole 4" Diam[r]	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Clay & drift	22	0		
	Hard drift	17	0		
	Hard basalt, fractured	83	3		
	Fine yellow & white drift	28	9		
	Slate, very soft	12	0		
	Total depth			163	0

PHOTO-LITHOGRAPHED AT THE GOVT PRINTING OFFICE, SYDNEY NEW SOUTH WALES

Appendix D. 145 Diagram 2

Section of Bore N° 2
N° A. Diamond Drill
at Gulgong



Borehole 4" Diam^r	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Shaft	23	6		
	Basalt, much fractured	102	4		
	Soft basalt	12	3		
	Cement		3		
	Drift	6	7		
	Conglomerate & cement	2	9		
	Yellow sandy clay	33	1		
	Grey sandy clay	16	6		
	Wash or coarse drift	2	4		
	Slatey bottom, intermixed with quartz & mundic	5	5		
	Total depth			205	0

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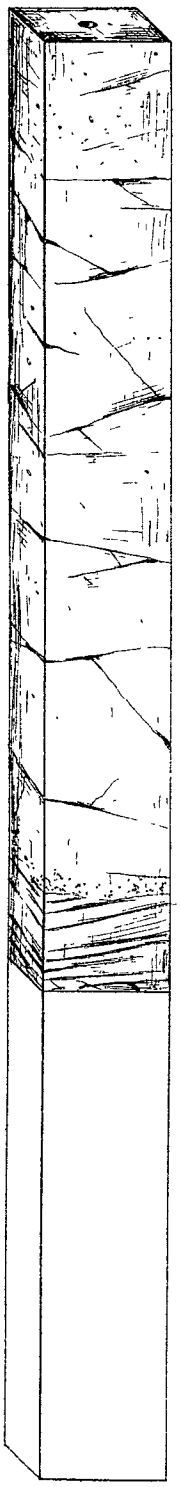
Section of Bore N° 3
N° A Diamond Drill
at Gulgong



Borehole 4" Diam.	Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft.	in
	Shaft	24	0		
	Basalt, fractured	5	6		
	Hard broken basalt	118	11		
	Hard cement	3	1		
	Soft slate	15	6		
	Hard broken quartzite	1	6		
	Total depth			168	6

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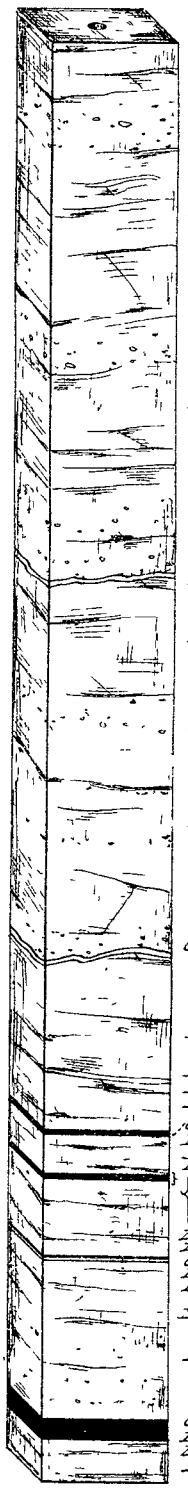
Section of Bore N° 1

N° 4 Diamond Drill

at Moore Bank, Liverpool



Borehole 2½" Diam.r — Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Depth of Bore 31st Decr 1889			1972	10
Sandstone & Conglomerate	36	6		
Sandstone and Shale	17	6		
Sandstone & Chert	15	3		
Grey Sandstone	20	0		
Conglomerate & sandstone	17	1		
Sandstone & Chert	34	2		
Chert, Conglomerate & Sandstone	73	5		
Sandstone and Conglomerate	49	0		
Sandstone, Shale and Chert	73	3		
Shale, Sandstone & Conglomerate	30	0		
Conglomerate, Chert & Sandstone	34	10		
Conglomerate, Shale & Sandstone	83	5		
Sandy Shale	19	0		
Sandstone	1	8		
Sandy Shale	3	0		
Sandstone	12	7	2483	6
Coal	1	5		
Dark Blue Shale	3	7½		
Sandstone & Shale	3	7½		
Black Shale	11	8½	2507	7½
Coal 0 2½ / Black Shale 0 2½ / Coal 0 0½ / Black Shale 0 5½ / Coal 0 3 } Seam	1	4		
Dark Sandstone	17	5½		
Fine Conglomerate	16	3	2532	8
Coal	0	2		
Black Shale and Coal	1	5		
Black Shale	3	2		
Dark Sandstone & Shale	17	6		
Fine Conglomerate	29	11	2584	10
Coal	6	6½		
Dark Shale	1	4		
Blue Shale	2	9½		
Shale & Sandstone	6	0		
Total depth			2601	6

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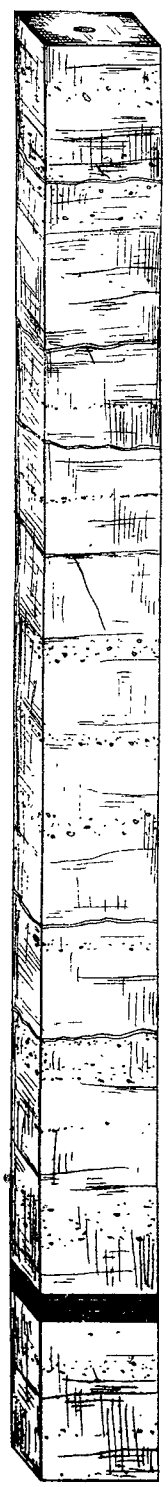
Section of Bore N° 1

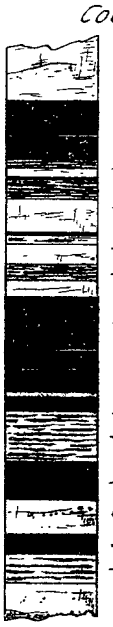
N° 4 Diamond Drill

at Nowra



Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
Standpipe	9	3		
Hard Conglomerate	35	7		
soft chert & fireclay	2	3		
Hard Conglomerate	110	0		
Fireclay		1		
Blue post with chert bands	21	10		
Hard blue post	13	11		
Blue post, chert and Conglomerate	58	9		
Hard blue post	139	8		
Conglomerate	1	0		
Blue post	196	4		
Conglomerate	1	3		
sandstone	29	1		
Blue post	13	0		
Sandstone & Conglomerate	47	8		
Conglomerate, hard	36	0		
Conglomerate & blue post	38	5		
Blue post, Sandstone and Conglomerate	28	4		
Sandstone & blue post	69	0		
Conglomerate, blue post and sandstone	116	3		
Conglomerate & blue post	64	10		
Hard blue post	61	9		
Conglomerate & blue post	120	7		
Blue Sandstone & Conglomerate	54	11		
Conglomerate & blue post	61	10	1331	7
Coal Seams (see enlarged section)	13	5		
Sandstone & Conglomerate	31	10		
Dark sandy shale with brass	4	9		
Sandstone & Conglomerate	31	4		
Slate & Sandstone	10	5		
Total depth			1423	4

Coal Seams at 1331'-7"



	ft.	in.
Coal	1	0
Coal, strong splint	0	5
Coal & splint	0	2
Black carbonaceous clay shale	0	3
Grey clayey sandstone	0	3½
Coaly shale	0	0½
Black carbonaceous clay shale	0	6
Grey Sandstone	0	11½
Coal	0	0½
Dark shale	0	3
Grey sandstone	0	7
Dark shale	0	5
Grey Sandstone	0	6
Splint Coal	1	6
Do. Do. inferior	0	6
Splint Coal	0	7½
Carbonaceous sandy clay shale	0	1½
Splint Coal, inferior	0	4½
Black Shale	1	5½
Hard splint coal	1	1
Grey Sandstone	1	0
Splint Coal	0	6
Dark Shale	0	10
Thickness	13	5

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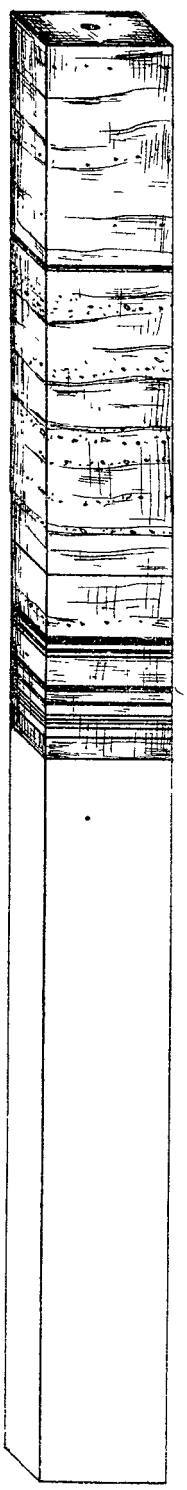
Section of Bore No. 1
No. 7 Diamond Drill
at Joadja Creek



Borehole 4" Diam.	Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
	Depth of Bore 31st Dec. 1889			241	5
	Shaly Sandstone & Shale, broken	28	0		
	Dark Shale & bastard limestone	8	3	277	8
	Coal	0	1		
	Dark Shale, Sandstone & Conglomerate	43	6		
	Conglomerate	5	4		
	Blue Shale with Coal band	2	0		
	Blue Shale	9	7	338	2
	Coal	0	9		
	Shale and Coal bands	2	9		
	Blue Shale	3	9		
	Coal & bands	0	9		
	Grey Shale & Coal bands	8	6		
	Conglomerate, Coarse	1	0		
	Shaly Sandstone	1	6		
	Total depth			357	2

84-28.

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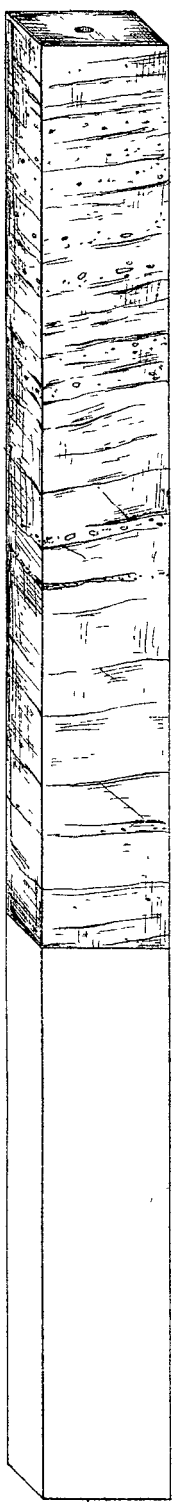
Section of Bore N° 1
N° 7 Diamond Drill
at Cessnock



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Standpipe	29	1		
Soft Sandstone	11	4		
Blue Shale	1	4½		
Conglomerate & Ironstone	5	0½		
Blue post & Conglomerate bands	56	3		
Shaly Sandstone & Conglomerate	240	9		
Shaly Sandstone	93	0		
Blue Shale & Sandstone with Conglomerate bands	205	2		
Shaly Sandstone	120	7		
Shaly Sandstone with Coal pipes	66	0		
Shaly Sandstone	55	7		
Hard Blue post	68	7		
Depth bored to 31st Dec! 1890			952	9

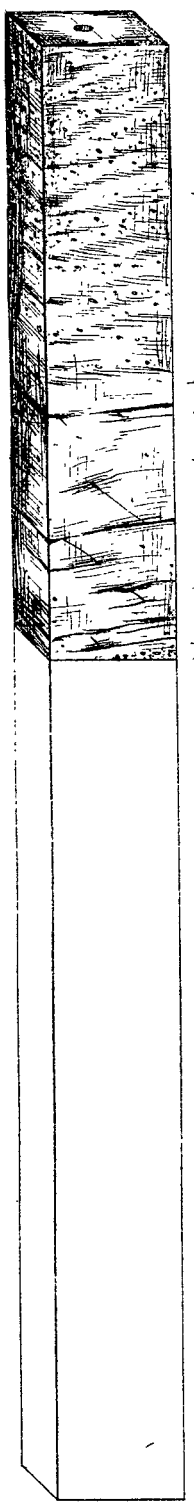
84-2 C.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Section of Bore N° 1

N° 8 Diamond Drill

at Ana Bay



Borehole 3" Diam^r — Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
Sand drift. (tubed)	176	0		
Hard clay	16	6		
Soft sandstone	4	3		
Felspar-porphyry	54	6		
Fine hard sandstone	32	0		
Hard rock	18	6		
White clay		9		
Greenz indurated clay	1	6		
Hard rock	4	10		
Brown rock & Conglomerate	9	3		
Total depth			318	1

84-2D

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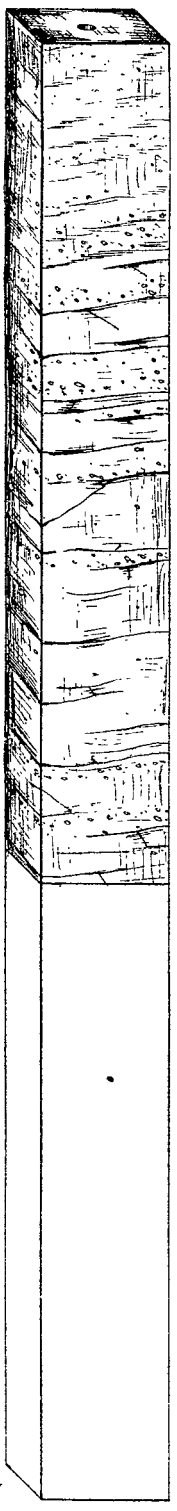
Section of Bore N° 2

N° 8 Diamond Drill

at Ana Bay

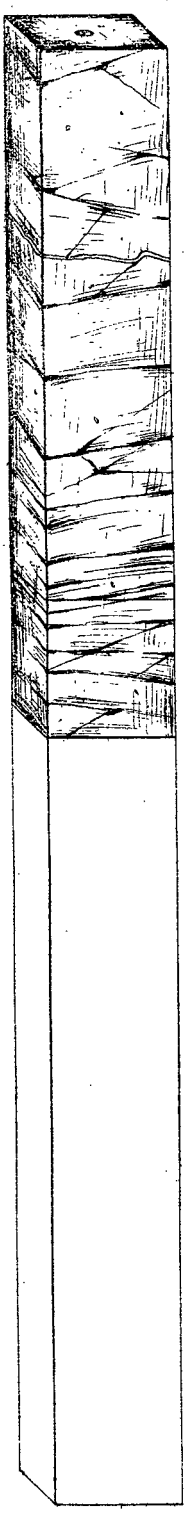


Borehole 3" Diam.r — Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
White sand-drift	95	0		
Clay & gravel	14	0		
Soft sandstone	6	0		
Loose Conglomerate	20	3		
Fine hard sandstone	21	1		
Conglomerate	30	3		
Sandstone	3	0		
Conglomerate	7	0		
Fine hard sandstone	14	5		
Fine Conglomerate	17	6		
Sandstone	42	0		
Conglomerate	6	3		
Sandstone	38	7		
Grey & dark Sandstone	48	0		
Green Shale & grey Sandstone	16	10		
Fine dark Sandstone & Conglomerate	38	11		
Conglomerate & Sandstone	20	6		
Dark shaly & grey Sandstone	9	10		
Depth bored to 31st Dec.r 1890			449	5

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Appendix D. 161 Diagram 10

Section of Bore N° 1
N° II Diamond Drill
at Broken Hill

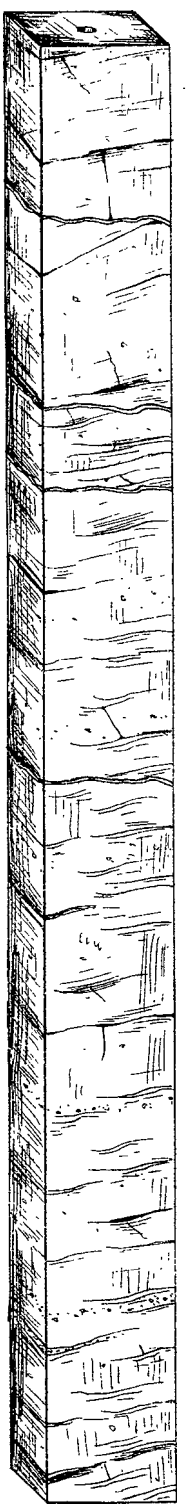


Borehole 3" Diam.r	Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
	Depth of Bore 31st Decr 1889			1880	0
	Gneiss	151	0		
	Gneiss & quartzite bands	16	6		
	Gneiss	18	3		
	Gneiss & quartzite	3	6		
	Do. Do. mixed garnets	2	6		
	Quartzite	8	0		
	Quartzite and gneiss	44	0		
	Total depth			2123	9

84 - 2F.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Section of Bore N° 1
N° II Diamond Drill
at Cremorne



Borehole 4" Diam^r	Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
	Sandstone	362	6		
	Sandstone with quartz pebbles	15	2		
	Sandstone	161	9		
	Shaly sandstone	58	8		
	Sandstone	108	10		
	Shale	2	0		
	Sandstone	4	7		
	Shaly sandstone & sandstone layers	113	2		
	Shaly sandstone	61	9		
	Shales	10	8		
	Shaly sandstone	44	3		
	Chocolate shale	168	9		
	Grey shale	27	0		
	Chocolate shale	4	0		
	Grey shale	18	10		
	Shaly sandstone & dark shale	51	4		
	Chocolate & grey shale, mixed	38	0		
	Mottled chocolate shale	39	10		
	Sandstone	45	11		
	Chocolate shale	24	0		
	Grey shale	8	0		
	Shaly sandstone	24	4		
	Grey clay shale	28	9		
	Sandstone	21	5		
	Grey shale	141	7		
	Depth bored to 31st Dec^r 1890			1585	1

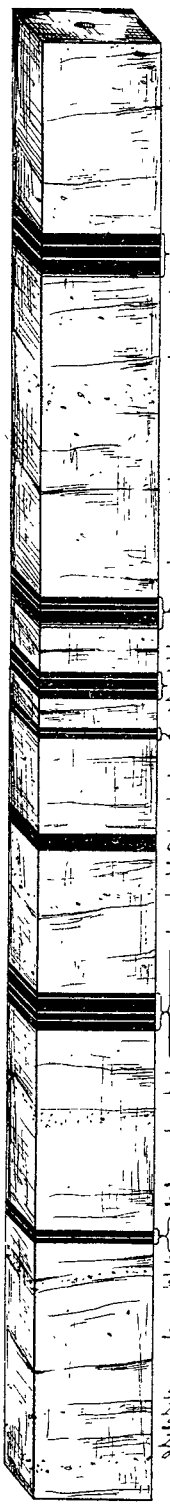
84-26

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Section of Bore N° 1

N° 13 Diamond Drill

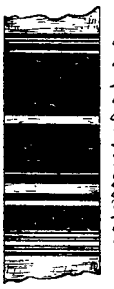
at Ravensworth Estate



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Depth of Bore 31st Dec. 1889			529	11
Shale with Coal bands	2	3		
Sandstone & Shale	16	11		
Sandstone	39	9		
Shale	2	9	591	7
Coal Seams (see enlarged section)	12	6		
Shale with Coal pipes	9	0		
Shale, Sandstone & Conglomerate	36	5		
Shale & Sandstone with ironstone bands	54	5		
Shale & Coal pipes	5	8	709	7
Coal 1 9 / Band 0 0½ / Coal 2 11½ / Band 0 1½ / Coal 0 2 / Coal & Shale bands 0 9 — Seam	9	9		
Shale & Sandstone	7	10		
Shale & Coal bands	1	3		
Shale & Sandstone	5	4	733	9
Coal Seams (see enlarged section)	7	11		
Blue & grey Shale with large fossil leaves	9	0	750	8
Coal 1 2 / Fireclay 0 6½ / Coal 0 6 / Shale & Coal 0 7 — Seam	2	10		
Shale with fossils	5	5		
Shale & Sandstone with ironstone band	23	7		
Shale	2	9	785	3
Coal	4	7		
Shale	2	4		
Ironstone		4		
Shale & Sandstone with ironstone bands	38	10		
Shale with Coal pipes	4	7	835	11
Coal 0 4 / Clay & Coal bands 1 0 / Coal 4 4½ / Band 0 1½ / Coal 0 9 / Band 0 1½ / Coal 0 5½ / Band 0 1 / Coal 0 11 / Shale with Coal bands 0 8 / Coal 0 4 — Seam	11	9		
Shale & Sandstone	12	9		
Fine Conglomerate	13	8		
Sandstone & Fine Conglomerate	26	10		
Sandstone & Shale	4	9		
Shale with Coal pipes	8	3	913	11
Coal 3 2½ / Soft black Shale 0 5½ / Coal 0 7½ — Seam	3	2		
Shale with small bands of Coal	2	7		
Soft grey Shale	3	2		
Shale and Sandstone	2	8		
Sandstone	41	2		
Shale	1	5		
Ironstone		7		
Shale & Sandstone	5	8		
Porphyry dyke with thin veins of Calcite	16	5		
Total depth			990	9

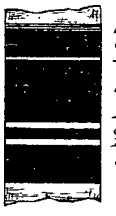
Enlarged Sections

Coal Seams at 591'-7"



	ft	in
Coal with Clay bands	1	2
Coal	1	7½
Band		0½
Coal	1	7
Grey Shale	0	7
Coal	1	3
Band	0	2
Coal & bands	0	7½
Coal	0	1½
Coal & bands	0	7
Grey Shale	0	8
Coal	0	4
Black Shale	0	4
Coal	1	4
Coal with Clay bands	1	5
Thickness	12	6

Coal Seams at 733'-9"



	ft	in
Coal & bands	0	4
Coal	1	3
Band	0	1½
Coal	3	2
Band	0	3
Coal	0	6
Band	0	3½
Coal	2	0
Thickness	7	11

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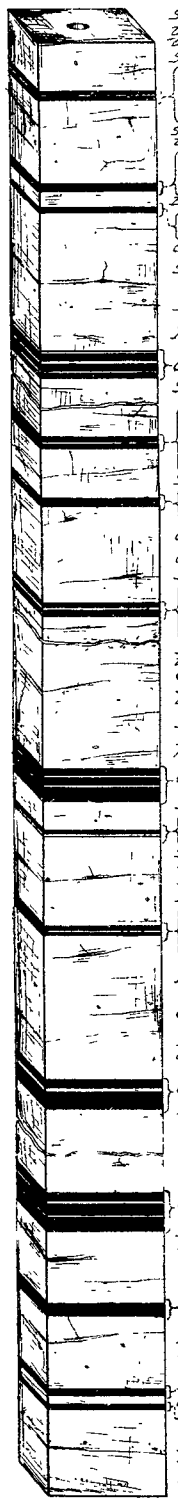
Section of Bore No. 2

No. 13 Diamond Drill

at Ravensworth Estate



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Shaft	18	0		
Yellow Sandstone with bands of loose Conglomerate	12	0		
Shale with fossils	1	2	31	2
Coal & bands, Coal, Clay, Coal, Clay, Coal — Seam	4	1		
Shale & Sandstone with bands of ironstone	56	10	92	1
Split Coal, Clay & Coal bands, Coal, Band, Coal — Seam	3	4		
Black Clay & Coal bands	8	0		
Coal, Clay & Shale, Coal — Seam	2	5		
Coaly black Shale	22	4		
Shale with ironstone bands	30	3		
Sandstone	18	11		
Blue & Black Shale	7	1	184	5
Coal Seams (see enlarged section)	14	4		
Shale & Sandstone	63	10	262	7
Coal & bands, Coal, Shale, Coal & bands, Shale, Coal & bands — Seam	4	11		
Shaly Sandstone, Shale & ironstone	26	3	293	9
Coal, Fireclay, Coal — Seam	3	0		
Coaly Shale, Shale and Sandstone	39	3		
Conglomerate	13	5		
Shale	2	3	351	8
Coal, Shale, Coal, Coal & bands, Shale, Coal — Seam	7	9		
Shale & Sandstone with a few bands of ironstone & two layers (2' & 3') of Coal	64	6		
Conglomerate	5	10		
Shale & Sandstone with ironstone bands	16	7		
Sandstone & Conglomerate	21	6		
Very Coarse Conglomerate	9	7	477	5
Coal Seams (see enlarged section)	16	6		
Shale & Sandstone	16	2	510	1
Coal, Shale, Coal — Seam	2	7		
Shale & Sandstone with bands of ironstone	19	11		
Sandstone	28	0		
Blue Shale	3	8	564	3
Coal, Shale, Coal, Band, Coal — Seam	4	8		
Blue Shale with ironstone bands	44	0		
Conglomerate & Sandstone	13	4		
Shale & Sandstone with a little Shale and Coal bands at Foot	28	8	654	11
Coal Seams (see enlarged section)	15	6		
Shale & Coal bands	3	6		
[illegible] & Shale and Sandstone	94	4	768	3
Coal Seams (see enlarged section)	21	0		
Shale, Slates & Sandstone, Coaly in places with two bands of ironstone	46	4	835	7
Coal, Band, Coal, Band, Coal, Band, Coal — Seam	7	5		
Shale, chiefly, with Sandstone & Shale and bands of ironstone	48	11	891	11
Coal, Clay & Coal, Coal — Seam	3	2		
Clay, Shale & ironstone	3	3	898	4
Coal & Clay bands, Shale, Coal — Seam	2	2		
Sandstone chiefly, with a little Coaly Shale & ironstone, seven inches of Coal at 944 ft. 9 ins. and 1 ft. 9 ins. of pebbly hard Sandstone at 988 feet	100	8		
Total depth			1001	2

Enlarged Sections

Coal Seams at 184'-5"

	ft	in
Coaly Shale	0	11
Coal	3	4
Coal & bands	4	0
Coal	1	0
Clay	0	10
Coal	2	7
Shale & Coal pipes	0	10
Coal	0	3
Clay	0	3
Coal	0	4
Thickness	14	4

Coal Seams at 477'-5"

	ft	in
Coal	2	0
Shale	0	7
Coal	0	10
Shale	1	6
Coal	0	5
Shale	0	3
Coal	1	0
Band	0	1
Coal	0	8
Shale	0	7
Coal	1	5
Band	0	1
Coal	0	11
Shale	0	5
Coal	2	1
Coal & bands	0	4
Coal	3	3
Thickness	16	6

Coal Seams at 654'-11"

	ft	in
Coal	1	7
Clay & Coal band	1	1
Coal	1	1
Clay	0	5
Coal	0	5
Band	0	1
Coal	0	4
Band	0	4
Coal	0	8
Clay	0	4
Coal	1	4
Clay	0	7
Coal	6	10
Thickness	15	6

Coal Seams at 768'-3"

	ft	in
Coal	0	2
Shale	0	6
Clean Coal	5	2
Fireclay	0	3
Coal	3	4
Band	0	2
Coal	3	3
Clay	0	9
Coal	5	1
Coal & Shale bands	1	9
Coal	0	7
Thickness	21	0

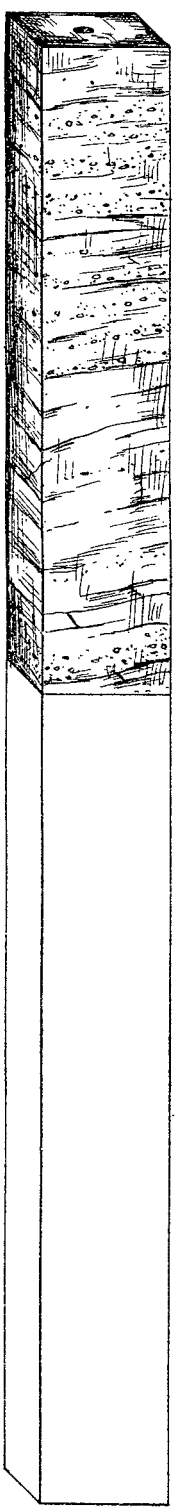
PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Appendix D. 169 Diagram 14

Section of Bore N° 1

N° 13 Diamond Drill

at Wyee



Borehole 3" Diam^r	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Standpipe	26	1		
	Loose Conglomerate	65	3		
	Soft green shale	7	0		
	Sandstone, greenish shale & Conglomerate	30	8		
	Conglomerate	42	3		
	Green & purple mottled shale	13	0		
	Sandstone & Conglomerate	17	7		
	Green & purple shale	6	4		
	Sandstone	6	6		
	Loose Conglomerate	16	6		
	Green & purple mottled shale	13	10		
	Sandstone & loose conglomerate	25	9		
	Greenish & grey shale	20	11		
	Sandstone & Conglomerate	7	4		
	Greenish shale	16	11		
	Sandstone & Conglomerate	26	0		
	Dark shale & Sandstone	12	7		
	Depth bored to 31st Dec^r 1890			354	6

84-2K.

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APPENDIX E.

WATER-AUGER work, showing average cost per foot, exclusive of office salaries, store wages, rent, and Superintendent of Drills' travelling expenses.

No. of Machine.	No. of Bores put down.	Locality.	Days occupied.									Depths.			Rate bored per day.	Cost of Carriage.	Working cost, exclusive of Carriage.	Working cost, inclusive of Carriage.	Cost per foot.		Remarks.
			Moving.	Erecting.	Boring.	Repairing.	Baling.	Delays.	Holidays.	Reaming.	Total.	At 31 Dec., 1889.	Bored during year 1890.	Total.					Exclusive of Carriage.	Total	
												ft. in.	ft. in.	ft. in.	ft. in.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
		Milparinka to Wanaaring Road—																			
1, 2, 3 and 7	1	106-mile	..	..	24	30	1	1	..	4	60	1,112 11	93 7	1,206 6	3 10¾	6 15 10	179 15 1	186 10 11	.....	.....	Very slow progress was made owing to the non-arrival of tubing, and caving-in of bore-hole.
	1	121-mile	..	..	41	31	10	5	4	..	91	1,025 1	87 7	1,112 8	2 1⅛	.....	134 9 9	134 9 9	.....	.....	This bore had to be stopped temporarily for several months until the arrival of tubing.
11	1	Stringer's Hill	5	12	67	17	..	..	1	..	102	.....	248 2	248 2	3 8½	0 19 0	150 3 5	151 2 5	.....	.....	Pierced through the cretaceous formation without tapping artesian water.
			5	12	132	78	11	6	5	4	253	.....	429 4	.....	3 3	7 14 10	464 8 3	472 3 1	1 1 7⅝	1 1 11$\frac{15}{16}$	
11	2	Tibooburra	9	..	54	50	..	..	2	..	115	349 6	68 0	417 6	1 3⅛	18 0 0	144 8 2	162 8 2	.....	.....	Obtained a good supply of water fit for domestic purposes, but not flowing to the surface.
			14	12	186	128	11	6	7	4	368	.....	497 4	.....	2 8⅛	25 14 10	608 16 5	634 11 3	1 4 5¾	1 5 6$\frac{3}{16}$	

J. S. McNEIL.
D. McCULLOCH.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX Ea.

Cost of Reaming and clearing 106-mile Bore, Milparinka to Wanaaring Road (exclusive of office salaries, store wages, rent, and Superintendent of Drills' travelling expenses).

No. of Machine.	Days occupied.									Cost.
	Moving.	Erecting.	Boring.	Repairing.	Bailing.	Delays.	Holidays.	Reaming.	Total.	
2	.....	.....	.....	185	1	6	5	56	253	£ s. d. 1,063 2 6

An explanation *re* the above work is given on Appendix Fa.

J. S. McNeil.
D. McCulloch.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX Eb.

Cost of clearing 121-mile Bore, Milparinka to Wanaaring Road (exclusive of office salaries, store wages, rent, and Superintendent of Drills' travelling expenses).

No. of Machine.	Days occupied.									Cost.
	Moving.	Erecting.	Boring.	Repairing.	Bailing.	Delays.	Holidays.	Reaming.	Total.	
3	3	12	.....	24	12	.....	3	...	54	£ s. d. 115 19 9

An explanation *re* the above work is given on Appendix Fb.

J. S. McNeil.
D. McCulloch.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX F.

Summary of Water-augers, showing number of feet bored, total working cost to Department, and average cost per foot, for 1890.

No. of Machine	Locality.	Feet bored.	Wages.	Carriage.		Travelling expenses.	Repairs.	Stores issued.	Sundries.	Proportion of balance of general account.	Proportion of balance of general stores issued.	Office salaries.	Store wages.	Rent.	Superintendent of Drills' travelling expenses.	Total.	Cost per foot.	Remarks.
				Railway.	Other.													
	Milparinka to Wanaaring Road:	ft. in.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1, 2, 3	106-mile	93 7	146 3 4	1 11 1	5 4 9	3 2 3	12 1 0	9 15 6	4 5 0	3 19 8	0 8 4	18 2 0	12 9 2	5 2 4	0 6 1	222 10 6	.....	
7	121-mile	87 7	113 4 6	.....	.....	.....	.....	14 13 3	.....	5 19 6	0 12 6	27 3 0	18 13 11	7 13 6	0 9 1	188 9 3	.....	
11	Stringer's Hill	248 2	121 0 0	.....	0 19 0	.....	.....	19 11 0	0 16 6	7 19 3	0 16 8	36 4 0	24 18 6	10 4 8	0 12 2	223 1 9	.....	
		429 4	380 7 10	1 11 1	6 3 9	3 2 3	12 1 0	43 19 9	5 1 6	17 18 5	1 17 6	81 9 0	56 1 7	23 0 6	1 7 4	634 1 6	1 9 $6\frac{7}{16}$	
11	Tibooburra	68 0	139 9 8	.....	18 0 0	.....	4 3 0	.....	0 15 6	.....	.....	.....	.....	.....	.....	162 8 2	.....	
		497 4	519 17 6	1 11 1	24 3 9	3 2 3	16 4 0	43 19 9	5 17 0	17 18 5	1 17 6	81 9 0	56 1 7	23 0 6	1 7 4	796 9 8	1 12 $0\frac{3}{8}$	

J. S. McNeil.
D. McCulloch.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX Fa.

SUMMARY showing total cost to Department for reaming and clearing 106-mile Bore on the Milparinka to Wanaaring Road.

Wages.	Carriage.		Travelling Expenses.	Repairs.	Stores Issued.	Sundries.	Proportion of Balance of General Account.	Proportion of Balance of General Stores Issued.	Office Salaries.	Store Wages.	Rent.	Superintendent of Drills' Travelling Expenses.	Total.
	Railway.	Other.											
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
602 13 8	91 5 10	241 1 3	4 15 8	34 0 2	48 17 6	23 8 6	19 18 3	2 1 8	90 10 0	62 6 4	25 11 4	1 10 3	1,248 0 5

At the latter end of last year application was made by me for the supply of tubing. Tenders were called for and accepted to supply the tubing required; but, as they had to be sent for to England, months elapsed before they arrived in Sydney. In the meantime, the bore-hole kept caving in, breaking a wire rope on which a sand pump was attached, and the sides of the bore-hole falling in, covered up said pump. In the meantime, heavy floods occurred, and teamsters could not travel from Bourke Railway Station to Wanaaring. There was nothing else than two courses open—either to abandon the bore or start reaming, and insert the tubing which could be obtained—and I adopted the latter course as the best which, under the circumstances, could be adopted.

J. S. McNEIL.
D. McCULLOCH.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX Fb.

SUMMARY showing total cost to Department for clearing 121-mile Bore on the Milparinka to Wanaaring Road.

Wages.	Carriage.		Travelling Expenses.	Repairs.	Stores Issued.	Sundries.	Proportion of Balance of General Account.	Proportion of Balance of General Stores Issued.	Office Salaries.	Store Wages.	Rent.	Superintendent of Drills' Travelling Expenses.	Total.
	Railway.	Other.											
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
91 19 6	.....	.....	.....	.....	14 13 3	2 15 0	5 19 6	0 12 6	27 3 0	18 13 10	7 13 6	0 9 1	169 19 2

This bore was temporarily stopped in consequence of the non-arrival of tubing, delayed through heavy floods. When work commenced, after the arrival of the tubing, it was found that the bore had partly caved in, and required cleaning as the insertion of the tubing progressed.

J. S. McNEIL.
D. McCULLOCH.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX G,

Balance Sheet, 1890.—Water-augers.

	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
To value of plant and machinery in the field at 1st January	6,529	9	10				By value of plant and machinery in field at 31st December ...	6,529	9	10			
Value of Stock in store at 1st January	1,292	12	6				*Less* 5 per cent. depreciation..	326	9	6			
				7,822	2	4		6,203	0	4			
Working expenses (exclusive of office salaries, store wages, rent, and Superintendent's travelling expenses)	634	11	3				Plant issued and not used ...	44	13	7			
Office salaries	81	9	0				Tubing „ „ ...	282	5	3			
Store wages	56	1	7								6,529	19	2
Rent	23	0	6				Value of stock in store at 31st December	.....			1,543	12	10
Superintendent's travelling expenses	1	7	4				Profit and loss during year respecting value of work performed in search of water	.....			2,653	0	11
				796	9	8							
Reaming and clearing 106-miles bore.....	1,248	0	5										
Clearing 121-miles bore	169	19	2										
				1,417	19	7							
Value of stores purchased ...	95	2	6										
Value of plant purchased ...	594	18	10										
				690	1	4							
			£	10,726	12	11				£	10,726	12	11

J. S. McNeil,
D. McCulloch.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

Appendix H. 175 Diagram I

Section of Bore N° 1

N° 2 Water Auger

at 106 Mile Post

Road Milparinka to Wanaaring

Thickness of Strata ft	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
1112	11	Depth of Bore 31st Decr 1889					
5	4	Black Shale					
8	9	Grey soapy Shales					
35	0	Dark grey Shales					
10	0	Grey Shales					
34	6	Hard slatey bands					
1206	6	Depth of Bore 31st Decr 1890					

84-2M.

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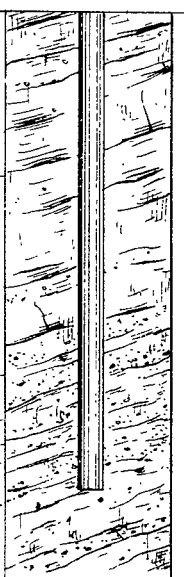
Appendix H. 177 Diagram 2

Section of Bore No. 1

No. 3 Water Auger

at 121 Mile Post

Road Milparinka to Wanaaring

Thickness of Strata Ft.	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
1025	1	Depth of Bore 31st Decr. 1889					
59	3	Black Shale					
14	7	Black Shale with hard cemented sand seams					
5	1	Sandy Clay					
2	11	Cemented Sand					
2	6	Grey sandy clay					
3	3	Grey Clay with bands of fine sand					
1112	8	Depth of Bore 31st Decr. 1890					

84-2N.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Appendix H. 179 Diagram 3

Section of Bore No. 1

No. II Water Auger

at Stringer's Hill

Thickness of Strata ft.	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
3	0	Red loam					
3	6	Do Do with quartz					
4	6	Hard sandstone					
7	0	Sandstone & gravel					
14	6	Clay & sand					
19	6	Red & White sandstone					
8	6	Cemented gravel & quartz					
7	0	Cemented sand & clay					
2	0	Conglomerate					
16	0	Stiff yellow clay					
49	6	Yellow clay & sand					
14	6	Hard sandstone					
6	6	Blue sediment					
5	0	Soapstone					
21	0	Soapy black clay					
2	6	Quartzite reef					
35	0	Black clay					
7	0	Blue rock with quartzite					
18	6	Black clay					
1	6	Boulders					
1	8	Solid quartz					
248	2	Total depth					

84-20.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Appendix H. 181 Diagram 4

Section of Bore No. 2

No. 11 Water Auger

at Tibbooburra

Thickness of Strata ft	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
349	6	Depth of bore 31st Dec.r 1889					
	6	Fine drift					
	6	Sandstone					
5	6	Coarse drift					
2	6	White clay					
4	0	Coarse drift					
9	6	Coarse drift & stones					
8	0	Hard Sandstone					
11	6	White sand with clay					
	6	Quartzite					
5	0	Hard blue clay					
1	6	Hard Sandstone					
4	0	Hard white clay with quartz					
4	0	Hard blue clay					
11	0	Hard blue slate with quartz					
417	6	Total depth					

84-2P

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

REPORT of the Examiner of Coal-fields for the Colony of New South Wales, for the year 1890.

In accordance with the provisions contained in the 26th section of the Coal Mines Regulation Act, 39 Vic. No. 31, I have the honor to submit reports from Messrs. Dixon, Bates, and Humble, Inspectors of Collieries for coal-mines at work and opening out in the counties of Northumberland, Durham, Gloucester, Buckland, and Pottinger, called Northern District; and Mr. Rowan, Inspector of Collieries for coal-mines at work and opening out in the counties of Cumberland, Camden, Cook, and Roxburgh, called the Southern and Western Districts—with this my general report for the year ending 31st December, 1890.

The information I have the honor to submit, with respect to the condition and progress, &c., of the different coal and boghead mineral (yielding large quantities of gas and oil per ton) mines during the year 1890, is as follows:—

In 1888 there were fifteen fatal and forty-three non-fatal accidents.

In 1889 forty-one fatal and fifty-seven non-fatal accidents. Eleven of the fatal ones happened from falls of coal; 12th to 22nd inclusive (eleven), from a crush at the A.A. Company's Hamilton pit; 23rd to 26th inclusive (four), from over-winding and falling down the South Burwood sinking shaft; 27th and 28th, from falls of stone from roof of mine; 29th and 30th, from a stone falling and striking sinkers in sinking shafts; 31st and 32nd, through being jammed by skips; 33rd, through being thrown from a trolly; 34th, through being thrown amongst skips; 35th, from falling down a sinking shaft; 36th, through being knocked down by a locomotive; 37th, from an explosion of powder; 38th, through being crushed between trucks; 39th, from being injured by a fly-wheel; 40th, from a fall of timber and clay; and 41st, from an explosion of fire-damp at Monkwearmouth Colliery.

Twenty-four of the non-fatal accidents occurred from falls of coal; 25th to 29th inclusive (five), from a stone falling and striking sinkers whilst sinking shafts; 30th to 34th inclusive (five), by injuries received from loaded skips; 35th to 38th inclusive (four), by explosions of fire-damp at the Durham and Monkwearmouth Colleries; 39th and 40th, from explosion of a shot; 41st to 43rd inclusive (three), from powder explosions; 44th and 45th, through falling from pit-top; 46th, through being knocked down by a truck; 47th, being knocked down by a trolly; 48th, by a loaded waggon; 49th, from a fall of stone; 50th, through a blow from a hauling-rope; 51st, through falling from pit-top; 52nd, from a fall of top-band coal; 53rd, from a fall of stone roof; 54th, from a hauling-chain; 55th, by a blow from a prop; 56th, through falling off a skip; and 57th, by a steel drill.

In 1890, the year under notice, there have been thirteen fatal and thirty-six non-fatal accidents. Four of the fatal ones happened from falls of coal; 5th to 8th inclusive, being injured by trains of skips; 9th, by bucket falling down sinking shaft; 10th, by an explosion of powder; 11th, by a fall of stone; 12th, by boiler explosion; and 13th, by a pit-cage.

Seventeen of the non-fatal accidents occurred from falls of coal; 18th to 21st inclusive, by falls of stone roof; 22nd to 29th inclusive, by skips; 30th, by blow from a prop; 31st, by ignition of fire-damp; 32nd, an explosion of powder; 33rd, foot crushed by ventilating-fan; 34th to 35th inclusive, by surface waggons; and 36th, through being scalded by steam.

The names and occupations of the persons who died from injuries received, and those who have been seriously injured, as well as the names of the collieries where the accidents happened, are given in the following summary.

SUMMARY showing the number of fatal and non-fatal accidents in 1890, the names and occupations of the persons who died or were injured, cause of death or serious injury, and the names of the collieries where they occurred.

No. of accidents.	Date of accident.	Name of colliery.	Where situated.	Name of person killed.	Name of person seriously injured.	Occupation.	Cause of death or serious injury.	Fatal.					Non-fatal.							Total fatals.	Total non-fatals.
								Fall of coal.	Fall of bucket.	By skips.	By explosion of powder.	By fall of stone.	Fall of stone.	Fall of coal.	Falling prop.	By skips.	By fire-damp.	By explosion of powder.	By steam.		
1	15 Jan.	Hetton	Carrington	Robert Cragg.		Miner	Fatal injuries by fall of coal	1												1	
2	17 ,,	Katoomba	Katoomba		J Knight	,,	Leg broken by a stone falling at face						1								1
3	14 Feb.	Newcastle Co.'s B pit	Burwood		Thomas Close	,,	Thigh fractured by fall of coal							1							1
4	19 ,,	Mount Kembla	Wollongong		John Harrison	,,	Leg fractured by stone at working face						1								1
5	26 ,,	Wickham and Bullock Island	Carrington		John Powell	,,	Fracture of leg by fall of coal							1							1
6	4 Mar.	Newcastle Co.'s B pit	Burwood		John Carr	,,	Fracture of right arm by blow from a prop								1						1
7	4 ,,	Oakey Park	Lithgow Valley	W. C. Shaw		Sinker	Killed by a bucket falling down sinking shaft		1											1	
8	5 ,,	Newcastle-Wallsend	Wallsend		Robert Blair	Driver	Right arm amputated, caught between skips									1					1
9	6 ,,	Greta	Greta	Albert John Aitchison		Miner	Fatal injuries by fall of coal	1												1	
10	27 ,,	,,	,,		Joseph Harris	,,	Injury to left heel by fall of coal							1							1
11	3 April	Stockton	Stockton	Isaiah Lee		,,	Fatal injuries by train of skips			1										1	
12	21 ,,	Newcastle Co.'s B pit	Burwood	John Hughes		,,	Fatal injuries by fall of coal	1												1	
13	25 ,,	Zig Zag	Lithgow Valley	Daniel Carrick		Wheeler	Killed by a skip in main heading			1										1	
14	25 ,,	Metropolitan	Helensburgh		Peter Young	Miner	Leg fracture by fall of coal							1							1
15	25 ,,	Killingsworth	Cockle Creek		Peter Clanson	Sinker	Fracture of arm, stone falling down shaft						1							1	
16	2 May	New Lambton C pit	Adamstown		John Hitchcock	Miner	Fracture of thigh by loaded skip									1					1
17	5 ,,	Lithgow Valley	Lithgow		James Thompson	,,	Leg-fracture by fall of coal							1							1
18	13 ,,	Newcastle-Wallsend	Wallsend		John Balks	,,	Fracture of arm by fall of coal							1							1
19	30 ,,	Co operative	Plattsburgh		David Lauson	,,	Injuries to foot by fall of coal							1							1
20	30 ,,	Hetton	Carrington		John Smith	,,	Fracture of ribs by fall of coal							1							1
21	9 June	Monkwearmouth	West Wallsend		Aaron Mason	,,	Injuries to foot by fall of coal							1							1
22	13 ,,	West Burwood	Merewether		Thomas Davis	Wheeler	Fracture of arm by empty skip									1					1
23	20 ,,	Duckenfield	Minmi	Charles Walsh		,,	Died July 7th from injuries by train of skips			1										1	
24	20 ,,	Bulli	Bulli	George Ramsay		Miner	Killed by fall of top coal	1												1	
25	24 ,,	Newcastle Wallsend	Wallsend		Middleton Turner	,,	Injuries to his hip by fall of coal							1							1
26	14 July	Mount Kembla	Wollongong		John Leitch	Wheeler	Jaw and nose broken by fall of stone from roof						1								1
27	4 Aug.	Young Wallsend	Teralba		George Kegan	Miner	Slight burns by ignition of fire-damp										1				1
28	7 ,,	Bulli	Bulli	John Green		,,	Killed by a set of skips on main heading			1										1	
29	15 ,,	Wickham and Bullock Island	Carrington		James Kirkwood	,,	Slight burns by an explosion of powder											1			1
30	19 ,,	Newcastle-Wallsend	Wallsend		James Goodwin	,,	Fracture of arm by fall of coal							1							1
31	20 ,,	,,	,,		William Grant	Trapper	Fracture of collar-bone and rib by loaded skip										1				1
32	11 Sept.	Young Wallsend	Teralba	John Moncrieff		Miner	Died September 17th from injuries by explosion of powder				1									1	
33	30 ,,	Osborne-Wallsend	Wollongong		James Lawdon	,,	Scalded about face and back by steam												1		1
34	19 Nov.	Greta	Greta		Benjamin Managhan	,,	Injury to back by fall of coal							1							1
35	21 ,,	Monkwearmouth	West Wallsend		Albert H Lewis	Blacksmith	Injury to leg by loaded skip									1					1
36	24 ,,	Co operative	Plattsburgh		Vincent Stone	Miner	Injury to hip by fall of coal							1							1
37	24 ,,	Lambton	Lambton		Arthur Burnley	,,	Fracture of collar bone by fall of coal							1							1
38	1 Dec.	West Wallsend	West Wallsend		John Hopkinson	,,	Injury to head by fall of coal							1							1
39	2 ,,	Newcastle Coal Co.'s B pit	Burwood	Roger Bernard Jenkins		,,	Fatal injuries by fall of stone					1									1
40	4 ,,	Lambton	Lambton		Richard Ward	,,	Injury to back and foot by fall of coal							1							1
41	4 ,,	,,	,,		Benjamin Ward	,,	Injury to back and hip by fall of coal							1							1
42	15 ,,	,,	,,		William Morgan	Wheeler	Injuries to left side and hip by loaded skip									1					1
43	17 ,,	Australian Agricultural Co's	Newcastle		William Smith	,,	Fracture of arm by loaded skip										1				1
							Total fatal and non-fatal accidents underground	4	1	4	1	1	4	17	1	7	1	1	1	11	32

Fatal and non-fatal accidents to persons employed on the surface.

No. of accidents	Date of accident.	Name of colliery.	Where situated.	Name of person killed.	Name of person seriously injured.	Occupation.	Cause of death or serious injury.	Fatal.		Non-fatal.			Total fatals.	Total non fatals.
								Explosion of boiler	By the cage.	By waggons.	By the fan.	By skips.		
1	7 June	Wallarah	Near Swansea		James Adams	Loco fireman	Internal injuries by shunting empty waggons			1				
2	28 ,,	Lambton	Lambton	Thomas Gillon		Engineman	Fatal injuries by explosion of boiler	1						
3	14 Oct.	Metropolitan	Helensburgh		Alfred Carter	Bricklayer	Foot crushed by the ventilating fan				1			
4	11 Dec.	Osborne-Wallsend	Wollongong		John Ward	Driver	Foot crushed by a waggon at the screens			1				
5	10 ,,	Greta	Greta	John Leatham		Labourer	Fatal injuries by being caught by the cage		1					
6	18 ,,	Co-operative	Plattsburgh		Robert Chalton	,,	Injury to spine by empty skips					1		
							Total fatal and non-fatal accidents on surface	1	1	2	1	1	2	4

Total fatal and non-fatal accidents above and below ground, 13 and 36.

RETURN showing the number of fatal and non-fatal accidents; those caused by "falls of coal," stone "roof"; and Lithgow, Ferndale, Bulli, A. A. Co.'s Hamilton Pit, and South Burwood Sinking Pit disasters, 1873 to 1890 inclusive.

Year.	Fatal accidents.	Remarks on fatal accidents.	Non-fatal accidents.	Remarks on non-fatal accidents.	Men above and below ground.	Tons of coal raised.	Tons of coal raised per life lost.
1873...	13	9 by falls of coal.....	10	4 by falls of coal, 1 stone roof...	*.....	1,192,862	91,758
1874...	5	3 by falls of coal, 2 stone roof	13	6 by falls of coal, 4 stone roof...	*.....	1,304,612	260,922
1875..	8	4 by falls of coal, 3 by stone roof.....	10	6 by falls of coal	3,308	1,329,729	166,216
1876...	4	2 by falls of coal, 1 by stone roof.....	8	4 by falls of coal	4,084	1,319,918	329,979
1877...	7	4 by falls of coal, 1 stone roof	21	16 by falls of coal	4,657	1,444,271	206,324
1878...	8	2 by falls of coal, 1 stone roof	15	12 by falls of coal, 1 stone roof...	4,792	1,575,497	196,937
1879...	5	2 by falls of coal, 2 stone roof	19	10 by falls of coal	5,035	1,583,381	316,676
1880...	8	4 by falls of coal, 1 stone roof.....	19	8 by falls of coal	4,676	1,466,180	183,272
1881...	2	2 by falls of coal.....	33	25 by falls of coal	4,098	1,769,597	884,798
1882...	12	10 by falls of coal.....	33	23 by falls of coal	4,487	2,109,282	175,773
1883...	15	8 by falls of coal, 1 stone roof	34	15 by falls of coal, 4 stone roof...	5,481	2,521,457	168,096
1884...	14	6 by falls of coal, 2 stone roof	34	14 by falls of coal, 6 stone roof...	6,227	2,749,109	196,364
1885...	11	7 by falls of coal, 2 stone roof	40	13 by falls of coal	7,097	2,878,863	261,714
1886...	29	10 by falls of coal, 1 stone roof, 8 by Lithgow disaster, 1 Ferndale flooding.	43	15 by falls of coal, 2 fall of roof...	7,847	2,830,175	97,592
1887...	94	81 killed by Bulli catastrophe, 5 by falls of coal, 2 fall of stone roof.	45	22 by falls of coal, 5 fall of stone roof.	7,998	2,922,497	31,090
1888...	15	5 by falls of roof.....	43	12 by falls of coal, 4 stone roof...	9,301	3,203,443	213,562
1889...	41	11 by crush at Hamilton Pit, 11 by falls of coal, 4 over-winding at South Burwood.	57	24 by falls of coal	10,277	3,655,632	89,161
1890...	13	4 by falls of coal, 1 fall of roof.....	36	17 by falls of coal, 3 stone roof...	10,315	3,060,876	236,145

* Figures not available.

From the above return we find that the fatal accidents (13) in the year under notice (1890) are only the same as those of 1873, the year after I undertook the supervision of the coal-mines, and that the non-fatal accidents (36) exceed those of 1873 by 26, although the number of persons employed in and about the mines has increased to 10,315 in 1890, and the quantity of coal raised has increased from 1,192,862 tons in 1873 to 3,060,876 tons in the year under notice (1890); and that the large increase in the fatal accidents in 1886 was caused by a great number of deaths, from "falls of coal," to miners hewing coal (10), and the Lithgow disaster; in 1887 by the Bulli catastrophe (81) and 7 falls of coal and roof to miners, &c., hewing coal; and in 1889 by Hamilton Pit crush, excessive falls of coal, and the over-winding of four men at the South Burwood Sinking Pit.

It will also be seen that more than two-thirds of the non-fatal accidents have happened from "falls of coal" and stone "roof," three-fourths of which, most probably, might have been avoided if the men had exercised more care in putting in temporary props under over-hanging coal, and had spragged, &c., the coal whilst holing. It is well known that the most frequent accidents from falls of coal and roof happen in apparently safe places where danger is not suspected, and the coal or roof is said to be as "sound as a bell."

SUMMARY.—Persons employed, number of fatal accidents (deaths), and ratios of the number of persons employed, and the number of fatal accidents in and about the "United Kingdom" and "New South Wales" Coal Mines, since 1874:—

	United Kingdom.				New South Wales.			
Year.	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death rate from accidents per 1,000 persons employed.	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death rate from accidents per 1,000 persons employed.
1874	538,829	1,056	510*	1·959	.....	5	.....	.....
1875	535,845	1,244	430	2·321	3,308	8	413	2·418
1876	514,532	933	551	1·813	4,084	4	1,021	0·979
1877	494,391	1,208	409	2·443	4,657	7	665	1·503
1878	475,329	1,413	336	2·972	4,792	8	599	1·669
1879	476,810	973	490	2·040	5,035	5	1,007	0·993
1880	484,933	1,318	368	2·718	4,676	8	584	1·710
1881	495,477	954	519	1·925	4,098	2	2,049	0·488
1882	503,987	1,126	447	2·234	4,487	12	373	2·674
1883	514,933	1,054	488	2·046	5,481	15	365	2·736
1884	520,376	942	552	1·810	6,227	14	444	2·248
1885	520,632	1,150	453	2·207	7,097	11	645	1·549
1886	519,970	953	545	1·833	7,847	29	270	3·694*
1887	526,277	995	529	1·890	7,998	94	85	11·752†
1888	534,945	888	601	1·666	9,301	15	620	1·612
1889	563,735	1,064	530	1·887	10,277	41	250	3·989‡
1890		Returns not	to hand.		10,315	13	793	1·260

* Excessive number of falls of coal and Lithgow disaster caused this high death rate. † Bulli catastrophe and excessive falls of coal caused this high death rate. ‡ Hamilton Pit crush, excessive falls of coal, and over-winding of four men at South Burwood Sinking Pit caused this high death rate.

Complaints made of Deficient Ventilation, &c.—I have, as usual, inquired into sundry complaints made with respect to deficient ventilation and non-compliance with the requirements of the provisions of the Coal Mines Regulation Act, 1876. Proceedings, where necessary, have been taken to enforce the provisions of the Act, and reports furnished thereon.

The

The returns of the collieries raising coal and shale (boghead mineral) which have been collected, and forwarded to me by the Mining Department show the following figures for the year 1890 :—

COAL RETURN.

	Northern District.	Southern District.	Western District.	Total.
	tons. cwt. qr.	tons. cwt. qr.	tons. cwt. qr.	tons. cwt. qr.
Tons of round and small coal raised	2,120,046 6 1	597,598 0 0	343,232 3 2	3,060,876 9 3
	£ s. d.	£ s. d	£ s. d.	£ s. d.
Value of round and small coal raised	995,931 2 6	217,162 13 11	65,995 3 0	1,279,088 19 5
	No.	No.	No.	No.
Persons employed above ground	1,405	525	104	2,034
Persons employed under ground	6,315	1,434	532	8,281

PETROLEUM OIL CANNEL COAL OR BOGHEAD MINERAL RETURNS.

Western and Southern Districts.

Tons of boghead mineral or petroleum oil cannel coal	56,010 tons.
Value of boghead mineral or petroleum oil cannel coal raised	£104,103 7s. 6d.
Persons employed above ground	39 No.
Persons employed under ground	150 „

NUMBER of Men Employed at New Mines sinking and in course of development in the Northern District in 1890.

Company.	Locality.	Men Employed.		Total.	Remarks.
		Under ground.	Above ground.		
Elenore Vale	Wallsend B. Pit	3	6	9	Clearing out old A. Pit, &c.
South Burwood	Near Newcastle	80	22	102	Sinking.
Killingworth	Teralba	33	10	43	„

COKE RETURNED.

Newcastle District	15,886 tons, valued at	£22,955 0 0
Illawarra District, Bulli Company	6,968 „ „	7,883 0 0
„ Australian Coke Company, near Kembla	8,243 „ „	10,303 15 0
	31,097 tons	£41,147 3 7

COMPARATIVE statement of Returns for 1889–90.

	Men above ground.	Men below ground.	Tons of round and small coal.	Value.
NORTHERN DISTRICT.			tons. cwt. qr.	£ s. d.
Australian Agricultural, Newcastle, Wallsend, Newcastle Coal, Lambton, Co-operative, Brown's, Duckenfield, South Waratah, Ferndale, Wickham and Bullock Island, Hetton, Burwood, Stockton, Pride of Ferndale, Linwood, West Burwood, Northern, West Wallsend, New Lambton, C Pit, Sunderland, Bloomfield, Thornley, Greta, New Anvil Creek, Rix's Creek, Ellesmere, New Park, Rosedale, Dulwich, Gladstone, Centennary, Monk-Wearmouth, Fern Valley, Rosehill, East Lambton, Ebbw Vale, South Wallsend, Summerhill, Northumberland, Young Wallsend, East Greta, Gartlee, Leconfield and Morriset, Burwood Extended, Hill End, Homeville, Greta, Maitland, North Stockton, Port Waratah, Richmond Vale, Swansea, Wallarah, Shamrock Hill, Haddon Greta, Elemore Vale, Russell's, Electric, Enterprise, Rotunda, Phippen's, Rosehill, Reay's, and Liddle's...	1,405	6,315	2,120,046 6 1	995,931 2 6
Total in 1890	1,405	6,315	2,120,046 6 1	995,931 2 6
„ 1889	1,343	6,216	2,624,347 3 0	1,261,224 16 5
Increase in 1890	62	99	.....	.....
Decrease in 1890	.....	.....	504,300 16 3	265,293 13 11
SOUTH AND SOUTH-WESTERN DISTRICTS.				
Metropolitan, Coal Cliff, North Illawarra, Bulli, South Bulli, Osborne, Wallsend, Mount Kembla, Mittagong, Australian Kerosene Oil and Mineral Co., Southern, Bellambi, Corrimal, Mount Pleasant, and Great Southern	525	1,434	597,598 0 0	217,162 13 11
Total in 1890	525	1,434	597,598 0 0	217,162 13 11
„ 1889	467	1,598	701,572 0 0	290,164 18 0
Decrease in 1889	58	.....	.....	.....
Decrease in 1890	.....	164	.....	.....
Decrease in 1890	.....	.....	103,974 0 0	73,102 4 1
WESTERN DISTRICT.				
Katoomba, Main Camp, New South Wales Shale and Oil Co., Oakey Park, Vale, Z'g Zag, Vale of Clwydd, Lithgow Valley, Eskbank, Eskbank Old Tunnel, Hermitage, Cooerwull, and Rawden, Irondale, Cullen Bullen, and Australian Kerosene Oil Company	104	532	343,232 3 1	65,995 3 0
Total in 1890	104	532	343,232 3 1	65,995 3 0
„ 1889	118	535	329,713 3 0	81,459 1 1
Decrease in 1890	14	3	.....	.....
Increase in 1890	.....	.....	13,519 0 1	.....
Decrease in 1890	.....	.....	.....	15,463 18 1

From these returns we find that in the Northern District in the year under notice there has been a decrease of 504,301 tons in the quantity of coal raised, and £265,293 17s. 6d. in the value. This decrease is due to the closing of the mines through a struggle for mastery between labour and capital, commenced by the "Maritime Labour Association," which lasted ten weeks, viz, from 28th August to 7th November, on which day most of the collieries resumed operations.

In the Southern District there has been a decrease of 103,974 tons, and in its value of £74,003. This is a very large decrease, coming as it does after a decrease of 95,234 tons of coal raised, and a decrease of £47,874 in its value in the previous year (1889), and is also due to the labour crisis.

In the Western District, whilst there has been an increase of 13,519 tons, there has been a decrease in its value of £15,464.

The decrease in value is owing to the reduced rate at which the Government Railway coal contract has been taken, and in consequence thereof there has been a general reduction in the selling price to other customers. The Western Collieries were also closed for a time during the labour crisis.

Years.	Exports to Intercolonial Ports			Exports to Foreign Ports			Total Exports.			Home consumption.
	Quantity	Average per ton.	Value.	Quantity	Average per ton.	Value.	Quantity.	Average per ton.	Value.	
	Tons	£ s. d	£	Tons	£ s d	£	Tons	£ s d	£	Tons
1888	1,039,764	0 10 10 25	564,293	884,108	0 11 3 77	500,179	1,923,872	0 11 0 79	1,064,472	1,279,570
1889	1,310,228	0 10 4 22	678,200	1,077,474	0 11 1 88	601,071	2,387,702	0 10 8 58	1,279,271	1,267,930
1890	1,149,544	0 10 6 96	608,338	672,330	0 11 3 31	379,065	1,821,874	0 10 10 04	987,173	1,239,002
	3,499,556	0 10 6 90	1,850,661	2,633,912	0 11 2 12	1,489,315	6,133,448	0 10 1 03	3,336,916	3,786,502

Years.	Total output and value.			Coal raised per each person employed in and about the mines.			Value of coal raised per each person employed in and about the mines.			Tons of coal raised per each life lost.		
	Quantity	Average per ton.	Value	Quantity.	Average tons per each person employed	Persons employed	Value	Average value per each person employed	Persons employed	Quantity.	Average tons per each life lost.	Lives lost.
	Tons	£ s. d	£	Tons.	Tons.	Number.	£	£ s d	Number	Tons.	Tons	Number
1888	3,203,442	0 9 1 06	1,455,197	3,203,442	344	9,301	1,455,197	156 9 1	9,301	3,203,442	213,562	15
1889	3,655,632	0 8 11 10	1,632,848	3,655,632	355	10,277	1,632,848	158 17 8	10,277	3,655,632	89,161	41
1890	3,060,876	0 8 4 29	1,279,088	3,060,876	290	10,315	1,279,088	124 0 0	10,315	3,060,876	236,145	13
	9,919,950	0 8 9 65	4,367,133	9,919,950	331	29,893	4,367,133	146 1 10	29,893	9,919,950	763,073	69

Northern District.

Number of persons employed in and about the mines	7,720
Number of persons employed under ground	6,315
Quantity of coal raised in tons	2,120,046 6 1
Number of non-fatal accidents	28
Number of lives lost by accidents	9
Persons employed per each non-fatal accident	275
Persons employed per each life lost	857
Tons of round and small coal raised per each non-fatal accident	75,715
Tons of round and small coal raised per each life lost	235,560
Tons of coal raised per each person employed in and about the mines	274
Tons of coal raised per each person employed under ground	335
Value of coal raised	£995,931 2 6
Value of coal raised per each person employed in and about the mines	129 0 1
Value of coal raised per each person employed under ground	157 14 2

Southern District.

Number of persons employed in and about the mines	1,959
Number of persons employed under ground	1,434
Quantity of coal raised in tons	597,598
Number of non-fatal accidents	6
Number of lives lost by accidents	2
Persons employed per each non-fatal accident	326
Persons employed per each life lost	979
Tons of round and small coal raised per each non-fatal accident	99,599
Tons of round and small coal raised per each life lost	298,799
Tons of coal raised per each person employed in and about the mines	305
Tons of coal raised per each person employed under ground	416
Value of coal raised	£217,162 13 11
Value of coal raised per each person employed in and about the mines	110 17 0
Value of coal raised per each person employed under ground	151 8 8

Western District.

Number of persons employed in and about the mines	636
Number of persons employed under ground	532
Quantity of coal raised in tons	343,232
Number of non-fatal accidents	2
Number of lives lost by accidents	2
Persons employed per each non-fatal accident	318
Persons employed per each life lost	318
Tons of round and small coal raised per each non-fatal accident	171,616
Tons of round and small coal raised per each life lost	171,616
Tons of coal raised per each person employed in and about the mines	539
Tons of coal raised per each person employed under ground	645
Value of coal raised	£65,995 3 0
Value of coal raised per each person employed in and about the mines	103 15 3
Value of coal raised per each person employed under ground	124 1 0

The

The following table shows comparisons between the year under notice and the preceding year, as regards the proportion the accidents and deaths bear to the person employed, and the quantity and value of the coal for each person employed in and about the mines and under ground in the Northern, Southern, and Western Districts.

	Northern District		Southern District		Western District.	
	1889	1890	1889.	1890	1889.	1890.
Number of persons employed in and about the mines	7,559	7,720	2,065	1,959	653	636
Number of persons employed under ground	6,216	6,315	1,598	1,454	535	532
Quantity of coal raised in tons	2,624,347	2,120,046 6 1	701,572	597,598	329,713	343,232 3 1
Number of non fatal accidents	47	28	8	6	2	2
Number of lives lost by accident	32	9	7	2	2	2
Persons employed per each non fatal accident	160	275	258	326	326	318
Persons employed per each life lost	236	857	295	979	326	318
Tons of round and small coal raised per each non fatal accident	55,837	75,715	87,696	99,599	164,856	171,616
Tons of round and small coal raised per each life lost	82,010	235,560	100,224	298,799	164,856	171,616
Tons of coal raised per each person employed in and about the mines	347	274	339	305	504	539
Tons of coal raised per each person employed under ground	422	335	439	416	616	645
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
Value of coal raised	1,261,525 0 0	995,931 2 6	290,165 0 0	217,162 13 11	81,459 0 0	65,995 3 0
Value of coal raised per each person employed in and about the mines.	166 17 0	129 0 1	140 10 3	110 17 0	124 14 11	103 15 3
Value of coal raised per each person employed under ground.	202 17 11	157 14 2	181 11 7	151 8 8	152 5 2	124 1 0

The following statistical return, furnished by Mr. W. R. Logan, the Collector of Customs at Newcastle, shows that the greatest increase in the export of coal from that port has been:—To Chili, 22,489 tons; United Kingdom, 2,520; Peru, 1,228; China, 931; and South Sea Islands, 459; and the greatest decrease are to the United States, 150,422 tons; Victoria, 85,950; South Australia, 51,338; Java, 45,963; Hong Kong, 38,641; India, 36,694; Singapore, 18,153; Philippine Islands, 16,423; Tasmania, 9,676; Mauritius, 8,413; Sumatra, 4,483; Fiji, 3,520; and New Caledonia, 4,136.

NEWCASTLE.—New South Wales export of Coal during the years 1889 and 1890.

Countries.	1889.	1890.	Increase.	Decrease
	Tons.	Tons.	Tons.	Tons.
Victoria	811,818	725,868		85,950
New Zealand	156,172	154,773		1,399
South Australia	181,411	130,073		51,338
Queensland	5,319	5,279		40
Tasmania	61,585	51,909		9,676
Western Australia	14,780	14,902	122	
Hong Kong	79,826	41,185		38,641
United States	296,357	145,935		150,422
Java	70,494	24,531		45,963
New Caledonia	10,838	6,702		4,136
Mauritius	15,422	7,009		8,413
Fiji	10,966	7,446		3,520
India	62,216	25,552		36,694
Philippine Islands	45,026	28,603		16,423
Peru	23,044	24,272	1,228	
Chili	145,237	167,726	22,489	
Sandwich Islands	27,081	26,509		572
Mexico	9,601	5,564		4,037
South Sea Islands	3,642	4,101	459	
Sumatra	5,449	966		4,483
Singapore	39,057	20,904		18,153
China		931	931	
Siam	2,379	1,213		1,166
Guam	3,328	3,115		213
United Kingdom	480	3,000	2,520	
Solomon Islands	1,428			1,428
Cape Colony	487			487
Ceylon	2,438			2,438
Celebes	3,740			3,740
Tonquin	933			933
Japan	1,003			1,003
	2,091,557	1,628,038	27,749	491,268
Total decrease for 1890 is 463,517 tons				

EXPORT of Coke from Newcastle for the year 1890.

South Australia	8,313	2,829		5,484
Victoria	13	3,591	3,578	
New Zealand	31	19		12
New Caledonia	35	759	724	
Haephong	33			33
Tasmania	13			13
Sandwich Islands		21	21	
	8,438	7,219	4,323	5,542
Total decrease for 1890 is 1,219 tons.				

DECENNIAL RETURN.—Port of Newcastle.—Foreign and Intercolonial Ports.

Year.	Vessels cleared outwards for Foreign and Intercolonial Ports.		Total value of Imports from Foreign and Intercolonial Ports.	Quantity and value of Coal exported to Foreign and Intercolonial Ports.		Total value of Exports (inclusive of Coal) to Foreign and Intercolonial Ports.	Total amount of Revenue collected.
	No. of Vessels.	Tonnage.		Tons.	Value.		
			£ s. d.		£ s. d.	£ s. d.	£ s. d.
1881	1,121	654,543	482,845 0 0	899,369	343,931 0 0	407,212 0 0	77,543 10 7
1882	1,143	737,772	632,073 0 0	1,080,446	527,575 0 0	618,586 0 0	76,799 12 7
1883	1,305	926,956	658,601 0 0	1,359,505	722,428 0 0	1,440,752 0 0	87,844 12 0
1884	1,433	1,066,462	788,653 0 0	1,505,395	835,070 0 0	1,699,047 0 0	108,720 0 0
1885	1,388	1,076,346	930,200 0 0	1,552,136	832,495 0 0	1,927,626 0 0	108,834 18 6
1886	1,335	1,097,382	843,474 0 0	1,544,694	828,189 0 0	1,398,728 0 0	119,131 15 0
1887	1,334	1,154,439	781,796 0 0	1,658,386	886,921 0 0	1,788,664 0 0	117,543 7 10
1888	949	815,516	758,586 0 0	1,580,337	852,083 0 0	2,067,460 0 0	126,036 7 9
1889	1,277	1,126,892	924,150 0 0	2,091,557	1,102,722 0 0	1,894,321 0 0	132,018 0 1
1890	916	842,180	816,694 0 0	1,628,038	875,197 0 0	1,768,379 0 0	124,782 14 10

RETURN showing the quantity raised, price per ton, and value of the boghead mineral or petroleum oil (cannel coal), commonly called kerosene shale, from 1865 to 1890 inclusive.

Year.	Tons.	Average price per ton.	Value.	Year.	Tons.	Average price per ton.	Value.
		£ s. d.	£ s. d.			£ s. d.	£ s. d.
1865	570	4 2 5·47	2,350 0 0	1878	24,371	2 6 11·49	57,211 0 0
1866	2,770	2 18 10·48	8,154 0 0	1879	32,519	2 1 10·96	66,930 10 0
1867	4,079	3 14 9·21	15,249 0 0	1880	19,201	2 6 7·03	44,724 15 0
1868	16,952	2 17 7·11	48,816 0 0	1881	27,894	1 9 2·59	40,748 0 0
1869	7,500	2 10 0·00	18,750 0 0	1882	48,065	1 15 0·00	84,114 0 0
1870	8,580	3 4 3·18	27,570 0 0	1883	49,250	1 16 10·77	90,861 10 0
1871	14,700	2 6 3·91	34,050 0 0	1884	31,618	2 5 7·85	72,176 0 0
1872	11,040	2 11 11·91	28,700 0 0	1885	27,462	2 8 11·62	67,239 0 0
1873	17,850	2 16 6·55	50,475 0 0	1886	43,563	2 5 10·79	99,976 0 0
1874	12,100	2 5 1·48	27,300 0 0	1887	40,010	2 3 10·43	87,761 0 0
1875	6,197	2 10 2·22	15,500 0 0	1888	34,896	2 2 2·26	73,612 0 0
1876	15,998	3 0 0·00	47,994 0 0	1889	40,561	1 18 3·55	77,666 15 0
1877	18,963	2 9 0·82	46,524 10 0	1890	56,010	1 17 2·07	104,103 7 6

THE following notices were received, during the year, of new mines opening out or in course of development, mines reopened, sinking pits, driving tunnels, change of ownership, and names of collieries and of management:—

Waratah.

On January 4th, 1890, Mr. Harrison Key notified that he was going to recommence working the Hillend Colliery.

On March 29th, Mr. Ruttley notified that he had sunk a shaft at the old Dog and Rat Colliery, and intended to drive in the coal.

Capertee, Mudgee Road.

On May 17th, Mr. Louis B. Blackwell notified that he had prosecuted a search for shale on his mineral lease with favourable results.

Homeville Greta Colliery.

On May 30th, W. Bowers, Secretary, notified that they proposed to reopen the Homeville Colliery, recently known as "South Greta," to work the same under the title of the "Homeville Greta Colliery."

Northern Colliery, Teralba.

On May 26th, Mr. W. B. Bedlington notified that work was resumed at the colliery lately owned by the Great Northern Coal Company, the title of the proprietary being the "Northern Coal Company."

Maitland Colliery, Farley.

On June 21st, Mr. Jonathan Dixon notified that he had taken full charge of the abovenamed colliery. A new mine opened out.

Wallsend.

On July 8th, Mr. Robert Maddison notified that he had leased a portion of the old A pit, Wallsend, with a view of working the coal under the name of "Elemore Vale Colliery."

North Lambton.

On September 18th, Mr. Thomas Russell gave notice of having sunk a shaft to coal, with a view of opening out a land sale colliery at Rose Hill.

On September 18th, Mr. E. Charlton notified that he had commenced to draw coal from his land sale colliery, "The Electric," situated at North Lambton, better known as Rose Hill.

On September 19th, William Metcalfe and H. L. Price notified that they had commenced mining operations on a portion of the New Lambton estate, near to the Dog and Rat. The pit is known by the name of the Enterprise.

On September 24th, Cuthbert Pearson notified that he was sinking a pit for coal at North Lambton, in Bell & Sons' paddock, to be known as the Rotunda.

On September 25th, Joseph Phippen gave notice that he intended to mine for coal on his property, situated on the Lambton heights.

On September 26th, Alexander Corns sent in a notice to say that he intended opening a mine, to be called the "Rose Hill," near to the old Rose Hill mine, North Lambton. On

On September 26th, James Reay gave notice that he had "sunk a shaft on his own ground, and it is well secured; it is down to coal, and is 14 feet deep, and taking some out of it. Lambton heights."

October 1st, Mr. Austin Fitzpatrick of Bloomfield Colliery, near East Maitland, notified that he had commenced sinking a new shaft.

Four-mile Creek.

On October 23rd, Mr. Matthew Tulip gave notice of sinking a trial shaft on land belonging to the Government at Four-mile Creek, East Maitland.

Thornley Colliery.

On October 14th, Mr. J. Race notified having opened up the Watch Pit, and daily drawing coal therefrom.

Mittagong Colliery.

On October 24th, Mr. Philip Winchester notified having been appointed manager, and had taken full charge of the mine, and had a number of miners employed on the coal in re-opening and working the mine, in which operations had been suspended for some time.

Waratah.

On October 26th, Mrs. Susan Liddle notified having opened out a coal pit on her own premises, Lambton Road, Waratah, to be known as "Liddle's Colliery."

Thornley Colliery.

On October 24th, Mr. James Race notified that they had commenced drawing coal from their two other pits, viz.:—Blackett's and Brown's.

Gunnedah.

On October 28th, Mr. Watkin W. Lord gave notice of having commenced to prospect on the south-western end of the Black Jack Mountain, at a distance of about 3½ miles from the railway station, and about half a mile from the Coonabarabran Road, for the seam of coal which, I believe, will be the one lately worked at the Gladstone Colliery.

Teralba.

On October 29th, Mr. T. J. Evans advised that a tunnel has been commenced since the 8th, with a view of working coal therefrom, on the property of Mr. James Donaldson, adjoining the Northumberland Coal and Land Company to the west. For the Cardiff Coal Company.

Heddon-Greta, near East Maitland.

Messrs. Taylor and Wilkinson notified on October 30th of having commenced driving a heading in the Heddon-Greta tunnel, which is now in a little over 100 feet from the outcrop; five men employed in connection therewith.

East Maitland.

Mr. Henry Marshall gave notice on October 22nd of having started Shamrock Hill Coal Mine to get coal for a time.

Four-mile Creek.

Mr. Alan Wilde notified on October 13th of sinking a small shaft for coal at Four-mile Creek, bottoming the coal at a depth of 25 ft. 6 in., and driving narrow work on end and face of the coal.

Adamstown.

Mr. Henry Evans gave notice of having commenced operations at the Fern Valley Colliery again.

Belmont, Lake Macquarie.

Mr. J. G. Stephenson notified November 24th of having opened a coal mine on Mrs. Cummings' property, situated near Belmont.

Singleton.

On 23rd of October, Mr. James Pitcairn, on behalf of Mr. Henry J. Withers, notified that an adit and shaft are being opened on the lands of Oakvale, situate in the parish of Darlington, county of Durham.

Fennell's Bay, Lake Macquarie.

On December 13th, Mr. Thomas Afflick notified having commenced to open up a tunnel into the Great Northern seam, for the purpose of mining the coal underlying the property adjoining Fennell's Bay.

COAL MINES ABANDONED DURING THE YEAR 1890.

East Maitland.

On February 17th, Mr. R. J. Taylor gave notice that he had given up working the Rathluba Colliery, and abandoned the same.

Waratah.

Mr. Richard Osborne, on August 27th, gave notice that he had worked out and wholly abandoned the Goose Colliery.

Mr. Mark Thornton, on September 5th, notified that they had finished their colliery, known as Thornton Colliery, Waratah.

On September 2nd, Mr. T. J. Evans notified having abandoned the Rosehill Colliery, situate at Waratah.

On December 10th, the following notice was received from J. Weaver & Co., Waratah:—"I beg to notify you that the undersigned has abandoned the small colliery wrought by us, situated on Mr. A. Brown's estate, near to the Patent Brickyard, Waratah."

COAL MINING OPERATIONS SUSPENDED DURING THE YEAR 1890.

Gunnedah.

On April 15th, Mr. James Pryor notified that he had suspended work at Springfield Coal Mine. No coal raised, nor likely to be, during the year.

Adamstown.

On July 10th, Mr. Henry Evans notified that he had suspended operations at the Fern Valley Colliery for the present.

South Burwood Colliery, Little Redhead.

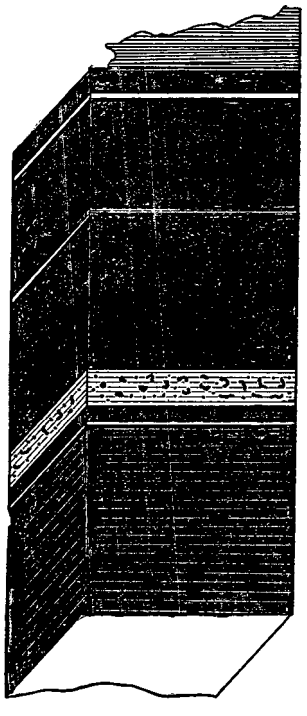
Account of Strata and Coal Seams sunk through at the Company's upcast (ventilation) shaft, furnished to the Examiner of Coalfields by Mr. H. Humphrey, Colliery Manager.

Name of Strata.	Ft.	In.
Conglomerate, soft	85	4
Shale	7	0
Coal, very dirty	9	6
Chert	8	0
Morgan	2	0
Chert	14	1
Chert and ironstone	20	0
Wild coal	3	0
Coal and bands	11	1
Chert and ironstone bands	24	0
Schist (or soapstone)	1	4
Black shale	3	6
Coal and bands (V tunnel seam)	9	6
Chert	10	0
Shale	19	2
Conglomerate	49	2
Shale	19	10
Shale and ironstone	13	5
Wild coal	4	3
Coal	0	11
Band	0	2
Coal	1	8
Band	0	2
Coal	0	11
Band	0	2
Coal	4	9
Band	0	10
Coal	2	7
	12	2

Name of Strata.	Ft.	In.
Shale and post	19	4
Sandstone	9	0
Chert	0	7
Sandstone	8	4
Chert	0	9
Post	13	3
Chert and ironstone	14	4
Post	6	2
Chert	4	0
Black shale	2	2
Coal (4″)	0	6
Shale	3	5
Dirty seam of coal	8	7
Shale	14	6
Post	2	6
Shale and post	4	10
Shale	6	0
Shale and post	9	3
Coal (6″)	0	8
Shale	20	5
Yard seam coal	1	8
Shale	9	8
Post	1	10
Shale bar	0	3
Post	5	0
Shale	2	2
Post	1	6
Shale	2	2

Name of Strata.			Ft.	In.
Post and shale, mixed			8	3
Post bar			2	5
Shale and post			36	10
Shale			4	10
Kerosene			1	6½
Ironstone (553′ 5½″)			0	5
Coal	0	5½		
Band	0	0½		
Coal	2	6½		
Band	0	0½		
Coal	2	1		
Band	0	1		
Coal	1	0		
Morgan	0	10		
Coal	0	4		
Band	0	1½		
Coal	0	7		
Jerry	3	5		
Borehole coal seam, 11′ 6½″			6	3
			5	3½
			565	0
Sump			11	0
Total depth			576	0

Section of South Burwood, Borehole Coal-seam, and description of the Colliery.



		ft.	in.
Roof, Black Shale—			
Coal...		0	5½
Band..		0	0½
Coal...		2	4
Band..	Worked 6 2	0	1
Coal...		3	3
Morgan		0	10
Coal		0	4
Band		0	1½
Coal		0	7
Jerry		3	5
		11	5½

The above is an account of the strata sunk through, and a section of the Borehole coal-seam now being worked to the south of the Burwood Colliery at Little Redhead, from which place a railway about 4½ miles in length, and a 1¼-mile branch line, is now nearly completed to connect with the Homebush and Waratah railway at Adamstown, about 3¼ miles from the Newcastle Harbour. It is a bituminous coal, suitable for house-fire, steam, gas, blacksmith, and coking purposes.

An upcast and downcast (winding) shaft, 16 feet in diameter, has been sunk to the Borehole coal-seam, 11 feet 5½ inches in thickness, 6 feet 2 inches of which is being worked.

The winding shaft is 625 feet to top of Borehole coal-seam, and the landing stage is 375 feet above sea level. A compound horizontal winding engine, with two 26-inch cylinders and a 4 feet 6 inches stroke, has been fitted up on the surface. Three Cornish galloway tube boilers, 6 feet diameter and 26 feet long; an iron head-gear, 75 feet high (to the pulleys, 16 feet in diameter), made by Hudson Bros., Sydney; a conical winding-drum, 12 to 14 feet diameter; three screens (arrangements for six); a chimney-stack, 95 feet high, and workshops, &c., have been erected, and the colliery laid out for an output of over 1,000 tons per day. It is a Melbourne and Sydney Company, floated in 1885, with a capital of £100,000, to work coal under an area of about 1,200 acres of freehold and leasehold land. Mr. H. Humphrey is the Colliery Manager, and superintending the development of the mine.

Section

SECTION of Burwood Extended Borehole Coal-seam, and description of the Colliery.

		ft in	ft in.
Black Shale—			
Indurated clay	Roof	0 2	
Black shale		0 5½	
Clay band		0 0¼	
Black shale		0 3	
Black stone		0 1	
Coal			1 10½
Band			0 1
Coal, with a penny wondering band			3 1
			5 0½

This is a section of the Borehole coal-seam, 5 feet 0½ inch in thickness, which has been sunk through, and is now being opened out at Redhead, about 1½ mile south of the South Burwood Colliery. A short branch line will connect it with the Redhead Company's railway, which joins the Homebush and Waratah line at Adamstown, which is about 3¼ miles from the Newcastle Harbour. The coal is bituminous, and is suitable for house-fire, steam, gas, blacksmith, and coking purposes.

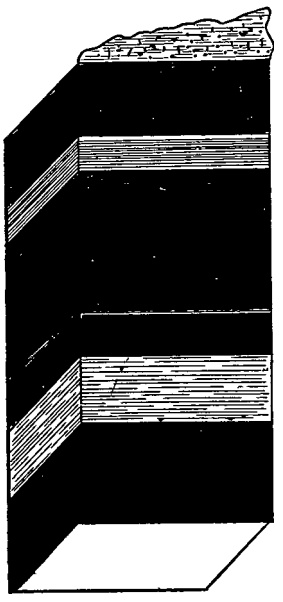
A ventilating shaft, 14 feet in diameter, is in course of sinking to the Borehole coal A winding shaft, 20 feet in diameter and 481 feet deep, to top of Borehole coal-seam has been sunk A compound horizontal winding engine, with two 30-inch cylinders and a 5 feet stroke, is almost completed fitting up in a substantial engine-house; conical drum, boiler shed, with five-steel Cornish galloway tube boilers, 6 feet 6 inches in diameter and 26 feet in length; an iron head-gear, made at Kilmarnock, Scotland, 50 feet high, to pulley wheels 18 feet in diameter; blacksmiths', engineers', and store buildings erected, and foundation for a 35 feet diameter and 11 feet broad Guibal fan is in course of construction · also screens, landing stage, and a short branch line of railway, which are expected to be completed early in 1891

The winding shaft, 20 feet in diameter, is the largest coal-winding shaft in Australia, and it appears from the Company's half-yearly report of December 31, 1890, that Dr Robertson, the Company's Consulting Engineer, has no doubt about the quality of the coal-seam above described enabling the Company to test the capabilities of the large and expensive plant to the utmost, and considers that the colliery is likely soon to rank among the large collieries in the district Mr. Wm. Rennie is the Colliery Manager.

Hetton Coal Company.

Since my 1888 report on the opening out of this colliery, the Company has sank a ventilating and pumping shaft, 14 feet in diameter and 240 feet 3 inches in depth, to the Borehole coal-seam, and connected it to their No 1 Pit (winding shaft) workings Erected a Guibal fan, 30 feet diameter by 10 feet, capable of producing 200,000 cubic feet of air per minute; one large and small Tangye pump (below ground), worked by compressed air, and a coal hopper, to hold about 1,000 tons, adjacent to the winding shaft, where there is a compound horizontal winding engine, with two 26-inch cylinders and a 4 feet 6 inches stroke, by which the Company anticipate raising over 1,000 tons of coal per day from under the harbour of Newcastle and some leased land at Bullock Island. Mr William Thornton is the Colliery Manager.

SECTION of the North Stockton Coal Co., Limited, seam now being opened out



		ft in	ft in
Strong shale and ironstone			
Roof			
Coal			1 6
Yellow clay			0 8
Coal, with penny band			2 10
Clay			0 0½
Coal			0 10½
		ft in	
Blue shale	Not wrought	1 6	
		ft in	
Coal	Not wrought	2 6 to 2 1	
Coal being wrought			5 11

This is a section of the Tomago or Alnwick coal seam which has been sunk through by a shaft 14 feet in diameter at a depth of 511 feet, near Tomago, on the northern side of and adjacent to the Hunter River A second shaft is in course of sinking on the opposite side (southern) of the river at Hexham Island. It is an English and Colonial Co, and Mr. Henry Wright, a certificated manager from England, is superintending the opening of the mine, &c,

ACCOUNT

ACCOUNT of strata and coal seam sunk through in 1890 by the Maitland Coal Company, Homeville, West Maitland, furnished to Examiner of Coalfields by Mr. Jonathan Dixon, Colliery Manager, January 16, 1891:—

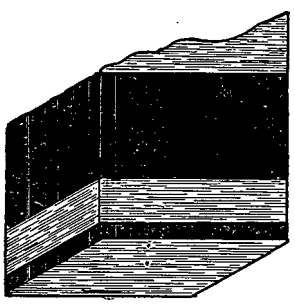
	ft.	in.
Surface red clay (dark)	30	0
Ferruginous clay	37	0
Blue post (with fossils)	46	6
Blue post (with bands of ironstone 8 in. to 12 in. thick)	52	0
Blue and grey post (very hard) bands of conglomerate	194	6
Fine conglomerate (very hard)	8	0
Coarse gritty sandstone	5	0
Coarse conglomerate (fragments of flint rock)	9	0
Coarse conglomerate (large pebbles with conularia)	8	0
Coarse conglomerate	28	0
Fine conglomerate (small boulders, coal pipes)	8	0
Fine conglomerate	6	0
Coarse conglomerate (very hard)	10	6
Band of dark shale	0	2
Conglomerate and sandstone (very hard)	12	0
Depth to coal seam	454	8

Thickness of coal seam, 17 ft. 11 in.:

	ft.	in.
Brassy tops	0	4
Hard bright coal	3	9
Penny band	0	1
Coal	0	2
Clay Band	0	3
Coal	2	8
Soft sandstone, with pyrites	2	2
Coal, bituminous	6	0
Cannel coal	2	6
Total depth	472	7

The above Company was floated in 1890, and a shaft 13 ft. 6 in. in diameter has been sunk a depth of 454 ft. 8 in. to the Stony Creek (identical with Greta seam) coal seam formerly worked by the late Hon. Bourne Russell at Stony Creek adjacent thereto, where, as well as at Homeville, the coal seams lie at a high angle of dip. Mr. Jonathan Dixon is the Colliery Manager, and Mr. G. O. Hyde, the Managing Director, and I am informed that they anticipate raising a large quantity of coal from the mine in 1891.

Wellington District Coal Seam.



	ft.	in.
Roof—indurated clay.		
Bright bituminous coal	2	0
Indurated clay	1	0
Bright bituminous coal, 3 in. to 4 in.	0	4
Floor—indurated clay.		
	3	4

The above is a section of the coal seam sunk through by Messrs. York and others at a depth of 57 ft. on the Gearie Estate, 10 miles from Wellington, and 2 miles from the Great Western Railway, at a distance of 258 miles from Sydney.

The coal is of good quality and lies very flat, but the thinness of the seam, soft nature of the roof and floor, and quantity of pyrites (sulphur) with which the clearages of the coal are thickly coated with, will prevent its being worked to a profit where it has been discovered in the 57 ft. shaft. A second shaft is being sunk to it further away from the volcanic rocks where the coal perhaps might be freer of pyrites.

The following is Mr. J. C. H. Mingaye's, F.C.S., analytical chemist, analysis of it:—

Moisture	7·68
Volatile hydrocarbons	36·82
Fixed carbon	45·20
Ash	10·30
Sulphur	2·93
Specific gravity	1·370

No Coke.

This coal seam evidently belongs to the same series as Ballimore and Spicer's Creek. At Spicer's Creek the same syndicate have sunk through a coal seam 3 ft. 8 in. in thickness, where I found glossopteris and vertebraria in shales immediately below it, thus showing that the Ballimore and Spicer's Creek coal measures are older than the Clarence River, and that they most probably belong to the Middle or Upper Newcastle Coal Measures and those near Gunnedah.

SECTION of strata bored through with diamond drill on Stockton Coal Co.'s property, about 3 miles north of present winding-shaft at Stockton, near Newcastle, furnished by Mr. M'Auliffe, Colliery Manager.

	ft.	in.
Dark sand	6	0
Hard brown sand	14	0
Fine sand	60	0
Shells and coarse wash	3	0
Sand mixed with shells	50	0
Brown sand	5	0
Sand and clay	2	6
Coarse gravel and sand	14	8
Strong red clay	1	0
Rotten post	3	9
Soft sandstone	4	0
Fine conglomerate	23	11
Blue shale	1	5
Dirty coal	0	7
Dirty coal and bands	2	0
Cindered coal	2	10
Soft band	0	2
Cindered coal	2	7
Rotten whin	1	6
Basaltic rock	1	7
Fine grey conglomerate	7	9
Grey post	34	0
Blue post with shale bands	41	4
Dark soft shale	1	4
Dark blue shale	60	6
Dark shale with fire-clay and coal bands	30	8
Grey post with shale band and coal veins	20	7
Shale and post girdles with coal veins	57	1
Dirty coal and bands	0	4
Grey post and shale with coal pipes	0	7
Chert rock	1	3
Post and shale with coal pipes	36	11
Clean coal	1	0
Black band	0	1½
Clean coal	1	10½
Black band	0	2½
Grey post and shale	15	1
Chocolate shale	1	3
Chert rock	3	10
Dirty coal and black bands	4	2
Post and shale	2	0
Dirty coal and black bands	2	2
Blue shale	0	6
Post and shale with coal veins	46	10
Dark blue shale with coal veins	6	9
Soapy post	0	9
Grey post and shale	20	2
Total depth	599	6½

Newcastle and Stockton Land and Coal Company, Limited.

Section of Diamond Drill Bore No. 1, north-west corner M.L.I. (3-inch core).

Description of Strata.	ft.	in.
Drift sand	73	0
Blue clay and soft shale (pleistocene)	72	0
Rotten sandstone	5	0
Arenaceous shale (light)	1	0
Dark laminated shale (with glossopteris)	1	9
Shaly sandstone	13	3
Dark blue shale	19	3
Sandstone and dark shale (with glossopteris)	1	0
Blue shale with coalpipes (with glossopteris)	13	9
Carbonaceous shale	7	0
Arenaceous shale	1	0
Grey calcareous sandstone	20	6
Dark shale	3	0
Clay ironstone (pisolite)	0	6
Shaley sandstone	44	0
Grey sandstone, shale, and conglomerate	4	9
Coal	0	2
Grey sandstone, with layers of shale	10	6
Blue shale, with brown ironstone band	30	7
Grey sandstone and shale	5	0
Blue shale, with sandstone bands	40	7
Hard siliceous sandstone, with shale bands (with glossopteris)	6	5
Grey sandstone, with bands of shale	16	7
Dark shale	8	0
Grey sandstone	1	0
Dark shale	2	10
Shaly sandstone	2	4
Coarse gritty sandstone (calcareous)	8	0
Coal	0	9
Dark shale	0	9
Hard, grey, gritty sandstone (very calcareous)	7	10
Shaly sandstone	15	11
Blue shale, with streaks of ironstone	9	8
Blue shale, with streaks of coarse sandstone	1	10
Coarse, gritty, grey sandstone	7	4
Shale, with layers of sandstone (glossopteris)	11	10
Brown greasy fireclay	0	4
Coal seam—coal and bands :—		
Coal and clod	0	3
Coal, bright bituminous	0	2½
Dark clod	0	2
Coal, bright bituminous	1	3
Clod	0	1½
Brown band	0	0¾
Clod	0	0¾
Coal seam	2	1½
Grey sandstone, with black streaks	7	4½
Shaly sandstone	18	6
Shale, with fibrous streaks of carbonate of lime	5	0
Carbonaceous shale	2	0
Sandstone and shale	14	6
Hard, coarse, gritty, grey sandstone	8	6
Carbonaceous shale	2	0
Sandy shale	11	0
Coal (streaky)	0	6
Carbonaceous shale	2	0
Sandy shale	4	9
Coarse grey sandstone, with coalpipes	5	9
Dark shale and coal bands	0	6
Sandy shale	83	0
Coal and bands (glossopteris)	0	6
Grey sandstone	3	3
Coal and bands	0	3
Grey sandstone	11	3
Sandy shale	14	9
Fireclay	0	3
Dark sandy shale, with coloured pebbles	61	3
Chert	0	6
Dark sandy shale	6	0
Fireclay	0	9
Dark sandy shale	3	9
Dark conglomerate	10	0
Dark sandy micaceous shale, with marine fossils*	2	6
Dark shaly conglomerate	18	11
Fireclay	0	2
Dark sandy shale	2	0
Fireclay	0	2
Dark sandy shale, with a little conglomerate	25	6
	798	3
Full depth of bore	804	3

* Note.—From a depth of 646 feet to where fresh water fossils were found, to this bed where marine fossils come in, the strata has been barren of fossils.

Newcastle and Stockton Land and Coal Company, Limited.

Section of Diamond-drill Bore No. 2 (1 mile S.E. of No. 1 Bore), 3-inch core.

Description of Strata.	ft.	in.
Drift sand and gravel	84	0
Sandy clay	8	0
Blue clay	9	0
Soft blue shale	48	0
Sandy clay	26	0
Gravel wash, with large pebbles and minute shells	37	0
Whitish sandstone	13	3
Light shaly sandstone with coal pipes (with glossopteris)	16	2
Laminated shale (with glossopteris)	0	6
Pisolite	0	4
Dark clod	0	6
Coal and bands :—	ft.	in.
Coal, bright bituminous, with streaks of splint	0	9
Clay band (brownish)	0	6
Coal and band	0	3
Clay band (brownish)	0	6
Coal and band	0	6
Coal and bands	2	6
Thinly laminated clod (with glossopteris)	4	9
Bluish shale, with patches of sandstone and streaks of coal	8	0
Cherty clay	0	4
Bluish shale and fine grey calcareous sandstone (with glossopteris)	68	5
Thinly laminated shale	0	3
Coal seam :—	ft.	in.
Coal, bright bituminous)	1	0
Clay band (dark)	0	1
Coal, bright, good	0	6
Brown band	0	0½
Coal, bright bituminous	3	2½
Brown band	0	0½
Coal, bright bituminous	0	4
Soft brown clay band	0	1
Coal, bright bituminous	1	5
Coal seam	6	8
Coal and bands	0	9½
Black laminated clod	6	0½
Bluish shale, with streaks of coal and calcareous joints	3	4
Fine whitish calcareous sandstone, with bands of cherty clay	9	2
Black shale, with bands of sandstone	22	0
Coal, bright bituminous, with thin splinty streaks	0	8
Black clay bands	1	5
Fine grey sandstone	9	5
Bluish shale (with glossopteris and gangamopteris)	2	9
Fine grey sandstone	6	11
Fine conglomerate, with coal pipes	4	4
Fine hard calcareous sandstone (grey) with layers of shale	77	3
Coal and bands :—	ft.	in.
Coal and clod	1	9
Coal, bituminous, streaky	0	10
Coal, with bands	0	5½
Coal, good	0	3½
Coal, with bands	1	3
Coal bituminous (brassy)	2	9
Clod	1	3½
Coal, coarse	0	6
Coal, good	1	4
Coal seam	10	5½
Shaly sandstone	11	10½
Dark shale, with streaks of coal	2	0
Coal, bright bituminous	0	6
Coal and band	1	6
Blue shale	0	5
Coal and bands	1	1
Sandstone, with patches of shale	9	6
Coal and clod	0	4
Shale, with patches of sandstone	4	8
Blue shale	2	6
Sandstone, with band of shale	3	0
Blue shale, intermixed with sandstone	51	8
Coarse, gritty sandstone, with coloured grain	1	7
Blue and black shale (laminated)	5	9
Shaly sandstone	0	10
Gritty sandstone, with black pebbles	4	10
Black shale, with coal pipes	15	9
Dark sandstone	4	0
Blue shale (laminated)	5	0
Brown cherty clay	0	6
Blue shale and sandstone	86	6
Black carbonaceous shale	7	2
	ft.	in.
Burnt clod	0	3
Burnt coal	0	4
Burnt clod	0	6
Burnt sandy shale	0	7
Burnt coal	0	3
Dolerite	0	3
Burnt coal	2	8
Burnt coal	0	9
Dolerite	2	5
Burnt coal and dolerite	0	10
Burnt coal	0	3
Burnt shale	1	10
Burnt coal	2	9
Burnt clod	0	0½
Dolerite	0	2½
Burnt black shale, with fossils	0	2
Dolerite	2	11
Burnt coal (pyritous), with bands	0	10
Burnt coal (pyritous), with bands	0	3
Burnt shale (laminated)	18	1
Burnt shale (laminated)	4	0
Sandy shale	3	9
Fine conglomerate	0	3
Sandy shale	0	5
Conglomerate, with coloured pebbles	0	2
Shaly sandstone, with patches of conglomerate	3	0
Coarse sandstone, with pebbles	3	9
Blue, sandy shale, with glossopteris	41	2
Chert	0	6
Hard, close-grained, brownish-grey sandstone, and dark-blue shale	125	9

Description of Strata.	ft.	in.
Brownish, laminated clod, with coal-pipes	0	3
Blue shale	15	9
Calcareous sandstone	9	0
Dark-blue shale, with calcite joints	66	0
Dark-blue shale, with glossopteris	34	0
Amber-coloured greasy clay	0	3
Dark-blue shale, with calcareous joints	9	3
Brownish-grey sandstone	14	6
Black shale	4	8
Cherty clay	0	2
Sandy shale	0	6
Cherty clay	0	2
Dark carbonaceous shale	2	5
Brownish-grey sandstone, with black, sandy streaks	3	2
Brownish sandstone, with layers of blue shale	54	11
Band of coal and clod, thickly impregnated with pyrites	0	0½
Coaly clod	0	9½
Coal (good)	0	3
Clod	0	9
Coal (good)	0	6
Jerry	0	3
Coal, with bands	0	3
Clod and shale	0	11
Dark-grey, calcareous sandstone, with layers of blue shale	87	7
Blue, sandy shale (pebbly)	2	11
Dark-grey, calcareous sandstone (pebbly)	6	9
Blue shale, with layers of grey sandstone	24	0
Pipeclay	0	0½
Blue shale, with layers of grey sandstone	98	11½
Grey, calcareous sandstone, with layers of blue shale	77	11½
Brownish clay 0 1½ / Blue shale 0 8	0	9½
Brownish-grey sandstone and blue shale	6	0
Pinkish sandstone, rather coarse in places, and with occasional layers of blue shale, having gangamopteris and glossopteris impressions	61	2
Clod, brownish-black	0	6
Coal, bright, bituminous	0	9
Shaly sandstone	1	10
Dark-grey, siliceous sandstone	6	6
Dark-blue shale	5	3
Pinkish sandstone, with layers of blue shale	10	8
Pinkish sandstone, with large pebbles of granite and quartz	0	7
Pinkish sandstone, with layers of blue shale	5	3
Full depth of bore	1,526	3

Explosive Gas.

During the year, coal-seams (in most cases at greater depths than formerly) have been sunk through, opened out, and reported on, to you and the Minister, in numerous places in the Northern District, and at Helensburgh in the Southern District, which have, whilst opening out, generated larger quantities of gas (in many cases) than in any previous year, and it has required great care on the part of the management to prevent injuries from explosions of fire-damp.

In my 1881 report (115) I said that, until then, "dangerous accumulations of fire-damp have been, comparatively speaking, unknown in our coal-mines, but the number of men injured (seven) thereby at different times at one colliery (Minmi) during the year is so great that it is becoming a very serious matter, and one which I have drawn the owners' attention to, and trust that I shall be able soon to report that they have taken the necessary steps to prevent injuries from explosions of fire-damp in future. The seam is not at present generating such large quantities of gas that steps cannot be taken to prevent them. Sudden outbursts of explosive gas, causing great loss of life and fearful suffering to those injured thereby, are the greatest dangers which have to be contended with in the coal-mines of Great Britain and other countries, where the increase and decrease in the pressure of the atmosphere, and hot and cold winds are not so frequent as they are here. It is therefore necessary that extra caution should be used with us in grappling with it, where any dangerous quantity exists, as a fall of the barometer would cause an accumulation of it to increase in bulk, and the greatest proportion of explosions are believed by most people to happen when the barometer is low."

In the year under notice there have been more deaths from mining explosions in Great Britain than in any previous year since 1885. The English Colliery Manager says that nearly the whole of them took place in the South Wales District, and in the course of the first half of the year. On 23rd January, at Glen Colliery, five person were killed owing to a naked light igniting some gas; on 6th February, at Llanerch Colliery, 176 lives were lost, and the jury said the explosion was caused by an outburst of gas, and that the owners, officials, and workmen had no reason to believe that it was dangerous to work the pit with naked lights; on 10th March, at Morfa Colliery, eighty-seven lives were lost—the jury decided—by blasting, and that such shot-firing had been carried on in accordance with the rules of the Mines Regulation Act. Two explosions, in each of which a man was killed, were caused by the inexperienced use of new explosives, and on 17th May two men were killed at Abernant Colliery owing to an explosive mixture being fired by a light; consequently (they say), in the course of the first half of the year, there were 275 lives lost by explosions, of which no less than 270 took place in South Wales District—certainly a most exceptional proportion for a district which only produces about one-seventh of the coal raised in the United Kingdom, &c., &c., and that it is evident, from the decisions come to by the different juries, and the brief details given, that nearly all the explosions might well be classed as "preventable."

In conclusion, I have only to add that there were 95 coal and 4 shale mines under inspection, and that notices have been received of 29 new mines opening out or in course of development, sinking, reopening, or tunneling; of 5 being abandoned and 2 suspending operations; also that the year's returns show a decrease in the Northern District of 504,300 tons of round and small coal raised, and £265,293 in value; in the Southern a decrease of 103,974 tons, and £73,102 in value; and in the Western an increase of 13,519 tons, and a decrease of £15,464 in value.

I have, &c.,
JOHN MACKENZIE, F.G.S.,
Examiner of Coal-fields.

The Half-yearly Report on the Collieries in the Northern District in New South Wales, and accidents investigated by the Inspectors of Collieries during the six months ending December 31st, 1890.

The Examiner of Coal Fields, Sydney,— Newcastle, January 24, 1891.

Sir,

Pursuant to the provisions of clause 20 in the Coal Mines Regulation Act, 1876, we have the honor to transmit to you this our six-monthly report on the state of the various collieries in the Northern District, for the half-year ending December 31st, 1890.

The total number of collieries under inspection in the Northern District during the time embraced in this report is 64 coal and 1 shale mine.

Five Collieries, viz., Linwood, Goose, Rathluba, Springfield, and Black Jack, are not included, as they are finally abandoned; but the following collieries have been added viz., Rotunda, Liddle's, Enterprise, and Shamrock Hill.

Present State of Mines.

A. A. Co.'s No. 2 Colliery.—About 380 men, &c., are employed in this colliery on the day-shift, and the total quantity of air circulating in the mine is about 100,000 cubic feet per minute. The districts are in accordance with the Act, and none of them are overcrowded, and the provisions of the Act are also complied with in other respects.

A. A. Co.'s New Winning.—About 210 men, &c., are now employed in this colliery on the day-shift, and are supplied with about 95,000 cubic feet of air per minute. The workings are divided into separate districts, none of which are overcrowded. The Act in other respects also is complied with.

Newcastle-Wallsend Colliery.—About 700 men, &c., are employed in this colliery during the day, and the total quantity of air circulating in the mine is about 170,000 cubic feet per minute. The face workings are divided into fifteen splits, each district being supplied with a separate and distinct current of air. The districts are not overcrowded, and the Act is complied with in other respects also.

Newcastle Co.'s A and B Pits.—About 420 men, &c., are employed in this Colliery during the day, and are supplied with about 86,000 cubic feet of air per minute. The districts and number of men in each district are in compliance with the provisions of the Act, and the Act is complied with in other respects also.

Co-operative Colliery.—About 360 men, &c, are employed in this mine during the day, and the total quantity of air circulating in the mine is about 80,000 cubic feet per minute. The face workings are divided into five separate and distinct districts, and the provisions of the Act are complied with.

Lambton Colliery.—There are about 400 men, &c., employed in this colliery, and are supplied with about 80,000 cubic feet of air per minute. The face workings are divided into eight districts, none of which are overcrowded, and the Act in other respects also is complied with.

Burwood Colliery.—There are about 350 men, &c., employed in this mine on the day shift, and the total quantity of air circulating in the mine is about 70,000 cubic feet per minute. The face workings are divided into six districts, none of which are overcrowded. The provisions of the Act in other respects also are complied with.

Burwood Colliery, Third Shaft.—The seam of coal is now being opened up, eight men are employed in the mine, the ventilation is satisfactory, and the Act is complied with.

Stockton Colliery.—There are about 220 men, &c., employed in this mine during the day. The total quantity of air circulating in the mine per minute is about 60,000 cubic feet. The face workings are divided into four districts, none of which have more men than allowed by the Act. The provisions of the Act in other respects also are carried out.

Wickham and Bullock Island Colliery.—About 300 men, &c., are employed in this mine, and about 50,000 cubic feet per minute is the quantity of air circulating in the mine. The workings are divided into six districts, none of which are overcrowded. The provisions of the Act are complied with in other respects also.

Hetton Colliery.—There are about 180 men, &c., employed in this mine in the daytime, and are supplied with about 82,000 cubic feet of air per minute. The workings are divided into districts, none of which are overcrowded, and the Act in other respects also is complied with.

Port Waratah Colliery.—This colliery has been under inspection during a portion of the half-year, but is now abandoned.

Ferndale Colliery.—About 90 men, &c., are employed in this mine during the day; and the quantity of air circulating in the mine is about 18,000 cubic feet per minute. The provisions of the Act are complied with.

Pride of Ferndale Colliery.—There are six men employed in this mine. The ventilation is satisfactory, and the Act is complied with.

Brown's Colliery.—About 150 men, &c., are employed in this mine. The total quantity of air circulating in the mine is about 30,000 cubic feet per minute. The districts are in accordance with the Act, and in other respects also the Act is complied with.

Duckenfield Colliery.—About 200 men, &c., are employed in this mine during the day, and are supplied with about 40,000 cubic feet of air per minute. The mine is divided into separate districts, and the number of men in each are in accordance with the provisions of the Act. The Act in other respects also is complied with.

South Waratah Colliery.—There are about 246 men employed in this colliery during the day, and are supplied with about 34,000 cubic feet of air per minute. None of the districts are overcrowded, and the Act is complied with in other respects also.

New Lambton C Pit.—About 75 men, &c., are employed in this colliery during the daytime, and the quantity of air circulating in the mine is about 25,000 cubic feet per minute. The Act is complied with.

Ebbw Vale Colliery.—About 24 men, &c., are employed in this colliery, and are supplied with about 13,000 cubic feet of air per minute. The Act in other respects also is complied with.

West

West Burwood Colliery.—There are about 26 men employed in this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Fern Valley Colliery.—Ten men are employed in this mine, and are supplied with about 5,000 cubic feet of air per minute. The Act is fully complied with.

Rosehill Colliery.—Three men are employed opening out a new tunnel. The ventilation is satisfactory, and the provisions of the Act are complied with.

East Lambton Colliery.—There are about 24 men, &c., employed in this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Summerhill Colliery.—There are 15 men, &c., employed in this colliery, and the quantity of air circulating in the mine is about 8,000 cubic feet per minute. The provisions of the Act are complied with.

Hill End Colliery.—Five men are employed in this colliery. The ventilation is satisfactory, and the Act is complied with.

Thornton Colliery.—This Colliery has been under inspection during a portion of the half-year, but is now abandoned.

Rotunda Colliery.—Two men are employed in this colliery. The ventilation is satisfactory. No cause of complaint.

Liddle's Colliery.—There are 2 men employed in this mine. The ventilation is good. No cause of complaint.

Enterprise Colliery.—Four men are employed in this colliery. The ventilation is good. No cause of complaint.

South Burwood Colliery.—Both pits are being opened out, and there are 12 men employed in the colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Durham Colliery.—Both shafts are now connected, and 8 men are employed underground. The ventilation is good, and the provisions of the Act complied with.

Burwood Extended Colliery.—Four men are employed in this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Morisset Colliery.—There are 3 men employed in this colliery. The ventilation is good, and the provisions of the Act complied with.

Swansea Colliery.—All work in connection with this colliery is at present temporarily suspended.

Wallarah Colliery.—About 80 men, &c., are employed in this colliery during the day time, and the quantity of air circulating in the mine is about 17,000 cubic feet per minute. The Act in other respects also is complied with.

Northumberland Colliery.—Only one tunnel is now being worked at this colliery, and 6 men are employed. The ventilation is satisfactory, and the Act complied with.

Northern Colliery.—There are about 185 men, &c., employed in this colliery during the day time, and the quantity of air circulating in the mine is about 32,000 cubic feet per minute. The face workings are divided into separate and distinct districts, none of which are overcrowded. The provisions of the Act in other respects also are complied with.

Gartlee Colliery.—About 12 men are employed in this colliery. The ventilation is good, and the Act complied with.

Teralba Colliery.—All work at this new winning is at present temporarily suspended.

South Wallsend Colliery.—In the tunnel workings about 50 men, &c., are employed on the day shift, and the quantity of air circulating is about 10,000 cubic feet per minute. The Act in other respects also is complied with.

West Wallsend Colliery.—There are about 85 men, &c., employed in this colliery, and the quantity of air circulating in the mine is about 54,000 cubic feet per minute. The provisions of the Coal Mines Regulation Act are complied with.

Monkwearmouth Colliery.—About 70 men, &c., are employed in this colliery, and are supplied with about 30,000 cubic feet of air per minute. The provisions of the Act are complied with.

Killingworth Colliery.—Work at this new winning is at present temporarily suspended.

Young Wallsend Colliery.—There are about 40 men, &c., employed in this colliery. The quantity of air circulating is about 7,000 cubic feet per minute. The provisions of the Coal Mines Regulation Act are complied with.

North Stockton Colliery.—Workings are being opened out from the air shaft, 12 men being employed, and supplied with about 6,000 cubic feet of air per minute. The main shaft is now in progress of sinking, and the provisions of the Act are complied with.

Thornley Colliery.—There are about 42 men employed at this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Bloomfield Colliery.—Seven men are employed in this colliery. The ventilation is satisfactory, and the provisions of the Act complied with.

Sunderland Colliery.—There are 4 men employed in this mine. The ventilation is good, and the Act complied with.

Buttai Colliery.—All operations at present suspended.

Shamrock Hill Colliery.—This colliery has been under inspection during a portion of the half-year, but work is now suspended.

Richmond Vale Colliery.—There are about 20 men employed in connection with this new winning. The provisions of the Act are complied with.

Maitland Colliery.—This colliery is now being opened out, and about 30 men are employed. The provisions of the Coal Mines Regulation Act are complied with.

Homeville Greta Colliery.—There are about 30 men, &c., employed in this colliery. The ventilation is satisfactory, and the provisions of the Act complied with.

East Greta Colliery.—Six men are employed in this colliery, and are supplied with about 2,000 cubic feet of air per minute. The Act in other respects also is complied with.

Greta Colliery.—There are about 260 men, &c., employed in this colliery during the day. The quantity of air circulated in the mine is about 60,000 cubic feet per minute. The face workings are divided into four separate and distinct districts, and each district is in accordance with the provisions of the Act, and the Act in other respects also is complied with.

Leconfield Colliery.—Work at this colliery is at present temporarily suspended.

New Anvil Creek Colliery.—There are 8 men, &c., employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Ellesmere Colliery.—Twelve men, &c., are employed in this colliery, and are supplied with about 5,000 cubic feet of air per minute. The Act is complied with.

New Park Colliery.—There are 12 men, &c., employed in this colliery, and the quantity of air circulating is about 5,000 cubic feet per minute. The provisions of the Act are complied with.

Elliott's Colliery.—Six men are employed at this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Rosedale Colliery.—There are 10 men employed in this mine, and are supplied with about 2,000 cubic feet of air per minute. The Act in other respects also is complied with.

Dulwich Colliery.—Eight men are employed in this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Gladstone Colliery.—Two men are employed in this colliery opening out new adit. Work at present suspended in the old one. Ventilation satisfactory, and the provisions of the Act complied with.

Centenary Colliery.—About 20 men, &c., are employed in this colliery. The ventilation is satisfactory, and the provisions of the Act are complied with.

Great Northern Shale Mine.—Work at this mine is temporarily suspended.

Accidents in Mines.

The accidents investigated by us in the Northern District during the six months ending 30th December, 1890, are twenty-seven in number. Of this number seventeen were fully reported on at the time, and ten were found to be of a minor character, and full reports were not written thereon.

Of the seventeen accidents in the annexed tabulated list, two proved fatal—one from explosion of powder, and one from fall of stone. Of the non-fatal accidents, seven were caused by fall of coal, four from injuries by skips, one by ignition of fire-damp, and one by explosion of powder.

The first of the fatal accidents occurred to a miner named John Moncrieff, by an explosion of powder in the Young Wallsend Colliery, on 11th September, and the injured man died on 17th September. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased, at Minmi, on 18th September. The inquest was attended by Inspector Humble, who heard all the evidence, and fully agrees with the verdict of "accidental death" returned by the jury.

The second fatal accident occurred to a miner named Roger Bernard Jenkins, by a fall of stone in the Newcastle Co.'s B pit, on 2nd December. The District Coroner, G. C. Martin, Esq., held an inquest on the body of the deceased, at Merewether, on 3rd December. The inquest was attended by Inspector Bates, who heard all the evidence, and fully agrees with the verdict of "accidental death" as returned by the jury.

The first of the non-fatal accidents occurred to a miner named George Kegan, by the ignition of fire-damp in Young Wallsend Colliery, on August 4th, resulting in slight burns.

The second occurred to a miner named James Kirkwood, by an explosion of powder in the Wickham and Bullock Island Colliery, on August 15th, and resulted in slight burns.

The third accident occurred to a miner named James Goodwin, by a fall of coal in the Newcastle-Wallsend Colliery, on August 19th, resulting in fracture of arm.

The fourth occurred to a trapper named William Grant, by a loaded skip, in the Newcastle-Wallsend Colliery, on August 20th, resulting in fracture of collar-bone and one rib.

The fifth occurred to a miner named Bernip Manghan, by fall of coal in Greta Colliery, on November 19th, and resulted in injury to back.

The sixth occurred to a blacksmith named Albert H. Lewis, by a loaded skip in Monkwearmouth Colliery, on November 21st, resulting in injury to leg.

The seventh occurred to a miner named Vincent Stone, by a fall of coal in the Co-operative Colliery, on November 24th, resulting in injury to hips.

The eighth occurred to a miner named Arthur Burnley, by a fall of coal in Lambton Colliery, on November 24th, resulting in fracture of collar-bone.

The ninth occurred to a miner named John Hopkinson, by a fall of coal in West Wallsend Colliery, on December 1st, resulting in injury to head.

The tenth occurred to a miner named Richard Ward, by a fall of coal in Lambton Colliery, on December 4th, resulting in injury to back and foot.

The eleventh occurred to a miner named Benjm. Ward, by a fall of coal in Lambton Colliery, on December 4th, resulting in injury to back and hips.

The twelfth occurred to a wheeler named Wm. Morgan, by a loaded skip, in Lambton Colliery, on December 15th, resulting in injuries to left side and hips.

The thirteenth occurred to a wheeler named William Smith, by a loaded skip, in the A. A. Co.'s new winning, on December 17th, resulting in fracture of arm.

Accidents on Surface.

One fatal accident occurred to a labourer named John Leatham, by being caught with the descending cage at Greta Colliery B pit, on December 10th. The District Coroner, J. N. Brooks, Esq., held an inquest on the body of deceased at the Court-house, Greta, on December 10th and 11th. Inspector Bates attended the inquest, and heard all the evidence, and fully agrees with the verdict of "accidental death" returned by the jury.

One non-fatal accident occurred to a labourer named Robert Charlton, by empty skips, at Co-operative Colliery, on December 18th, resulting in injury to spine.

The tabulated list of accidents is hereto appended.

We have, &c.,
JOHN DIXON,
THOS. L. BATES,
WILLIAM HUMBLE,
Inspectors of Collieries.

Tabulated

TABULATED LIST of fatal and non-fatal accidents in the Northern Collieries of New South Wales, investigated by the Inspectors of Collieries during the half-year ending 31st December, 1891.

No.	Date.	Name of Colliery.	Person killed or injured.	Occupation.	Remarks on nature and extent of injuries.	Non-fatal.				Fatal		Total.	
						Ignition of fire-damp.	Explosion of powder.	Fall of coal.	Injury by skip.	Explosion of powder.	Fall of stone.	Non-fatal.	Fatal.
	1890.												
1	Aug. 4	Young, Wallsend	George Kegan	Miner	Slight burns by ignition of fire-damp	1	..	..	..	..	..	1	..
2	,, 15	Wickham and Bullock Island	James Kirkwood	,,	Slight burns by explosion of powder	..	1	..	..	..	..	1	..
3	,, 19	Newcastle, Wallsend	James Goodwin	,,	Fracture of arm by fall of coal	..	..	1	..	..	..	1	..
4	,, 20	,,	William Grant	Trapper	Fracture of collar-bone and one rib by loaded skip.	..	..	..	1	..	..	1	..
5	Sep. 11	Young Wallsend	John Moncrieff	Miner	Fatal injury by explosion of powder; died Sep. 17th.	..	..	..	..	1	..	..	1
6	Nov. 19	Greta	Bernid Manghan	,,	Injury to back by fall of coal	..	..	1	..	..	..	1	..
7	,, 21	Monkwearmouth	Albert H. Lewis	Blacksmith	Injury to leg by loaded skip	..	..	..	1	..	..	1	..
8	,, 24	Co-operative	Vincent Stone	Miner	Injury to hip by fall of coal	..	..	1	..	..	..	1	..
9	,, 24	Lambton	Arthur Burnley	,,	Fracture of collar bone by fall of coal	..	..	1	..	..	..	1	..
10	Dec. 1	West Wallsend	John Hopkinson	,,	Injury to head by fall of coal	..	..	1	..	..	..	1	..
11	,, 2	Newcastle Co's. B pit	Roger Benard Jenkins	,,	Fatal injury by fall of stone	..	..	..	..	..	1	..	1
12	,, 4	Lambton	Richard Ward	,,	Injury to back and foot by fall of coal	..	..	1	..	..	..	1	..
13	.....	,,	Benjamin Ward	,,	Injury to back and hips by fall of coal	..	..	1	..	..	..	1	..
14	Dec. 15	,,	William Morgan	Wheeler	Injury to left side and hips by loaded skip	..	..	..	1	..	..	1	..
15	,, 17	A.A. Co's. New Winning	William Smith	,,	Fracture of arm by loaded skip	..	..	..	1	..	..	1	..
						1	1	7	4	1	1	13	2

ACCIDENTS ON SURFACE.

No.	Date.	Name of Colliery.	Person killed or injured.	Occupation.	Remarks on nature and extent of injuries.	Non-fatal.	Fatal.
	1890.						
16	Dec. 10	Greta	John Leatham	Labourer	Fatal injury by being caught with cage	..	1
17	,, 18	Co-operative	Robert Charlton	,,	Injury to spine by empty skips	1	..

The Half-yearly Report of the Inspector of Collieries on the state of the Collieries in the Southern and Western Districts of the Colony of New South Wales, and accidents therein, for the half-year ending 31st December, 1890.

The Examiner of Coal-Fields,— Wollongong, 14 January, 1891.

Sir,

In compliance with the requirements of clause 26 in the Coal Mines Regulation Act, 1876, I have the honor to transmit to you this my six-monthly report on the state of the various collieries for the half-year ending 31st December, 1890.

The total number of collieries under inspection in the Southern and Western Districts during the last six months is 34.

Western District..... 15 coal-mines and 2 shale-mines.
Berrima ,, ... 3 coal-mines and 1 shale-mine.
Southern ,, ... 13 coal-mines.
Making in all 34 collieries.

PRESENT STATE OF MINES.

During the six months ending 31st December, less work than usual has been done in the Illawarra Collieries, owing to the Mercantile labour dispute, in consequence of which the miners came out on strike, and remained out until the end of December. During the four months strike a number of the colliery proprietors worked portions of their mines with "free labour," and during the time free labour was employed, I made several inspections, and found that great care to ensure safety was exercised by the management, such as "spragging propping," and all other matters relating to the men's safety.

Mount Kembla Colliery.—During the first two months of the half-year about 150 men were employed underground, and served with 36,000 cubic feet of air per minute in three separate splits, and during the four months ending December about 70 free labourers were employed. The provisions of the Coal Mines Act complied with.

Osborne Wallsend Colliery.—The first two months of the half-year about 160 men were employed underground, and served with about 30,000 cubic feet of air per minute. The remaining portion of the half-year about 80 free labourers were employed. The Act in all matters complied with.

Mount Pleasant Colliery.—About 120 men were employed until the strike, and served with about 18,000 cubic feet of air per minute in two separate currents. During the time of the strike only a few hands were kept filling slack and doing general repairs in the colliery. The provisions of the Coal Mines Act in all matters complied with.

Corrimal Colliery.—About 80 men were employed up to the time of the strike, and supplied with 16,000 cubic feet of air per minute. The last three months ending December the colliery was worked with about 60 free labourers. The Act in all respects complied with. *South*

South Bulli Colliery.—About 140 men were employed underground up to the time of the strike, and served with about 24,000 cubic feet of air per minute. During the latter part of the half-year about 50 free laborers were employed, during which time the Coal Mines Act was complied with.

Bellambi Colliery.—About 90 men were employed up to the time of the strike, and served with about 20,000 cubic feet of air per minute. During the latter part of the half-year the colliery was worked with about 20 free labourers. The Act in all respects complied with.

Bulli Colliery.—About 120 men were employed in the half-year ending up till the 3rd September, when the men came out on strike, after which only a few hands were kept, filling slack and doing general repairs. The Coal Mines Act in all matters complied with.

North Illawarra Colliery.—During the half-year an average of 20 men have been employed underground, and served with about 18,000 cubic feet of air per minute. The Act in all respects complied with.

Coal Cliff Colliery.—During the last four months ending December, the colliery has been worked with about 50 free labourers. The Act complied with.

Metropolitan Colliery.—About 140 men were employed underground for the first two months of the half-year, and served with 100,000 cubic feet of air per minute. During the latter portion of the half-year only a few hands were kept doing general repairs on the surface and underground. The Act in all respects complied with.

Southern Colliery.—No work has been done during the half-year.

Biggar's Prospecting Mines (near Depto).—Two men were employed part of the half-year testing the mountain for ironstone and other minerals.

North Illawarra Prospecting Mines.—Little work has been done during the half-year.

Berrima District.

Australian Kerosene Oil Company's Shale Mines (Joadja Creek).—About 70 men and horses are employed underground, and served with 13,000 cubic feet of air per minute. The colliery is worked on the Longwall system, and is well ventilated throughout. The Act in all matters complied with.

Great Southern Colliery (late Berrima).—An average of 12 men have been employed during the half-year, and served with 10,000 cubic feet of air per minute. The Act in all respects complied with.

Mittagong Colliery.—During the half-year little work has been done. This colliery has changed hands; has been purchased at a cost of £5,000 by Owen, Draper, Company, who is now working the mine with 8 miners. The Act in all matters complied with.

Herd's Prospecting Mines (Joadja).—Two men prospecting for coal and shale.

Western District.

Vale Colliery.—About 64 men are employed. The above number is divided into two equal shifts, and each shift of thirty-two men are served with 25,000 cubic feet of air per minute. The Act in all respects complied with.

Oakey Park Colliery.—About 40 men are employed underground, and served with 15,000 cubic feet of air per minute. The Act complied with.

Zig Zag Colliery.—Forty men, four wheelers, and four horses employed underground, and served with 12,000 cubic feet of air per minute. The Act in all respects complied with.

Vale of Clywdd Colliery.—About thirty-five men, three wheelers, and three horses employed underground, and served with 9,500 cubic feet of air per minute. The Act in all respects complied with.

Lithgow Valley Colliery.—About 56 men are employed, and served with 23,000 cubic feet of air per minute. The bords are kept well timbered. Intake and return airways in good order. The Coal Mines Act in all other matters complied with.

Hermitage Colliery.—Forty-six men are employed underground, and supplied with 15,000 cubic feet of air per minute. The Coal Mines Act in every respect complied with.

Eskbank Pit.—Thirty-six men are employed underground, and served with 21,000 cubic feet of air per minute. Travelling road and second way to the day in good order. The Act in other respects complied with.

Eskbank Old Tunnel.—Six men employed, and served with 6,500 cubic feet of air per minute. The Act complied with.

Cooerwull Mine.—Two men employed, and served with 1,000 cubic feet of air. The Act in other matters complied with.

Irondale Colliery.—About 6 men are employed, and served with 5,000 cubic feet of air per minute. The Act in other respects complied with.

Cullen Bullen Colliery.—About 25 men are employed underground, and supplied with 14,000 cubic feet of air per minute. The Act in other matters complied with.

Rawden Colliery.—Little work has been done during the half-year. Only two men getting coal. The Act complied with.

Katoomba Colliery.—During the half-year this colliery has changed hands, and is now owned and worked by the Australian Kerosene Oil Company (Joadja Creek). About 20 men employed working shale, and served with 12,000 cubic feet of air per minute. Several adits have been driven into the mountain, testing the thickness and quality of shale. The workings are being opened out on the Longwall system. The ventilation good, and the Act in all respects complied with.

Katoomba Coal Mine.—About 26 men are employed, and served with 7,000 cubic feet of air per minute. The Act complied with.

New South Wales Shale Mines (Hartley).—About 50 men are employed underground, and served with 13,000 cubic feet of air per minute. The Act in other matters complied with.

Retort Coal Mine (Hartley Vale).—Twelve men employed, and supplied with 8,000 cubic feet of air per minute. The Act in all respects complied with.

Main Camp (Hartley Vale).—Only 2 men employed driving a heading to make a water-course.

ACCIDENTS IN MINES.

During the last six months ending 31st December, 1890, I have investigated five separate accidents included in this list. The first non-fatal accident happened to a wheeler named John Leitch, at Mount Kembla Colliery, on 14th July, who had his jaw and nose broken by a stone falling from the roof.

The second was a fatal accident, which happened to a miner named John Green, 7th August, at Bulli Colliery, by an empty set of skips. The unfortunate man, who was in a man-hole while the skips were in motion, tried to reach another man-hole; his light went out, and he was knocked down by the empties, which dragged him several yards, and from the effects of the injuries he only survived a few hours. An inquest was held at Darcey's Hotel, Bulli, by the District Coroner, C. F. Smith, Esq., on 9th August, which inquest I attended, and heard all the evidence, and fully agree with accidental death returned by the jury.

The third was non-fatal, which happened on 14th October, at Metropolitan Colliery, to a bricklayer named Alfred Carter, who had his foot severely crushed while assisting to start a new ventilating fan.

The fourth happened on 30th October, at Osborne Wallsend Colliery, to a miner named James Lawden, who was scalded about the face and other parts of the body, while filling slack out of the heap which was partly burning at the time.

The fifth happened on 11th December, to a horse-driver named John Ward, who had his foot severely cut by stumbling before his horse, while taking away a loaded waggon from the screens; one of the wheels passed over his foot.

I have also examined a few other accidents, which were not of a serious nature, and are not included in this list. The usual tabulated list is hereto appended.

I have, &c.,
JAMES ROWAN,
Inspector of Collieries.

John Mackenzie, Esq., Examiner of Coal Fields, Mines Department, Sydney.

TABULATED LIST of fatal and non-fatal accidents in the Southern and Western Districts of New South Wales Collieries investigated by the Inspector of Collieries during the half-year ending 31st December, 1890.

No.	Date.	Colliery.	Sufferer.	Occupation	Remarks, &c., on the nature and extent of injuries.	Jaw and nose broken.	Killed by a skip.	Foot crushed.	Scalded by steam.	Foot cut by a waggon.	Fatal.	Non-fatal.
1	July 14	Mount Kembla ..	John Leitch	Wheeler ..	Jaw and nose broken by a stone from the roof..	1	..	..	..	..	..	1
2	Aug., 7	Bulli	John Green	Miner	Killed by a skip, on the main heading.....	..	1	..	..	..	1	..
3	Oct., 14	Metropolitan	Alfred Carter.....	Bricklayer.	Foot crushed by the ventilating fan	..	..	1	..	..	..	1
4	,, 30	Osborne-Wallsend	James Lawder	Miner	Scalded about the face and back by steam from the slack heap.	..	..	..	1	..	..	1
5	Dec., 11	,,	John Ward	Horse-driver	Foot severely cut by a waggon at the screens..	..	..	..	..	1	..	1
						1	1	1	1	1	1	4

GEOLOGICAL SURVEY OF NEW SOUTH WALES.

Report of Progress for 1890, by the Geological Surveyor-in-Charge.

Sir,

I have the honor to submit the following report of progress of the Geological Survey during the year 1890.

Besides geologically examining certain localities, the Geological Surveyors have been considerably engaged in making inspections in various mining districts, in dealing with the applications from miners for aid out of the prospecting vote. In carrying out this work, one or other of the surveyors, on several occasions, accompanied yourself and Mr. Slee, F.G.S., the Chief Inspector of Mines.

In Appendix No. 1 A, is given the report of Mr. Slee and myself on the Ironbarks, Muckerawa, and Wellington districts.

Separate reports in connection with each application for aid were furnished to you. The principal places visited were Milton, Jervis Bay, Shoalhaven, Illawarra, Mittagong, Nyngan, Peak Hill, Pambula, Nerrigundah, Mt. Dromedary, Bermagui, Grenfell, Muttama, Sunny Corner, Gulgong, Cell's Creek, Bingera, Vegetable Creek, Deepwater, Miccalong Reefs, Jingellic, Forest Reefs, Cargo, Kaloola, Cobar, Megalong, Hartley Vale, Mt. York, Port Stephens, Myall Lakes, Raymond Terrace, Ravensworth, Maitland, Wyong, Mandurama, Bathurst, Bong Bong (near Mossvale), Windelahma, Braidwood, Little River, Gundagai, Bongongolong, Reedy Creek (near Bargo), Adelong, Dubbo, Canowindra, Orange, Nowra, Congola, Sassafras, Dapto, Corrimal, Wongawillie, Bellambi, Albury, Junee, Eurongilly, and Doughboy Hollow.

In February, I examined the Mittagong and Bowral district; my report upon its mineral resources is given in Appendix No. 1 B.

Mr.

Mr. Geological Surveyor Stonier assisted me in the examination of the country west of Jervis Bay between the Cambewarra Mountain and Milton, near Ulladulla. The whole of this district consists of Permo-Carboniferous formations, with the exception of some small areas of Silurian or Devonian schists and hornblendic granites about Conjola Creek and Milton, and more recent intrusive basaltic rocks in places. The Hawkesbury sandstones form the summit of the Cambewarra Mountain, and from this down to the Shoalhaven River, at Nowra, thence southerly throughout the precipitous ranges to the head of the Clyde Valley and the prominent Pigeon House Mountain, the valleys afford some fine sections of the Permo-Carboniferous series, chiefly of marine beds. The sandstones forming the higher points of the great range between the head of the Clyde and Ulladulla were at first from their lithological character supposed to belong to the Hawkesbury formation, but Mr. Stonier discovered in these marine fossils, spirifers, &c., which connect them with the underlying series, containing productus, &c., which overlie the workable coal seams in the Clyde Valley as described in my report of 30th March, 1885. (*See* Annual Report of the Department, 1885, page 131.) These Clyde seams, therefore, are older and far below those worked in the Illawarra Coal-field, which overlie the Wollongong and Jamberoo marine series. This is a discovery of much importance as showing the probable occurrence of coal seams hitherto unknown in the Shoalhaven and Illawarra Districts. They may belong to the lower coal measures or Greta series, in which case the Bulli or Illawarra coal series may represent, as suggested by Mr. David, the middle coal measures of the Hunter River District.

From Nowra to Currambene Creek, on the road to Jervis Bay the country consists of low undulating hills composed of grey ferruginous sandy mudstones, which at Currambene Creek dip about E.N.E. at 2°, and contain *Spirifers Productus, &c.* They here rest upon yellow ferruginous sandstones and grits which continue to the mouth of the creek, where appear dark-grey ferruginous sandy mudstones, dipping E. 30° N. at 10° containing abundance of Crinoids, *Spirifer vespertilio, Spirifer convolutus, Productus brachythœrus, &c.*

A short distance south from this at Lapalla Point, on the shore of Jervis Bay, similar strata dip N.E. at 10°; in them occur semi-angular and rounded boulders of altered sandstone, slate, quartz, and granite, one of which I found to be 5 feet 6 inches long and 2 feet 6 inches in diameter with its longer axis lying E.N.E. indicating the probable direction of the transporting marine current at the time of its deposition.

On the north side of the entrance of Moona Creek into the Bay, the strata become horizontal, forming the apex of an anticline, and then bend down and dip S.W. at 5°: these are therefore the lowest out-cropping beds in this part of the shore of Jervis Bay, and it is on this anticline near the mouth of Moona Creek, where a diamond drill bore was put down to a depth of about 1,900 feet in which only a 4 inch seam of coal was said to have been pierced. The beds soon rise again to the south-west; for where the main road to Milton crosses the Wandrawandian Creek we see thin bedded sandy shales and sandstones dipping N.E. at 2°, and containing *Productus brachythœrus* and Spirifers. From here to Conjola Creek, a distance of 11 miles, the marine beds continue—sandy grits, shale and bouldery conglomerates forming some of the higher intermediate hills in one of which they dip E.N.E. at 10°. Descending into Conjola Creek valley, a good section of about 250 feet thickness of strata dipping E.N.E. at 2° is exposed in the road cuttings, where also is seen an intrusive-dyke of basalt about 10 feet thick: these beds contain numerous fossils—*Spirifers, Meonia,* &c., of which our collector, Mr. C. Cullen, obtained a large collection for the Geological Museum.

As the road ascends the south bank of Conjola Creek we see an interesting section showing altered sandstones and slates, probably of Siluro-Devonian age, traversed by quartz veins and overlaid by the carboniferous marine beds which form the hill between this and the nearest creek, called Murray's Flat, where granite occurs. I was informed that in these valleys, as the occurrence of the granite and slate formations would lead one to expect, gold has been found in alluvial deposits, and that a few miles up the Conjola Creek a quartz reef 5 feet thick traverses the slates. The reefs in this locality, especially near the junction of the slate and granite, should be prospected. The next valley, that of Myrtle Creek, 1 mile to the south, has been eroded about 150 feet deep through the carboniferous thin bedded pebbly and gritty mudstones and sandstones lying nearly horizontal. Two miles further at Forest Hill the road for about 10 chains passes over a flow of basalt which forms a thin capping on the marine beds. Then in 1½ miles south we come upon a porphyritic rock which continues to Milton: this intrusive rock resembles the syenite of the Gib Mountain, near Bowral, and it is probably of the same age—viz., newer than the Wianamatta formation: it might be quarried here and readily shipped at Ulladulla for works along the coastal districts; it is an excellent and most durable stone for building purposes, as it resists the disintegrating action of salt water.

About 6 miles W.N.W. from Milton in a valley eroded 200 feet deep through sandstones and shales with marine fossils a coal prospecting shaft had been sunk by the Messrs. Sheaffe 30 feet deep in shale containing obscure plant impressions, and pyritous conglomerate with pebbles of shale and quartz. In the bed of the creek immediately above this I measured the following section:—

	ft.	in.
Gritty sandstone	6	0
Coal	1	0
Yellow band	0	1½
Black shale	0	5
Coal	0	6
Coaly shale (full thickness not seen) dip N.W. at 70°, probably only local dip	0	6

About 15 feet below this:—

	ft.	in.
Gritty sandstone	15	0
Coal	1	3
Band	0	1½
Hard coaly shale	0	9
Coal	0	3
Black fireclay	0	3
Dark grey fine-grained sandstone	4	0
Gritty sandstone, with stems of plants	3	0
Dark shaley sandstone	1	0
Brown sandstone, dip N.W. at 1°	7	0

The

The following section is exposed in a cliff about 1 mile down the creek, in a north-easterly direction, in measured portion 151, parish of :—

	ft.	in.
Coarse sandstone and quartz pebble conglomerate	6	0
Fine-grained sandstone, with quartz pebble	15	0
Splint coal	0	3
Shaley sandstone	1	8
Coal	0	7
Dark shaley sandstone	2	0
Coal	0	1½
Dark shaley sandstone	1	11
Coal	0	1
Dark shaley sandstone	1	0
Coal on	1	4
Fine-grained sandstone (thickness not seen) dipping E.N.E. at 7°	.....	

In the hill rising 200 feet above this section are seen beds of sandstone and pebble conglomerates containing *Mæonia*. They are probably equivalents of the lower beds of the Nowra grits. It will be important to determine the relation of these coal-bearing beds to those at the head of the Clyde River; they may be identical, in which case further search should be made here for thicker seams, unless Sheaffe's seams actually represent the Clyde seams thinned out. The hill on which Captain Sheaffe's residence is situated is composed of porphyritic basalt.

About 2 miles westerly from where the main Milton and Nowra road crosses Wandrawandian Creek, and at an elevation of 600 feet above sea-level, thick-bedded gritty sandstones and conglomerates form a flat-topped ridge, with precipitous escarpments. Near where the Bollerang Creek falls abruptly over these beds they dip N.E. at 2°, and contain *Spirifer vespertilio*, *S. Darwini*, *S. glaber*, &c., also a small streak of coal, half an inch thick. These massive sandstones and grits are probably the continuation of the "Nowra grits" on their south-westerly rise towards the head of the Clyde River. I visited this place to inspect the site selected by Messrs. Maclean and party, Nowra, for their diamond drill bore, which has since been put down to a depth of 1,423 feet 4 inches under the direction of Mr. W. H. J. Slee, F.G.S., Superintendent of Diamond Drills. Only two small seams of coal were pierced—one 1 foot 7 inches thick, with one 5-inch band, at a depth of 1,331 feet, and the other 3 feet 1½ inches thick, with bands, at 1,337 feet deep. Mr. David and Mr. Stonier, geological surveyors, examined the cores raised from this bore at different times as the work progressed.

They also further inspected the district with the object of determining the nature of the Permo-Carboniferous formations in this portion of the Southern Coal-field, and the possibility of the occurrence of workable coal seams near the splendid port of Jervis Bay. It is to be regretted that they had to leave this important geological work unfinished, as urgent departmental work, chiefly connected with the Prospecting Vote, necessitated their attention in other parts of the Colony. [*See their progress reports, Appendices Nos.* 2 *and* 4.]

The "Nowra grits" are well seen in the cliffs, which are about 100 feet high on the south side of the Shoalhaven River on the Nowra Reserve, immediately to the west of the town. They contain abundance of fossils, *Spirifer vespertilio*, *S. Darwini*, *Aviculopecten*, *Euomphalus*, *Productus*, stems of plants, &c. At 4½ miles along the road south-west from Nowra the hills are chiefly composed of grey, sandy, and argillaceous shales in a horizontal position, and containing *Fenestella* and stems of Crinoids, some of the latter having been partly converted into pyrites. They also contain scattered pebbles of hard sandstone and quartz. One of the upper beds consists of brown sandstone, and forms the top of the hill close to the church on the road near "Nowra Hill."

Some good general sections of the Permo Carboniferous series are seen along the road from Nowra to Moss Vale. For several miles from the Nowra bridge the country consists of the "Nowra grits," till we get near the village of Cambewarra, where we come on to dark grey shales, at about 190 feet above sea-level. Here the steep ascent of the Cambewarra Mountain begins, and we pass over the shales to an elevation of 650 feet, where a bed of hard sandstone overlies them. The shales contain Crinoids, &c., and are evidently identical with the shale beds which form the abovementioned hills, 4½ miles south-west from Nowra. They chiefly dip W.N.W. at 3°, but they are much disturbed by intrusive basaltic dykes, which become more numerous and massive as we ascend, and, with the exception of a bed of purplish gritty sandstone, 11 feet thick, met with at an elevation of 1,010 feet, almost the whole of the upper part of the mount, which attains a height of about 1,500 feet where the road crosses it, is composed of basalt both dense and vesicular, and of various colours—green and yellowish. It produces a rich red or chocolate soil, supporting a most luxuriant growth of vegetation. To the north and west the range is considerably higher, and is formed of the coal-measures, capped by the Hawkesbury Sandstone formation.

Descending the north slope of the mountain, and where the road crosses a gully near the Public School, we see some horizontal thin-bedded purple shales resting on purple sandstones and grits, the lower beds of which contain abundance of marine fossils, *Productus*, *Spirifer vespertilio*, *Aviculopecten*, &c. These arenaceous beds are about 300 feet thick, and rest upon about 420 feet thickness of shales and shaly sandstones, which continue to Kangaroo Valley, where we again come upon the "Nowra grits," at an elevation of about 300 feet above sea-level by aneroid observation. The scenery of this deep valley is very picturesque, and the different geological formations are splendidly indicated by the varied surface features. The creek flows through narrow gorges eroded in the "Nowra grits," the undulating slopes forming the lower parts of the hills, and covered by farms with fields of cultivation mark the position of the thick "Cambewarra Crinoid shales." Above these are the purple Kiama sandstones; then the "Coal-Measures," containing the Wollongong or Bulli coal seams, surmounted by Hawkesbury Sandstones, forming high craggy precipices, walling in upper sides of the valley.

At the bridge over the Kangaroo Valley Creek, the "Nowra Grits" dip N.N.E. at 3°. The road, after skirting the foot of the range, for 4 miles ascends the steep northern slope of the valley, passing over concretionary sandstones and shales, to an elevation of about 1,360 feet, where coaly shales containing *Glossopteris* are first met with. Thirty feet higher a seam of coal, 18 inches thick, crops out, with indications of more coal above it. At 1,850 feet we come to a shale bed at the foot of a cliff of Hawkesbury Sandstone, the base of which is strewn with talus of large masses of rippled-marked sandstone (Hawkesbury)—in fact the whole slope of the mountain is so covered by talus, supporting a rich growth of vegetation, that the actual lines of junction of the several formations are difficult to determine. The top of the Hawkesbury Sandstone formation is about 230 feet above the foot of the cliff just mentioned, and extends almost at the same level to the Fitzroy Falls.

The

The Government having decided to take part in the International Exhibition of Mining and Metallurgy, London, I was instructed to prepare exhibits representing the mineral resources of the Colony. The Minister for Mines also instructed the Wardens to solicit exhibits from the principal mines. I at once deputed Mr. J. E. Carne, F.G.S., Curator of the Mining and Geological Museum, to make the necessary preparations for bringing together such suitable specimens as could be spared from the collections of the Department; and both by correspondence and personal invitation, we induced some private persons to send some good exhibits. These, with most of the Departmental and private collections which were then in the New Zealand Exhibition, it was resolved should be forwarded to London. The Hon. the Colonial Secretary instructed the Executive Commissioner, Mr. Oscar Meyer, to ship the New Zealand exhibits direct to London, while the new exhibits were sent, some from Sydney, and others from Broken Hill, &c., *via* Melbourne and Adelaide.

Having been appointed as Geological Director on the Exhibition Commission for New South Wales, I left for England on the 1st May, with Mr. J. E. Carne, who had been instructed to assist me at the Exhibition. On arrival in London, I at once waited upon the Hon. Sir Saul Samuel, the Agent General, who had already secured 15,000 square-feet of space for the New South Wales Court, in accordance with his instructions from the Hon. the Colonial Secretary. Next day, with Mr. Carne, I called upon the Secretary of the Exhibition, at the Crystal Palace, and was shown the space which had been allotted to our Colony. We found that it was in a gallery, which was quite unsuitable for the heavy exhibits. As the Executive Commissioner, Mr. Oscar Meyer, had not arrived in England, and the work of arranging the exhibits could not be delayed, I therefore interviewed the Secretary of the Crystal Palace Company, about obtaining the ground floor of the South Nave, and a meeting of his directors with the members of the New South Wales Commission was then arranged. With Sir Saul Samuel and Mr. Francis Abigail, M.P., we accordingly met the directors, who agreed to grant us the required space in the South Nave. A design for the arrangement of the exhibits having been decided upon, steps were at once taken to carry it out. Some difficulty at first in the landing of the exhibits was occasioned by the Custom's authorities, but it was soon met, through the personal representation of Sir Saul Samuel. The work of arranging the exhibits was energetically conducted by Mr. Carne, who with a staff of men laboured daily from early morning till late in the evening to have the Court ready by the opening day, the 2nd July, and he deserves much praise for the efficient manner in which he performed his duties. He was ably assisted by Mr. Thomas Ford, the Superintendent of the Court. The erection of the offices, reception room, press exhibits, and realistic illustrations of mining and general decoration of the Court, was carried out under the direction of Mr. Oscar Meyer, the Executive Commissioner. Though every exertion was made, it was found impossible to have the Court complete by the 2nd July. The opening day, however, was postponed until the 28th, when the ceremony was performed by Lord Knutsford.

The New South Wales Court then presented an imposing and attractive appearance, and was the chief feature of the whole Exhibition. Amongst the private exhibits was the magnificient trophy representing the quantity of silver raised to date from the Broken Hill Proprietary Company's Mine. This trophy, which was the most conspicuous object in the Exhibition, was erected under the direction of Mr. William Knox, the Secretary of the Proprietary Company. Undoubtedly, this display of the mineral resources of the Colony was more extensive and splendid than that made at any previous Exhibition. Not only were all the characteristic minerals exhibited, but those of a refractory nature, which are at present difficult of treatment in the Colony, were prominently brought under notice, in order to command the attention of metallurgists; and I have reason to believe that in this respect alone much good will result to the future development of the mining industry, especially in the introduction of efficient concentrating and separating appliances for the treatment of low-grade and complex ores. Very favourable notices of the Exhibition appeared in many of the leading newspapers in the United Kingdom, including some of those specially devoted to the mining industries. The Executive Commissioner was unremitting in his attention to visitors and in his efforts for the successful display of the Exhibition, and Mr. Carne was almost in constant attendance in the Court to give information about the different mineral exhibits.

Mr. G. A. Ferguson, Hon. Secretary to the Mining Exhibition, and the Engineer, Mr. E. Wilkinson, also the Directors and Secretary of the Crystal Palace Company, afforded us every facility in arranging the exhibits.

I also took every opportunity to make known both at the Exhibition and in the mining districts which I visited the nature and requirements of the mining industry of the Colony, and the results of my inquiries in reference to improved methods applicable for the treatment of ores, coal, &c., in New South Wales, have already been reported to you (*See* Appendices Nos. 1c. to 1h).

Under the auspices of the Council of the Mining Exhibition I gave a lecture in the Crystal Palace on the *Mineral Resources of New South Wales*. Sir Saul Samuel presided. At the opening and closing ceremonies of the Exhibition I had the honor of being called upon to speak on behalf of the Colony.

I also read a paper on the same subject before the British Association at its meeting in Leeds, and in Swansea, at a banquet given to the members of the Mining Institute of Cornwall, Sir Hussy Vivian presiding, I spoke upon the mineral production of the Colony.

As will be seen in the accompanying report (Appendix 6) by Mr. Carne, small collections of minerals were given as exchanges or donations to certain public institutions and private persons. Much interest was taken in our geological exhibits. From an examination of specimens in our collection of Pleistocene fossils, Mr. Richard Lydeleker, B.A., F.G.S., of the British Museum, was of opinion that the broad adze-shaped teeth of *Sceparnodon Ramsayi* were actually incisors of Phascolomys gigas.

I made inquiries, whenever I had opportunity, as to new sources of demand for our minerals, and though I was unable to obtain much information of a definite character I am convinced that the present demand will increase. Sir Hussy Vivian, of Messrs. Vivian and Sons, of Swansea, stated that his company would be prepared to purchase all classes of complex and refractory ores. Both at Swansea, Newcastle-on-Tyne, and London, there appears to be a ready market for silver-lead and auriferous antimony bullion, of which the supply from the Colony is likely to so largely increase. Attention should be given to the production of zinc ores, wolfram, and asbestos, as these minerals would be readily purchased both in England and on the Continent. It is satisfactory to know that special works are being established in England for the manufacture of alum from the alum-stone exported from Bulladelah, near Port Stephens.

I left London on 12th November, crossing the Continent to join my return steamer at Naples, and arrived in Sydney on 19th December. On my way I stayed one day in Paris, and visited the works of the Societé Générale Francaise de Traitement des Minerais, and inspected in operation the Castelnau Concentrator and Separator for the treatment of crushed sulphide and other ores. I have elsewhere furnished a report on this machine.

During my absence from the Colony, Mr. Geological Surveyor David was instructed to act for me. The able manner in which he directed the work of the Geological Survey Branch is well known to yourself. The increasing work of the Branch, both in field and in the office, has been considerable, and I understand necessitated his attention frequently till late at night at the office. A record of the principal work is given in the annexed report by Mr. David (*see* Appendix 2).

Mr. Geological Surveyor W. Anderson's Progress Report (Appendix 3) refers to numerous places visited by him either in making geological examinations or in dealing, as a member of the Prospecting Board, with applications for aid out of the Prospecting Vote. Owing to other urgent work he has been unable to continue his survey of the boundaries of the Artesian Water-bearing formation in the north-western part of the Colony.

Mr. G. A. Stonier, C.E., Geological Surveyor, has been very energetic in his duties. His Progress Report (Appendix 4), mentions the chief work upon which he has been engaged, both in the field and in Sydney, where, after office hours, he greatly assisted Mr. David in keeping down the office work during my absence.

In Appendix 5 is given a statement of the Palæontological work carried out by Mr. Robert Etheridge, Jun. Under his editorship, Memoirs Nos. 3, 4, 7, and 8 of the Palæontological Series have been issued during the year from the Government Printing Office. Mr. Etheridge is the author of two of these important works, and also of seven of the papers in the *Records of the Geological Survey of New South Wales*, of which the Index to Vol. I and Parts 1 and 2 of Vol. II have been published. Favourable notices of these publications of the Department have appeared in some of the leading English and American science periodicals. Mr. Etheridge, who has occasionally rendered valuable assistance to Mr. Carne in the arrangement of the Library, has now been appointed Librarian, for which office he is eminently qualified.

In the progress report of Mr. J. E. Carne, F.G.S., Curator and Mineralogist (*see* Appendix 6), will be found a statement of the various duties performed in connection with the Mining and Geological Museum, the examination of the numerous mineral samples submitted to the Department for assay or analysis, the library, preparation of mineral collections for exhibitions or exchanges, &c. His Report also refers to the duties which he so ably carried out during his absence from the Colony at the London Mining Exhibition.

Much useful and important work has been performed in the Laboratory of the Department by Mr. Mingaye, F.C.S., the Assayer and Analyst, and his Assistant, Mr. H. P. White. The privilege accorded by the Department to prospectors for the free testing of minerals has been largely availed of, no fewer than 3,323 samples having been submitted for assay or analysis during the year. By direction of the Minister for Mines and Agriculture, Mr. Mingaye furnished a valuable Report on some of the cokes manufactured in the Colony. A detailed statement of the laboratory work is given in Appendix 7.

In connection with the applications for aid out of the Prospecting Vote, several bulk samples of ore of one or more tons each, have been tested at the Clyde Works under the supervision of officers of the Geological Branch.

The Superintendent of Caves, Mr. W. S. Leigh, in his Progress Report (Appendix 8), refers to the number of visitors to the different caves during the year, showing a total of 4,042, and to the improvements which have been made under his supervision in and about the caves at Jenolan, Wombeyan, Wellington, Abercrombie, Bungonia, and Yarrangobilly. Some new caves have been recently discovered at Bendithera, near Moruya; Kybean, near Cooma; and Jerrara, near Marulan. A very interesting new cave has also been discovered at Jenolan by the keeper, Mr. Jeremiah Wilson. On the floor of it was found a skeleton of the *Thylacinus*, or "pouched hyæna," a genus which is extinct in Australia, but still living in Tasmania.

Mr. P. T. Hammond, who was appointed Field Assistant on the 1st April, has been partly engaged at the office and partly in assisting Mr. David in the geological survey of the Maitland district. Mr. Lindeman and Mr. Dun were appointed probationers on the 10th April and 8th April respectively.

I have, &c.,

C. S. WILKINSON, F.G.S.,

To the Under Secretary for Mines. Geological Surveyor-in-Charge.

APPENDIX 1A.

Report by the Prospecting Board on Ironbarks, Muckerawa, and Wellington Districts.

Sir, Orange, 28 March, 1890.

We have the honour to inform you that we have dealt with the applications out of the Prospecting Vote in the Ironbarks, Muckerawa, and Wellington Districts.

About 3 miles north-west from Stuart Town, Waterbury and party are prospecting for a deep lead, under a basalt capped range, where tertiary pebble drift, containing gold, crops out from the edge of the basalt. Tunnels driven in from both sides of the range have shown the slate bed-rock to be dipping into the hill, and it is to test the deep ground that the prospecting operations are being carried out. Between the tunnels there is a distance of about 700 feet yet to be proved.

On the west side of the Macquarie River, and about 2 miles north-west from the junction of the Muckerawa Creek with that river, are the "Bald Hills," which form a high flat-topped range, extending N.E. by S.W., for about 3 miles, with short lateral spurs from it. The top of the range is basalt, overlying tertiary gold-bearing drifts, resting on Carboniferous conglomerates and shales, and Silurian slates and sandstones, traversed by auriferous quartz reefs. The beds of many of the gullies and creeks draining off the sides of this range, have been worked for gold, with rich results in places. The gold has been derived from the denudation of the three formations. The waterworn drifts of the Tertiary and Carboniferous, and the auriferous reefs in the Silurian rocks. The miners have not yet given attention to the Carboniferous conglomerates, but they have now promised to do so, as we believe that these deposits

will

will yield gold in payable quantity. The overlying Tertiary drifts have been opened in several places and gold obtained; but the bed-rock was found to be dipping towards the centre of the range, and so the deep ground has not been reached owing to the tunnels having been put in at too high levels. Stuart and party are about to put in a new drive from the eastern side of the range, and Fitzsimmons and party from the west side, both being favourable sites for striking the deep ground under the basalt, and it is anticipated that extensive and payable deposits will be met with.

Near the old Ironbarks diggings, some of the shallow alluvials have been worked on a "false bottom" of the Carboniferous pebble conglomerates from the denudation of which the gold has originally been derived.

Where the old conglomerates rest upon the Silurian slate formation, we believe they will be found payably auriferous, and it is worth while to sink through the "false bottom" to the slate-rock to prove this, as there is a considerable extent of ground occupied by the Carboniferous conglomerate.

The "Widow's Mite" reef, at Muckerawa, is again to be worked by Mitchell and party, by a shaft from the tunnel where it is supposed that the shoot of gold, which was worked near the surface, will be found to remake.

The principal gold-bearing reefs on this field occur in a belt which extends for several miles in a north-westerly direction, immediately to the east of Stuart Town.

The Goldon Gully Reef, which is being systematically worked by Mr. J. Pearse, is situated in the northern end of this belt, and almost adjoining it; to the north is the Redfern Reef, which appears to be a promising reef, of a permanent character.

To the north-west of this are numerous reefs, several of which are being worked, while others, owing to the gold occurring in them in shoots, have been more or less worked and abandoned at different times. When the mode of occurrence of the gold is better understood, doubtless many of these reefs will be again taken up and give profitable employment to many miners.

At "Gunner's Dam," about 14 miles to the south of Wellington, Gates and party are working a well defined reef, to which they have just completed a tunnel 191 feet long, and are now opening out along the line of reef about 70 feet below the surface of the hill.

We also inspected the so-called copper lodes near Wellington. The ore, consisting of rich grey sulphide and carbonates of copper, occurs in irregular masses, disseminated through the *trap* rock. There are no indications of lodes, and we consider that the ore does not occur sufficiently concentrated in the rock to be profitably worked.

We have, &c.,
C. S. WILKINSON,
W. H. J. SLEE.

The Under Secretary for Mines.

APPENDIX No. 1B.

REPORT on the Mineral Resources of the Mittagong, Bowral, and Berrima Districts, by C. S. Wilkinson, F.G.S., Geological Surveyor-in-Charge.

Sir, Geological Survey, 27 May, 1890.

In accordance with your instructions, I have the honour to submit the following report on the Mineral Resources of the Mittagong, Bowral, and Berrima Districts.

The principal minerals of economic value are coal, kerosene shale, iron ore, gold, gem-stones, including diamonds and sapphires. Besides these may be mentioned syenite and sandstone for building purposes, basalt for road metal, and brick and pottery clays.

Coal.

I have previously reported, in 1882, on the coal formation of this district; but since that report (Appendix A) was written, borings for coal have been made in several places, and a new colliery, that of the Mittagong Coal Mining Company, has been opened. The diamond-drill boring near Colo Gates pierced the coal measures beneath the Hawkesbury Sandstone formation, but the coal was found to have been burned by the intrusion of an igneous rock which is evidently an extension of the great mass forming the Gib Mountain near Mittagong, offshoots from which have disturbed the Coal Measures in various parts of the district. With the exception of some dykes of this rock seen in the railway cuttings near Colo, and a few miles to the north, the surface of the Hawkesbury Sandstone shows but little signs of disturbance; the underlying coal-seams therefore, may only be affected close to the intrusive dykes, as is the case at the Mittagong Coal-mine, and workable areas of good coal may exist between them; this, of course, can only be proved by further boring in this locality.

Another diamond-drill bore was put down in 1887 under the direction of Mr. Slee, Superintendent of Drills, near the Fitzroy Iron Works. After passing through the Hawkesbury sandstone at a depth of 650 ft. 8 in., a workable seam of coal was pierced. Mr. W. Anderson, Geological Surveyor, who witnessed the boring, reports:—(*See* Annual Report, Department of Mines, 1887, p. 159).

The following is a section of the strata passed through:—

SECTION of diamond-drill bore near Mittagong.

Depth of first coal, 605 feet.

ft	in.	
0	0	Sandstone
0	2	Bituminous coal.
2	0	Black shale.
6	2	Sandstone and grit.
0	4	Black shale.
0	5	Splint and bituminous coal.
0	9	Black shale.
0	4	Fireclay.
0	4	Black shale.
0	7	Fine-grained sandstone.
0	5	Black shale.
0	2	Fireclay.
1	2	Splint coal (inferior).
0	1	Band.
0	10	Bituminous coal (inferior).
0	1	Band.
1	8	Splint coal (inferior).
1	6	Fireclay shales.
0	4	Coaly shales.
0	7	Splint coal (strong).
0	1	Band.
0	7	Coaly shale.
0	8	Splint coal.
0	1	Band.
0	6	Coaly shale.
1	3	Splint coal.
0	1	Band.
1	4	Splint coal.
2	10	Fireclay shales.
1	6	Splint coal (strong).
0	2	Fireclay shales.
0	1	Bituminous coal.
0	1	Band.

		ft.	in.		
No. 4 Analysis	Sample G....	2	2	Bituminous coal.	
		0	5	Fireclay shale.	
		0	10	Coaly shale.	
	Sample F....	1	5	Splint coal.	
		0	3	Black shale.	
No. 3 Analysis	Sample E....	1	0	Bituminous coal.	
		0	2	Splint coal.	
	Sample D....	2	10	Bituminous coal.	
		0	1	Band.	
		0	2	Splint coal.	
	Sample C....	0	10	Bituminous coal.	
		0	2	Splint coal.	
		0	1	Band.	
		0	2	Splint coal.	Workable seam.
		0	4	Bituminous coal.	
		0	1	Coaly shale.	
No. 2 Analysis	Sample B....	3	4	Bituminous coal.	
		0	2	Band.	
No. 1 Analysis	Sample A....	5	0	Bituminous coal.	
		0	8	Coaly shale.	

The cores when brought up were considerably broken, particularly those of the bituminous and splint coals, although, taken as a whole, the core was a fairly good one. This was, no doubt, due to the fact that the special core barrel was largely used after the coal was first struck.

Four samples of the principal seams of coal gave, on analysis, the following results:—

No.	Moisture.	Volatile Hydrocarbon.	Fixed carbon.	Ash.	Sulphur.	Specific Gravity.	Coke.
1	1·35	25·77	60·06	12·24	0·56	1·347	72·30
2	1·40	24·61	59·22	14·08	0·69	1·376	73·30
3	1·65	27·87	52·30	17·40	0·78	1·420	69 70
4	1·17	19·25	47·59	31·42	0 57	1·538	79 01

From these results it will be seen that the workable portion of the seam is 8 ft. 11 in. thick, containing 8 ft. 8 in. of bituminous coal.

The following is the section of the seam, the top of which is 642 ft. from the surface:—

	ft.	in.
Roof, splint coal	.....	
Bituminous coal	0	4
Coaly shale	0	1
Bituminous coal	3	4
Band (dark)	0	2
Bituminous coal	5	0

Floor, coaly shale.

Samples Nos. 1 and 2, taken from the seam, are bright bituminous coals of good quality, containing some thin streaks of splint coal. They are fairly good coking coals, the coke swelling considerably, and becoming hard and firm.

The percentage of ash in the lower part of the seam (sample No. 1) is 12·24, and in the upper part (sample No. 2), 14·08.

This amount of ash is not excessive, and would not prevent the use of the coal for domestic and steam purposes. The colour of the ash is gray. A sample of ash, taken from the 4 in., 3 ft. 4 in., and 5 ft. coals of the workable seam, gave the following analysis:—

	In 100 parts.	
Silica	67·10	Insoluble in acids 88·42.
Alumina	21·32	
Alumina	6·37	Soluble in acids 11·58.
Protoxide of iron	4·01	
Protoxide of manganese	trace.	
Lime	0 81	
Magnesia	trace.	
Phosphoric anhydride	0·22	
Sulphuric	trace.	
Alkalies and loss	0·17	
	100·00	

The low percentage of sulphur in the coals, together with the small amount of phosphoric and sulphuric anhydride in the ash, will enhance the value of the coal for smelting purposes.

The Mittagong Coal-mine is situated on the Nattai River, about 3½ miles north-west from Mittagong, and is connected by rail with the Great Southern Railway.

The Company's line terminates at the edge of a range of Hawkesbury Sandstone, down the precipitous side of which, into the valley, about 520 feet below, an inclined tramway has been constructed to near the mouth of the mine adit, which has been driven in on the outcrop of the seam of coal.

At this point, massive diorite is seen, and for a distance of about 200 yards in the adit intrusive offshoots from the diorite extend laterally into the coal in such a regular manner that they might at first sight be mistaken for clay bands of aqueous decomposition. The adit, has, however, been extended beyond where the coal has been injured by the intrusive igneous rock, and the seam is being opened out by the able manager, Mr. May. The seam is nearly horizontal—dipping E. 10° S. at 2°, and is, therefore, convenient for working.

At a distance of about 500 yards in from the mouth of the adit I measured the following section of the seam:—

	ft.	in.	
Coal and bands (roof)	10	0	
Coal, bituminous and splint	0	8	
Coal, stony splint	0	2	
Coal, hard splint	0	10	
Coal, bright	0	2	
Parting	0	0¼	
Coal	0	5½	(B.)
Parting	0	0¼	
Coal	0	2	
Band	0	2	
Coal	1	0	
Coaly band	0	2½	
Coal	2	7	—(A.)
	6	5½	

The lower portion (A) of the seam contains the best quality of coal, and is that which the company is now supplying under contract to the Government Railway Department; but the upper portion (B) is used for local purposes. The coal is splint with layers of bright, bituminous, and occasionally anthracite. It is suitable for household, steam, and smelting purposes. Mr. W. Brazenall, Engineer, has used it in his smelting furnace at Fitzroy, in producing cast-iron from the brown hematite ores of the district. Samples of this iron, and castings—pipes, railway-chairs, &c.—made from it, Mr. Brazenall has sent to the London Mining Exhibition.

The following are analyses of average samples collected by me from portions (A) and (B) of the coal-seam. [These samples were not analysed, and the parcel containing them cannot now be found.—T.W.E.D., 8/7/90.]

Kerosene Shale, Torbanite, or Boghead Mineral.

This petroleum oil cannel coal, from which kerosene oil and other products are manufactured, has hitherto only been found in payable quantity in this district on the property of the Australian Oil and Mineral Company at Joadja Creek, whence it is connected with the Great Southern Railway at Mittagong by a line of tramway 18 miles in length. Joadja Creek flows down a valley, which has been eroded to a depth of about 500 feet through the Hawkesbury Series, the fresh-water Coal-Measures, and into the marine carboniferous strata. This once wild valley, walled in as it were by the craggy precipices of the Hawkesbury Sandstones, has been transformed into a scene of industrial activity by the extensive works of the Australian Oil and Mineral Company—a picturesque scene of mining enterprise, which strikes the visitor with surprise on reaching the head of the mountainous forest-covered plateau, over which he has travelled for several hours from Mittagong. A steeply-inclined tramway descends from the end of the main tram-line, on to the top of the sandstone escarpment, to the alluvial flats bordering the Joadja Creek, where the refining works, miners' houses, and manager's residence are situated. The seam of kerosene shale crops out on the side of the hill, about half-way down the tramway incline, as well as on the north on the opposite side of the valley. At the former, where the seam is being worked from an adit, about 300 feet in the adit, south-easterly from the entrance, I measured the following section:—

Conglomerate (roof).	ft.	in.
Bright bituminous coal	0	6
"Top" kerosene shale	0	6
Kerosene shale	2	9
"Bottom" shale, hard and splinty	0	6
Bituminous coal	0	3
Fireclay	0	6

The shale in the centre portion of the seam is hewn in large blocks, of which samples were shown at the Adelaide, Melbourne, and New Zealand Exhibitions, and are to be displayed at the forthcoming Mining Exhibition in London.

The occurrence of layers of ordinary bituminous coal associated with those of kerosene shale is an interesting feature. Small irregular patches of bright jet, and impressions of *Glossopteris* leaves and *Vertebraria* stems occur horizontally in the shale, and there are also numerous stems of *Vertebraria* in a position perpendicular to the plane of stratification, the lustrous black jet substance of these fossil-stems is in striking contrast to the duller colour of the shale enclosing them. Further descriptions of this mine, and the method of working, are given by Mr. J. Mackenzie, F.G.S., in his work, "Descriptions of Seams of Coal worked in New South Wales," published by the Department of Mines, 1887.

It is said that the richest kerosene shale gives 15,399 cubic feet of 48-candle gas per ton, and has a specific gravity of 1·098. When made into oil and its products, it yields over 130 gallons of crude oil to the ton. The following is a section of the Coal-Measures by Mr. Mackenzie at Joadja:—

	ft.	in.
Hawkesbury Sandstone	25	0
No. 1 seam of coal and bands (of no value)	19	0
Sandstone, chert, and conglomerate	75	0
Very coarse conglomerate	16	0
No. 2 seam of boghead mineral and coal, 3 to 4 feet	4	0
Sandstone and chert	12	0
No. 3 seam of heavy anthracite coal, 7 to 8 feet	8	0
Grey sandstone and thin puddingstone	.....	

From this it will be seen that the kerosene shale, or boghead mineral-seam, occurs 110 feet below the base of the Hawkesbury Series. A short distance to the east the seam appears to have thinned out, but I was informed that it had been proved in several places for over a mile to the west.

From the nature of the formation of kerosene shale (*see* paper by T. W. E. David, B.A., F.G.S., Geological Surveyor, in Proceedings of the Linnean Society, New South Wales, Vol. 4, part 4, p. 483), and its irregular mode of occurrence, there is no reason why it should not be found in places in the Coal-Measures throughout this district—such as between Joadja and Berrima, Bong Bong, and Bowral—at depths varying from 500 to 700 feet from the surface. This can only be proved by boring. It has, however, not been found in the bores near the Mittagong. In its position relative to the underlying marine beds, it appears to occupy about the same geological horizon as the kerosene shale-seam at Hartley, in the western coal-field.

Iron

Iron Ore.

Iron ore is one of the most important mineral resources of the district. The deposits occur in several different places within a radius of 5 miles from Mittagong. The principal of these are (*a*) at the Fitzroy Old Smelting Works, close to the town of Mittagong; (*b*) at Waite's Farm, on the Old Sydney Road, 3 miles easterly from Mittagong; (*c*) at Woodlands', 4½ miles west from Mittagong; (*d*) at Comer's Spring, 2½ miles east from Mittagong; (*e*) at Christie's and Comer's, 2½ to 3 miles south-easterly from Mittagong; (*f*) at Loseby's Farm, 2 miles south-south-easterly from Mittagong; (*h*) in portion C 3, adjoining Brazenall's; (*i*) at Frazer's Farm, 5 miles north-easterly from Mittagong; (*j*) at Hopewood Paddocks, between Mittagong and Berrima; (*k*) at Olbury, which, however, is 4½ miles west from the railway line at Moss Vale, or 11 miles south-west from Mittagong. Those at (*a*), (*b*), (*c*), (*d*), (*i*), and (*k*) are more or less surface deposits, which have been formed from ferruginous springs, some of which are still flowing, and depositing hydrous iron oxide. The ore varies from hard compact brown hematite to soft ochreous material, and yields on analysis from 47·2 to 61·39 per cent. of metallic iron. At (*e*) are deposits, chiefly of porous argillaceous bog iron ore, yielding on analysis from 26·77 to 52·29 per cent. of metallic iron. They have been formed from the segregation of iron oxide deposited from water permeating swampy alluvial soils. Patches of bog iron ore, sometimes of a piscolitic structure, also occur with the first-mentioned deposits. At (*f*) the ore consists of concretionary argillaceous brown hematite, formed in irregular lenticular layers in Tertiary strata, outcropping on the sides of hills capped with basalt. An analysis of an average sample of this ore from Loseby's Farm yielded 46·75 per cent. of metallic iron. Similar concretionary ore occurs in the Tertiary strata on Fraser's and Dougherty's farms, though not of so good quality. At (*g*) "Brazenall's lode," the ore consists of argillaceous brown hematite, filling joint fissures in the sides of felspathic dykes, intruding the Hawkesbury Sandstone formation. An analysis of this ore yielded 44·46 per cent. of metallic iron. There is a small patch of the same class of ore, containing also a little red hematite ore, near the junction of Gibber Gungah Creek and the Nattai River. At (*h*) boulders of compact brown hematite crop out here and there from the surface soil. A sample yielded on analysis 59·05 per cent. of metallic iron. No prospecting has been done here to ascertain the extent of this deposit.

Analyses of the abovementioned ores are given in the following table:—

BROWN HEMATITE.

Description.	Mittagong.	Mittagong—Butler's Property.	Mittagong—Fitzroy Mine.	Mittagong—Fitzroy Mine.	Mittagong—Fitzroy Mine.	Mittagong—Waite's Property.	Mittagong—Loseby's Property.	Mittagong—Fraser's Property.	Mittagong—Brazenall's Property.	Berrima.
			Raw.	Calcined.						
Hygroscopic moisture	...	1·66	.....	.....	.....	1·82	1·55	3·68	.....	...
Loss on ignition	10·43	...	.....	.....	.....	.....	.....	.....	.....	15·47
Combined water	.....	11·60	10·80	.....	12·00	12·20	10·55	6·35	.....	.....
Iron peroxide*	73·67	84·36	80·00	72·00	81·25	79·64	66·78	50·25	.....	82·54
Iron protoxide	.....	.....	.....	14·14	.....	traces.	.....	trace.	.....	.....
Manganese protoxide	6·83	0·09	3·40	1·00	.....	traces.	·88	trace.	.....	.....
Alumina	9·07	.....	4·40	11·20	3·45	1·17	6·92	14·27	.....	·84
Silica	.....	.....	.....	.....	3·20	4·70	12·87	23·78	.....	.....
Magnesia	.....	traces.	.....	1·12	.....	traces.	·13	·32	.....	.....
Lime	.....	traces.	1·00	.....	traces.	traces.	·17	1·15	.....	.....
Phosphoric oxide	traces.	traces.	.....	.....	.....	traces.	trace.	.....	.....	·63
Sulphur trioxide	.....	traces.	.....	.....	.....	traces.	trace.	.....	.....	.....
Titanic acid	.....	.....	.....	.....	.....	.....	trace.	trace.	.....	.....
Sulphur	.....	.....	.....	.....	minute traces.	.....	.....	.....	.....	.....
Insoluble in acids	.....	.....	.....	.....	.....	.....	.....	.....	.....	·52
Loss, undetermined, &c.	.....	2·30	.....	.....	0·10	.....	.....	.....	.....	.....
Total	100·00	100·01	99·60	99·46	100·00	99·53	99·85	99·80	.....	100·00
*Equal to metallic iron	51·57	59·05	56·00	61·39	56·75	55·74	46·75	35·17	.....	57·8
Analyst	Govt. Analyst.	Govt. Analyst.	Noad.	Noad.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	.....	.....	Govt. Analyst.

Description.	Berrima.	Berrima—Atkinson's Property.	Goulburn.	Joppa, near Goulburn.	Kingsdale, near Goulburn.	Norwood, near Goulburn.	Norwood, near Goulburn.	Norwood, near Goulburn.	Norwood, near Goulburn.	Willeroo, Lake George.
Hygroscopic moisture	2·50	1·94	1·56	1·48	2·00	·50	1·57	1·50	·35	·57
Loss on ignition	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Combined water	10·57	11·31	11·43	11·40	10·84	2·76	11·50	10·82	2·12	10·55
Iron peroxide*	67·42	83·10	80·60	69·44	71·37	76·32	68·47	74·20	85·91	84·55
Iron protoxide	.....	.....	traces.	traces.	.....	11·23	.....	.....	5·59	.....
Manganese protoxide	.....	.....	traces.	traces.	1·06	traces.	traces.	traces.	traces.	traces.
Alumina	3·43	1·05	3·35	6·16	2·04	3·04	5·54	4·31	2·18	1·14
Silica	15·52	.....	.....	.....	11·65	6·25	11·85	8·70	3·80	2·47
Magnesia	traces.	traces.	.....	1·05	traces.	traces.	traces.	traces.	traces.	traces.
Lime	traces.	traces.	.....	traces.	traces.	traces.	traces.	traces.	traces.	traces.
Phosphoric oxide	traces.	traces.	1·35	1·30	·74	traces.	·89	·51	traces.	·66
Sulphur trioxide	·13	traces.	traces.	traces.	traces.	traces.	traces.	traces.	traces.	traces.
Titanic acid	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sulphur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Insoluble in acids	.....	2·50	1·90	7·50	.....	.....	.....	.....	.....	.....
Loss, undetermined, &c.	·53	.....	.....	2·07	.....	.....	.....	.....	.....	.....
Total	100·10	99·90	100·19	100·40	99·70	100·10	99·82	100·04	99·95	99·94
*Equal to metallic iron	47·2	58·17	56·32	48·60	49·96	62·15	47·93	51·94	64·48	59·18
Analyst	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.

Bog Iron Ore.

Description.	Mittagong.	Mittagong. Butler's Property.	Mittagong. Waite's Property.	Mittagong. Waite's Property.	Mittagong. Hopewood.	Mittagong. Comer's Property.	Mittagong. Fraser's Property.
Hygroscopic moisture	3·00	1·20	2·20	2·30	4·69	5·37	3·68
Loss on ignition	.....	.....	.....	.....	.....	.....	.....
Combined water	9·72	10·38	9·70	10·86	6·61	7·93	6·35
Iron peroxide*	68·37	57·61	74·71	65·84	44·28	38·24	50·25
Iron protoxide	traces.	.....	.....	.....	trace.	trace.	trace.
Manganese protoxide	traces.	6·41	traces.	1·40	trace.	trace.	trace.
Alumina	4·63	24·30	3·04	4·49	9·16	11·55	14·27
Silica	14·10	.....	10·10	14·27	34·49	36·13	23·78
Magnesia	traces.	traces.	·43	·48	·07	·23	·32
Lime	traces.	traces.	traces.	traces.	·16	·24	1·15
Phosphoric oxide	traces.	traces.	traces.	·25	.....	.....	.....
Sulphur trioxide	traces.	traces.	traces.	·11	trace.	trace.	trace.
Titanic acid	.....	.....	.....	.....	·66	·31	trace.
Sulphur	.....	.....	.....	.....	.....	.....	.....
Insoluble in acids	.....	.....	.....	.....	.....	.....	.....
Loss, undetermined, &c.	.....	.....	.....	.....	.....	.....	.....
Total	99·82	99·90	100·18	100·00	100·12	100·00	99·80
*Equal to metallic iron	47·86	40·32	52·29	46·08	30·99	26·77	35·17
Analyst	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.	Govt. Analyst.

The following is the estimated quantity of ore in sight in the abovementioned localities; very little prospecting has been done to test the extent of the deposits:—

	Tons.
(*a*) At the Old Fitzroy Smelting Works, Mittagong	438,900
(*b*) At Waite's Farm	301,200
(*c*) At Woodland's, Butler's	522,500
(*d*) At Comer's Spring	287,300
(*e*) At Christie's and Comer's Farms	661,100
(*f*) At Loseby's Farm	133,700
(*g*) At Brazenall's Lode	100,800
(*h*) At portion C. 3	8,600
(*i*) At Fraser's Farm	20,500
(*j*) At Hopewood Paddocks	49,500
(*k*) At Oldbury (Atkinson's)	324,300
Total quantity of ore in sight	2,851,400

This quantity of ore is inconsiderable as compared with that annually smelted in some of the large iron works in England; but seeing that it might be supplemented by ore from the deposits in the Goulburn District, there may be sufficient to warrant the establishment of smelting works near Mittagong for the supply of the demand that may arise for many years to come.

The loose powdery iron oxide from the Mittagong deposit (*a*) is sometimes sent to Sydney for use in the gas-works. The yellow and reddish-brown soft ochreous ore in several of the spring deposits, such as those at (*b*) Waite's Farm, would be well adapted for the manufacture of paints.

Gold.

Gold has been worked only to a limited extent in this district, and though it may be found wherever the intrusive pyritous diorite rocks come to the surface, as along the Nattai River below Mittagong, and in the river gravel-drifts, it is not likely to occur in payable quantity. It has been worked in the ordinary way by shafts and surfacing over a small area occupied by an outlier of Tertiary drift, and the recent alluvial derived therefrom at the Mittagong Diamond Mine, near the Nepean River; and this patch of ground would probably pay to rework by hydraulic sluicing, if a sufficient supply of water be provided; but it could all be worked out within a few years.

Gem Stones.

Sapphires and zircons occur in some quantity in the drift deposits. Mr. Wilshire, P.M. of Berrima, obtained many from the Berrima or Wingecarribee River gravels, a collection of which, and also some sent by Mr. H. E. Southey from the Mittagong Diamond Mine, may be seen in the Mining and Geological Museum, Sydney. The sapphires have been found of all sizes up to nearly 1 inch in diameter; but, with few exceptions, they are either so much discoloured or flawed as to be useless for jewellery purposes. Green sapphires or oriental emeralds are often met with, but so far have been too small to be of value. The zircons obtained, though of good colour, are also too small. Valuable stones of both sapphires and zircons are likely to be found. Spinelle and other minerals are usually associated with these.

The "Diamond Mine," so called, is situated about 7 miles south-easterly from Mittagong, on a Creek flowing into the Nepean River. Here there is a small isolated patch about 300 feet in diameter of fine and coarse pebble drift, the remnant of the bed of a stream which, in the Tertiary period, flowed across the Hawkesbury sandstone formation. It was probably the old channel of the Nepean River before it had been diverted and eroded to form the present valley. The drift rest upon a stiff clay, which forms the surface of a pipe-dyke mass of volcanic breccia, intruding the Hawkesbury formation. For several years it has been more or less worked for gold, when, during the process of washing, diamonds were discovered. It is said that they were obtained chiefly from the stiff clay at the bottom of the drift. Mr. Southey, who with Mr. Dunstan, holds the ground, informed me that thirty-three diamonds had been found, the largest weighing $2\frac{3}{4}$ carats. I saw some of these diamonds which were chiefly well formed octahedra of the "first water," the others being a pale yellow colour. If systematic search were made here, doubtless many more will be found. Whether the diamonds have been transported with the old Tertiary drift from

from some formation higher up the Nepean Valley, or have been derived from the volcanic breccia on which the drift rests, or from the Hawkesbury sandstones and shales, where they have been altered by contact with the intrusive volcanic rock, has not been definitely ascertained; but it is probable that the breccia is their source. Messrs. Southey and Dunstan are about to sink a new shaft in the breccia to determine, if possible, this interesting question. The breccia contains small fragments of coal and in some respects resembles the diamondiferous rock of the Kimberley field in Africa. As there may be other volcanic pipes intruding the coal-measures and Hawkesbury-Wianamatta Series in this district, the drift deposits in the different valleys should be prospected for diamonds, especially those gravels forming the flats Bong Bong, near the Berrima River, between Bowral and Moss Vale. Possibly the diamonds may have been formed by the metamorphism of the carbonaceous material in the Coal Measures, and overlying Hawkesbury—Wianamatta Series by the heat and pressure induced by the intrusion of the syenite and dionite masses, or of the more recent volcanic rocks, of which there are such remarkable and interesting examples in this district.

Road Metal.

The basalt capping the hills here and there in several parts of the district yield abundance of "blue metal," of excellent quality for road-making.

Brick and Pottery Clays.

These occur in many parts of the district, especially where the surface of the country consists of the Wianamatta formation. Hitherto, bricks have been made only from clays in the recent alluvial deposits; but the decomposed clay shales of the Wianamatta beds, which form the flanks of most of the hills between the Gib Railway Tunnel and Moss Vale, will afford an inexhaustible supply of good material for brick and pottery manufacture. Similar clay-shales occur in patches interbedded with the Hawkesbury sandstones, and pipe-clay is likely to be found in the Tertiary beds under the basalt in the hills near Loseby's and Fraser's Farms, and between Bowral, Berrima, and Moss Vale. Some of the clay deposits will probably be found suitable for fire-bricks.

Syenite and Sandstone.

Syenite (or "Trachyte," as it has been sometimes called), which forms the high range named the "Gibraltar" or "Gib Rock," between Bowral and Mittagong, is now quarried at Bowral, and may be obtained in blocks of any size required, in fact monoliths 50 feet long might be quarried. For foundations of buildings, and its resistance to the disintegrating action of sea-water, this rock is far superior to the Sydney sandstone. The piers of the Great Northern Railway viaduct over the Hawkesbury River are constructed of it. For further description of this valuable building stone see my previous report of 29th December, 1888 (*Appendix* B). The rock in places passes into diorite, as on the Mittagong River, and into a dark porphyry near Moss Vale, which would take a high polish.

Sandstone for building purposes occurs chiefly at Mittagong and Berrima, in the Hawkesbury Series. It is of the same formation and character as that so extensively used in Sydney for the large public buildings.

Soils.

Amongst the important mineral resources of this district, I must mention soils, which, of course, are of interest rather from an agricultural than a mining point of view. The basalt or "trap" formation which forms most of the highest lands, produces some of the richest soil, especially adapted for potato growing. I saw a splendid crop of potatoes on the high flat-topped basalt hill on Fraser's Farm. The Hawkesbury formation gives rise to porous sandy soil which, when well drained is suitable for orchards. The Wianamatta shales decompose into stiff clayey soil, which when deeply trenched is well adapted for fruit-growing. The syenite produces an inferior sandy clay soil; but the diorite yields a good soil, chocolate coloured. The alluvial deposits being derived from the denudation of one or all of these rocks through which the valleys have been eroded, vary in richness according to the nature of the formation, or formations which have supplied the material of which they are chiefly composed. With such variety of soils in a climate favoured with a good rainfall and moderate temperature, the agricultural resources of the district will increase in importance the more they are developed on scientific principles.

I have, &c.,

C. S. WILKINSON,

The Under Secretary for Mines. ——————— Geological Surveyor-in-Charge.

APPENDIX No. 1C.

Report on Mining Appliances, &c.

Sir, Edinburgh, 28 August, 1890.

The arrangement of the New South Wales mineral exhibits, at the International Mining Exhibition, London, having been completed, I have the honor to inform you that in accordance with your instructions I am now making inquiry in reference to the latest improved methods applicable to New South Wales for the treatment of ores, coal, &c., met with in the Colony.

In the machinery hall, at the Mining Exhibition, there are several new crushing plants for both wet and dry processes, and also a very promising dry ore concentrator on a centrifugal principle. I have arranged for trials of these machines, to be made with certain classes of ores on my return to London.

I have inspected the Wear Patent Fuel Works at Sunderland, near Newcastle-on-Tyne, where about 200 tons of coal briquettes are manufactured per nine hours from the small coal obtained from the collieries in the neighbourhood. The coal is crushed to a certain degree of fineness, mixed with 10 per cent. of pitch, and moulded by steam pressure into briquettes of various sizes. The larger size, 19 lb. in weight, is preferred for steam-engines, and the smaller are retailed in London for household purposes at 1d. for briquettes of 6 lb., and ½d. for those weighing 3 lb. The appliances for making this patent fuel have been compactly arranged under the direction of Mr. Johnstone, who kindly showed me them. They are very automatic. The coal is not handled from the time it is tipped out of the colliery railway trucks until it leaves the moulding-machine in the form of briquettes, which are delivered on to endless belts, and thence carried by these to be stacked, or else direct into the ships berthed alongside the works, so that there is the greatest economy of labour in their manufacture. On account of their rectangular shape, like bricks, they can be very compactly stacked, 1 ton of briquettes occupying much less space than the same weight of

of ordinary coal pieces, which is an important consideration for stowage in vessels and on locomotives. The price of the best Northumberland coal is here 13s. to 13s. 6d. per ton, that of the briquettes, 14s. 6d. At these works various bye-products—anthracine (worth £40 a ton), carbolic acid, &c., are made from what remains from the coal-tar after the pitch has been extracted from it for the briquette process, so that there is no waste. I was informed that the cost of a similar briquette machine, exclusive of steam-boiler, belts, and travelling belts, would be about £3,000; and that of a tar-distilling appliance, capable of producing 18 tons of pitch per day, would be about £4,000. The pitch is worth 25s. per ton, 18 tons being made from 6,600 gallons of Durham coal-tar.

I next inspected the coal-cleaning appliances at the Ashington Colliery, the largest colliery in the district. From this mine there are a daily output of 3,000 tons of coal, and 2,000 men and boys are employed. The coal at the pit's mouth is tipped on to screens to part the "large" from the "small." The large coal then falls on to a wide endless travelling belt, on each side of which stand boys who pick out the "dirt" fragments, while the belt carries on the coal and precipitates it direct into the railway trucks for transit to shipping port.

The small coal is elevated by buckets on an endless belt, at the turn-over or highest point of which stands a man to divert, by means of a drafting shutter, the contents of any bucket that may contain wet coal into a shoot leading to the heap of uncleaned coal, as the wet coal would clog the screens; but the dry coal passes over double screens and is cleaned into marketable "nuts" and "duff," which are conducted by shoots into separate railway trucks ready for transit. The whole process of cleaning is automatic, and is said to cost only about 1d. to 1½d. per ton. I understand that a similar plant is about to be erected on one of the coal-fields of New South Wales.

The coal is wrought partly on the pillar and bord system and partly on the long-wall, from two seams, one 3 feet 11 inches thick at 221 feet depth; the other 6 feet 6 inches thick at a depth of 533 feet. No coal-cutting machinery is used in the mine, excepting ordinary screw augers worked by hand from an upright frame fixed against the floor and roof for making holes for blasting by powder.

I also inspected the "Luhrig" patent coal-washing process at the Bardykes Colliery, near Glasgow (Messrs. Cunninghame's). The large coal after being screened from the small coal falls on to a horizontal endless belt, when the dirty lumps are picked out by boys, as at the Ashington Colliery, while the coal travels on to be delivered into the railway trucks. The "small" passes into a revolving screen, which, having three divisions, assorts it into sizes, each size passing into different water tanks and then over screens, with clean water falling on them, to the trucks for transit. The lumps of dirty coal with pieces of rock and "brass" (pyrites) attached are passed into a crusher; and thence, with the sludge water from the first washing, into tanks, which have a perforated bottom, through which water is forced with an upward pulsating action, as in the Willoughby tin ore dresser, and separates the particles of coal from the earthy and pyritous matter. The final waste sludge contains only about 1 per cent. of coal.

The small coal before being washed contains about 20 per cent. of ash. The washed nuts contain 4 per cent. of ash, and the finest dust coal, saved from the sludge, 8 per cent. About one half of the quantity of coal raised from the mine is screened as small, under 2 inches in size, which, in its unwashed state, is worth only 4s. 6d. per ton at the pit, the price of the "large coal" being 9s. per ton. The great advantage of using this Luhrig washing process are at once seen in the enhanced value of the cleaned "small coal": Thus the largest size under 2 inches, called "treble nuts," is worth at the pit 7s. 6d. to 7s. 9d. per ton; the "doubles," or next smaller size, 6s. 6d. to 6s. 9d. per ton; the "singles," 5s. 6d.; and the "pearls," 4s. per ton.

The total cost of screening and cleaning is said to be only about 1d. per ton. The coal, which is bituminous splint, is raised from two seams: one 3 feet 6 inches to 4 feet thick at a depth of 1,236 feet, the other 3 feet 3 inches to 3 feet 6 inches thick at a depth of 1,308 feet; the seams are worked on the long-wall system, and all the coal is taken out. At the neighbouring Motherwell Colliery is a still larger Luhrig plant in operation, capable of washing 1,500 tons of coal per day.

I need not point out what an advantage this coal-washing process would be in New South Wales, especially in the outlying districts, for treating the "bandy" seams which cannot, in the ordinary way, be profitable worked, such as the Ballimore seam, near Dubbo, which contains, between its numerous bands, coal equal in quality to that of Newcastle—thus ensuring a supply for the copper-smelting works of Cobar and Nymagee, &c.; the thick coal-seam at Coaldale, near Grafton; besides other seams in our northern, western, and southern coal-fields. And if to the washing process be added the manufacture of briquettes, the coal supply of the Colony would be greatly improved, especially for the inland towns, as Goulburn, Wagga Wagga, Albury, Bathurst, Orange, Bourke, Armidale, &c., not only for household purposes, but also for the railway and manufactories.

At Glasgow I was shown over the extensive works of the Steel Company of Scotland, where 200,000 tons of steel plates, rails, castings, &c., are annually made. In the manufacture of these about 2,000 tons of ferro-manganese are employed, at a cost of about £11 per ton. As New South Wales contains rich deposits of ferro-manganese ore it is probable that the required steel-making product could be profitably smelted in the Colony, and exported until future Colonial works need a supply.

I also took the opportunity when at Glasgow of seeing in operation the Pollok Chlorination Works for treating gold ores; also the wet cyanide of potassium process (Macarthur and Forrest's), worked by the Cassell Gold Extracting Company. I also inspected the large Tharsis Copper Extracting Works, where the wet process for treating poor copper ores is used. The principal lead, silver, and antimony work on the Tyne I have seen, but I have not time to describe these in time for the mail, which leaves for Australia to-day.

The splendid display of our mineral exhibits at the Mining Exhibition is creating much interest, and will, I am confident, greatly benefit the Colony. I have had many inquiries from capitalists and others respecting our various mineral deposits, and Mr. J. E. Carne, the Curator, who has worked in the most praiseworthy manner in arranging the exhibits, is in constant request at the Exhibition, giving information to inquiring visitors.

Next week I purpose reading an address before the Leeds meeting of the British Association on the mineral resources of New South Wales.

I have, &c.,

C. S. WILKINSON,

Geological Surveyor-in-charge.

The Under Secretary for Mines, Sydney.

APPENDIX No. 1D.

Report on Mining Appliances, &c.

Sir, Leeds, 4 September, 1890.

In accordance with your instructions that I should inspect processes, which may be advantageously used in the development of the mineral resources of the Colony, I have the honor to inform you that when at Glasgow I witnessed in operation the "Pollok Chlorination Process," for the treatment of gold ores. The essential points in this process are that the ore is treated in a chlorine solution subject to a pressure of about 100 lb., that the gold is subsequently precipitated from the solution by means of ferrous sulphate, instead of charcoal filters, and that the reagents used—bleaching powder, nitre cake, and ferrous sulphate—are in a dry state, and, therefore, easily carried. There are also special features in the construction of the appliances. For instance, the revolving chlorination cylinder or barrel is made of thin steel plates, lined with soft sheet indiarubber, thus combining strength with lightness, and the indiarubber prevents the steel from being attacked by the chlorine. This is certainly a very efficient arrangement. The ore is crushed, roasted (at these works in a revolving reverberatory furnace), to drive off sulphur, &c., and to convert hydrous ferric oxide into anhydrons. A charge of $1\frac{1}{4}$ tons is then put in the chlorination cylinder with 1 per cent. of bleaching powder, and $1\frac{1}{2}$ per cent. of nitre cake; water is admitted from a hydraulic supply-pipe until the air is expelled through a valve opened on the top; the valve is then closed, the cylinder revolved, and the required hydraulic pressure continued throughout the operation, as the high pressure induces the retention of the chlorine in solution, and its penetration into the ore-particles to attack the gold. After a sufficient time the ore and gold solution are withdrawn and separated by filtration, and the gold precipitated from its solution by the addition of $1\frac{1}{2}$ per cent. of ferrous sulphate. Mr. Pollok states that he can guarantee this process will extract 95 per cent. of the gold present. The consumption of chemical reagents is about 5 per cent. the weight of the ore; and the whole cost of treatment is said to be under £1 per ton. Of course, the carriage of the reagents for a long distance to the mine would considerably increase the cost. "The Australasian Gold Extraction Company," of Glasgow, have taken up the patent, and are erecting "Customs" works at Charters Towers, Queensland, which will be completed by the end of this year; so that the Australian public will have a favourable opportunity of witnessing the efficiency of the process upon a large scale.

I next inspected the "Macarthur Forrest" process, which is being worked at Glasgow by the "Cassel Gold Extracting Company (Limited)." The ore is finely crushed, and, whether pyritous or not, does not require to be roasted. It is put into a large vat or tank of water, having from $\frac{1}{2}$ to 1 per cent. of cyanide of potassium in solution; the exact quantity of cyanide required is first ascertained by actual experiment in a small testing apparatus. After agitation of the ore by rotating-stirrers in the vat for a few hours, the solution is filtered as it is drawn off, and is then passed slowly through a vessel containing shavings of metallic zinc, which liberates the gold and silver in a metallic state. The process is an exceedingly simple one, and easily manipulated by unskilled workmen; but great care is needed in determining the proper proportion of cyanide required to use in the solution for various kinds of ore, and, as some ores require different lengths of time for treatment, the tailings have to be assayed, and if the gold is found not to have been sufficiently extracted the process has to be repeated. The average consumption of cyanide is about 0·5 per cent. the weight of the ore, and the cost of treatment is said to be about £1 to 30s. per ton. I was informed that this process was being tried at Ravenswood, in Queensland, and in New Zealand, as well as on the African gold-fields.

I also was shown over the works of the Tharsis Copper-smelting Company, at Glasgow, where annually some 35,000 tons of low-grade sulphide of copper ore from Spain, averaying only about $3\frac{1}{2}$ per cent. of copper, are economically treated by a wet process, which extracts also any gold and silver present. This company has similar works in other localities operating upon 20,000 tons of ore annually. Such a process might be readily applied for the treatment of the large quantity of low-grade copper ores in New South Wales.

I next visited one of the oil-shale mines, near Edinburgh, where a seam of shale 7 feet thick is worked at a depth of from 360 to 648 feet. About 350 tons of shale per day are raised and retorted at the works. The shale contains over 50 per cent. of ash, and yields about 30 gallons of crude oil per ton. The manager informed me that the crude oil yielded 27·96 per cent. of lamp oil, of specific gravity, 808; 29·17 per cent. of lubricating oil, of specific gravity, 879; and 15·17 per cent. of crude parafine, melting at 115 degrees. Notwithstanding the small yield of oil from this shale, it is profitably extracted; some of our unworked kerosene shale-seams should compare favourably with the above, though the thickness of the seams in the Colony is certainly less.

I visited the lead, silver, and antimony works of Messrs. Cookson, at Howdon, on the Tyne River, where 200 tons of lead and silver bullion are treated weekly. This bullion comes chiefly from New South Wales, and a much larger trade might be done if the metal were forthcoming. The company would be prepared to take lead ore, dressed to 60 per cent. lead and 30 ounces of silver per ton, and would erect special works if they could obtain sufficient quantity of ore. They are also ready to take large supplies of our antimony.

Mr. F. Ellershausen, of Newcastle, kindly showed me over his caustic soda and alluminium works on the Tyne. He has here introduced a process for the extraction of gold and silver from zinc ores, which can be economically worked in connection with the caustic soda manufacture. The zinc ore is mixed with 25 per cent. of galena, if it does not already contain that quantity of galena, and after being crushed is put in a reverberatory furnace and heated to a red heat, when from 35 to 50 per cent. of caustic soda (the crude refuse from the soda works) is added. The whole mass fusing, the galena readily gives up its sulphur to the soda, and metallic lead is produced, which, with the gold and silver, sinks to the bottom, the sulphide of iron, copper, and zinc remaining in the slag. The lead is drawn off and cupelled, and the slag, on exposure to the air, rapidly crumples to powder owing to the caustic soda present, which is afterwards removed by lixiviation, and can be used over again, while the metallic sulphides can be treated by the usual methods. The ore should previously be concentrated to remove quartz, as the soda would be wasted in forming silicate of soda and not recoverable. I specially requested to see this process, which appears to be a very simple and effective one, as I believe that it will be well adapted for working the zinc sulphide ores of Broken Hill, Castle Rag, Moruya, and of other localities in the Colony, and thus lead to the working of those lodes which, owing to the presence of large quantities of sulphide

of

of zinc with the silver, have hitherto been unprofitable. Mr. Ellershausen informed me that the zinc saved should pay for the cost of working. The Alkaline Syndicate, London, holds the patent rights of this process.

At the asbestos works at Glasgow, I ascertained that there is a good demand, at £50 per ton, for asbestos of fine, flexible fibre, such as that which was obtained some years ago near Gundagai, and of which there are good specimens in the Mining and Geological Museum, Sydney.

I have, &c.,
C. S. WILKINSON,
Geological Surveyor-in-Charge.

The Under Secretary for Mines.

I will forward you all detail descriptions of the above-mentioned processes that I can obtain.

APPENDIX No. 1E.

Report on Mining Appliances, &c.

New South Wales Court, International Mining Exhibition,
London, 17th September, 1890.

Sir,

I have the honour to inform you that since reporting to you on the 4th instant, in reference to mining appliances which might with advantage be introduced into New South Wales, I have inspected several mining works in South Wales. In doing so I availed myself of an invitation to accompany the members of the Mining Association and Institute of Cornwall, including the Vice-President, Captain Josiah Thomas, and about forty others. To meet so many gentlemen specially interested in matters affecting more or less the development of mining in our own Colony, I thought it desirable that Mr. Carne, the Curator of our Mining Museum, should go with me; and I trust that the information we have been able to impart regarding our mineral resources will be of benefit to the Colony.

We visited the Cymmer Colliery, near Cardiff, and witnessed some important experiments with various kinds of explosives, for the purpose of determining whether they could be used with safety for blasting coal in the presence of gas in a mine. The appliances used were effective, simple, and on a practical scale. A large boiler, 18 feet long and 6 feet in diameter, with one end taken off, was employed to represent the drive in the mine. In the closed end was inserted a block of steel, 2 feet 8 inches long, in which a hole 2 inches in diameter was drilled to a depth of 2 feet. In this the explosive was placed and fired, as in an ordinary drill-hole in the coal. The boiler was partitioned off with stout canvas near the middle, so as to enclose a space to contain 300 cubic feet of mixed air and gas, the latter being in the proportion of 10 per cent. The gas from the mine was conducted through a large meter by means of which the exact quantity was measured before being admitted into the boiler. A small revolving fan in the boiler was set in motion for a few minutes to thoroughly mix together the air, gas, and some coal dust. These appliances are comparatively inexpensive, the chief cost being that of the gas meter.

In the first experiment a charge of 8 ounces of *Carbonite* was inserted in the drill-hole. To show that the gas was present, a lighted safety-lamp held for one or two seconds just inside the canvas screen was immediately surrounded by a bluish flame. The "shot" was then fired by electricity, resulting in a heavy explosion without igniting the gas. The second experiment was with a charge of 1 pound of compressed *Black Powder;* the third, with 6 ounces of *Roburite;* the fourth, with 8 ounces of *Ammonite;* the fifth, with 8 ounces of securite; which were each fired under precisely similar conditions as those of No. 1 experiment, but the result in each case was that the exploding charge at once ignited the gas, and a large volume of flame and smoke issued with great violence from the open end of the boiler, almost resembling the firing of a huge cannon, and demonstrating the instant powerful effect of a gas explosion in a mine. The sixth experiment was a repetition of the first, but with a larger charge, 10 ounces, of *Carbonite*, and the result was again a very heavy explosion without igniting the gas or the coal dust, which latter was simply blown out of the open end of the boiler as a black cloud. In each experiment a shovelful of coal dust was thrown into the chamber, and, by means of the fan, was mixed with the air and gas to present the actual conditions of the dusty air in the mine, and to more thoroughly test the efficiency of the explosive, as coal dust is a dangerous element in connection with gas explosions in mines. I entered the boiler after the firing of the *Carbonite*, and found the particles of coal dust adhering to the sides of the boiler quite unaltered, nor did I perceive any unpleasant smell; but after the firing of those charges which ignited the gas, the coal dust was partly burned into coke, thus showing the effect upon it of the heat from the sudden ignition of the gas. From these important experiments it would appear that *Carbonite* is a safe material to use for blasting coal in the presence of gas. I must, however, state what the manager informed me, that out of seventy similar tests with *Carbonite*, in one instance the gas was ignited, and this, therefore, must not be disregarded in estimating the freedom of this explosive from danger, but as this test followed the firing of a charge of *Roburite*, it is thought that some lighted cinders left from the latter may have caused the ignition of the gas when the *Carbonite* was fired; but this is, of course, uncertain. However, it may be stated that *Carbonite* has been succesfully used during the past six months for blasting coal in the Cymmer Colliery, which yields considerable quantities of gas from the seams of steam coal; in fact, the gas is conducted into a receiver, and then utilised for illuminating purposes about the mine works. I was informed that on a previous occasion *Gelatine*, when similarly tested, had ignited the gas, though the *Gelatine Water-Cartridge* did not; but the *Water-Cartridge* is not so powerful. The breaking effect of *Carbonite* is said to be about equal to that of *Black Powder*, but less sudden; consequently, powder and other quick explosives may, perhaps, be more effectual for hard rock-blasting than *Carbonite*, which has superior qualities for breaking coal, especially in the presence of gas. At the Cymmer Colliery three seams of coal, varying from 4 feet to 6 feet 6 inches thick, are being worked at depths of 780, 840, and 1,260 feet respectively. They are worked on the "Long-wall" system. After the coal skips are raised to the pit's mouth they are then drawn up an inclined tram-line to the top of the screens by an endless travelling belt fitted with cam-like projections, which enter the under-carriage of the skip or trucks; on reaching the top, the belt turns downwards, leaving the skip to run on, by the momentum it has acquired, to the edge of the screens to be emptied. The "empty" runs back on to a self-acting steam-lift, which is set in motion by the skip pressing against a steam-valve; the skip being by this removed to another line, runs off to the pit's mouth, while the lift returns at once to receive another empty skip. This appliance is not new, but it is generally adopted at these collieries, as it effects a great saving

saving in manual labour, and, therefore, lessens the cost of production of the coal. The output from the mine is 1,300 tons per day of nine hours. The mine is ventilated by an exhaust fan, 40 feet in diameter, drawing 250,000 cubic feet of air per minute.

We next visited the Great Western Colliery, where the seam of coal is worked on the "Long-wall" system, at a depth of 1,260 feet. The main workings in this mine are lighted by electricity, but no portable electric lamps are used by the miners. I was informed that in another colliery 200 portable electric lamps were used, but, not being found so convenient as the old lamps, their use was given up. Schielie's patent exhaust fan, 15 feet in diameter, running at 160 revolutions per minute, draws 200,000 cubic feet of air per minute. At this colliery about 1,100 tons of coke are made in a week, in 120 of the "Coppee coke ovens." For coking, the "small coal" from the screen is first washed on tables with perforated iron bottoms, through which water is forced up in a pulsating movement, which causes the heavy fragments of stone bands and dirt to sink, while the coal runs off into shoots; the larger "nut coal" is crushed and mixed with the fine coal, and a large Archimedean screw carries it off to a bunker where it is dried ready to be coked. The washing process reduces the percentage of dirt or ash in the "small coal" from 18 per cent. to about 4 per cent., and leaves about 4 per cent. of coal in the refuse. The washing is said to cost about three pence per ton, and to raise the value of the coal from about five to seven shillings per ton; 28 cwt. of the coal yield 1 ton of coke. There is a large export of coke from South Wales. With careful attention to the mode of making coke, I believe that the New South Wales coals would yield a furnace coke equal to the English in quality for sustaining the pressure of the ore in a smelting furnace, though containing a larger percentage of ash.

At the Deep Navigation Colliery, where 1,200 tons of coal per day of nine hours are raised from a depth of 2,175 feet, the surface machinery is of the finest description; the massive winding gear alone is said to weigh 110 tons, including the wire rope 5 inches in circumference. The two "pulley wheels" at the top of the head gear are each 20 feet in diameter, and are splendidly constructed for strength and lightness. At my request the surface manager, Mr. T. C. Hair, kindly supplied me with drawings and specifications of the "pulley," which I will forward to you. Mr. Rees, the Managing Engineer for the company, also gave me a photograph, showing a general view of the construction of the head gear. Two 45-inch air-compressing cylinders force air, at a pressure of 60 pounds, down into the mine to work eighteen drawing and pumping engines. The large pumping engine at the surface has a cylinder 100 inches in diameter, with piston stroke of 11 feet; it pumps 400 gallons of water per minute from a depth of 2,280 feet.

We also visited the Llanbradach Colliery to inspect the method adopted for drawing water from a shaft during the sinking of it. At the surface a steam-engine exhausts the air from an iron boiler, 20 feet long and 5 feet in diameter, to a pressure of from 10 to 15 inches of mercury. From this "vacuum," or exhaust-boiler, a pipe is carried down the shaft. An air-tight "bucket," capable of holding 600 gallons, is lowered to the water at the bottom of the shaft, and connected with the pipe from the "vacuum." A valve at the bottom of the "bucket" is then opened and the water rushes in. When the "bucket" is full, the valve is closed, the exhaustion pipe disconnected, and the water lifted bodily. This shaft has been sunk to a depth of 1,620 feet, under the direction of Mr. Galloway, who has published an account of his method of sinking, of which I send you a copy.

I have, &c.,
C. S. WILKINSON,
Geological Surveyor-in-Charge.

The Under Secretary for Mines.

APPENDIX No. 1F.

REPORT on mining appliances, &c.

International Exhibition of Mining and Metallurgy, Crystal Palace, Sydenham,
2 October, 1890.

Sir,

In continuation of my report on my visit to the mining districts of South Wales, I have the honor to inform you that I had the privilege of being shown by Sir Hussey Vivian through the great copper smelting works of Messrs. Vivian and Sons, at Swansea, where ores from Africa and other countries are treated. The ordinary process of copper-smelting by reverberatory furnaces is chiefly in operation here; but some of the reverberatory furnaces have two hearths instead of one, which are said to be a great improvement upon the old system. For some ores a "Bessemer converter" is used, air being blown into the molten copper-sulphide, which so advances the desulphurising process as to convert, in forty-five minutes, the sulphide containing 30 per cent. of copper into white metal containing 70 per cent. copper, which is afterwards slowly roasted to drive off the remaining sulphur.

A large furnace (Gerstenhöfer's patent), which is very different in construction from the ordinary reverberatory furnace, is also used for roasting the copper sulphides. It has a rectangular chamber fitted with numerous horizontal bars. The finely-pulverised ore or regulus is slowly fed into this chamber from the top, and in falling is deflected from one bar to another, becoming, in its passage through the hot air, desulphurised into 70 per cent. copper sulphide. The furnace, after being once heated, is self-heating from the combustion of the sulphur.

I was informed that this peculiar furnace, as regards economy in roasting, possesses no advantage over the ordinary reverberatory furnace; but it is here used, as it is better adapted for collecting the sulphur fumes as a bye-product for the manufacture of sulphuric acid. As its adoption for this purpose in our Colony might be advantageous, I have obtained a copy of the specification of the patent to send to you. (*Appendix A.*)

I also inspected some steel works. The ferro-manganese here employed in the manufacture of steel could, I believe, be profitably made in New South Wales. Mr. Carne visited the zinc works, as I had not time to see them. It appears that there is a ready market at Swansea, at £5 per ton, for zinc sulphide ore, containing not less than 45 per cent. of zinc. There is also a good demand for the ore in Belgium.

At Cardiff we inspected the Star Patent Fuel Company's works, where one of Heath's patent machines for making coal-briquettes is in operation. This machine turns out briquettes, weighing 20 lb. each, at the rate of 20 tons per hour. The "small" of the Welsh "steam coal," after being again screened to separate the "nuts" coal, is crushed and mixed with about 9 per cent. of pitch. This mixture passes through a vessel in which hot air is injected to soften the pitch, and thence into

into the mould in a round table, which revolves horizontally, where it is compressed by a powerful hydraulic press. As the moulds pass from under the press, the briquettes fall out upon an endless wire belt, which carries them away to be stacked ready for shipment. The whole appliances are very simple in their operation, and require only a few hands to work them. I was informed that the cost of such a plant complete would be about £8,000. The present price of the small coal delivered at the works is 8s. per ton, and the "nuts" screened from it are sold at 10s. per ton. The briquettes realise 14s. per ton, which is also the selling price of large coal. The pitch fluctuates in value from 20s. to 32s. per ton, according to supply. The briquettes, when stacked in ships' holds, &c., are said to occupy about 10 per cent. less space than does an equal weight of coal, and in transport they do not break up or make so much small or ordinary coal. At the Star factory this quality of the briquettes, as regards hardness, is tested every day in a revolving screen, with horizontal iron bars, constructed for the the purpose. In this a certain weight of broken pieces of briquettes is placed, and thirty revolutions at a certain speed given to the machine. The "small" which falls through the open bars from the briquettes seldom exceeds 20 per cent. of the total weight, whereas ordinary large coal treated in the same manner yields as much as 60 per cent. of "small." We witnessed a test of 52 lb. of broken briquettes, and the result was the production of only 10 per cent. of "small"

At Swansea, Mr. Carne inspected Messrs. Roberts' Patent Fuel Works, where several machines are in operation turning out upwards of 1,000 tons of briquettes a day. The appliances are somewhat similar to Heaths, but the coal and pitch when mixed together are heated by steam instead of by hot air. There are also patent fuel works at Newport, which I had not time to visit, but I have seen one of the machines, Stevens' patent fuel press, at the Mining Exhibition, of which I send you the published description (*Appendix* B). I have received from Mr. Stevens, of the Askside Engineering Co., Newport, a case of briquettes, which I have forwarded to you for the Mining Museum, together with other samples of briquettes from the Star Works and the Sutherland Works, and a case of coke made in a newly patented coke-oven, of which I will send you particulars later on.

The manufacture of briquettes is one which, I believe, could be profitably undertaken in New South Wales, especially (as I have previously reported) in connection with coal-washing. The steam coal of the Illawarra, Mittagong, and Western coal-fields would be well suited for the purpose. There may, however, be some difficulty in obtaining a sufficient supply of pitch in the Colony.

When at Cardiff, I took the oppprtunity to visit the new Barry Docks, to witness the working of the hydraulic tipping cranes for loading coal into vessels. These cranes consist of a large square iron frame, within which is a horizontal truck-table, capable of being lowered by hydraulic power to any level over the side of the vessel. The action is very simple. A railway truck, containing 10 tons of coal, is run on to the table, which is then lowered to the required level; the end of the truck is opened, and the table, with the truck upon it, is tilted up at an incline sufficient for the coal to slide out of the truck on to a shoot and into the vessel's hatchway. The whole operation is conducted in less than 1 minute by two men, one to run the trucks on to and off the crane, and the other to control the hydraulic power. Each crane is capable of loading at the rate of 400 tons of coal per hour. These cranes are fixed or stationary, but a large movable one is now being erected on wheels running on a line of rails along the edge of the wharf, the object being to adjust this crane in position for loading into one hatch of the vessel, at the same time that another hatch is being loaded from one of the fixed cranes, so that the loading may go on expeditiously, without the necessity of altering the position of the vessel to suit that of the fixed cranes, as under the old system. These cranes are made by Messrs. Tennant and Walker, of Leeds. Further particulars you will find in Appendix C.

Messrs. Lewis and Phillips have just brought under my notice their recently patented smelting process for extracting gold, silver, lead, &c., from refractory and complete ores. A blast furnace is employed similar to those which are now in use at Mayston, in Wales, for the production of Speigel iron and ferro-manganese. The patentees state that the use of ferro-manganese and lead ores are necessary in the process, and that when the charge in the furnace is subject to a high temperature, the manganese oxide has the effect of preventing the oxidation and loss of the lead, which in the metallic state combines with the gold and silver and sinks to the bottom crucible or hearth, from which it is tapped; while the volatilized zinc, antimony, &c., may be collected in flues or chambers. It is said that ferro-manganese, Speigal iron, chrome iron, or tungsten iron can be made simultaneously with the extraction of the gold and silver. I forward you full description of the process and plans of furnace in Appendix D.

On the 30th September, I delivered a lecture on the "Mineral Resources of New South Wales," at the International Mining Exhibition. The Honorable Sir Saul Samuel, K.C.M.G., Agent-General for the Colony, presided.

I have, &c.,
C. S. WILKINSON,
Geological Surveyor-in-Charge.

The Under Secretary for Mines.

APPENDIX No. 1G.

Report on the Mostyn Speigel Blast Furnaces, in reference to Messrs. Phillips and Lewis' process for the treatment of Refractory Minerals.

Sir, December 16th, 1890.

In accordance with your instructions I have inspected the Speigel Iron Smelting Works of Mostyn, in North Wales. Three blast furnaces are employed, the larger two of which are capable of producing 50 tons of Speigel iron per day, the other 20 tons. The Speigel iron, containing 15 per cent. of manganese, is worth about £4 per ton, and made up to 30 per cent., £7 per ton. When containing 80 per cent. of manganese, as in ferro-manganese, it realises about £11 per ton. The ores smelted here are low grade ores of 30 per cent. of silicate and oxide of manganese in altered shales from North Wales, and ores of higher percentage from Spain, Black Sea, Chili, &c. The manager, Mr. Storey, gave me samples of these for our Mining Museum. Having in New South Wales, coal, limestone, and manganese ores of good quality, readily obtainable, the time cannot be far distant when enterprise with capital and skilled labour will make profitable use of them. The object of my visit to Mostyn was not to report upon the production of ferro-manganese, but to make inquiry in reference to the statement of Messrs. Phillips and

and Lewis that a modification (as patented by them) of the smelting process used at the Mostyn Works would be suitable for the reduction of ores containing manganese, gold, silver, lead, &c., and for the production of Speigel iron or ferro-manganese at the same time. In smelting the Spanish manganiferous iron ore, which contains from 0·2 to 0·5 per cent. of argentiferous lead (it occurs as carbonate), the lead is incidentally obtained as a bye-product. I say incidentally obtained, for no provision is made to extract it, but being of greater specific gravity than the Speigel iron, the lead sinks to the bottom of the molten mass, carrying with it any gold or silver present, and finds its way through cracks—which are too small for the liquid iron to pass through—in the hearth of the furnace, and runs out into the flue below, where it accumulates and cools. I saw several tons of lead which had just been taken out of the flue. This metallic lead is said to contain sometimes at the rate of 100 oz. of silver per ton; so that this bye-product of the Speigel smelting process is one of no little value.

It is stated by Messrs. Phillips and Lewis that, at the high temperature of the Speigel blast furnace, the presence of manganese oxide prevents any of the lead from passing away in the fumes from the furnace; whereas the zinc, antimony, &c., go off and may be collected in suitable flues. The experience at Mostyn upon the low-grade Spanish ore seems to corroborate this. Whether the same results would be obtained from the treatment upon a large scale of higher grade auriferous or argentiferous lead ores has not been tested. The flues of the Mostyn furnace have been constructed for the utilisation of the hot furnace gases to heat the air blast chambers, and not for condensing the volatile bye-products, though some zinc oxide is found in them. The temperature of the flues may be too high for the precipitation of the lead oxide which has not been noticed in the flue dust; but Messrs. Phillips and Lewis, as before mentioned, claim for their patent that the manganese oxide in the furnace charge prevents any loss of lead, and thus accounts for its absence in the flue dust. The details of this process are fully described in the Patentees' Specification, a copy of which I have already sent you. I am of opinion that the process could with advantage be introduced into the Colony for the manufacture of ferro-manganese, and should it answer the anticipation of the patentees in regard to the reduction of ores containing lead and the precious metals, there would be a wide scope for its employment. A small plant like the 20-ton furnace at the Mostyn Works would probably be the best with which to commence operations. I understand that Mr. W. H. Barker, broker, of Sydney, is the agent for the patentees.

I have, &c.,

G. S. WILKINSON,

The Under Secretary for Mines. Geological Surveyor in Charge.

APPENDIX No. 1H.

Report on the Lührig Coal Washing Process, as applied to the Manufacture of Coke; and description of the Simon-Carves Coking Process.

Sir, December 16th, 1890.

In reference to your letter of 3rd September, 1890, instructing me to inspect the Lührig Coal Washing Process as applied to the cleaning of coal for coking, I have the honor to inform you that I have already described the process in my report forwarded to you on 27th August. In that report it will be seen that at the Bardykes Colliery the ordinary small coal, worth about 4s. 6d. per ton, and containing 20 per cent. of ash, can be washed and screened into "nut" coal worth from 7s. 9d. to 5s. 6d. per ton according to size, and "duff" coal worth 4s. per ton, and containing about 6 per cent. of ash. The "duff" coal (screened to about the size of a pea or less) is sold for coking and the manufacture of patent fuel briquettes. Such results, obtained at a cost of about one penny per ton of coal, cannot but commend the Lührig washing process for efficiency and economy, and especially for adoption in our Colony where so much small coal is wasted that might be profitably utilised, not to speak also of the opening of seams of good coal which cannot at present be worked in the ordinary way owing to the occurrence of numerous bands. The first cost of the plant is rather great, but this may be soon recovered from the profits when operations are conducted on a large scale.

With various modifications this washing process can be adapted to the dressing of different classes of ores, and for this purpose it should find extensive use in New South Wales, where much of the future success of reef and lode mining will depend on the inexpensive concentration of metallic sulphides, particularly in some of the New England mining fields, such as Drake and the Barrier. I send you a description of the process as furnished me by the Lührig Coal and Ore Dressing Appliances Company, of 34, Victoria-street, London, S.W., who have promised to send me details of the work carried on at Himmelfahrt, near Dresden, where every low grade ores are being successfully concentrated.

In reference to the manufacture of coke Mr. Scholler, the General Manager of the Lührig Company, directed my attention to the Simon-Carves patent coking process, which is in operation at the Altham Collieries, near Accrington, in the Lancashire district. Mr. H. Simon, of Manchester, and Mr. McAlpine, Manager of the Collieries, having kindly given me permission to see the coke ovens, I visited Altham for that purpose.

There is a "battery" or range of 25 ovens built together side by side, but between them are horizontal flues through which the heating gas circulates, for the coal is not itself first lighted as in the old Beehive process, but is heated by ignited gas circulating outside the ovens.

Each oven is a long, narrow, high brick chamber open at both ends; but when the oven is ready to be charged these openings are closed with iron doors faced with fire-bricks, and any cracks are luted with fire-clay, so that the coal is confined practically as in a large gas retort. In the centre of the top or roof of the oven is an opening, through which the volatile products disengaged from the heated coal are drawn off and conducted away in a main pipe for further use.

The charge is 5 tons of coal, which yields 3½ tons, or 70 per cent. of coke, the time required for the coking process being about 48 hours. The ovens are worked day and night. I was informed that they have been in use for six years, and have needed but little repair.

A movable steam ram runs on a line of rails close along one side of the battery; and when the coking in any oven has been completed, the iron doors are removed, and the ram, inserted at one door, rapidly pushes out the coke through the other on to a brick floor, where the red-hot pile of coke is quickly cooled with water from two hose pipes brought to play upon it. The doors are again closed and the ovens recharged, without causing stoppage to the ovens.

The

The volatile matters from the ovens are conducted by a main pipe into a series of suitable tanks or receivers, and in passing through these the tar and ammonia liquor are collected, and the gas thus purified returns through another main pipe to the battery, and enters the flues to heat the ovens. There is, therefore, little or no waste in the manufacture of coke by this self-heating and continuous process.

Each ton of the Altham coal yields about ·47 cwt. of tar and 1·58 cwt. of ammonia liquor, which were worth at the time of my visit 21s. 6d. per ton of the former and 12s. 2d. per ton of the latter; the prices, however, vary at times. So that the value of tar and ammonia produced with each ton of coke was 2s. 1d. The cost of production at the Altham works, so I was informed, was 2s. 2d. per ton of coke. In the accompanying pamphlet given me by Mr. Henry Simon, C.E., of Manchester, which includes some valuable papers by Mr. Dixon and Mr. W. Smith, F.C.S., it is stated that, with two batteries producing together 100 tons of coke per 24 hours, coke could be made at the cost of 1s. 3d. per ton, not including the pay of manager and man at weigh-bridge. Mr. Dixon giving in his paper the result of the working of a battery of 25 ovens at Pease's West, states that the cost of coke-burning per ton of coke was nearly 2s. 4d.; but this was before the Simon-Carves ovens were improved to their present arrrangments by the addition of the "recuperator," by which the time required for the coke-burning is reduced from 70 to 48 hours. Of course the cost of production must vary in different localities, and the quantity of coke and bye-products will vary according to the quantity of the coal; local circumstances will also regulate the value of the coke and bye-products. At Altham, the tar and ammonia liquor are pumped direct to a neighbouring chemical factory, where the ammonia liquor is converted into ammonia of commerce, and from the tar are produced pitch, anthracine, carbolic acid, creosote, benzole, naphtha, and naphthaline.

The coke is sold for the blast furnaces and foundries in the district, and is worth 16s. 6d. per ton for furnace coke, and 18s. per ton for selected coke for foundry work. It is made from the "duff" coal, worth 8s. per ton, washed from the third coal screenings, which contain before washing about 9 per cent. of dirt or ash.

An analysis of the coke gives—

Carbon	92·95
Sulphur	0·55
Moisture	0·50
Ash	6·00
	100·00

The Altham coal, as regards its yield of volabile hydro-carbons and percentage of ash, is rather inferior to our Newcastle coal. The seam worked is only from 2 ft. to 2 ft. 8 in. thick, dipping at an incline of 1 in 8; it is worked on the pillar and stall system, but the "long wall" is now being adopted; the main shaft is 852 feet deep. The output of coal is about 3,000 tons per week. Several of the miners I spoke to who had only been brought up in this mine, working in a space less than 3 feet high, were suprised tc hear of the thick seams of coal which the miners in New South Wales have the advantage to work.

The coke made in the Simon-Carves ovens has not the bright silvery lustre of that from the Beehive ovens; but it is said to be denser than the latter, and better able to bear a heavy burden in the smelting furnace, which is a quality desired to be attained in the coke manufactured in New South Wales.

The Simon-Carves coke also contains less ash than that from the Beehive ovens, though made from the same coal; for by the former process 70 per cent. of coke is obtained, while the latter yields only 55 per cent., the loss being due to the burning of some of the coke in the oven, while the quantity of ash does not diminish; but the manager informed me that the yield would probably be 60 per cent. if dry coal were used.

At the Altham works 12 improved Beehive ovens are also worked. The gases, in escaping to the chimney, heat an air chamber or flue, by which hot air is admitted by opening dampers into the oven, if the heat for coking is not sufficiently high. In these the coking process requires about three days.

The cost of the Beehive plant of 12 ovens, I am informed, was about £1,000, while that of the Simon-Carves, with 25 ovens, was £8,000. In the accompanying pamphlet it is stated that the cost of the 25-oven battery at Pease's West was £5,660. The cost must vary in different localities with the price of bricks, &c.

As compared with the old Beehive process, the Simon-Carves offers considerable advantages. It produces from 10 to 15 per cent. more coke, of a better quality for smelting furnaces, from the same quantity of coal; it makes a larger quantity (about 20 per cent. more) of coke in a given time, as the process occupies only two days instead of three; and the value of the by-products collected, which are all lost from the Beehive ovens, about covers, and in the case of coal, rich in hydro-carbons, will more than cover, the whole cost of making the coke; so that in addition to the coke the by-products may be a source of profit.

In connection with the great coal production of the Colony, it is needless to point to the importance of such a process as the Simon-Carves patent, which will enable a large proportion of the small coal and its products, hitherto wasted, to be profitably utilised. Sulphate of ammonia, as one of the by-products manufactured from the ammonia liquor distilled from coal, should become in increasing demand with the progress of agriculture in the Colony. Then there is every probability that with the improvement in our coke manufacture, this Colony will be able to supply the coke required for the smelting works of the Barrier silver field, and thus render unnecessary the present large importation of coke from other countries. During last year the Broken Hill Proprietary Company alone imported British coke to the value of £141,680.

Then again, I believe that coke-works may be profitably established in connection with the Lührig or other coal-washing appliances, to utilise coal from seams that, without being purified from clay bands or pyrites by washing, could not be worked. Such coal-seams occur in the Clarence and Dubbo Districts as well as in the other coal-fields.

I have, &c.,

C. S. WILKINSON,

Geological Surveyor-in-Charge.

The Under Secretary for Mines.

Appendix No. 2.

Progress Report for 1890 by Geological Surveyor T. W. E. David.

For the first part of the year I was engaged partly in office work and partly on the mapping of the coal measures at Newcastle, and inspected and reported on the deposits of kerosene shale at Megalong, near Katoomba. [*Appendix No.* 2A.] In April I furnished my second progress report on the geological survey of the Maitland District [*Appendix No.* 2B], drawing special attention to the enormous quantities of good coal available for future use in that part of the Greta coal-measures which lie to the south and south-west of Maitland. Your departure for England last May having left me in charge of the geological branch my time from then to the end of the year was principally occupied in the discharge of official duties in Sydney.

During May, in company with Mr. Geological Surveyor Stonier, C.E., I made a detailed examination of the iron ore deposits of the southern coal-field, and concluded that up to that date no deposits had been discovered of sufficient thickness or richness to merit much attention. I also examined and reported on the supposed gold-bearing basalts of Yarramalong, near Wyong, finding the rock to be an intrusive basalt intersecting the coal-measures, like that at Pennant Hills. The supposition that this basalt contained gold was attributable to some assays, done outside the Department, which were probably incorrect, as departmental assays of samples of this rock selected by myself showed that no gold was present.

In June, in company with Mr. Stonier, I made a second examination of Peak Hill gold-field, and furnished a second report thereon, and then we inspected the Junction mines near Mandurama, as well as part of the Canowindra, Blayney, and Orange Districts, and made a second inspection of the site for the Bathurst water tunnel, the driving of which had been recommended by me in my report furnished in 1889. [*Appendices No.* 2D, *No.* 2F, *and No.* 2G.] In my second report I strongly urged the continuation of the tunnel to the required distance, and this has subsequently been done with successful results, the supply of water struck in the tunnel being at the rate of over 200,000 gallons per 24 hours, and the water being of good potable quality.

In September, with Mr. Stonier, I examined part of the Shoalhaven District, in connection with furnishing a report upon the Wandra-Wandian Bore, which you had previously reported upon as being a likely site for striking the Clyde coal-measures. The evidence supplied by the core from the bore at the time of my inspection proving satisfactory, the continuation of the bore was recommended, and the coal was subsequently struck here, as you had predicted. [*Appendix No.* 2J.] The coal seam, however, was somewhat thinned as compared with its thickness at the head of the Clyde valley, probably, owing to its being contiguous to an underground hill of slate rock. The important fact, however, has been established by this bore, beyond dispute, that the Clyde coal-measures must underlie considerable areas of the Shoalhaven District, near Nowra and Jervis Bay. I also inspected part of the Sunny Corner District, with Mr. Geological Surveyor Anderson, and furnished a report having special reference to future prospecting on the property of the Silver King Company. [*Appendix No.* 2A.] The first site which we recommended for a new shaft was sunk upon with the result that sulphide ore was struck, but I am not yet aware whether it occurs in sufficient quantity to warrant the re-commencement of work. I also visited Raymond Terrace and Port Stephens and reported on bores for coal then in progress, and examined the deposits of kerosene shale near Doughboy Hollow and Hartley Vale, and reported on the coal-measures in the neighbourhood of Lake Illawarra. This report has already been published as a Parliamentary paper. Reports have also also been furnished by me during the year on the natural gas at Narrabeen, and the probable depth of coal under Port Jackson [*Appendix No.* 2E], and also on the bore for artesian water near Bourke [*Appendix No.* 2I].

On several occasions during your absence I have travelled to various localities (as Acting Member of the Prospecting Board), including the following:—Muttama, Gundagai, Bongongolong, Reedy Flat near Bago, Albury, Junee, Eurongilly, Bong Bong, near Moss Vale, King's Plains, near Blayney, Lue, Mudgee, Coyal Creek, Gulgong, Cudgebegong, and Denison Town. My reports on these localities so far have been restricted to the form of official minutes on the Prospecting Vote applications, with the exception of the one published in [*Appendix No.* 2C].

The completion of the geological mapping of the coal measures in portion of the Maitland District has been nearly completed by Mr. P. T. Hammond, the Assistant Field Geologist, who has occasionally been helped in this work by Mr. W. S. Dun. Mr. Hammond's principal work has been to trace the outcrop of the Greta coal-measures from the outcrop at Black Creek, near Branxton, to Silkstone, and in so doing he has been able to determine the trend of the main fault, which throws the Greta seam from Branxton to Greta. Mr. Hammond states that this fault runs nearly through the extreme north-east corner of the parish of Cessnock. Near Branxton the fault is considered to cross the Great Northern Railway Line, a short distance west of Branxton Railway Station. The trend of the great fault is thus north-westerly and south-easterly. In the neighbourhood of Pokolbin the tracing of the Greta line of outcrop is stated by Mr. Hammond to be rendered intricate by the intrusion of eruptive rocks. Mr. Hammond was camped out during the greater part of the time when he was engaged in this work, and, in view of the unusual wetness of the season, the scrubby nature of much of the country examined, and its geological difficulties, he has, I think, made very satisfactory progress with the work. Mr. Dun also has worked well, both in the office and the field, respectively attending to the registration of official papers and copying reports, &c., and making traverses for filling in physical features for the geological map of part of the Maitland District.

In the work of dealing with alienation papers I have been very much assisted by Mr. G. A. Stonier and Mr. W. H. J. Slee, F.G.S., the Chief Inspector of Mines. In the absence, however, of yourself and Mr. Carne, the duties devolving upon me became too onerous to admit of my being able to deal with these and other official papers as promptly as could be desired, especially as many of them could not be dealt without your personal help and instruction.

An account of Mr. Geological Surveyor Anderson's work, since your departure for England, is given in his Progress Report, which shows that he was engaged, when in the field, in dealing with Prospecting Vote applications, land alienation papers, and reporting on the discovery of silver near Grenfell and on the Jingellic silver-field, as well as a portion of the Sunny Corner silver-field.

Mr. W. S. Leigh, the Superintendent of Caves, has been occupied partly in making regular inspections of the Caves, and recommending and drawing plans of improvements to them to make them more

accessible

accessible to the public, and partly in administrative official work relating to the caves. The number of visitors to the Jenolan, Wombeyan, and Yarrangobilly Caves appears to be constantly on the increase. Some useful improvements have been carried out under Mr. Leigh's supervision, especially at the Jenolan Caves, as, for instance, the completion of the new dam, which will be the means of furnishing an abundant supply of pure water to the Cave House.

Mr. Whittel, during your absence, has worked hard to do the greater portion of the Curator's duties in receiving and making the preliminary examination of samples for assay. Five local exhibitions of minerals and fossils have been made by the department through the services of the Geological Branch, during the year, respectively at Muswellbrook, Tamworth, Narrabri, and Ballarat. The preparation of the exhibits was placed under the immediate supervision of Mr. G. A. Stonier, who also took charge at the three first-mentioned exhibitions, Mr. Dun taking charge at Germanton and Ballarat; while Mr. C. Cullen, the collector to the department, has rendered good service in collecting and packing specimens for these exhibitions, and has, besides, made special collections of fossils for the use of the palæontologist, Mr. R. Etheridge, jun., from Rouchel Brook, near Scone, and from the Paterson, Dungog, and Stroud Districts.

The services of Mr. R. Etheridge were lent for some time to the Australian Museum, he being required to serve in the capacity of Acting Curator, from April to July, during the severe illness of the Curator, Dr. Ramsay. Mr. Etheridge, however, has nevertheless been able to accomplish a great deal of literary work for the department, as specified in his progress report, and has, besides, materially assisted me in the current work of examining and determining various specimens brought by the public to our branch for that purpose. The greater portion of Mr. Etheridge's valuable "Memoir on the Permo-carboniferous and Carboniferous Fauna of New South Wales," Part I, was prepared during last year.

In the Laboratory, Mr. Mingaye and his staff have been busy this year, not only with the usual large number of samples to be assayed for gold and silver, but also with the making of an exceptionally large number of analyses, particularly of iron ores, in connection with the scheme proposed by Mr. J. Mitchell, M.P., to establish local smelting and iron works in New South Wales. Mr. Mingaye has furnished a valuable report upon the various cokes produced in this country, with special reference to to their suitability for smelting purposes. This report by Mr. Mingaye has already been published in the same form as the reports forwarded by you from time to time from England to this department.

On two occasions it was found necessary to requisition the services of Mr. H. P. White, F.C.S., the assistant analyst and assayer, for supervising the treatment of bulk samples of ore at the Clyde Works. Mr. Mingaye has expressed a hope that in future the laboratory may not be deprived of Mr. White's services for such a purpose, except, of course, in cases of great urgency. He suggests that in future in order to expedite the assaying of samples there may be a daily transmittal of samples received at the Geological Branch for assay, from the branch to the laboratory.

While Mr. Dun was engaged in taking charge of the department's exhibits at Germanton and Ballarat, Mr. Lindeman, attended to the registration of official papers, and assisted Mr. Whittel in part of the curator's clerical work. A large number of rocks, minerals, and fossils have been sliced and mounted for microscopic examination during the year by Mr. C. E. Murton, lapidary to the department, and Mr. Gilding has been engaged chiefly in cutting and polishing small pieces of marble and ornamental stones for the Museum, and corals for the palæontologist.

I have, &c.,

T. W. EDGEWORTH DAVID, B.A., F.G.S.,

The Geological Surveyor-in-Charge — Geological Surveyor.

APPENDIX No. 2A.

Report on the Occurrence of Coal and Kerosene Shale at Megalong, near Katoomba.

Sir, East Maitland, February 2, 1890.

In accordance with your instructions, I have the honor to furnish you with the following report on the above subject:—

1. *Description by previous observers.*

(1.) The Rev. W. B. Clarke, F.R.S., in the latest edition of his work "Remarks on the Sedimentary Formations of New South Wales," p. 67, "In the section presented by the escarpment on the left bank of Cox's River, below Pulpit Hill, at Megalong, there are two beds in which this hydrocarbon (kerosene shale. T.W.E.D.) exists."

(2.) In "Mineral Products of New South Wales, &c., Sydney, 1887," p.p. 182-185. Mr. J. M'Kenzie, F.G.S., the Examiner of Coal-fields, quotes a report by Messrs. Cox and Seaver on the Katoomba Boghead gas and mineral oil deposits.

According to this report the thickness of good kerosene shale in the property of North, Mort and others varies from 7 inches up to 1 foot 7 inches, the average thickness of good shale out of fifteen sections quoted, being about 12½ inches.

The better quality of shale is described as "occurring in two areas, one on the east and the other on the west side of the ridge," (part of the main spur which extends from near Katoomba to Pulpit Hill, a distance of 7⅓ miles. T.W.E.D.) The shale on the east side of the ridge is horizontal, but rises to the westward at an angle of about 1 in 40.

The seams of kerosene shale are described as thinning out to the east of the ridge.

2. *General Physical and Geological Features.*

The area of ground in the parish of Megalong, containing the kerosene shale and coal, has a very irregular shape, as shown on the accompanying tracing of the parish, kindly furnished me by Mr. W. C. Wall, M.L.A., and follows that of the remarkable ridge which separates the deep valley of Little Cedar Creek from that of Megalong Creek, both being tributaries of the Cox's River. This ridge, which extends from Katoomba to Pulpit Hill, is a spur leading from the main line of water-parting between the Cox's River and the Grose River. The ridge consists of a mass of Hawkesbury sandstones and shales capping the coal measures, and dipping gently eastwards, and is bounded at its sides and southern end by cliffs from 100 feet to 400 feet high. Its surface in places is either nearly level or but slightly channelled, and is from one-half a mile to one and a quarter mile wide, while in places it contracts to mere knife-edged "narrow necks," bounded by precipices on either side. A well-marked feature is formed by the band of reddish purple shale, which immediately underlies the Hawkesbury sandstone. The uniform thickness of this

this horizontal band gives it the appearance of a streak of red paint when seen in the distant cliffs. The view from some of the crests of this ridge is very fine, revealing an immense expanse of deep valleys clothed with luxuriant, vegetation, and bare cliffs and barren ridges of sandstone of various picturesque hues. Here and there huge points of rock jut out from the general cliff face, and their cracked and corroded surfaces and sides, as well as the newly-fallen masses of rock at their bases, show that disintegration is still in active progress, and prove that the sandstone cliffs are constantly cracking and slipping down into the valleys as fast as the softer strata of the coal-measures are being under cut from beneath them; and all this work is being accomplished by no more potent agents than running water, alternations of heat and cold, and the dislocating force of the roots of plants. The geological structure of the ridge can be well studied on descending the cliffs by means of the ropes and ladders placed at intervals for that purpose. The Hawkesbury sandstone, of which the upper portion of the ridge is composed, passes towards its base into flaggy sandstone, with purple and dark-grey and carbonaceous shales, the softer strata of the coal measures first making their appearance at the bases of the cliffs and at the top of the long slopes of rubble chiefly covered with dense vegetation, which for the most part obscure the strata of the coal measures and hide the outcrops of the coal seams. It is at once apparent that the preservation of the coal seams and kerosene shale under the ridge is due to the protecting covering of Hawkesbury sandstone, and a short distance below the base of the cliffs, where the Hawkesbury series and the upper part of the coal measures have been removed by denudation, the coal and shale have also been worn away, so that there is probably no coal or shale left undenuded in the lower portions of the valleys.

The following is a generalised section of the strata measured by me approximately on the line A to B [*See* Plate 2] and C to D.

III.—*Detailed description of the Coal Measures, and the outcrop of the Coal Seams.*

Near the south-west corner of T. S. Mort's 320 acres, there are two tunnels. The upper tunnel, the altitude of which, as measured by aneroid, is about 2,579 feet, is driven on a seam of kerosene shale, 2 feet 10 inches thick, with 2 inches of coal on top of it. The lower tunnel, about 14 feet below the upper, is said to be driven on a seam of coal and kerosene shale; but the tunnel was so much fallen in that I was unable to examine the section.

The following section is given of the seams in the upper and lower tunnels by Messrs. Cox and Seaver in their report above quoted:—

	ft.	in.	
Sandstone			
Coal	0	2	
Shale (2nd quality)	0	7½	
Shale (analysed)	1	10	
Sandstone with two 7-inch seams of coal	12	0	
Shale	0	7	Pulpit Hill Seam, 3 feet 8 inches thick.
Coal	0	2	
Shale	0	7	
Coal	2	4	

In the upper tunnel I measured the following descending section:—

Roof—Flaggy clayey sandstone.

ft.	in.	
0	2	Coal, bituminous.
0	4	Kerosene shale; lower 2 in., middling; top 2 in., rather coaly.
0	6	Kerosene shale, good quality (analysis 159).
0	6	,, rather inferior (analysis 158).
0	6	,, inferior (analysis 162).
0	6	,, very inferior.
0	6	Heavy stony kerosene shale, very inferior.
Total ... 3	0	

Floor, very fine-grained, hard, blackish grey shale, with very abundant glossopteris leaves.

The following are the analyses made by Mr. J. C. H. Mingaye, F.G.S., from samples selected by myself:—

Analysis 159.

Moisture	·1
Volatile hydrocarbons	78·45
Fixed carbon	10·70
Ash	10·75
	100·00
Sp. gr.	1·084

No true coke formed, only a dark powder left. Ash—white.

Analysis 158.

Moisture	4·4
Volatile hydrocarbons	52·11
Fixed carbon	27·
Ash	20·45
	100·00
Sp. gr.	1·276

No true coke formed, only a loose coherent cake left. Ash—white.

Analysis 162.

Moisture	·53
White hydrocarbons	45·32
Fixed carbon	20·40
Ash	33·75
	100·00
Sp. gr.	1·353

No true coke, only a loose powder left. Ash—white.

At

At the point A on the line of section (*see* Plate I), in D. R. Wall's 640 acres, the commencement of the coal-measures is marked by a bed (4½ feet thick) of black carbonaceous shale with rootlets; immediately above this is about 10 feet of very fine, dark grey, hard laminated shales with nodules of clay ironstone, which I think probably belongs to the base of the Narrabeen series.

The following is a section of the Coal Measures here, as measured by me, approximately:—

ft.	in.	
4	6	Black carbonaceous shales, with rootlets.
22	6	Sandstone, fine, laminated, somewhat cherty.
1	0	Black coaly shale.
1	6	Cherty sandstone, pale grey, very fine.
1	6	Coaly shale, and band of white fireclay, with 2 in. of coal.
5	0	(?) Hard black coaly shale, and small bands of whitish fireclay.
9	0	Coal seam—Gladstone (?) seam.

Details.—Roof—black stony shale.

ft.	in.	
1	0	Coal, splint and bituminous.
0	3	Shale, black.
0	0½	White fireclay.
0	2	Black coaly clay, earthy and soft.
0	3½	Band, hard; brittle black shale.
0	7	Coal, dirty soft and splint mixed.
0	4	Band, hard black shale.
0	9	Coal, dirty splint.
0	3	Band, dark brown clay; rather intermittent.
1	11½	Coal, upper half splint; very hard; rather dirty; lower half, brittle bituminous.
0	4½	Band, yellowish grey fireclay.
1	5	Coal, chiefly splint; some brittle black bituminous; rather dirty; a trifle soft in upper 4 in.
0	2	Band, brown clay.
1	5	Coal, chiefly splint rather dirty.
Total... 9	0	

Floor not seen.

ft.	in.	
90	0	Dark clay shales, and fine sandstone.
15	0	Massive sandstone.
3	0	(About) coal and shale mixed (?).
32	6	Dark shales, and fine flaggy sandstones.
0	6	Kerosene shale; very inferior.
7	0	(?) Dark shales, and a little fine flaggy sandstone.
7	0	Coal seam—Lower Lithgow (?).

Details.—Roof—black shale.

ft.	in.	
0	10	Coal, bituminous and splint; good.
0	0¼	Band, white clay.
0	5¾	Coal, splint good.
0	2½	Band, hard, dark, sandy shale.
0	3¼	Coal, splint.
0	0¾	Band brown and white clay.
0	6	Coal, splint good.
0	0½	Parting, soft dull dirty coal.
1	1	Coal, splint good.
0	10½	Coal, good splint, inclined to cannel, small conchoidal fracture.
0	4½	Coal, soft bituminous.
0	5	Coal, good splint.
1	5	Coal, bituminous, with a little splint, rather soft and brittle.
0	5	Coal, soft and a trifle dirty.
Total ... 7	0	

The following is an analysis of the average sample of coal, taken by me to represent the good splint coal, by the Government Assayer and Analyst:—

Analysis No. 156.

	Proximate analysis.
Hygroscopic moisture	2·619
Volatile hydrocarbons	25·831
Fixed carbons	59·600
Ash	11·950
	100·00
Sp. gr.	1·389.
Sulphur in coal	·658 per cent.

Coke—No true coke formed. Ash—colour, grey.

This analysis shows the coal to be a non-coking splint coal, of good quality, suitable for steam, blacksmith, and household purposes. Out of the total thickness of 7 feet of the same, 5 feet should be workable, which would contain per acre (the specific gravity of the coal being taken as 1·389), in round numbers, 8,440 tons of coal, which would yield per acre, after the usual deduction of one-third for waste in getting, faults, rolls, &c., and, on the assumption that one-fourth of the remainder would be small coal, 4,200 tons of large marketable coal, and 1,400 tons of small coal. There is, however, no certainty of this seam maintaining its quality and thickness over a wide area, so that it is impossible to say, in the present state of development of the seams in this locality, how many acres would have a seam of this thickness and quality underlying them. I would venture to recommend that, in order to prove the continuation of this seam under the Megalong Ridge, and test its thickness and quality on the east side of the main ridge, its outcrop should be trenched for to the north-east of the point on the plan (Plate I), where "tunnel on Gladstone (?) seam" is shown at a level of about between 140 feet and 150 feet below the outcrop of the Gladstone seam. On the eastern side of the Megalong Ridge, at the point shown on the plan, at a level of about 2,587 feet, the Gladstone seam with the white fireclay bands has been cut at the outcrop, but has not yet been sufficiently opened out to admit of a section of it being measured.

At

At a level of about 2,487 feet, near the north-east corner of Hassall and Dowell's 320 acres, the outcrop of the same seam of kerosene shale and coal has been proved, and has been driven on in T. S. Mort's land already described. The following section was here measured by me :—

ft.	in.	
		Roof.—Sandstone.
0	1½	Coal, bituminous.
1	6	Kerosene shale.

Details.

ft.	in.	
0	9	Kerosene shale, rather inferior.

Analysis 161.

Moisture	2 01
Volatile hydrocarbons	34·14
Fixed carbon	37·65
Ash	26 20
	100·00
Sp. gr.	1·439

No true coke; only a loose powder left. Ash—white.

ft.	in.	
0	5	Kerosene shale, very inferior.

Analysis No. 160.

Moisture	·94
Volatile hydrocarbons	25·36
Fixed carbons	17·80
Ash	55·90
	100·00
Sp. gr.	1·747

No true coke; only a loose powder left. Ash—white.

ft.	in.	
0	4	Kerosene shale, inferior.

Analysis 157.

Moisture	·38
Volatile hydrocarbons	46·77
Fixed carbon	16 60
Ash	36 25
	100·00
Sp gr.	1·328

No true coke formed; only a loose cake left. Ash—white

ft.	in.	
0	10	Kerosene shale, stony, very inferior.
1	11	Sandy shale, carbonaceous.
1	3½	Coal, splint and bituminous mixed.
0	0½	Band clay.
0	2	Coal.
0	1	Stony white band.
0	5	Very stony splint coal.
0	1	Clay, stony, whitish.
0	2	Coal.

Floor—Black stony shale

The same seam of kerosene shale has recently been opened at another point over half a mile south-easterly from the preceding. The following section of the seam was measured by me here :—

Roof.—Massive sandstone.

	ft.	in.	
	0	2½	Dark coaly shale.
	0	0¾	Coal, bituminous.
Thickness of kerosene shale (chiefly inferior), 2 ft. 7 in ..	0	1	Coal and kerosene shale mixed.
	0	2	Kerosene shale, inferior, with coaly streaks.
	0	9	Kerosene shale, with flat shaly fracture, inferior. (Analysis No 410).
	0	4	Kerosene shale, fair quality. (Analysis No 411).
	0	2	Kerosene shale, a trifle inferior.
	1	1	Stony, very inferior kerosene shale.
	1	1	Band, hard, black stony clay shale.
	1	0	Coal, good bituminous.
	0	5	Band, gray clay shale, with coaly partings.
	0	9	Coal.
Total	6	1¼	

Floor.—Laminated grey mudstone, passing downwards into sandstone.

The following are analyses by the Government Assayer and Analyst of samples taken by myself from the portions of the seam above specified :—

No. 410.

	Approximate analysis.
Hygroscopic moisture	1 50
Volatile hydrocarbons	15·25
Fixed carbon	5 15
Ash	78 10
	100 00

Specific gravity and sulphur not determined.

No. 411.

	Approximate analysis.
Hygroscopic moisture	·55
Volatile hydrocarbons	56·50
Fixed carbon	11·65
Ash	31 30
	100 00

At the south end of the Megalong Ridge, in T. Wall's 392 acres lease, a seam of kerosene shale, identical apparently with that seen in the tunnels just described, and at Mort's upper tunnel, can be seen on the crest of the ridge, where it has been naturally exposed by denudation, so that it forms a hard capping over the softer clay shales and sandstones which underlie it. A tunnel has been driven for a short distance on this seam, where, through the rising of the ground, it passes under the overlying rock:—

ft.	in	
		Roof.—Laminated sandstone, with 6 in. of carbonaceous shale, with glossepteris leaves.
0	2	Coal perished from weathering.
0 to 1	8 to 5	Average thickness, about 1 foot, kerosene shale, with a strongly marked shaly (not conchoidal) fracture.

Analysis No. 409.

	Analysis.
Hygroscopic moisture	1·45
Volatile hydrocarbons	52·50
Fixed carbon	14·70
Ash	31·35
	100·00

Sulphur in shale not determined.
Sp. gr. in shale not determined.

1	2	Floor.—Stony, fine, hard clay shale, containing a little iron.

The preceding analysis shows the shale to be of somewhat inferior quality. This, however, is the best patch of kerosene shale yet discovered at Megalong, to the south of Mort's tunnels. The surface of the shale here undulates very much, so as to make its thickness very irregular. The roof and floor, however, are nearly flat, and appear to be undisturbed. Possibly, the lateral squeezing which the shale has here undergone may be due to the expansion from weathering of the somewhat extensive adjoining bare patch of shale.

The kerosene shale here contains numerous erect specimens of vertebraria, like the Joadja kerosene shale, that at Mort's tunnel contains large vertebraria bedded horizontally with the shale, and that at the new tunnel on the east side of the ridge, contains large flat stems, or barky casing of plants turned into bituminous coal, over 4 inches in width.

The chief fossils noticed by me associated with these coal measures were, glossopteris, vertebraria, and gangamopteris. The lower Lithgow (?) seam on the west side of Megalong, contains a band of coal in the middle of the seam, full of hollows about the size of pins' heads, which perhaps are casts of sporangia.

All the above-quoted analyses show that the greater part of the seams of kerosene shale at Megalong, as far as at present proved at the outcrops, are of inferior quality, and even the best quality of shale at present found in this locality, is decidedly inferior to the Joadja and Hartley shale. There can be little doubt, however, in my opinion, of the identity of the seam of kerosene shale opened at the localities on the east, west, and south sides of the Megalong Ridge, with that which has been prospected in Mr. T. S. Mort's upper tunnel, and which is there of very much better quality.

Summary.

The seam of kerosene shale on North's and Mort's land at Katoomba, according to the reports already quoted, contains an average thickness of about 12½ inches of fair shale. Even the best of this, however, is not equal to the Joadja or Hartley kerosene shale, which contains over 80 per cent. of volatile hydrocarbons, whereas the best Katoomba, according to Messrs. Cox & Seaver's report, does not contain more than 74 per cent.

The seams of kerosene shale out-cropping at the sides and south end of the Megalong Ridge, south of Mort's, were all of an inferior quality. They serve to show, however, that the kerosene shale is continuous over considerable areas, and it is possible that workable patches of shale may be found at intervals under the Megalong Ridge to the south of Mort's land.

Until, however, more prospecting has been done along the line of outcrop, it is impossible to state, even approximately, the extent, thickness, or quality of the kerosene shale in these patches.

The lenticular character and variableness of kerosene shale are now so well known that such deposits require far more prospecting than any other kind of fossil fuel before any reliable estimate can be formed of their value. It is obvious, however, that in proportion as the exceptionally rich deposits of kerosene shale at Hartley and Joadja become exhausted, the thinner and less rich deposits of Katoomba, and possibly of Megalong also, will increase in value. A great deal, however, of the Megalong shale is of such inferior quality that it could not compete with ordinary bituminous coal for gas purposes.

The lower seam opened in D. R. Wall's 640 acres, on the west side of the Megalong Ridge, is a seam of coal of workable thickness and good quality, and it would, in my opinion, be very desirable to open out the eastern outcrop of this seam at the point already indicated, as if found here of equal thickness and quality to what it has been proved on the west side, it will probably underlie the whole of the ridge, and should be a valuable seam if, by means of the proposed branch railway along the ridge, the coal can be carried economically to the Western line at Katoomba. Without a detailed survey of some part of the Western Coal-field, such as is now being made of the Northern Coalfield, it would be unsafe to finally correlate the seams at Megalong with those worked at Hartley, Bowenfels, and Lithgow, or to state positively that no payable seams will be found below the 7-feet seam at D. R. Wall's. The 7-feet seam at D. R. Wall's appears to me to be identical with the lower Lithgow seam, or with some part of it.

My thanks are specially due to Mr. I. Wall, who guided me to the different points of outcrop of the coal and kerosene shale, and supplied me with much useful information.

I have, &c.,

T. W. E. DAVID,

Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 2B.

No. 2 Progress Report, Geological Survey of Maitland District.

REPORT on the remarkable development of the Greta Coal Seams to the south of Maitland, as proved by recent prospecting.

Sir, East Maitland, 28 April, 1890.

In my first progress report on the extension of the Greta coal measures from the Homeville Colliery, near West Maitland, to Deep Creek, near Bishop's Bridge, dated May, 1888 (Mines, 13,414), I supplemented my original report, as to the discovery by my party of a valuable seam of coal at Deep Creek in August, 1886, with a sketch geological plan, indicating the line of outcrop which the Greta seams would be found to follow from Deep Creek to the Homeville Colliery, a distance of 12 miles. A large area of ground, amounting to over 20,000 acres, has been taken up within this area for coal-mining purposes, since my original report was published in August, 1886, and as subsequent prospecting operations have proved the Greta seams within this area to be of an extraordinary thickness, and also of very good quality, a progress report upon the same may be of some public interest. As already pointed out by yourself, the Greta seams at West Maitland lie on the east side of a great dome or anticline, the centre of which is at Lochinvar. The Greta coal measures, once continuous and horizontal over the whole area from West Maitland to Greta, have been upheaved between these two points to an extent of many thousands of feet, and consequently the summit of this mass of upheaved strata has been brought within the reach of powerful denuding forces, which have gradually planed the Greta measures off the top of the dome, and then cut deep into the underlying strata. Consequently a large area of ground between West Maitland and Greta is destitute of the Greta coal seams, owing to their having been removed by denudation. This barren area is an irregularly-shaped oval, somewhat elongated in the direction of Ellalong, and bounded by the narrow belt of Greta coal measures which circle like a contour line around the base of the old dome, in the manner shown on the accompanying plan. Recent prospecting operations have been directed principally to that portion of the outcrop of the Greta seams which lies between the Homeville Colliery, West Maitland, and Deep Creek (the Silkstone Colliery). At East Greta, 2¼ miles southerly from Homeville, several tunnels have been driven on the seams, the exact outcrops of which were discovered by trenching at right-angles to the strike of the seams, along the lines previously indicated on the geological plan. It is a remarkable fact that none of these seams when cut at the outcrop by trenching showed more than a few inches of perished coal, or black peaty clay, to represent the entire thickness of the seam, one of which has proved to be 30 feet thick when followed a few hundred feet towards the dip. The entire 30 feet of coal, as it approached the surface and came within the reach of the action of air and carbonated water, owing to its volatile nature, must have perished away so as to allow the stone roof to approach within a few inches of the floor. Three seams of coal have now been proved here, which, with their associated strata, give the following descending section as measured by me :—

Roof—conglomerate (with marine fossils to within a few feet of the top of the seam).

ft.	in.		
30	3	*Coal seam.*	
		Details :—	
0	6 to 10½	Band yellow fireclay 10 inches thick in places with ½ inch of perished coal in places, on top of fireclay.	
3	9½	*Coal*, hard bituminous, a trifle perished at top, with ½ inch intermittent band of clayey coal, and ¼ inch parting in places.	
0	2	Band, brown stony shale and coal.	
		Details :—	
	0	0½	Brown stony shale.
	0	1	Coal.
	0	0½	Brown stony shale.
	Total ...	0	2
4	11¼	*Coal*, good hard bituminous, with ⅛ inch intermittent parting.	
0	2½	Band, hard brownish clay.	
0	7	*Coal*, good, hard, bituminous.	
0	3¼	Band, hard, brown, stony shale.	
1	1	*Coal*, good, hard, bituminous.	
Not workable { 0	3	*Coal*, a trifle clayey, with ½ inch clay band in places.	
{ 0	9¾	Band, whitish grey clay shale.	
1	10¾	*Coal*, good, hard, bituminous.	
0	2	Band, brown stony shale, weathered whitish.	
1	1½	*Coal*, a trifle soft, with 7 inches of cannel coal at bottom.	
0	2¾	Band, soft, dull, earthy coal.	
4	11	*Coal*, good, hard, bituminous, with an intermittent 1 inch dark clayey band.	
0	2 to 3	Band, brown strong clay shale, and black clay shale.	
3	8¼	*Coal*, fairly good.	
0	5	Band, soft coaly clay shale.	
4	0	*Coal.*	
0	1	Band, brown clay shale.	
0	5	*Coal*, cannelly and dirty.	
0	4	*Coal*, brittle, bright, black, bituminous.	
Total 30	3 to 30 ft. 0½ in.		

Floor. Floor—Black, coaly shale.

ft.	in.	
4	5	Clay shale, dark grey, lighter grey downwards.
2	9	*Coal*, hard, good, bituminous.
50	0 (about)	Strata not yet proved, probably chiefly sandy shale and fine sandstone.
0	6	Clay, shale dark grey.
0	10	Dark blackish brown clay shale.
0	4	*Coal*, hard bituminous, bottom 1 inch, dirty.
1	2	Brown sandy clay shale with thin coaly partings near top and bottom.
0	3	Fine conglomerate.
11	8	*Coal seam.* Details :—

	ft.	in.	
Details :—	4	6	*Coal*, hard, bituminous, with from 6 in. to 8 in. of cannel coal at bottom of layer
	0	1	(½ in. to 2½ in.) Blackish stony clay.
	2	1½	*Coal*, good, hard, bituminous.
	0	1½	(½ in. to 6 in.) Band of black clay.
	4	10	*Coal*, good, hard, bituminous.
Total	11	8	

ft.	in.	Floor—Blackish grey sandy shale.
2	10	Dark grey sandy shale.
1	0	Fine conglomerates resting on pebbly sandstone.

These seams dip E. at an angle of 46 degrees. The cleat runs principally in a W.N.W. and E.S.E. direction, chiefly W. 10 to 14 degrees N., and E. 10 to 14 degrees S. An average sample of this coal taken by myself and analysed by Mr. J. C. H. Mingaye, F.C.S., &c., the Government Analyst and Assayer, gave the following result:—

Analysis No. 717.

Proximate Analysis—	
Hygroscopic moisture	2·05 per cent.
Volatile hydrocarbons	40·87 ,,
Ash	6·05 ,,
Fixed carbon	51·03 ,,
	100·00 per cent.

Coke, 57·08 per cent; specific gravity, 1·288 per cent; sulphur, 0·782 per cent.

Coke—Fairly well swollen, lustrous, and fairly fine. Ash—A reddish tinge.

This analysis proves the coal here in this upper Greta seam to be of a very good quality for gas, smelting, and household purposes, and also to be useful as a steam coal; but owing to its being a long flaming coal, of somewhat rapid combustion, it would require to be burned with the furnace bars set closer together than in the case of the strong steam coals of the Illawarra Coal-fields.

The quantity of coal contained in this seam per acre of coal seam (on account of the high angle of dip, a superficial acre of ground here contains 1·41 acres of coal) would be, taking the thickness of coal in the seam as 26 ft. 10 in., and the specific gravity of the coal at 1·28, 41,700 tons; and this would yield, after making the deduction usually allowed in New South Wales of one-third for waste in getting, faults, rolls, &c., and assuming that a quarter of the remainder would be small coal, 20,850 tons of large and 6,950 tons of small coal per acre of coal seam. So thick a seam as this, however, if worked by *remblais* on the longwall system, should yield a far greater proportion of large coal than the amount specified and the waste should be much less than the usual allowance of one third.

The lower seam, 11 ft. 8 in. thick, contains about 11 ft. 5½ in. of coal, and this would contain a gross quantity, per acre of coal seam of 17,804 tons of coal, which, deducting one third for waste in getting faults, rolls, &c., and assuming that a quarter of the remainder would be small coal, would yield 8,900 tons of large coal, and 2,967 tons of small coal per acre of coal seam. As regards the gas-producing qualities of this lower seam, the following particulars, as I am informed by Mr. H. J. Adams, have been supplied by Mr. T. J. Bush, Manager of the Australian Gaslight Company :—

Yield of gas per ton of 20 cwt. from the upper 2 ft. 10 in. of coal; in the lower, 6 ft. 10 in. of the lower seam	12,800 cubic feet.
Coke, per ton of 20 cwt.	13 cwt., or 65 per cent.
Illuminating power	1,758 candles.
Ash in coke	8 per cent., or 5·2 per cent. in coal.
Lower 4 ft. 6 in., portion of lower seam—	
Yield of gas per ton of 20 cwt	12,000 cubic feet.
Coke	11·5 cwt., or 57·5 per cent.
Illuminating power	1,822 candles.
Ash in coke	8 per cent., or 4·6 per cent. in coal.

The total thickness of workable coal contained in this property, on the assumption that the 2 feet 9 inches seam can be worked in conjunction with the 30-feet seam, is 41 feet. This thickness would contain, in round numbers, 63,700 tons per acre of the coal seams, which would yield, after making the usual deduction of one-third for waste in getting, faults, rolls, &c., and assuming that a quarter of the remainder would be small coal, 31,851 tons of large, and 10,616 tons of small coal per acre of the coal seams, the aggregate value of which, taking the selling price of the large coal at 10s. per ton, and that of the small at 4s. per ton, would be £18,048.

Heddon-Greta.—At a point 2½ miles southerly from the East Greta tunnels a thick seam of coal, identical with the 30-feet seam at East Greta, has lately been proved in a shaft and drive. The shaft was sunk to a depth of 56 feet, and then a drive was extended from the bottom of the shaft in the roof of the seam at right angles to the strike until the floor was reached. The seam dips about E. 5° S. at an angle of 53°. Measured horizontally along the drive, the seam measures 39 feet 7 inches, which, allowing for a slight rise of (say) 1 foot in the floor of the drive from east to west, makes the total thickness of the seam, including bands, 32 feet.

Roof.—Hard conglomerate.

ft.	in.	
0	0¾	Clayey coal.
2	7	*Coal*, with two soft, shaly partings, in places ¼ to ½ inch thick; upper 7 inches of coal, rather pyritous.
0	1¼	Band, dark grey stony shale.
1	11	*Coal*, good, hard, bituminous, with intermittent clay band, 0 in. to 1 in.
0	8	Band, soft, dark, coaly clay.
1	4½	*Coal*, good, hard, bituminous.
0	2	Band (1½ in. to 3 in), brown clay shale.
1	3¼	*Coal*, good, bituminous.
0	1¾	Band (1½ in. to 2 in.) of white and dark grey clay.
19	11	*Coal*, mostly good, hard, bituminous, with four partings of dull, clayey coal (½ in. to ⅛ in. and ¾ in. to 2½ in.) the last two bands intermittent. At about 8½ feet below the top of this layer, coal for several inches is rather dirty.
0	0¾	Band, soft clayey coal.
1	4	*Coal*, somewhat perished.
0	5	Band, soft, clayey coal, with an intermittent band of brownish grey clay ½ in. to 2½ in. thick.
1	11	*Coal*, somewhat perished.
0	0¾	Clayey coal.
Total..	32	0

Floor.—Dark, grey, clayey sandstone.

The

The following two analyses of the coal from this seam have been made from average samples selected by myself, by Mr. J. C. H. Mingaye, F.C.S., Analyst and Assayer to the Department of Mines:—

Analysis No 640, representing the top 6 feet of seam.

Moisture	1.59 per cent.
Volatile hydrocarbons	40·46 ,,
Fixed carbon	49·05 ,,
Ash	8·90 ,,
	100·00

Coke:—Fairly swollen up, dull and firm.
Ash:—Dark grey.

Coke	57·95 per cent.
Sulphur	·137 ,,
Sp. gr.	1·321 ,,

Analysis No 638, representing lowest 17 feet 11 inches of seam.

Moisture	2·43 per cent.
Volatile hydrocarbons	37·87 ,,
Fixed carbon	54·25 ,,
Ash	5·45 ,,
	100·00 ,,

Coke:—Fairly well swollen, lustrous, firm.
Ash:—Light grey.

Coke	59·7 per cent.
Sulphur	·713 ,,
Sp. gr.	1·273 ,,

The above analyses show the coal here to be very similar in composition to that in the 30-feet seam at East Greta, and to be suitable for the same purposes as the East Greta coal. Assuming that the thickness of workable coal in this seam is 29½ feet, this seam would contain a gross quantity of coal per acre of seam of 45,838 tons, which, after making the usual deduction of one-third for waste in getting, faults, rolls, &c., and assuming that one-quarter of the remainder would be small coal, would yield per acre of coal seam 22,920 tons of large coal, and 7,639 tons of small coal. At a point about 65 chains south by west from the preceding shaft and drive, two seams of coal have been proved in two tunnels.

The following descending section was measured by me here of the coal-seams and their associated strata:—

Roof.—Reddish, pebbly sandstone, passing into conglomerate in parts.

Coal seam. ft.	in.	Details. ft.	in.	
7	6	0	3	Coal, rather brassy ("brassy tops")
		3	8	Coal, hard bituminous, with 1 inch of cannel coal at bottom.
		0	0½	Band of black clay.
		1	7	Coal, hard bituminous, top 3 inches, a trifle brittle.
		1	1½	Coal, chiefly brittle, bituminous, a trifle clayey, a rather inferior, lower 1½ inch, hard
		0	1½	Band of dark grey clay, with blotches of white clay.
		0	8½	Coal, chiefly bituminous, rather soft and brittle.
Total ...		7	6	

Floor.—Black sandy shale; seam dips E. 10° S., first at 26°, then at a steeper angle.

ft.	in.	Details. ft.	in.	
50	0			..... (approx). Strata covered by soil, so that their exact nature is not apparent.
Coal seam.				
24	3	0	3	Coal, perished.
		0	3	Band, whitish grey and dark grey fireclay.
		1	0	Coal, bituminous, partly perished from exposure to the weather.
		0	3	Band, soft, blackish grey clay.
		1	2	Coal, a trifle perished from exposure to weather.
		0	3	Band, brown and yellowish grey fireclay.
8	0			*Coal*, good, hard, bituminous, with 6 in. of cannel coal at 1 ft. 8 in. from bottom of this layer.
2	0			*Coal*, a trifle inferior, with dull clayey partings, intermittent, and one intermittent white clay band from ½ in. to 1 in. thick.
8	1			*Coal*, good, hard, bituminous, with intermittent clayey parting 0 in. to 1 in. at 1 ft. 7 in. to 1 ft. 8 in., and similar ¼ in. intermittent parting at 1 ft. from top of this layer.
0	8			Band, dull, black, coaly clay.
2	3			*Coal*, good, hard, bituminous, with 1 in. soft bituminous coal at bottom.
				Floor.
Total... 24	2			Seam dips E. 10° S. at 26°.

The following is an analysis of an average sample of the coal from this seam, selected by me, and made by Mr. J. C. H. Mingaye:—

Analysis No. 716.

Hydroscopic moisture	2·11 per cent.
Volatile hydrocarbon	39·59 ,,
Fixed carbon	54·99 ,,
Ash	3·31 ,,
	100·00 ,,

Coke	58·30 per cent.
Sp. gr.	1 275 ,,
Ash	·780 ,,

Coke:—Firm, lustrous, and well swollen, with cauliflower-like excrescences. Ash:—A light pink colour.

From the fact that the upper 7 ft. 6 in. seam is dipping at the end of the dip tunnel at a more rapid rate than the underlying seam, it would appear probable that those seams will be found to become united when followed a short distance further towards the dip. There can be little doubt that these two seams

seams represent the 32 feet seam at Garvan's, which has become split into two seams here. It is eminently fitted, on account of its low percentage of ash and freedom from sulphur, for smelting purposes. The thickness of workable coal in the upper 7 feet 6 inches seam being taken as 5 feet, and the specific gravity of the coal as 1·28, after deducting one-third for waste in getting, faults, rolls, &c., and allowing that one-quarter of the remainder would be small coal, this seam would yield per acre of coal seam 3,890 tons of large coal and 1,296 tons of small coal. The thickness of workable coal in the lower portion of the upper seam, 24 feet 2 inches thick, would yield, according to the same estimates, 18,776 tons of large and 6,258 tons of small coal per acre of coal seam.

Stanford Greta Mine.

At a point about 1 mile south-south-west from the preceding tunnels a shaft has been sunk to a depth of about 36 feet, in which a seam of coal has been proved about 17 feet thick, but the upper portion of this was still slightly perished, owing to the proximity of this seam to the surface at this point. I did not measure this seam in detail, as I understood that the tunnel would be driven on the seam towards the dip until the whole of the seam became sufficiently protected by the rock cover for the coal to be solid. The shaft, however, has subsequently become filled with water. According to my general measurement, however, the seam is 17 feet thick, and does not show any well-marked bands, though it is possible it may contain some small black bands. Some samples of coal from this seam, taken and forwarded by Mr. H. Trenchard, manager of the Bank of Australasia, West Maitland, have been analysed by Mr. J. C. H. Mingaye, with the following results:—

Hygroscopic moisture	2·21
Volatile hydrocarbons	40·76
Fixed carbon	50·95
Ash	6·08
	100·00
Coke	57·03 per cent.
Sulphur	·26 ,,
Specific gravity	1·288

Coke:—Firm and bright, fairly well swollen. Ash:—Grey.

This is a good description of coal, and most useful in the manufacture of gas, the coke yielded being of a good quality, and suitable for smelting purposes.

From the last-mentioned point the outcrops of the Greta seams bend first south-westerly, then west by north, the bend here being very sharp, and accompanied by at least one down-throw fault to the north-east as shown in my plan previously furnished. (May 29, 1888—13,414).

In Hebblewhite's shaft, 2½ miles W.S.W. from the 36 feet shaft, the Upper Greta seam was struck at a depth of 60 feet, and as I am informed by Messrs. Hebblewhite, was about 16 feet thick, including a few small bands.

Silkstone Coal-mine.

At a shaft sunk at Deep Creek to the point where my trial pit was originally sunk, I measured the following section:—

ft.	in.	
5	0	Alluvial sandy soil. } From information.
5	0	Soft conglomerate. }
Roof:—		
4	7	carbonaceous sandstone, dark grey, with pebbles.
5	11	*Coal*, hard, bituminous, rather pyritous.
		Details:—
		ft. in.
		1 1 *Coal*, hard, bituminous.
		2 10 *Coal*, rather pyritous.
		2 0 *Coal*, good, hard, bituminous, with 1⅛ in. of cannel coal.
1	8	*Coal* and bands, not workable.
2	1	*Coal*, good, hard, bituminous.
0	0½	Band of brown clay.
1	8⅝	*Coal*, good, hard, bituminous.
0	0⅛	Band, brown clay.
2	0	*Coal*, good, hard, bituminous.
Total... 13	5	

I was unable to measure to the bottom of this seam owing to the influx of water, which it was impossible to bale down with an ordinary bucket and windlass. It is possible, therefore, for this reason, that my measurement is a foot short of the full thickness of this seam, which was represented to me as being 14½ feet thick. The seam dips S.S.W. from 1 in 18 to 1 in 25. The following analysis by Mr. J. C. H. Mingaye, of an average sample of coal selected by me from the lower portion of the seam at Deep Creek, in the Silkstone Mine, may be quoted here:—

Hygroscopic moisture	2·35
Volatile hydrocarbons	40·79
Fixed carbon	52·76
Ash	4·10
Specific gravity	1·243
Coke	56·86 per cent.
Sulphur in coal	·83

The workable thickness of coal here being assumed to be 11½ feet, and the specific gravity at 1·243, this seam should yield per acre, after making the usual allowance of one-third for waste in getting, faults, rolls, &c., and allowing that one-quarter of remainder would be small coal, about 8,700 tons of large coal and 2,900 tons of small coal per acre.

Richmond

Richmond Vale Coal Company.

The property of this Company immediately adjoins that of the Stanford-Greta Coal Company, by which it is bounded on the north. A bore has been put down on this property at the point shown on the accompanying plan to a depth of 460 feet, and a seam of coal 14 feet 6 inches in thickness is said to have been passed through between 445 feet 6 inches and 460 feet from the surface. The accompanying section of this bore was furnished me by Mr. Richard Thomas, consulting engineer to the Richmond Vale Coal Company. At a point 1 mile south-west from the preceding bore a pit has been sunk by this Company upwards of 700 feet in depth, and the upper part of the Upper Greta seam was struck at a depth of about 690 feet. The bands in this seam, and the occurrence of the "brassy tops" at the top of it to be identical with the 7 foot 6 inch seam already described at the Upper Heddon Greta tunnel. This seam, however, as proved in the Richmond Vale pit, does not contain quite as much coal as at Heddon Greta, which is to be accounted for partly by the coal here having been removed by contemporaneous erosion, and partly by the fact that the upper portion of this seam is a trifle perished. The occurrence of perished coal under such a thick covering as 690 feet of rock, although very exceptional is not without precedent, for at the Greta Mine patches of partly-perished coal are occasionally met with down to a similar depth. This perishing of the coal, however, in the small top seam at the Richmond Vale pit will probably be only very local, and the whole of the coal in the seam will be likely to make into solid coal when driven on for a hundred feet or so. The Company are continuing to sink their pit with a view of striking the thick upper seam, which, at Heddon Greta, as already stated, underlies the top 7 ft. 6 in. seam at a depth of about 50 feet.

A feature of special scientific interest in connection with this pit, is the occurrence of layers of undecomposed glossopteris leaves thickly matted together in layers in a soft fireclay below the top seam. Glossopteris being a plant of such universal distribution throughout the productive coal-measures of New South Wales, and entering, as it does, into the composition of the coal of all our coal-seams, the occurrence of its leaves in this state, not much more altered than those of any living plant, when cut and dried as botanical specimens, is of special interest, as giving opportunity for a more thorough study of their characters. These glossopteris leaves are not reduced to a brittle carbonaceous state, as is almost invariably the case throughout the Permo-carboniferous coal-measures of this Colony and other parts of the world, but retain the original substance of the leaves in a wonderful state of preservation. Many of them are rolled up like tea-leaves, but after soaking for some time in glycerine and water they can with a little care be unrolled, and the leaf laid out flat, and when mounted on a glass slip they form fine objects for the microscope. As far as I am aware this is the first recorded occurrence of glossopteris leaves in their undecomposed state in any part of the world. A large number of these leaves have been mounted for the microscope, and can now be seen at the Mining and Geological Museum of the Department of Mines. The rate of dip of the Greta coal-seams between this point and their nearest point of outcrop at the Stanford-Greta is proved by this pit and bore to be at the rate of 328 feet per mile in a southerly direction. To the south-west of this property, large areas of land have been taken up by Messrs. Scholey, M.L.A., W. Winn, Birkenhead, Adams, Gardiner, Rigg & Co.; but these areas have not as yet been prospected.

Maitland Colliery.

On the occasion of my visit to this mine on 19th April, the top Greta seam had just been struck at a depth of about 450 feet, but the full thickness of the coal has not yet been proved. This pit and the Richmond Vale pit therefore prove the Greta seams to be continuous to a considerable depth from the outcrop towards the dip.

Summary.

The facts above enumerated prove that the Greta seams attain a remarkable thickness to the south of Maitland, and where the thickest are of exceptionally good quality. The upper seam in the areas above described varies in thickness from 14 up to 32 feet. The lower seam has been proved hitherto only, perhaps, at the Homeville Colliery and at East Greta, at the former of which it is from 2 feet 9 inches to 3 feet 9 inches thick, while at the latter it is 11 feet 8 inches thick. At the latter mine (East Greta), where the seams appear to reach their maximum development (though at Heddon Greta the upper seam is even thicker than at East Greta, being 32 feet thick), the gross quantity of coal contained in the coal-seams would be about 63,707 tons per acre of coal-seams. Allowing one-third for waste in getting, faults, rolls, &c., and assuming that one-fourth of the remainder would be small coal, and (say) worth 4s. per ton, the value of coal-seams per acre would be about £18,050. Here the question naturally suggests itself: What thickness may be taken as a fair average for a basis on which to estimate the probable quantity of coal contained in the 20,000 acres, which have been taken up for coal-mining in the above properties? As stated above, the thickness of workable coal proved, varies from 11 feet 6 inches to 41 feet. The mean thickness, however, of workable coal proved, may, I think, be taken at 15 feet, and calculating on this basis, and assuming a specific gravity of 1·28 for the coal, and making the usual allowance for waste in getting, and for small coal, the 20,000 acres already taken up in this new coal-field would contain a gross quantity of coal of the amount of 23,307 tons per acre, or in the aggregate, 466,154,000 tons of coal. Deducting one-third for waste in getting, faults, rolls, &c., and assuming that one-fourth of the remainder would be small coal, worth 4s. per ton, and that the large coal would be worth 10s. per ton, the aggregate value of the coal which might be exploited from this land would be £132,076,966, a value in excess of the total recorded value of all the minerals raised up to date in New South Wales, including coal, gold, silver, copper, tin, &c., the total aggregate value of which, as given by you in the Annual Report of the Department for the year 1889, is 82,000,000 sterling. There is an abundant supply of timber in most of these properties to suit all the requirements of coal-mining for a considerable time to come, and there can be little doubt, in my opinion, that this coal-field has a great future before it. My thanks are specially due to Messrs. H. J. Adams, H. Trenchard, L. A. Wilkinson, C. Hebblewhite, R. Thomas, and J. Rigg, for their kind assistance to me when examining the coal-seams in this district.

I have, &c.,

T. W. E. DAVID,

Geological Surveyor.

The Under Secretary.

APPENDIX No. 2C.

Report by the Prospecting Board.

Sir, Department of Mines, Sydney, 10 June, 1890.

We have the honor to report that we have inspected Muttama, Gundagai, and Adelong districts, and have dealt with applications for aid out of the Prospecting Vote for 1890, at Muttama, Coolac, Adelong, Reedy Flat (Batlow), Hill's Creek, Kimo, Bongongolong, and Gundagai. Special reports are being furnished by us upon each of these applications. The first site inspected was the "Jubilee Alluvial Gold Mining Company's" mine, near Muttama, where aid is asked to enable the proprietors to further test the continuation of a lead of alluvial gold. A short distance from the preceding is the "Excelsior Reef," for the further development of which, application for aid has been made. The reef is from 6 inches to 2 feet wide, and consists of quartz carrying galena, and free gold, and is enclosed by walls of a dark greenish grey hornblendic granite, with a soft dig of from 10 inches to 1 foot next the footwall.

The reef has been sunk upon to a depth of 100 feet, and is stated to have yielded from ½ oz. to 1 oz. 2 dwt. of gold per ton. The ground next inspected, that of Mr. J. M. D. Williams, at Mooney Mooney Creek, near Coolac, contains a reef of white quartz, slightly ferruginous, containing gold and galena, and averaging about 16 inches in width. A shoot of gold has been worked here, which is said to have yielded from 2 oz. to 5 oz. of gold to the ton. Altogether about 50 oz. of gold have been won from this reef.

At Reedy Flat (Batlow), 17 miles from Adelong on the road towards Tumberumba, Timmins and party ask aid to sink deeper on a reef of quartz, from 2 feet 6 inches to 2 feet 10 inches wide, which is stated to have yielded from 4 dwt. up to 8 dwt. of gold per ton. The stone is crushed at the Batlow battery about 1 mile distant, the cost of cartage of the ore from the mine to the battery being 2s. 6d. a ton, and of crushing about 9s. a ton. This gold realises a price of about £3 16s. an ounce. A considerable quantity of gold was formerly obtained here from the alluvials, but at present alluvial mining is in abeyance.

The country rock which here appears to have shed the gold, is a dark grey granite containing an abundance of hornblende and black mica.

At the Gap near Adelong, the Lady Mary Gold-minining Company are receiving aid to test the Gap reefs at the deeper levels, and their shaft is now down 240 feet. A good deal of water is soaking into the shaft from the channel of the reef, but is being kept down successfully by pumping by steam-power. R. Mitchell asks to be assisted to sink on a leader, supposed to be an off-shoot of the Gap line of reef, on some ground about half a mile distant from the preceding Company's shaft.

At Hillas' Creek, about 16 miles on the road from Adelong towards Tarcutta, Engellen and party, and Pasterelli and party, ask assistance to further prove two alluvial gold leads which are dipping into wet ground.

At Bongongolong, Walter's and party have applied for aid to sink 100 feet deeper below the 80 feet level to further test a large dyke of quartz and felspar porphyry, containing small veins of quartz, with iron pyrites, copper pyrites, and fluor spar.

Several hundred tons of this stone have been crushed at the adjoining battery, but the yield so far has been a trifle too much to be payable.

At the Prophet Reef, at Kimo, near Gundagai, Parrott and party ask aid to sink their 100 feet shaft to a total depth of 200 feet, so as to intersect some gold-bearing shoots, which have been worked further to the north, and which are dipping towards the shaft. The yield of some of these shoots is stated to have been rich, as much as 500 tons of quartz having returned gold at the rate of 3½ oz. to the ton. The reef is from 1 foot 8 inches up to 4 feet in width, and consists of white and pink quartz, containing galena, copper pyrites, iron pyrites, and gold, and traverses a schistose quartz and felspar porphyry. Several thousand ounces are said to have been won from this reef. Pike's Reef, inspected by us, between Kimo and Gundagai, is somewhat similar to the above, but narrower and in harder country.

We next inspected the sites, for which aid has been asked at Brummy's Hill and Flat, and also at the Recreation Reserve, both near Gundagai. At Brummy's Hill, J. W. Benson wishes to be assisted to sink on a large reef of ironstone and quartz, which is considered to be the source from which the gold worked in the adjoining alluvial lead has been derived, and also to further test the continuation of this alluvial lead from Brummy's Hill towards the Murrumbidgee River. On the Gundagai Recreation Reserve, J. M. Dodd and party have applied for aid to test the alluvial ground on the right bank of the Murrumbidgee, with a view of striking a continuation of a rich alluvial lead, which is now being worked on the opposite bank of the river by Mr. Lindley, on his own private property. A coarse quartz gravel outcrops in Mr. Lindley's ground in the river bank, where it is seen to rest on a bed rock of slate, and the lead has been traced to within 20 feet of Mr. Lindley's house, where the top of the gold-bearing gravel is 40 feet below the surface. The gravel here is very coarse, many of the waterworn blocks of quartz being from two to three feet in diameter. When these large blocks have been picked out of the wash, it yields from 8 dwt. up to ½ oz. to the load. The wash is from 3 feet up to 10 feet thick, and Mr. Lindley with the labour of four men and help of a steam-engine to pump water for sluicing, is obtaining 30 oz. of gold per week. The gold is of medium coarseness, is very clean and parts readily from the wash, and is worth nearly £4 an ounce.

The lead at Lindley's appears to be trending in a westerly or north-westerly direction, so as to cross the Murrumbidgee River, and probably its further continuation in this direction will be found to have been cut off by the present river channel. The sluicings, however, of this old lead must lie somewhere under the wide alluvial flat between Lindley's and Mount Parnassus, and in all probability a great part of the gold has been dropped in the deep alluvial near to the present channel of the Murrumbidgee, between Lindley's and the southern end of the Gundagai bridge. The alluvials on the Recreation Reserve will probably contain water, more or less heavy, everywhere before the bedrock is reached.

This alluvial flat is about half a mile wide, but Dodd and party's prospecting operations will for the present, be confined to that part of it which is nearest to Lindley's lead. The north-western side of this flat is also worthy of being tested, with a view to prove the further extension of the cemetery lead, which was fairly rich as far as it worked, as much as 35,000 oz. of gold having been won from it, as we were informed.

Good

Good alluvial gold is also being now worked about 4 miles from Gundagai by Mr. M'Inerney, on private property.

If, therefore, the proposed prospecting works of Messrs. Dodd and Benson are attended with any success, there is a prospect of a considerable revival of alluvial gold-mining taking place at Gundagai.

We have, &c.,

HARRIE WOOD.
T. W. E. DAVID.

The Honorable the Minister for Mines and Agriculture.

APPENDIX No. 2 D.

Second Report on Peak Hill.

Geological Survey Branch, Department of Mines,
Sydney, 17 June, 1890.

Sir,

I have the honor to report that, in accordance with your verbal instructions given me on 17th June, I left Sydney the same evening for Peak Hill, accompanied by Mr. Geological Surveyor Stonier, and as far as the limited time prescribed to us in our instructions would admit, we inquired into the general state of mining there, with special reference to the nature of the veins where they had been sunk upon to any depth.

Owing to the very boggy state of the road between Molong and Peak Hill, we were unable to reach the latter locality until the afternoon of 14th June, and had to leave on the following afternoon in order to reach Sydney in the morning.

The present population of the field is estimated by the Warden to be about 1,000, though some are of opinion that there may be as many as 1,200 (including women and children). Of this number perhaps between 200 and 300 are engaged in alluvial gold-mining, and about 50 are employed on wages, working on the leases. The remainder are either occupied in business pursuits, arising out of the requirements of the new township, which is fast springing up around Peak Hill, or are watching the course of events.

Mr. Tempest, the manager of the A. J. S. Bank at Peak Hill, informed me that to his knowledge at least 15,000 oz. of gold had already been obtained from this field, worth on the average £4 0s. 9d. an ounce, when cleaned. The total value of the gold known to have been won from this field up to date, according to this lowest estimate, would, therefore, be worth about £60,562.

Of the alluvial mines, we examined a lead now being worked principally on Town's and McDonald's claims, running parallel to Aldridge's lead, and a short distance to the north of it. The sinking here is said to be from 25 feet to 30 feet, the gutter 5 feet wide, and the wash to be about 1 foot 6 inches thick, and to yield about 3 oz. of gold to the load. We were informed that about 150 oz. of gold had been won from Donald McDonald's claim in an area hardly as large as three men's ground. Lindberg and party near here have won about 50 ozs. of gold in a similar area. The sinking is stated to be from 3 feet to 22 feet.

At the Boulder Lead at the north-east end of Peak Hill, a gutter has been worked for a length of about 300 yards, trending from south to north. The gutter is said to be about 10 feet wide, the wash 1 foot thick, and to have averaged ½ oz. of gold to the load, and the depth of sinking to vary from a few feet to 27 feet. Some of the water-worn blocks of quartz in this lead are from 1 to 2 feet in diameter.

On the west side of Peak Hill, and to the north of the township, an alluvial lead is being traced in a west-north westerly direction, near to the north-west corner of lease application to G. L. 140, and this lead has already been worked for a distance of about 14 chains. As regards the reefs, the principal work with reference to testing them at a depth appears to have been done on Madden's, William's, and Kelly's leases. At the north-west corner of William's lease, a shaft has been sunk to a depth of 32 feet and at 13 feet westerly from the bottom of the shaft a reef has been cut in a drive, which has already been proved for a thickness of 5 feet 6 inches. This reef is composed of drusy quartz much coated and stained with oxides of iron. The footwall of this reef is very well defined, and consists of talc slate, very soft, and of a deep brownish red colour, next to the reef. The hanging wall had not been reached up to the date of our inspection. The reef dips west 38° north at 80°. Three samples selected by Mr. Stonier and myself, each representing as far as possible a third of the whole width of the reef, have been assayed to-day by Mr. J. C. H. Mingaye, F.C.S., the Departments Analyst and Assayer, with the following results:—

No. 1,433.—Next footwall, yielding—

Gold	a trace (under 2 dwt.) per ton.
Silver	5 dwt. 20 gr. per ton.

No. 1,432.—Middle portion of vein, yielding—

Gold	a trace per ton.
Silver	4 dwt. 5 gr. per ton.

No. 1,431.—Portion of vein seen west of, and next to preceding, yielding—

Gold	a trace per ton.
Silver	2 dwt. 14 gr. per ton.

The results of these assays do not, of course, necessarily imply that this reef may not be payable gold-bearing, for in the first place, however carefully samples may be selected from a reef, and however accurately they may be assayed, they do not always represent a fair average of what the reefs would yield on a large scale, which can only be ascertained by bulk crushings, and in the second place it is always possible that the part of the reef from which samples are taken belongs to one of the belts of barren veinstone which have so often been proved by experience, especially in the case of New South Wales gold reefs, to intervene between the payable gold-bearing shoots in the veins. The mere fact that these assays show the reef at this spot to be poor in gold cannot be taken as any criterion that the yield of the reefs will diminish at a depth, for on Madden's lease, as will presently be shown, the reefs at a depth of 86 feet appear to be locally at any rate as rich in gold as they are at the surface. In the 32-feet shaft above referred to (from which the drive has been extended to intersect the 5 feet 6 inch reef), a section is exposed of a vein of porous ferruginous quartz, from 2 inches to 9 inches wide. The shape of this vein is very irregular, but one, at least, of the walls, shows strong evidence of stickensides, as does the footwall of the 5-feet 6 inch reef.

Mr.

Mr. Williams informed us that he had lately forwarded to the Clyde Crushing and Chlorination Works, near Parramatta, two tons of ore, chiefly from the surface at the top of the hill in his lease, and the return snowed the amount of gold per ton to be 19 dwt. 10 gr.

In Dennis Madden and party's lease we examined a large open excavation and cross-cut at a depth of 37 feet, which intersects several veins of ferruginous perous quartz, and intervening masses of country rock, consisting of talc slate, charged with iron and silica. This mass is locally known as the "dyke." The total length of the cross-cut is 36 feet, and its direction is east 30 degrees north and west 30 degrees south, whereas the strike of the quartz veins in this mass is chiefly in an east and west direction. Six samples, selected as far as possible as fair representatives of the parts of the ore body from which they were taken, were broken off the following portions of the mass by Mr. Stonier and myself, and have been assayed by the department's assayer and analyst with the following results.

Each sample represents the length specified in the margin taken along the mass, on a bearing east 30 degrees north, and commencing at the western end of the cross-cut—

Representing 0 ft. to 5 ft.

No. 1,436.—A silicated ferruginous talc slate, with numerous minute cavities; soft and friable from decomposition, yielding—

Gold	2 dwt. 14 gr. per ton.
Silver	2 dwt. 6 gr. per ton.

Representing 5 ft. to 10 ft.

No. 1,437.—Sample similar to the preceding, but a trifle more silicated, yielding—

Gold	3 dwt. 6 gr. per ton.
Silver	trace per ton.

Representing 10 ft. to 15 ft.

No. 1,438.—Sample similar to 1,436, yielding—

Gold	17 dwt. 15 gr. per ton.
Silver	trace per ton.

Representing 15 ft. to 20 ft.

No. 1,439.—Sample similar to 1,437, yielding—

Gold	7 dwt. 4 gr. per ton.
Silver	trace per ton.

Representing 20 ft. to 25 ft.

No. 1,440.—Sample similar to 1,437, but containing some true quartz and a good deal of highly silicated talc slate, yielding—

Gold	1 oz. 1 dwt. 13 gr. per ton.
Silver	6 dwt. 12 gr. per ton.

Representing 28 ft. to 36 ft

No. 1,441.—Sample similar to preceding, yielding—

Gold	7 dwt. 20 gr. per ton.
Silver	2 dwt. 14 gr. per ton.

These assays, especially the last four, are very encouraging, but as already stated, such tests do not necessarily form a fair criterion of the probable average yield of this mass.

The prospecting works on this mass were not sufficiently advanced to enable us to form even an approximate idea of its dimensions, which, however, must be considerable.

Near the north-western corner of the same lease a shaft has been sunk to a depth of 86 feet upon a nearly vertical vein of ferruginous talc slate somewhat silicated with thin veins of porous quartz and oxides of iron. The strike of the vein at the bottom of the shaft is east 25 degrees south, and west 25 degrees north, but this direction of strike may be purely local. As yet the eastern wall only has been proved in the shaft, and consists of a whitish grey talcose slate. The vein dips slightly to the east to a depth of 70 feet, and thence to the 86 feet level it dips slightly to the west.

At 8 feet above the bottom of the shaft a strongly-marked oblique fissure or floor intersects the vein at an angle of about 30 degrees from the horizontal, and dips about south south-west. Several cavities or vughs are observable in this floor, partly filled with earthy oxides of iron.

The vein material, even at the bottom of the shaft, is quite soft and friable from decomposition, and apparently does not contain pyrites, at all events in any appreciable quantity.

This vein at the 86-feet level has already been proved for a width of 4 feet 3 inches, but the western wall has not yet been reached.

Samples selected by Mr. Stonier and myself have been assayed by the Government Assayer and Analyst, with the following results:—

No. 1,434.—Sample representing one half of the portion of the vein exposed in shaft next to the eastern wall, yielding:—

Gold	5 dwt. 5 gr. per ton.
Silver	2 dwt. 13 gr. per ton.

No. 1,435.—Sample representing western half of the portion of the vein exposed in the shaft, yielding:—

Gold	3 oz. 15 dwt. 18 gr. per ton.
Silver	a trace per ton.

The respective portions of the vein from which their samples were taken do not exhibit any striking dissimilarity in appearance, and yet their respective yields of gold, as proved by the assays, are very different, a fact to be taken, probably, rather as an indication of the uneven distribution of the gold throughout the veinstone, than of the gold being confined chiefly to one side of the vein. The uneven distribution of gold in the Peak Hill veins is a subject which has already been commented on by Mr. E. F. Pittman, Assoc. R.S.M., the Chief Mining Surveyor, in his report already furnished.

The results of these assays and explorations are, in our opinion, particularly encouraging for two reasons: (1.) They prove that the veins continue to be gold-bearing to a depth of at least 86 feet, and that the vein at this depth is, in places at any rate, rich in gold. The surface of the ground at this shaft is, moreover, about 120 feet below the level of the reefs at the highest point of Peak Hill, so that it may reasonably be expected that the latter will be gold-bearing to a depth of at least 120 feet + 86 feet=206 feet.

feet. (2.) The highly decomposed state of the vein-material at the bottom of the 86-feet shaft, in spite of the shaft being already below the level of part of the adjoining plain, together with the apparent entire absence of pyrites, shows that the zone of sulphide ores which must underlie these upper oxidised portions may not be expected to be reached for perhaps a considerable depth yet; a supposition which is somewhat confirmed by the general absence of water in the alluvials which mantle round the base of the Peak. The question as to the maximum depth to which these oxidised ores extend is one of vital importance to the future of this field, and it would, in our opinion, be very advantageous if one or more shafts were carried right down through the upper oxidised portions of the veins into the sulphide ores. The leaseholders would then know approximately what quantity of ore they would have at their disposal capable of being treated by the usual processes of crushing and amalgamation, combined with special appliances for saving the fine gold, and what quantity would perhaps require to be chlorinated. Near the surface of this 86-feet shaft in Madden's lease a mass of ferruginous quartz and silicified talc-slate strikes about E. 5° S. The mass is 4ft. 6 in. in width, and passes at the sides into ochreous-yellow and dark reddish-purple talc-slate; and is considered by Mr. Gibson, the manager, to be a continuation of the vein just described, although the strike differs considerably from that of the one seen at the bottom of the 86-feet shaft. The large reef of white quartz in Gorman's lease has not yet been sunk upon to any depth. The general strike of this reef, as proved by recent openings along its line of outcrop, is N. 5° E.; and at a shaft at the north-east end of the reef, the reef underlies at 47° to the east.

Want of time did not admit of our inspecting several important properties on this field, or of our visiting the new rush, about 3 miles in a southerly direction from Peak Hill towards the Ten-mile Ridges. Loose blocks of gold-bearing quartz are reported to have been discovered here, and efforts are being made to trace them up to their parent reef.

Summary.

The chief conclusions to be drawn, in our opinion, from the reports already furnished by the various officers of this department, and from what we were able to observe on this occasion, are (1) that there is still a considerable amount of alluvial gold to be won from this field, which will probably give employment to a number of miners for some time to come; and (2) that there is a large body of oxidised ore, some of which will probably prove payably auriferous down to the water-level, and the working of which should afford employment to a number of miners. It is, however, impossible at present, until prospecting works are further advanced, to form even an approximate estimate of the quantity of oxidised ore available.

It is questionable whether these reefs will be sufficiently rich in gold to pay for working below the water-level. We would venture, therefore, to make the suggestion that any companies or syndicates proposing to work these veins should first thoroughly test the depth to which the line of oxidation in the veins extends before incurring the expense of purchasing and erecting gold-saving machinery. It is also desirable that bulk samples should be sent in for treatment from time to time to works whose reputation is well established, with a view to ascertaining, not only the actual yield of the veinstone, but also the most suitable kind of machinery to be employed in the extraction of the Peak Hill gold, the fine state of division of some of which will probably necessitate great care and the use of special appliances.

I have, &c.,

T. W. EDGEWORTH DAVID, B.A., F.G.S.
Geological Surveyor.

The Under Secretary.

APPENDIX No. 2E.

Report on the Natural Gas and depth of Coal at Narrabeen, near Sydney.

Sir, Geological Survey Branch, Department of Mines, 23rd June, 1890.

With a view of collecting evidence for furnishing my report herewith I have specially examined the sections of the coal measures at Lake Macquarie, and in the Illawarra coal-field, and the information gained from coastal sections at intermediate points, taken in conjunction with the evidence supplied by this Narrabeen bore and other deep bores, have afforded reliable data for a report on the above subject.

As Mr. C. S. Wilkinson has already reported on this bore with regard to natural gas, the present report will have special reference to the coal.

With regard to the Narrabeen bores, Mr. Wilkinson says (Annual Report of Department of Mines for 1889, page 198.):—

"I visited the two diamond drill bores which have been put down at Narrabeen by Mr. J. Coghlan to 1,980 feet and 1,200 feet respectively, and from which natural gas issued in sufficient quantity to be collected and used on a small scale for domestic purposes. It is said to have been first noticed on drawing the boring rods from a depth of 1,650 feet, the strata penetrated being the Narrabeen series. At a depth of 90 feet, however, below recent alluvial deposits, an estuarine bed of shells was passed through, from which it is not improbable that the gas emanates; this could easily be proved by plugging the bore immediately below the shell bed, or by boring afresh. Dr. Helms has kindly furnished me with the following result of his analysis of the gas:—

In 100 volumes—CO_2	0 00
O	0·433
$C_2 H_4$	1·501
N	43·368
H	6·413
CH_4	46·012
CO	2·273
	100·00

It is probable that the coal measures underlie the Narrabeen series in this locality within a workable depth from the surface."

As the probable depth of the coal measures here may have a bearing upon the possible origin of this natural gas, this division of the report will be treated of first.

Probable

Probable depth of coal-measures at Narrabeen.

With regard to the geological structure of the coal-measures between Newcastle and Woollongong two distinct alternatives present themselves, and even a third hypothesis is admissible. The coal-measures, as is well known, disappear near Wybung Head, to the south of Lake Macquarie, below sea-level, dipping in a south-westerly direction under the conglomerates, purple shales and sandstones of the Hawkesbury series. At Coal Cliff, in the Illawarra coal-field, the coal-measures reappear above sea-level, rising from underneath the rocks of the Hawkesbury series. Were there, therefore, only one set of coal-measures in the Newcastle district, it would obviously follow that in all probability the coal-measures of Bulli and Coal Cliff were identical with the Newcastle. At the latter locality, however, there are developed three distinct sets or series of coal-bearing formations, viz.—the Upper or Newcastle series, the Middle or Tomago (East Maitland) series, and the Lower or Greta series.

It is possible, therefore, that the coal-measures of the Illawarra coal-field may be either

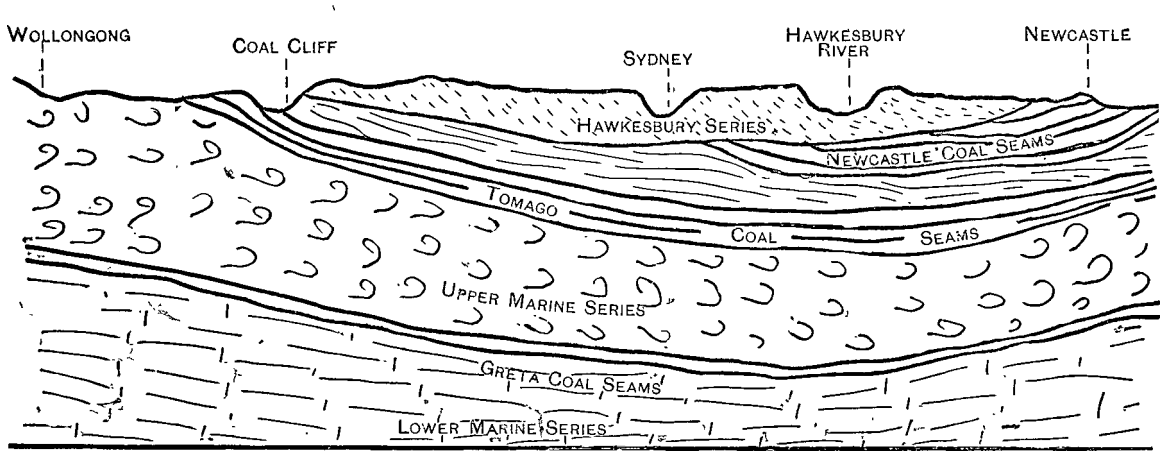
(1) The Greta coal-measures
(2) The Tomago coal-measures
(3) The Newcastle coal-measures
(4) A combination of the Greta and Tomago
(5) A combination of the Tomago and Newcastle.

Mr. C. S. Wilkinson, F.G.S., &c., was at one time of opinion that the Bulli coal-measures were probably the equivalents of the Greta coal-measures, but upon subsequent examination of the Southern coal-field he has abandoned that view, and is now inclined to think that the Bulli coal-measures may be the equivalent of the Tomago coal-measures. Mr. Etheridge, jun., palæontologist to the Geological Survey, is also strongly of opinion that the Bulli coal-measures cannot be the Greta on account of the marine fossils below the Bulli coal-measures, which he considers to be identical with those which in the Maitland district are found to overlie the Greta coal-measures. My recent examination of these marine beds at Wollongong leads me to quite agree with the conclusions previously arrived at by Mr. Etheridge. Mr. Wilkinson also and Mr. Geological Surveyor Stonier, during a recent geological examination of the formations in the neighbourhood of Nowra and at the head of the Clyde River, have obtained evidence which favours the supposition that the coal seams and kerosene shale seen outcropping near the head of that river dip underneath the formation identified by Mr. Etheridge as belonging to the upper marine series which overlies the Greta. There appears, therefore, to be a general consensus of opinion that the Bulli coal-measures cannot be the Greta, and they are, therefore, probably either the Tomago or Newcastle coal-measures or a combination of the two.

In connection with a possible solution of this question an important piece of evidence has lately come under my notice. Near Wollongong the upper strata of the upper marine series are somewhat strongly developed, and are well seen in the coast sections, and for a distance of over half-a-mile northerly from the Wollongong basin are seen to be dipping at an angle of about 8°, whereas the Bulli measures in the adjoining ranges are dipping at a much lower angle of from 1° to 2°, being at the rate of about 170 feet per mile, instead of 700 feet, the latter being the rate of dip of the marine strata. The probable explanation of this difference of dip is that an unconformity exists between the top of the upper marine series and the base of the Bulli coal-measures.

A similar unconformity between these two formations has already been observed by me, and described, at East Maitland. According to the most recent geological researches, however, it would appear that the question is still further complicated by a slight unconformity between the Hawkesbury series and the top of the coal-measures. This latter unconformity would admit of the possibility of the Newcastle measures having been denuded away from off the top of the Tomago coal-measures at some point, say, between the Hawkesbury River and Sydney at a time previous to the deposition of the strata of the Hawkesbury series. This view of the geological structure of the country between Newcastle and Coalcliff might be illustrated by the following diagram:—

DIAGRAM ILLUSTRATING No. 1 THEORY



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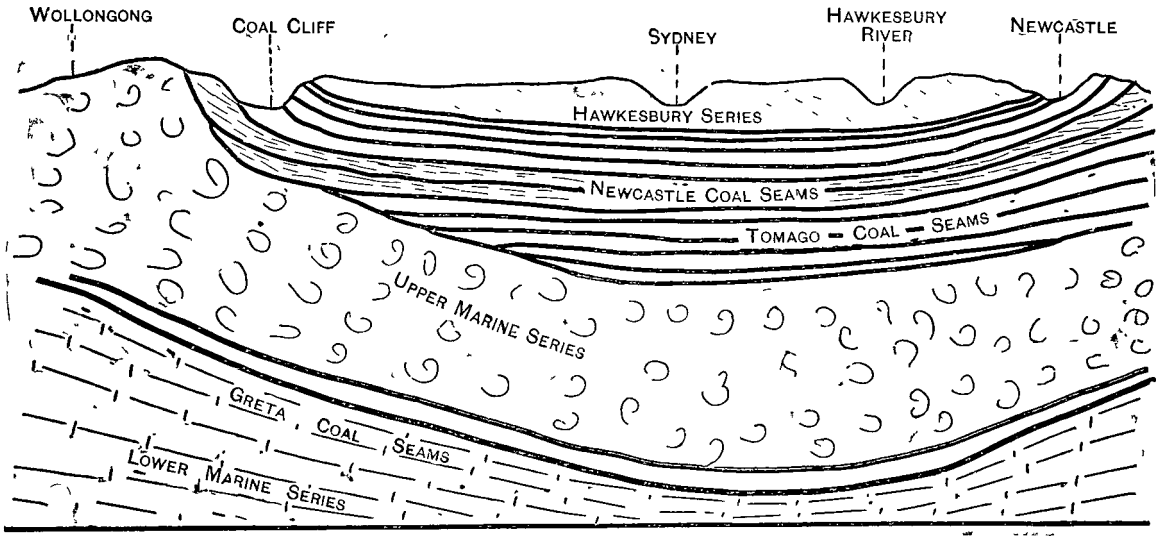
The unconformity, however, which Mr. Stonier and I have observed at Wollongong and Maitland render it possible that the geological structure of this same tract of country may be as follows :—

DIAGRAM ILLUSTRATING No. 2 THEORY.



Of these two theories, the latter appears to me to approach nearer the truth, for reasons which will be more fully detailed by me in my report on the proposed site for a bore for coal at Bellambi. The determining as to which of these two views is correct is obviously of great importance with regard to the future available coal supplies in New South Wales, for, if the latter be the correct view, the quantity of coal available for future use will be very much greater, probably, than has hitherto been estimated; and for reasons which will be adduced in a subsequent report a bore at Bellambi should furnish, probably, important evidence on this question, which also has a very important bearing on the probable depth of coal under Sydney. If No. 1 theory be correct there will be a large area (between the southern underground outcrop of the Newcastle measures and the surface outcrop of the supposed Tomago coal-measures at Coalcliff) where the Tomago coal-measures will have dipped so deep as to be practically unworkable, at all events, for a great many years.

If, however, No. 2 theory is correct there is one more or less continuous and unbroken seam of coal belonging to the top of the Newcastle coal-measures, and extending from Lake Macquarie to Coal Cliff. This, I think, is probably the case, and it is even possible that the Bulli seam, the uppermost of the Illawarra Coal-field, is identical with the seam worked at the Wallarah Colliery, near Catherine Hill Bay, in the Northern Coal-field, and identified by Mr. J. Mackenzie, F.G.S., the Examiner of Coal-fields, as the No. 1, or uppermost known seam in that field. Assuming this to be the case, the basis of calculation of the probable depth of coal under Narrabeen is much simplified.

The dip from Coal Cliff to the Holt-Sutherland bore (the nearest point to Sydney at which the Bulli seam has at present been proved) is at the rate of about 145 feet per mile in a northerly direction. Were this dip to continue at the same rate and in the same direction between the Holt-Sutherland bore and the Narrabeen bore, the depth of the Bulli seam at the Narrabeen bore would be approximately 5,200 feet. Moreover, if the Wallarah seam be assumed to be identical with the Bulli, and to have a dip of 113 feet per mile in a south-westerly direction, as the coal measures have been proved to have near Wyong, by Mr. Alison's diamond drill bores, the depth of the Bulli seam at the Narrabeen bore would be approximately 4,600 feet. The dip of the strata, however, observed by Mr. C. S. Wilkinson and myself along the coast between Coal Cliff and Lake Macquarie, show that for a considerable area between Port Hacking and Gosford the principal dip is not northerly nor southerly but westerly. Consequently, the Bulli seam between Holt-Sutherland and Gosford may have only a very slight dip, if any, to the north or south. Ample confirmation of the decided westerly dip of the strata at Narrabeen is afforded by this Narrabeen bore.

The beds belonging to the Hawkesbury series, commonly known as the chocolate shales, outcrop at the surface, and constitute well-marked physical features at Long Reef and at Narrabeen Head. In the Narrabeen bore, however, which is only about two and a quarter miles in a W.S.W. direction from Narrabeen Heads, the chocolate shales were not struck until a depth of about 380 feet was reached. The dip of the strata at Narrabeen Head is in a direction W. 20° S. at about 4°. The evidence, however, of the bore proves that the average rate of dip must be less than 4° between Narrabeen Heads and the Narrabeen bore, as a dip of 4° would mean an increase in depth towards the dip at the rate of about 350 feet per mile, whereas the Narrabeen bore proves the actual amount of dip of the chocolate shales between Narrabeen Heads and Narrabeen to be at the rate of about 170 feet per mile. A comparison of the section of the Narrabeen core, kindly furnished to Mr. C. S. Wilkinson by the "Natural Gas and Oil Company" (a part of which section Messrs. C. S. Wilkinson, R. Etheridge, and I were enabled to check over by examining some of the cores still left in the core-boxes), with the sections measured by myself of the Holt-Sutherland and Liverpool bores, leads me to the conclusion that the horizon of the Bulli seam at the Narrabeen bore lies at a depth, approximately, of between 2,100 feet and 2,300 feet. This calculation is of course necessarily only approximate, and is based on the assumption that no faults of any consequence intervene between the strata in the upper part of the borehole and those in the lower, and also that the strata maintain a tolerably uniform thickness between Holt-Sutherland, Liverpool, and Wyong and Narrabeen; and lastly, that the No. 2 theory as to the geological structure of the country between Coal Cliff and Lake Macquarie is correct.

It is obvious from what has been already stated, that a bore put down at Narrabeen Heads would probably reach the horizon of the Bulli seam about 400 feet shallower than the present Narrabeen bore, or at a depth of between 1,700 and 1,900 feet. Attention has already been called to this fact by Mr. C. S. Wilkinson. It is also obvious that the evidence above quoted has an important bearing on the depth of the coal not only under Middle Harbour but also under Port Jackson. No detailed examination has as yet been made to determine the exact amount and direction of the dip of the Hawkesbury sandstone strata around the shores of Sydney harbour. A westerly dip, however, is distinctly observable at the Heads, at the entrance to the harbour, and, consequently, the coal will probably lie nearer the surface here than it will further west, as for instance at Circular Quay. Until the detailed geological examination of Sydney and its neighbourhood, now in progress, has been completed, it would be unsafe to predict the probable depth of coal under the harbour, excepting within somewhat wide limits. For instance, near the Heads the depth might be approximately about the same as at the Narrabeen bore, while at Circular Quay it might be from 200 to 400 feet deeper. I would strongly advise that (1) in accordance with what I believe has already been recommended by Mr. W. H. J. Slee, F.G.S., the Superintendent of Drills, the present Narrabeen bore be reamed out to a uniform diameter of from 3 to 4 inches throughout, and (2) then that it be continued with a view of reaching the horizon of the Bulli seam, which should lie at a depth of between 2,100 and 2,300 feet from the surface, if my theory and assumptions are correct. As already stated, if the Bulli seam be proved to exist here, it will probably follow that it is identical with the No. 1 seam in the Newcastle Coal-field at present worked at the Wallarah Colliery, and it is probable in that case that many of the other Newcastle seams will be found at Narrabeen, below the Bulli, not excluding the famous Wallsend, or Borehole seam, which may put in between Wollongong and Narrabeen in the gap left by the unconformity between the Bulli coal-measures and the upper marine series. The thickness, however, of strata between the Bulli seam and the Borehole seam (if the latter exists there) at the Narrabeen bore might be as much as from 1,200 or 1,300 feet, or a total depth of between 3,300 and 3,600 feet below the surface, and yet even this is within the limit of 4,000 feet, the depth which has been taken by the Royal Commission of Great Britain as the maximum to which coal can be profitably worked, and it has already been proved in practice at the Charleroi coal-mines, in Belgium, that coal can be profitably worked under some circumstances to a depth of over 3,300 feet.

Occurrence of Natural Gas at the Narrabeen Bore.

The explanation already given by Mr. C. S. Wilkinson, F.G.S., the Government Geologist, of the probable source of the natural gas in this bore would seem the most reasonable that can be suggested, viz., that it is coming from a bed of shells in the alluvials overlying the bed-rock of Hawkesbury sandstone. The arguments that the gas is coming from the alluvials are principally as follows:—

(1.) The gas-producing capabilities of the alluvials, as are obvious from the following rough section of them supplied to us by one of the men in charge.

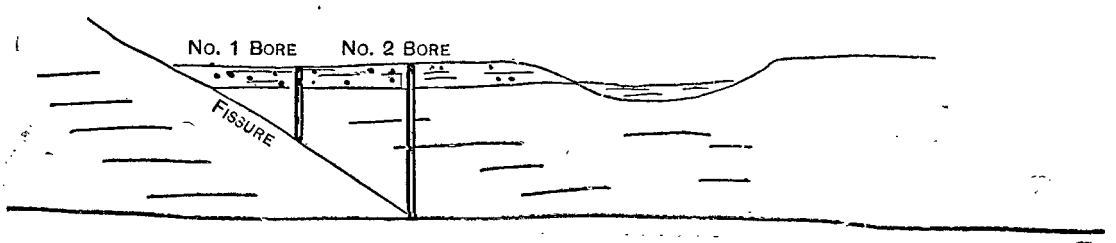
From surface downwards:—

ft.	in.	
20	0 (about).	Sand, water-bearing.
18	0 (15 to 20 feet).	Black loam and peat.
30	0 (about).	Clay in alternate red and yellow bands.
2	6 (2 to 3 feet).	Sandy beds, full of shells (oysters and cockles).
20	0 (about).	Sand, resting on bed-rock of Hawkesbury sandstone.

(2.) The absence of any beds likely to be gas-producing from the strata as yet proved from below the alluvials.

(3.) The discrepancy in the depth of beds said to be the deep-seated source of gas in the two Narrabeen bores. In one bore the gas-producing bed is said to be only 1,200 feet below the surface, and in the other, only a few chains distant from the first, the gas-producing bed is said to be 1,560 feet below the surface (the surface levels of the two bores are approximately the same).

(4.) The absence of any marked structure—such as an anticlinal curve or fault, which might account for the presence of gas in this bore, and explain its absence at the Holt-Sutherland and Liverpool bores. As an argument for the gas being possibly deep-seated, my attention has been called by Dr. J. Storer to the fact of the absence of phosphorus from the elements found by Dr. Helms, when making his analysis of this gas, pointing to a deep-seated rather than a shallow source for the gas, as on chemical grounds he considers that had this gas been derived from shell-beds in the alluvials it would probably have shown traces of phosphorus. It has also been suggested that were the gas coming from the peat or shell-beds in the alluvials it would probably contain some sulphur, but the quality of being sulphur-bearing is also characteristic of the deep-seated petroleums of Pennsylvania, Ohio, and California, some of which, when derived from the decomposition of animal matter in the limestone, contain a large percentage of sulphur. It is just possible, however, that this Narrabeen gas may have a deep-seated source which lies probably, assuming the foregoing to be the case, in the underlying coal-measures, and the discrepancy in the depths of the gas-producing beds in the different bores may be due to the bores having struck either different fissures or the same fissure at different depths, if the latter is inclined at an oblique angle from the vertical, in which case the relative positions of the two bores, with regard to the fissure, will be similar to that of two shafts striking a reef on the underlie at different depths, thus:—



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The large percentage of nitrogen contained in this gas is probably derived from atmospheric air contained in the water in the bores, and is not an essential constituent of the gas. If it is an essential constituent the heating power of this gas will be much less than that of ordinary coal gas.

Summary.

I would strongly advise this bore being reamed out, and then continued with a diameter, if possible, of 4 inches, down to the coal seams, which probably lie at a depth of from 2,100 to 2,300 feet below the surface at the site of the Narrabeen bores. To test the question as to the exact position of the bed or fissure which is giving off the gas, the bore might be tubed—after the alluvials have been tested with a Tiffin borer, in the manner already recommended by Mr. Slee—subsequent to being reamed, and the water forced out of the bore successively to different levels, by closing the lower end of the diamond drill rods and using them as a plunger.

The proximity of this property to so good a market for coal as Sydney, taken in conjunction with the reasonable chances of striking coal within a workable depth, should, in my opinion, warrant the expenditure of further capital upon its development.

In collecting material for the above report, I have to express myself specially indebted to the reports already furnished upon the coal-measures of N. S. Wales by the Rev. W. B. Clarke, F.R.S.; Mr. C. S. Wilkinson, F.G.S., &c., the Government Geologist; Mr. J. Mackenzie, F.G.S., the Government Examiner of Coal-fields; the Palæontological researches of Mr. R. Etheridge, junior; and the recent joint explorations in the Illawarra Coal-field by Mr. C. S. Wilkinson and Mr. Geological-surveyor Stonier.

The practical value of Palæontology in the work of correlating our coal-fields has, as explained in this report, been lately strikingly exemplified by Mr. R. Etheridge's identification of the marine strata at Wollongong, as belonging to the series which overlies the Greta coal-measures, rather than to the somewhat similar series of marine strata which underlie the same coal-measures. The differences between these two barren marine formations, between which the Greta coal-measures are sandwiched, are so minute as to make it a task of considerable difficulty for even an experienced palæontologist like Mr. R. Etheridge, junior, to discriminate between them.

I have, &c.,

T. W. EDGEWORTH DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

APPENDIX No. 2 F.

Second Report on Bathurst Water Tunnel.

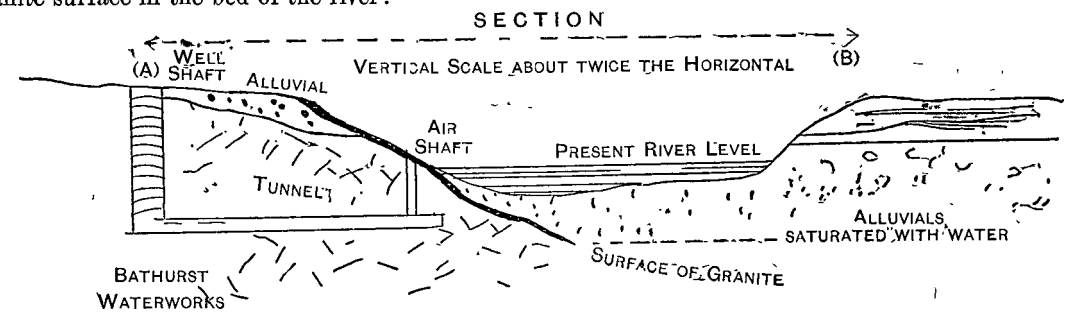
Sir, Geological Survey Branch, Department of Mines, Sydney, 4th July, 1890.

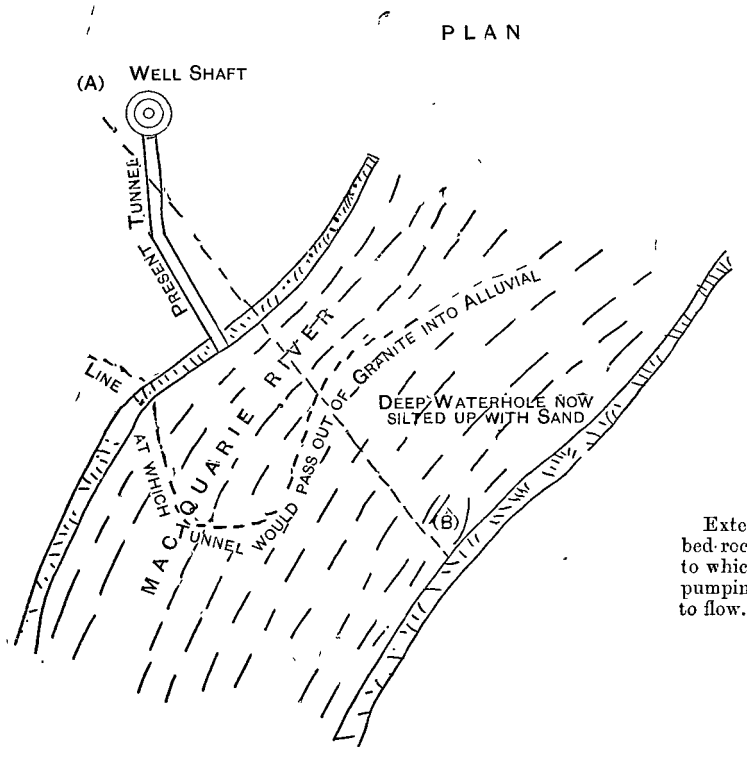
I have the honor to report that yesterday Mr. Geological-surveyor Stonier and I inspected the ground beneath which the tunnel has been driven at the Bathurst Waterworks, on the left bank of the Macquarie River. The Mayor of Bathurst, Mr. P. V. Ryan, and several of the aldermen were present during our examination, and explained what work had been done subsequent to the time of my first inspection. Owing to the pump in the well-shaft not being in working order, we were unable to descend the well-shaft and examine the tunnel, as the latter is now full of water. The Engineer-in-Charge, Mr. Lowrie, informed me that the tunnel had now been driven for a distance of 213 feet, and that the supply of water from it and the well-shaft was now equal to about 3,000 gallons an hour, or about 70,000 gallons per 24 hours. As about 1,000 gallons an hour was obtained previously from the well-shaft, it follows that about 2,000 gallons an hour are being supplied by the tunnel. Although 70,000 gallons a day are more than equal to what has been supplied on previous occasions, during severe droughts, to the population of Bathurst, it is by no means satisfactory, as a supply of not less than 200,000 gallons a day should be provided for.

I pointed out, however, to the Mayor and Municipal Council that my original report had not yet been fully carried out, as I had recommended that the tunnel should be continued until it was "well underneath the large, deep waterhole" (in the bed of the Macquarie River), "adjoining the extensive alluvial flats, for draining water out of which this waterhole should act as a natural sump." I find, however, that—owing partly to a slight deviation having been made from the course originally suggested by me for this tunnel, and owing partly to the bottom of the waterhole lying a trifle further from the bank than was anticipated (the waterhole having now been completely silted up for many years, it was only by means of bores that the engineer has been able lately to locate the exact position of the deeper parts of it)—the tunnel will now have to be extended a trifle further than I suggested: for (say) a distance of from between 40 and 50 feet; and I think it may reasonably be expected that within that distance the supply of water from the tunnel will be considerably augmented, as it is just from this last 40 or 50 feet of driving that the strongest supplies may be derived, as at present the end of the tunnel has only just arrived at a point directly underneath the bank of the river, but has not yet passed underneath any portion of the actual bed of the river. The following diagrams explain the present position

of

of the end of the tunnel, and the thickness of the granite separating the roof of the tunnel from the granite surface in the bed of the river:—





Extensive alluvial, flats, saturated with water, the bed-rock being at least 10 feet below the lowest level to which the water in the river has been drained by pumping during droughts, after the river has ceased to flow.

My advice, therefore, to the Municipal Council of Bathurst would be to continue their present tunnel in the same direction which it is now following for a further distance of from (say) 40 (forty) to 50 (fifty) feet. The Mayor and Council expressed a desire that I might be allowed to inspect the tunnel as soon as the water is pumped out of it, and the Council undertook to inform the Department when the tunnel is ready for inspection. The Mayor and Council of Bathurst expressed themselves as being much gratified at the prompt action of the Honorable the Minister for Mines and Agriculture in causing a geological inspection to be made so soon after the receipt of their application. My thanks are specially due to Mr. Lowrie, the Engineer in charge at the Waterworks for much information, and especially for his plan, kindly placed at my disposal by the Mayor, showing the depth to bed-rock, as proved by borings, in the bed of the river opposite to the tunnel. In driving the remaining 40 to 50 feet of the tunnel, it would be as well to take the precaution of drilling holes slightly in advance of the end and roof of the tunnel, so as to provide against the contingency of a sudden influx of water from the alluvials.

I have, &c.,

T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

APPENDIX TO MR. GEOLOGICAL SURVEYOR T. W. E. DAVID'S SECOND REPORT ON BATHURST WATER TUNNEL.

(*The Daily Telegraph*, 22*nd November*, 1890.)

THE BATHURST WATERWORKS.—A SUBTERRANEAN SUPPLY OF WATER STRUCK.

BATHURST, Friday.—Work has been discontinued in the tunnel now being driven for the Bathurst Waterworks, owing to the influx of a considerable stream of water. This stream comes from below and about the bottom of the drive, which is 22 feet below the bed of the river. The men at work were on soft granite with boulders when they struck the precious fluid. The water is now coming into the wells, and in a greater quantity than that which was flowing in the river during the drought, and the supply is evidently drained, not only from the river, but also from the alluvial flats. The bar on which the existing cylinder works is 18 ft. below the river bed, and the end of the present drive is 4 ft. below that level. It is plain that the edge of the drive will be on the verge of deep country, as Mr. David predicted. There is a rock formation in the shape of an irregular semicircle, beyond which deep alluvial exists, and if the rock be tapped, a natural syphon will be furnished. The discovery seems not only to verify the hopes of a permanent water supply below the bed of the Macquarie, but it is also thought that perhaps a true subterranean river may be struck before long. In the meantime no further work can be done till a wall is built to keep the influx in check.

(*The Daily Telegraph*, 26*th November*, 1890.)

BATHURST WATER SUPPLY.

Bathurst, Tuesday.—The stream of water struck in the tunnel below the river is not only permanent but more abundant than the most sanguine could have hoped. Last evening there was a great inrush just as the men completed the wall at the mouth of the tunnel. Though the pumps have been going incessantly since 6 o'clock last night the flow has

has only been reduced 4 in. The roar of the water can be heard from the top of the well, and convinces the most sceptical that a great stream is rushing below. The water coming in is beautifully pellucid, being naturally filtered by the gravel and conglomerate through which it passes. The depth at which it was struck was 18 ft. below the present river level, and the well will drain the bed between 10 ft. and 13 ft. below the level reached at the time of droughts. If by any chance the new supply should run dry the tunnel could be dug deeper, and more water thus be found. The water is now coming in at the rate of 200,000 gallons every twenty-four hours. The stream is going into the well, and is being incessantly pumped into the tanks, which are rapidly filling and will soon overflow. The water is good, soft, and clear, and owing to the natural filtration it will continue clear when the river water is muddy. The total length of the tunnel is 263 ft. from the well shaft begun two years ago, on the motion of Alderman Webb (the then Mayor). The tunnel is on the edge of a deep drift, and consequently supplied a natural syphon. The country drained is the whole area comprising hills and alluvial flats. Mr. Lowrie, the waterworks engineer, says that the new supply will withstand the severest drought, for every drop of water from the hills and alluvial is drained into the tunnel. The discovery is the salvation of Bathurst, and the city will never again want for water.

APPENDIX No. 2G.

PROGRESS Report by Geological Surveyors T. W. E. David and G. A. Stonier.

Sir, Geological Survey Branch, Department of Mines, Sydney, 5 July, 1890

We have the honor to report that we have returned to-day from visiting the Mandurama, Canowindra, Bathurst, and Orange districts.

At Mandurama we spent some time in making a geological examination of the Junction Mine and other mines in the same neighbourhood. The geological structure of this mine is unique, and unlike any other metalliferous deposit which has as yet come under our notice in New South Wales. Gold occurs here in decomposed eruptive rock, which occurs as sheets which are charged with oxide of iron, and, where free from decomposition, make into dioritic sheets containing an abundance of iron pyrites, magnetic pyrites, and arsenical pyrites. These thin sheets and associated dykes of diorite, have been intruded along the planes of bedding of the sedimentary clay stones, and appear to have been intersected by a later set of dykes. The ore-stuff is stated to have been richest in gold in the vicinity of these later dykes than at a distance from them. A detailed report on this interesting deposit will be furnished when the assays and microscopic sections have been completed. We would call special attention to the existence here of a deep lead which is almost sure to prove auriferous. It occurs on the top of the hill above what is known as the Frenchman's Mine, and on the opposite side of the Belubula River to the Junction Mine. A bed of well water-worn quartz pebble drift from 5 feet to 7 feet thick is to be seen (in an old shaft sunk to catch "the reefs") at its point of outcrop from under a sheet of basalt. As this drift almost immediately overlies the auriferous ore-beds of the Frenchman's, and has not yet been prospected, it is well worthy of attention.

At Belmore, near Canowindra, we have inspected the site on the alluvial flat below the Blue Jacket Reef, to test which Mr. G. W. Dry is asking aid out of the Prospecting Vote.

At Jack's Creek, near Canowindra, we inspected a promising-looking gold-reef to develop which, Mr. Firth has applied for assistance.

At Bathurst we inspected the tunnel at the waterworks, and recommended its extension for another 40 or 50 feet, as detailed in the report furnished to-day.

Near Orange, we inspected the Canoblas, the great extinct volcanoes of New South Wales, and found, as we had previously suspected, that the copper-bearing rocks of Waugoola and Walli, alluded to in previous geological reports, are probably lava which have flowed from the vicinity of the Canoblas, and perhaps have had their source in the Canoblas themselves. These lavas, as well as those seen at the "Old Man" Canobla, are not basalts, but andesites, a variety of volcanic rocks whose existence in extensive sheets like these has hitherto never been recorded in New South Wales. Copper occurs locally, in a metallic state and as green carbonate, in the steam-holes of this rock near Walli, and in a vein in the same rock near Woods' Flat, at Waugoola. The "Old Man" Canobla, near Orange, is an extinct point of eruption built up of sheets of andesitic lava and andesitic tuff. The lava is very scoriaceous and brecciated towards the summit of the mountain, which by aneroid is 4,560 feet above sea level.

This mountain was probably at one time surrounded by a crater, and although the latter has long since been removed by denudation, the plug or neck of lava marking the site of what was once a central orifice, is still plainly visible, a few chains southerly from the trigonometrical station.

The Pinnacles, a mammillated hill, about 1 mile north-east of the "Old Man," Canobla, probably marks the site of a parasitic volcano or point of eruption.

We would suggest that a further examination of these interesting relics of old volcanoes might be made in connection with the geological inspection of the Cargo district, for which authority has already been given by the Hon. the Minister for Mines and Agriculture. Such an examination would prove to be not only of scientific interest, but probably also of economic importance, both on account of the copper which has been proved to exist in this lava in more than one locality, and also on account of the underlying gravels which must be auriferous wherever the bed-rock beneath the lava contains gold-bearing reefs.

We have, &c.,
T. W. E. DAVID,
GEO. A. STONIER,
Geological Surveyors.

The Under Secretary.

APPENDIX No. 2H.

REPORT on a portion of the Sunny Corner District.

Sir, Geological Branch, Department of Mines, 21 August, 1890.

I have the honor to report that, in accordance with my instructions herewith, I have, in conjunction with Mr. Geological Surveyor Anderson, examined the Silver King Mine, together with portions of the Sunny Corner Mine, and a mine known as the Bull-dog, about 4 miles northerly from Sunny Corner. The general geological features of this district are as follows:—

A series of sedimentary claystones, of considerable thickness, with occasional pebbly and sandy beds, have been tilted up at various angles, and in various directions, from their original horizontal position, and have been intruded by a set of dykes of hard flinty-looking felstone. In the neighbourhood of the felstone dykes the claystones are fairly soft, and much mineralised in the immediate vicinity of the ore deposits, but, elsewhere, are so hardened and altered by the heat and pressure of the intrusive felstone as to make them in many cases undistinguishable to the unaided eye from the latter rock. Microscopic examination, however, at once shows the difference. The superior hardness of the felstone dykes, as compared with the claystones, has led in many local instances to their occupying the crests of the ridges, while the softer claystones have been eroded into deep gullies and valleys. The

The claystones in the neighbourhood of Sunny Corner do not contain fossils, as far as we could learn, but 8 miles distant a bed of limestone (from which lime for fluxing is carted to the smelting works) contains fossil corals, which shows the formation there to be probably of Siluro-Devonian age.

The claystones vary in colour from dark grey to greenish grey, yellow ochre, and reddish purple. The dominant structural feature in these rocks is a strong anticlinal axis, running nearly due north and south through the middle of the Silver King property, the strata in the western half of the property dipping chiefly to the west, while those in the eastern portion dip chiefly to the east, as shown on the geological map already published, made by Mr. Anderson. Besides the dykes of felstone, there appear to be also eruptive rocks of somewhat similar composition, but containing large blebs of quartz, and also mica. Possibly, these belong to the same period of eruption as the felstones, though to an earlier phase of it, as in the section seen in the main tunnel and east prospecting drive at the Silver King, the felstones appear to have slightly intruded these quartz-porphyries, and a somewhat similar junction line between them is observable at the Bull-dog Mine. Both the felstones and quartz-porphyries are highly charged with metallic minerals, containing throughout their mass spots and minute veins and crystals of arsenical pyrites, zinc blende, galena, copper pyrites, and iron pyrites. The claystones contain metallic minerals only in the immediate vicinity of the felstones, beautifully formed crystals of arsenical pyrites having become developed in the claystones at their point of contact with the latter rock.

The principal trend of the felstone dykes is meridianal, but in places the dykes trend away almost at right angles from their general trend, and it is chiefly in the elbows so formed that the massive bunches of ore occur. So far, experience has shown that in this district the ore bunches are almost invariably found to follow the line of contact between the felstone dykes and the claystone, so that a study of the nature of this contact line is of great importance to mine managers and prospectors in this district.

The nature of these ore deposits was examined principally at the Silver King Mine, in accordance with my instructions, with a view of ascertaining, if possible, whether there was any unprospected part of this property likely to contain sulphide ore. In company with my colleague, Mr. Anderson, I explored the surface of this property, and as much of the underground workings as were not flooded. The results of our observations are explained chiefly by the plan and section accompanying this report, and are briefly as follows:—

(1.) The ore hitherto worked at the Silver King, both gossan and sulphide, has all been won from a single large shoot, which follows the line of contact between an intrusive metalliferous felstone and the overlying claystone.

(2.) The shoot is continuous with and is part of the Sunny Corner deposit, and with the exception of some gossan ore (the quantity of which still remaining is estimated by the late manager, Mr. Richards, to be between 9,000 and 10,000 tons), the whole of the main part of this deposit has now been worked out up to the boundary of the Sunny Corner property, as shown on the sketch section herewith. At first sight it would seem almost impossible that the deposit outcropping in the Sunny Corner ground should be connected with that which outcrops near the south-east corner of the Silver King ground. It has been proved, however, by the actual workings, that these two outcrops belong to the same deposit, for the great shoot of ore at the Silver King has been followed almost continuously from one property into the other, first down to the level of the main tunnel at the Silver King, and then in a winze sunk 27 feet below the level of the main tunnel. Up to this point the ore shoot dipped rapidly westwards, and also pitched obliquely along the contact line of the felsite and claystone in a southerly direction, so as to have a general south-westerly dip. At the bottom of the winze, however, the deposit is said to have turned flat, conforming exactly with the stratification of the claystones, as observed by us in the main tunnel overhead (we were unable to descend the winze or examine the west cross-cut driven from the bottom of this winze on account of water). From the bottom of this winze the ore deposit was followed in the western crosscut up to the Sunny Corner boundary, the deposit rising in a low arch close to the boundary, as shown on the sketch section. Through the kindness of Mr. Trevenack, the manager of the Sunny Corner Mine, I was permitted to examine the whole of the Sunny Corner workings, including their No. 4 tunnel. An examination of the ore deposit in this tunnel abundantly confirmed all that Mr. Richards and Mr. Lemon told me as to the flattening of the dip of the ore-shoot in the western crosscut of the Silver King. In this tunnel I followed the ore deposit to within a short distance of the Silver King boundary, and for a great part of the distance it was either horizontal or dipped at only a very gentle angle. Westward of the No. 3 tunnel, in the Sunny Corner property, the ore-shoot rolls over and plunges down at a steep angle, as shown at the left end of the section attached, the dip being 60° in a westerly direction.

In the Sunny Corner workings, at the end of the No. 1 tunnel, at a level of about 280 feet below the great outcrop of gossan at the Silver King, the ore-shoot is from 30 to 35 feet wide and at the least 140 feet long. The footwall at this level, as at the Silver King, is a "bouldery" (*i.e.*, spheroidal) felstone, and this passes into a dark grey quartz porphyry, on its eastern margin. This bouldery felstone forms the footwall from the No. 1 tunnel up to the level of the No. 2 tunnel, 100 feet above the former, where the ore shoot is from 15 to 16 feet wide and 300 feet long, and dips west 5° to 10° south at 60°. From here the bouldery felstone can be traced forming the footwall or floor of the deposit right up to within a few yards of the Siver King west boundary. As already stated, the same rock formed the footwall all along the western crosscut in the Silver King until it emerged at the surface near the point A on the plan and section. Throughout the whole of this distance the roof of the ore deposit was claystone, so that, as shown on the section, the ore deposit is sandwiched in along the contact line between the claystone and the felstone. It is clearly proved, therefore, by the continuity of the ore deposit, as well as of its floor and roof between the two properties, that the great ore-shoot, formerly worked by the Silver King Company, has dipped out of their property into that of the Sunny Corner Company.

It is also clear that the metallic solutions from which the sulphide ores were formed were derived from the felstone and quartz porphyry, both of which are highly metalliferous, containing throughout their mass small spots, streaks, and crystals of the same minerals which occur in the ore shaft, as arsenical pyrites, iron pyrites, &c. Whenever, therefore, there was space for these solutions to sweat out of the felstones, they did so, and as these spaces occurred chiefly where the felstone dykes took sharp turns, spaces being due to mechanical displacement, assisted probably, as Mr. Anderson has suggested, by a shrinking of the felstone on cooling and solidifying. It is just at these sharp turns that ore-shoots, such as that worked at the Silver King and Sunny Corner, occur.

Any further possible continuation, therefore, of the ore-shoot already worked at the Silver King should, in my opinion, be sought for along the contact line of the bouldery felstone with the claystone, especially on the western side of the felstone dyke.

I have accordingly traced the surface outcrop of this dyke as far as I was able, and have indicated it on the accompanying plan up to the point where I am sure of its identity. Its further extension to the north and west is very obscure, as there succeeds in this direction a series of hard felspathic rocks, which I have classed provisionally as "doubtful," on account of the great difficulty of deciding whether they are intrusive felstones or simply the claystone highly hardened and rendered crystalline by heat and pressure. As, however, there is no appearance of gossan, as far as I could observe anywhere in this property beyond where I have shown its surface out-crop on the plan by a yellow streak, the determination of the precise nature of these "doubtful rocks" is immaterial for practical purposes. The rock at the "magazine," coloured "doubtful," is, I think, probably part of the bouldery felstone, and possibly the same formation extends to the north-west corner of the Silver King property.

If any further prospecting operations, therefore, are undertaken, they should, I think, be confined to that area of the property which lies between the gossan out-crop, as shown by the yellow line, and the west boundary of the Silver King. It must be stated, however, that it appears to me that there is probably very little chance of meeting with any considerable body of sulphide ore within this area. Probably all that may be found are small pockets and veins, off-shoots from the main mass, or completely isolated from it through the roof of the deposit coming in contact in places with the floor. The main shoot having been worked out, the most natural thing to do was to prospect along its edges for its continuation; and this the management have already done. Cox's drive, and the north and east prospecting drives, were put in with this object, as also the shafts 70 feet and 56 feet deep respectively were sunk at the positions shown on the plan. The results, however, were not encouraging. At the contractor's shaft, 70 feet, which seemed to be well situated in the middle of the small basin of claystone, where the bouldery felstone was struck at a depth of 70 feet, there was only an inch of white clay flucan separating the two rocks at the line of contact and no sulphide ore. The most favourable spot as yet unprospected in this property appears to me to be that which lies between the mouth of the main tunnel and the half-way peg on the Silver King west boundary line.

(1.) With a view to testing this area a site was pegged by me for a new prospecting shaft at a point a few yards northerly from the north-east corner of the Silver King office. This shaft should, I think, be bottomed on to the felstone, and if there is any indication of ore making along the line of contact it should be driven along the ore in whichever direction the manager deems most favourable, either east, west to the boundary, or north-north-west.

(2.) If no ore appears to be making in a north-north-west direction, it would be better, instead of driving from the bottom of this shaft, to sink a fresh shaft at a point about 10 yards south-south-east of the half-way peg on the Silver King west boundary.

(3.) It would also, I think, be advisable to trench along the outcrop of the gossan, commencing at a point 2 chains south-south-west of the 56-feet shaft, and running the trenches south-south-west along the contact line of the claystone and felstone.

(4.) The quantity of clay flucan, and the soft nature of the country rock at the north-east corner of the property, suggest its being of a somewhat favourable nature for prospecting; but against this is the fact that no gossan is visible here, so that if any shoots of ore exist here at a depth they must be "blind leads" and the chances of striking such deposits are, I think, too small to justify the expenditure of any money in prospecting for them. If, however, it be desired to try whether this clay flucan will lead down on to ore, a shaft could be sunk, probably very inexpensively, near the north-east corner of the property, where the flucan vein, 7 feet wide, is shown on the plan. The flucan is so soft that it can be easily dug out with pick, or even a spade in places. If these prospecting works were carried out, the property might then, in my opinion, be considered to have probably been fully tested.

The Silver King Company have three furnaces—two water-jacket, and one Nevada. The last can treat 30 tons of ore a day, and the two former 18 tons each daily. They have all been shut down for the present, as although there is estimated to be about 9,000 to 10,000 tons of gossan ore still left, no more sulphide ore has up to the present been discovered to mix with it for smelting purposes.

The great ore shoot at the Sunny Corner mine shows every sign of being permanent to great depths.

The company at the time of my visit were engaged in erecting five 50-ton furnaces of the cast-iron water-jacket type, made by Mort and Co., with some modification introduced by the manager (Trewenack) to prevent the fine ore falling into the crucible in the furnace and blocking the twyers. Two 15-ton boilers were being put in position to work two engines of 25-horse power. Thirty-two stalls were also being erected for calcining the ore, the stalls being close to the feeding floors of the furnaces. The fumes from these stalls, in which calcination of the ore is effected, are to be conducted into a culvert or flue, of brick 7 to 8 feet high, 5 feet wide, and over a ¼ of a mile long. Slag bricks are used for building most of the walls of the new works, the bricks being of course cast from the molten slag of the Sunny Corner furnaces. The manager informed me that the average value of the sulphide ore from this mine was about £2 5s. per ton, and that he was able to produce mattes or bullion from it at the rate of £1 12s. per ton, including all cost of mining, calcining, and smelting, and refining the ore.

The prospects of this mine at present appear to be decidedly encouraging.

I have, &c.,
T. W. EDGEWORTH DAVID,
Geological Surveyor.

The Under Secretary.

P.S.—I am informed by Mr. William Clarke that, at the prospecting shaft site pegged by us near the office, the sinking of the shaft was commenced at once, and sulphide ore was struck at the line of contact of the claystone with the felstone, but he did not know whether it had proved to be of any extent.

APPENDIX No. 21.

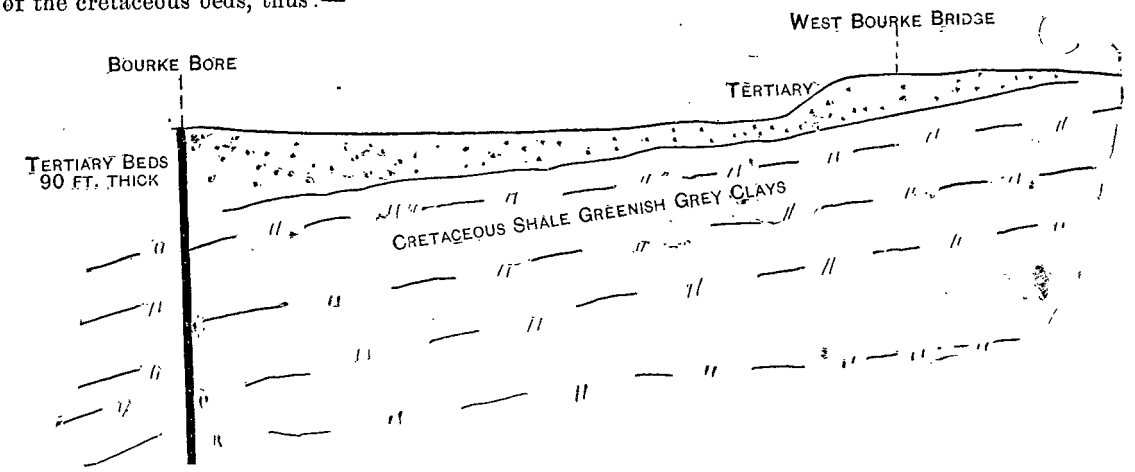
REPORT on Samples forwarded for examination from the Bourke Bore.

Geological Survey Branch, Department of Mines, 14 October, 1890.

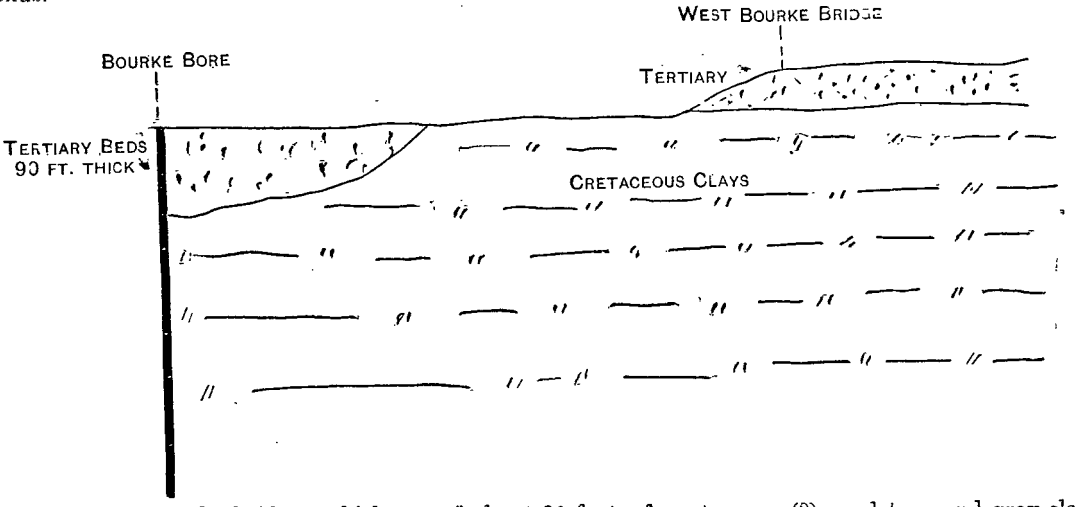
IN accordance with the instructions of the Honourable the Minister for Mines and Agriculture, I have examined the samples from the bore at Bourke, forwarded by Mr. J. W. Boultbee, Chief Inspector of Public Watering Places. The samples are from depths respectively of, from surface (?) to 80 or 90 feet, from thence to 232 feet, and from 232 feet to 570 feet. Specimens are also forwarded of fragments of boulders,

boulders, the latter having been struck at depths respectively of 405 and 550 feet. The samples from the first portion of the bore (chiefly from between the 80 feet and 90 feet level) is a sand composed of partly very waterworn and round, and partly subangular fragments of quartz, of which the larger fragments have evidently been derived from quartz-reefs, and the smaller from the disintegration of granitic rocks, such as those in the neighbourhood of Byrock. In general lithological character, this sample exactly corresponds to the drifts of the tertiary "deep leads" of the Codillera of New South Wales, and also those penetrated in the bore at Nevertire, put down some years ago by the Railway Department, to a depth of 427 feet. In the latter bore the tertiary sands and gravels (of which there were nine distinct beds, alternating with as many of red sandy clay) extended to a depth of about 153 feet, the bottom bed of drift being 20 feet 6 inches thick, and yielding water slightly brackish at the rate of about 2,000 gallons an hour. Below these tertiary beds of red sandy clay and coarse white sand were greenish clays, with thin layers of lignite, extending to the total depth of the bore, viz., 427 feet. The greenish clays probably belonged to the cretaceous beds, and had the bore, if continued, struck pervious sand under these clays, supplies of fresh artesian water would probably have been obtained.

The first sample from the Bourke bore belongs, I think, to this same brackishwater-yielding tertiary formation, and it is somewhat remarkable that it should extend to such a depth as 90 feet from the surface at the Bourke bore, as at the bridge at West Bourke, and in the banks of the Darling, near Bourke station, beds, apparently belonging to the cretaceous formation, are exposed at the surface. At the West Bourke bridge, however, the cretaceous beds have a slight southerly dip, so that the appearance of 90 feet of tertiary beds at the Bourke bore may be due to this dip, or to a slight erosion of the surface of the cretaceous beds, thus:—



or thus:—

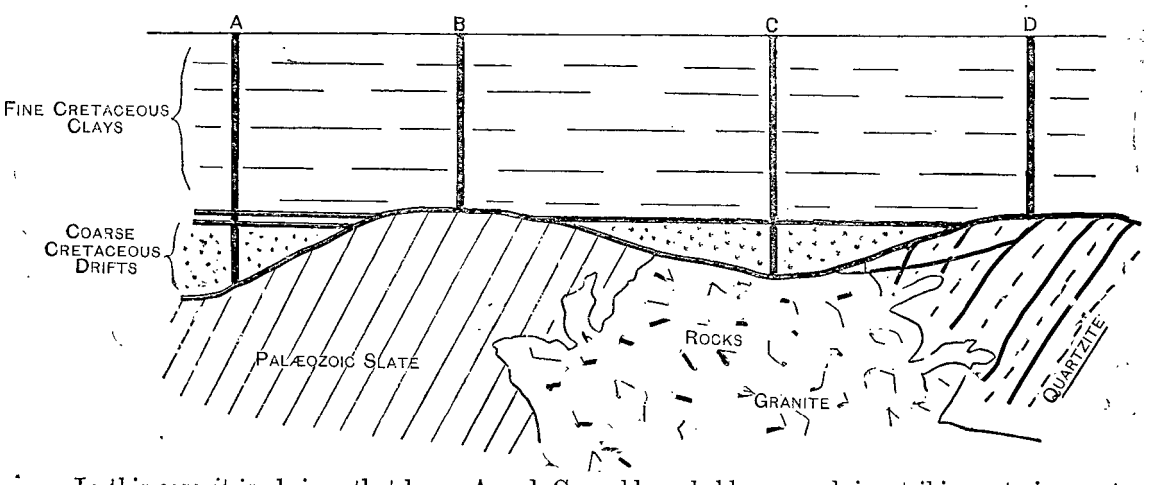


At West Bourke bridge a thickness of about 20 feet of cretaceous (?) sandstone and grey clay is exposed on the west bank of the Darling, and this is capped by tertiary (?) red sand. At about 20 chains below Bourke station there is, as described in my previous report on this neighbourhood, a thickness of about 16 feet of cretaceous (?) strata to be seen in the right bank of the river, giving the following section from the surface downward:—

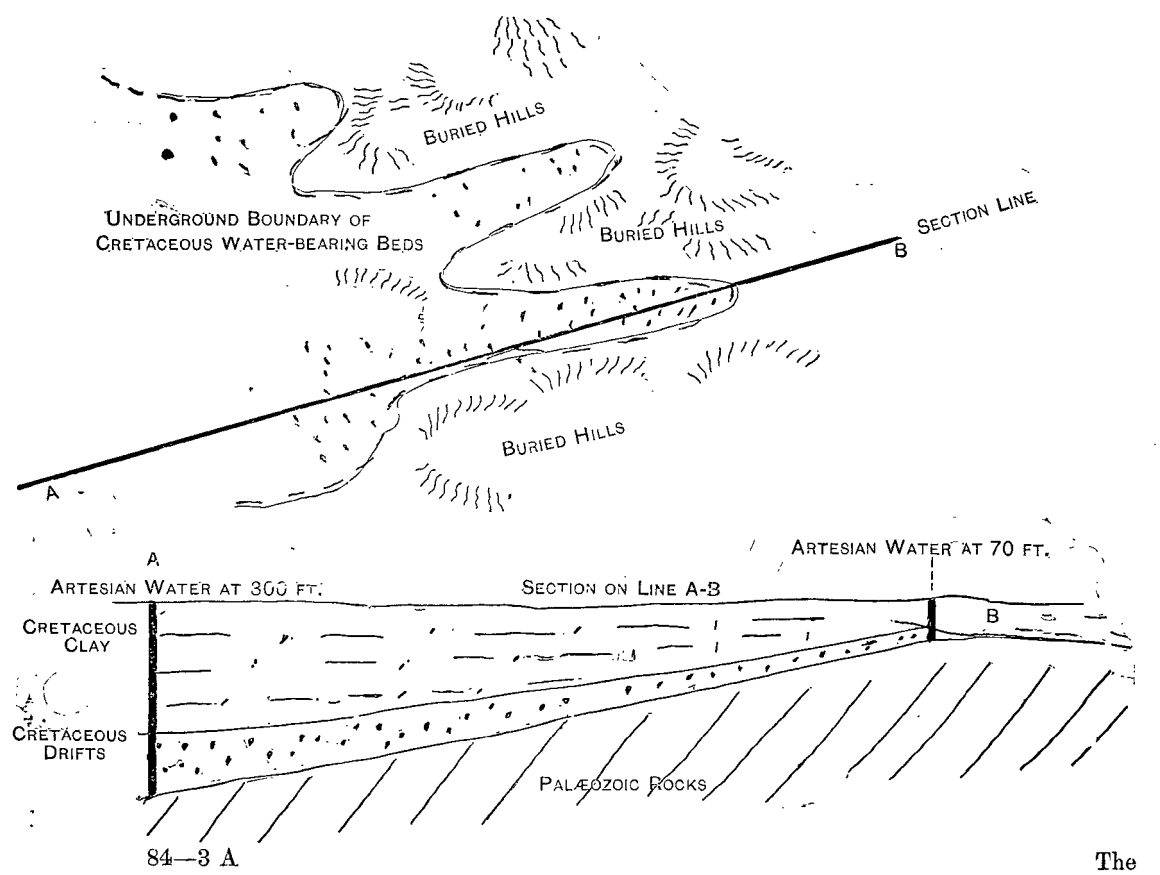
5 feet sandstones and whitish grey clay, alternating.
11 feet stiff clay, weathering a deep reddish brown.

The samples forwarded from the Bourke bore from below the 90-feet level to the 570-feet level belong, I think, to these some cretaceous beds, and may be described as very fine pale greenish grey clays, with a little quartz sand. The "boulders" cut at 405 and 550 feet are fragments of dark quartz derived from quartz reefs, which must traverse the bed-rocks from which they were derived, which may have been as far distant as Byrock. As the cretaceous grey clays extend from Bourke towards Byrock for a distance of nearly 29 miles (for about 13½ miles from Bourke towards Byrock they are hidden by a covering of recent black soil), this bore, if successful, will show that there is also a probability of obtaining artesian water by boring in places along the cretaceous area just described. So far, the indications as to the likelihood of artesian water being obtained at this bore are good, but the fact must be borne in mind that the mere presence of the cretaceous formation is not in itself a guarantee that artesian water will be found under it, unless the cretaceous beds at the point where they repose on the bed-rock are of a sufficiently porous nature to admit of the free passage of water. The cretaceous beds, as described in previous reports by the Rev. W. B. Clarke, Mr. H. Y. L. Brown, Mr. C. S. Wilkinson, Mr. Anderson, and myself

myself, rest on a very irregular surface of palæozoic rock, which had probably become eroded into a system of hills and valleys, before it was covered up under the thick and nearly horizontal beds of the cretaceous formations. The deep hollows of this buried continent would naturally receive the bulk of the coarser sediment deposited, consisting of gravel and sand, which, from its open, porous nature, would be more or less water-bearing. These coarser sediments, as the silting up of the cretaceous surface progressed, would necessarily be succeeded by finer sediments, as the continual levelling up of this surface would lessen the heights of the hills, and so render them powerless to supply coarse sediment, or ultimately any sediment at all, the sources of the sedimentary material being removed further and further eastwards. As the sinking of the floor of the cretaceous ocean proceeded the effect of this would be that the fine sediment which succeeded the coarse would rest in places immediately on the palæozoic bed-rock, of slate, quartzite, or granite, and in others on the water-bearing coarse sediments, thus :—



In this case it is obvious that bores A and C would probably succeed in striking artesian water, while those at B and D would prove failures. The failure of the bore lately put down on Yanda Station, between the Gunderbooka Mountains and the Darling, was due to its being situated similarly to the bores at B and D in the above sketch section. Mr. Tully's bore, 493 feet deep at Warraweena, about 23 miles north of Bourke, is also an instance of a failure of a bore from a similar cause, viz., a thinning out of the coarse water-bearing beds of the cretaceous against the flanks of low hills of Palæozoic rock, the position of which is completely masked by the thick covering of cretaceous clay. In choosing sites for bores, therefore, in the cretaceous formation, it is of paramount importance to avoid, if possible, localities where the concealed bed-rocks are likely to occur above the level of the water-bearing drifts. The areas where these deep-seated basins lie can only be decided practically by boring, and hence it is of great importance to preserve accurate records of all the strata passed through in such bores, as well as of their exact positions, so that by degrees the trend and boundaries of the artesian water-bearing basins in the cretaceous beds may be ascertained. Practical experience has shown that these water-bearing beds of the cretaceous extend to within 70 feet, or even less, of the surface. This is probably due to the existence of cretaceous fluviatile gravels ascending up the sides of the buried hills of the pre-cretaceous continent for a considerable level above that of the deeper-seated basins, thus :—



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The chances, however, of happening to strike one of these off-shoots from the main basins would, perhaps, be not very much greater than that of striking the channel of a deep lead by sinking for it through a sheet of tertiary sediment, or of basalt.

The putting down, therefore, of bores near the edges of the cretaceous basins must always be attended with considerable risk, resulting, at all events, in the first stages of the prospecting in more failures than successes, whereas the converse would probably be true if bores situated at some distance away from the edge of the cretaceous formation, and well within its area, as were the successful Wanaaring bores. The Bourke bore, though near the edge of the cretaceous formation, appears to be fairly well situated to catch the run of deep ground, which extends towards Bourke, from between Mount Oxley and the Gundabooka Mountains.

A very important point which this bore may decide is whether in cretaceous time a water-way existed where Bourke now stands, in approximately the same position as the present Darling River, at, of course, a far greater depth than the present channel of the river, the level at the Bourke railway station, approximately the same as that of the surface of the ground at this bore, being 347 feet above sea-level, whereas that of the bottom of the bore (at 570 feet below the surface) is already 223 feet (about) below sea-level. If such a water-way exists, and it occupies the site of an old valley, it may follow approximately the trend of the present Darling River, and conduct the artesian water to the ocean to the Great Australian Bight, rather than to the Gulf of Carpentaria.

I have, &c.,

T. W. EDGEWORTH DAVID,

Geological Surveyor.

The Under Secretary.

APPENDIX No. 2J.

Report on coal-measures of Shoalhaven District, and on bore, near Nowra.

Geological Survey Branch, Department of Mines, Sydney, 15 October, 1890.

Introduction.

WE have the honour to report that, in accordance with instructions, we have examined the coal-measures of the Shoalhaven district, with the wiew of ascertaining: (1) whether payable coal is likely to underlie the marine strata below the Bulli coal-measures, between Ulladulla and Clifton; and (2) whether payable coal is likely to underlie the present bore in progress at Wandrawandian Creek, near Nowra, and, if so, at what approximate depth.

General Physical Features.

The country examined from Clifton, on the north to Conjola, near Ulladulla, on the south, and as far west as Sassafras (the source of the Clyde River), consists of a tract of low-lying country, which may be described as an undulating plain, skirting the sea-board, and bounded westwards and inland for the greater part of its extent, by a rocky table-land. This plain, including, under the term, hilly country, not more than 500 feet above sea-level, is widest in the neighbourhood of Jervis Bay, where it measures 18 miles from east to west. From here it narrows to the south, while to the north it is reduced to a very narrow strip by the volcanic hills between Jerringong and Kiama. North of Kiama, it expands into the rich plains near Lake Illawarra and Dapto, and from here it becomes narrower northwards, until near Clifton, the approach of the base of the table-land to the shore line entirely shuts it off. This plain, having a rich soil, derived from the decomposition of the coal-measures and volcanic rocks, and being well watered, has long been famous for its dairy farms. From Nowra to Clifton it is sharply bounded by the steeply sloping hills of the coal-measures, capped by rocks of the Hawkesbury series, terminating in precipitous escarpments. South of Nowra no sharp line can be drawn between the plain and the table-land, the ascent from the former to the latter in several places being a very gradual one. The general level of the plain is less than 500 feet above the sea, while the table-land attains elevations of between 1,000 and 2,000 feet and upwards. The surface of the table-land ascends gradually in a south-south-westerly direction from Coalcliff to the Jamberoo Mountains, which part the watersheds of the Nepean and Shoalhaven Rivers; from here to the Cambewarra ranges the surface is nearly level along the top of the seaward escarpment of the table-land, but westwards it is broken by deep valleys and ravines, such as the Kangaroo Valley, and other tributary valleys of the Shoalhaven River. The valley of the Shoalhaven breaks the continuity of the seaward scarp of the table-land, and south of this valley, as already stated, there is in most places no sharp line between the table-land and the plain.

III. *General Geological Features.*

The geological formations observed in the district examined may be grouped as follows:—

A. Sedimentary—
Tertiary (*d*)—Recent. Alluvial deposits, raised beaches (?) and blown sands.
Mesozoic (*c*)—Triassic (?) rocks of Hawkesbury series.
Palæozoic (*b*)—Permo Carboniferous—
3. Bulli coal-measures.
2. Upper marine series, (*d*), (*c*), (*b*), (*a*).
1. Clyde (Greta ?) coal-measures.
(*a*)—Silurian. Slates with quartz reefs.

B. Eruptive—
(*b*) Intrusive dykes, hornblende-gabbro and dolerite.
(*a*) Volcanic—
3. Bomba lavas.
2. Red tuffs.
1. Kiama lavas.

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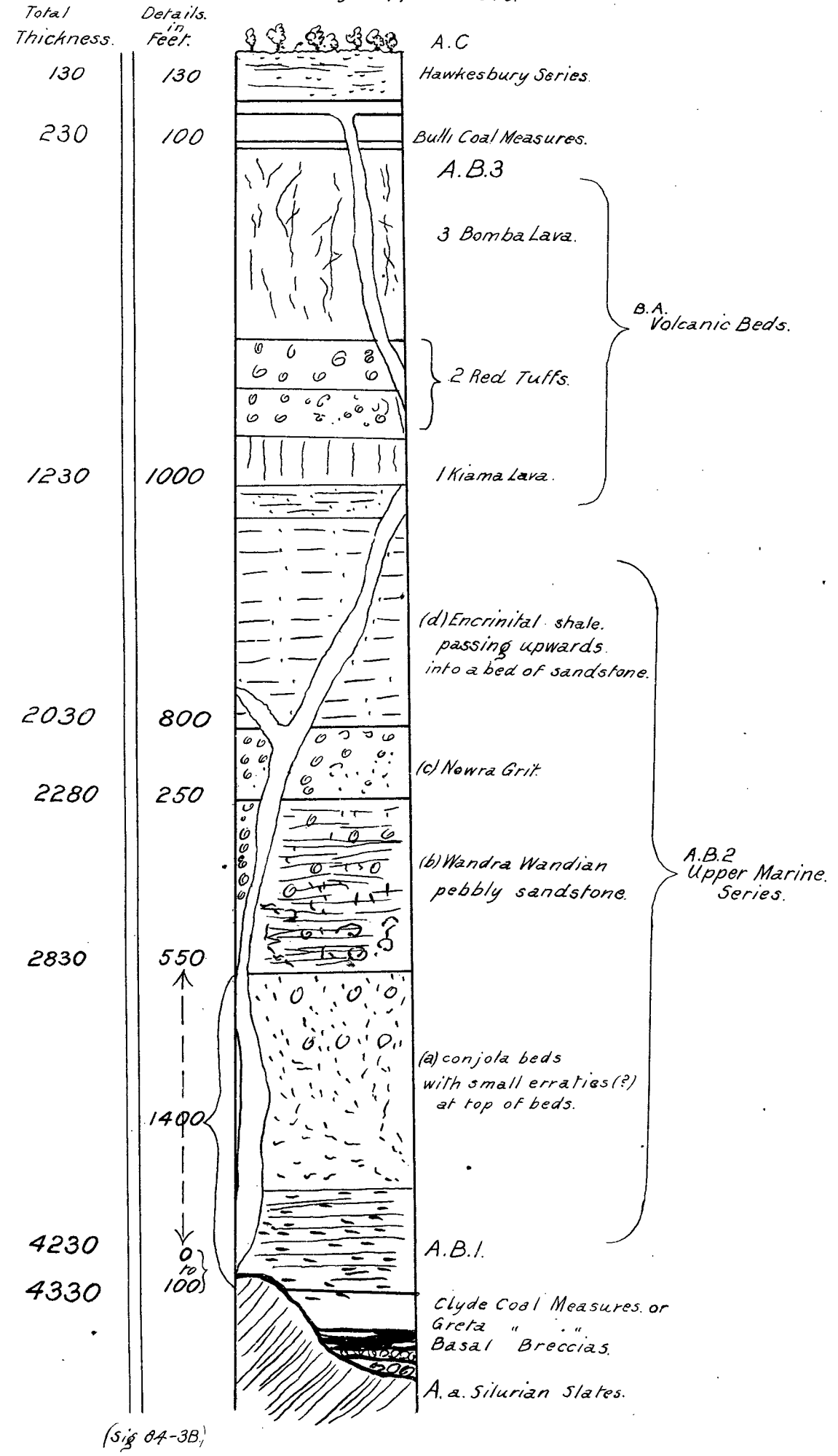
The following is a vertical section of the same formations in the neigbourhood of Nowra, the thicknesses given being only very approximate.

Notes - Thicknesses given are only very approximate.



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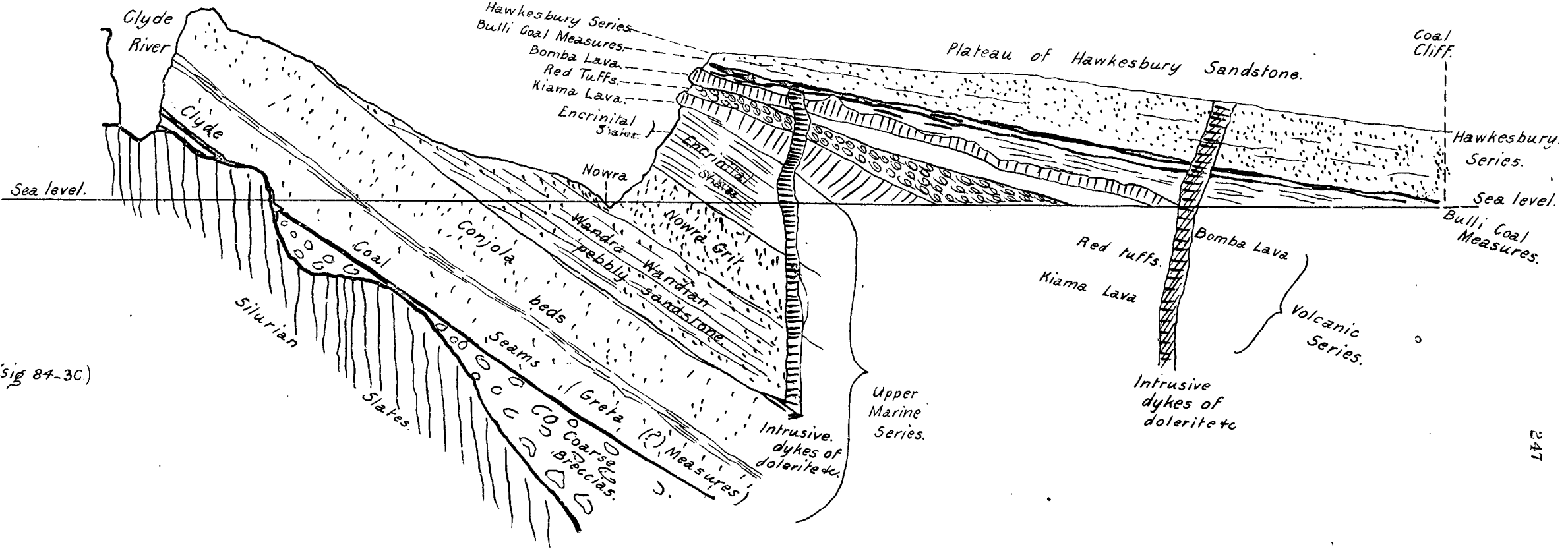
The general relation of these rocks to one another, as they appear to us, is represented on the sketch section below.

Vertical Scale approximately 1/3rd Mile to 1 inch.
Horizontal Scale approximately 3 Miles to 1 inch.



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It is evident from the preceding section that there is a great thickness of rock near Nowra separating the Bulli coal-measures from the Clyde coal-measures, estimated roughly by us to be probably not less than about 4,000 feet. This is an important fact to have established, as previously it was thought that the Clyde coal-measures were probably a continuation of the Bulli coal-measures, and that both might perhaps represent the Greta coal-measures. It is now known, however, that, as shown by the previous sections, the Bulli and Clyde coal-measures are quite distinct, the former being the equivalent of the Newcastle or of the East Maitland coal-measures, and the latter probably of the Greta coal-measures. If this be so, as is now almost certain, the head of the Clyde River is the first locality to the south of West Maitland where the Greta coal-measures reappear at the surface. At the latter town the Greta seams plunge below the surface in a south and south-easterly direction at a steep angle. The total distance between these two points of outcrop is 168 miles. The fact of the Clyde measures underlying the Bulli has an important bearing on the mineral resources of the plain country between Ulladulla and Clifton, as it is more than probable that the Clyde measures will be found to underlie a considerable portion of this area, except in those parts of it where the seams have been either destroyed by intrusive eruptive rocks, or have never been formed, owing to the existence of such spots of hills of slate above the general horizon of the coal.

IV. Details of Geological Formations.—A b 3, *Bulli Coal-measures.*

The alluvial deposits, Hawkesbury series and intrusive dykes being omitted from consideration at present, the formation next beneath is that of the Bulli coal-measures. The topmost seam of these measures comes down almost to sea-level near Coalcliff, and ascends to a height of about 1,700 feet in the Jamberoo Mountains. (*See* description by Mr. J. Mackenzie. F.G.S., Government Examiner of Coal Fields, mineral products, &c., of New South Wales, 1887, plate 20.)

From Jamberoo to Cambewarra the seams appear to have little or no northerly dip as at Cambewarra. At Messrs. Baldy's, Macintyre's, and Ritchie's, where the seams were examined by us, they were found to be from 1,670 to 1,760 feet above sea-level, this corresponding in level with the Jamberoo seams. On each of the properties owned by the above proprietors the seams have suffered much from the destructive effects of dykes of intrusive volcanic rock. At Baldy's the following descending section was measured by us:—

Roof—Sandstone, rusty gray.

ft.	in.	
0	6	Indurated clay shale.
4	6	*Coaly* shale and very dirty splint coal, damaged by intrusive rock.
7	6	Intrusive rock, decomposed into a soft rusty coloured substance like a clayey sandstone.
0	3	Perished coal (?)
0	1½	Band, white clay.
1	3	*Coal*, calcined by intrusive dyke.
0	1½	Band, grey fire-clay.
1	0	*Coal*, calcined by intrusive dyke.
0	5	Dark grey sandy shale with *glossopteris*.
Total ... 15	8	

Floor..... Whitish gray fire-clay.

In the above section the 7ft. 6in. of intrusive rock has probably burnt out, and replaced a considerable thickness of coal originally contained in this seam.

These outcrops in the Cambewarra Ranges above Nowra appear to be the termination of the Bulli coal-measures in this locality.

A b 2, *Upper Marine Series.*—This consists of volcanic rocks in the upper part, and sedimentary in the lower.

The volcanic rocks may be subdivided into :—

B. a. (3) Bomba lavas.
(2) Red tuffs.
(1) Kiama lavas.

This volcanic group appears to attain its maximum thickness a short distance to the south-west of Kiama, in the neighbourhood of the Saddleback mountain. The thickness of the group here cannot be less than 1,500 feet, while in the Cambewarra Ranges it is about 1,000 feet thick.

One of the sources of these lavas has probably been the conical hill which forms an eastern spur of the Saddleback mountain, This hill is capped with volcanic tuff and volcanic breccia of a yellowish grey colour, and resembling the tuffs at the Canoblas, near Orange.

Next below these tuffs (in point of level) are sheets of lava of a basic character, about 500 feet thick, then lavas of a more andesitic type for about a similar thickness, then the red tuffs about 100 feet thick, and then the series closes with the Kiama lavas, the thickness of which has not yet been measured, but at this locality it certainly exceeds 100 feet. The whole group appears to be contemporaneous with the upper marine series. The Bomba lava is quarried on a large scale at Bomba and near Kiama for road metal. The volcanic group extends northwards through Lake Illawarra and Dapto, at least as far as Wollongong.

A b 2.—The sedimentary rocks of the upper marine series may be subdivided as follows, the newer beds being placed first:—

(*d*) Encrinital shales.
(*c*) Nowra grit.
(*b*) Wandrawandian pebbly mudstones.
(*a*) Conjola beds.

(*d*) *Encrinital Beds.*—These strata are well exposed in the section on the road from Nowra to Moss Vale, where it ascends the Cambewarra ranges. Aneroid level taken by us show a vertical thickness of these beds of about 600 feet, and adding 200 feet on account of the dip over the area where this section was measured, their total thickness cannot be less than 800 feet. In places they are dark grey, in others lighter grey, and apparently suffaceous from the admixture of volcanic material. The dark grey layers usually contain stems of encrinites, retepora, and the permo-carboniferous marine fossils in abundance. These beds much resemble both in lithological character, as well as in their contained fossils, the shales of Louth Park (between East and West Maitland), which separate the muree rock of the upper marine series from the base of the overlying coal-measures of East Maitland.

(*c*) *Nowra Grits.*—These beds consist of gritty gray sandstones, which, according to the palæontological researches of Mr. R. Etheridge, junr., contain a marine fauna, which stamps them as belonging to the upper marine series which overlies the Greta coal-measures rather than to the lower marine series which underlie the Greta measures. A short distance of the Shoalhaven River, near the Nowra foot suspension bridge, a vertical cliff shows a thickness of about 50 feet of these beds, but the base of the beds is not seen here. Between the Wandrawandian bore, however, and the Braidwood road there is a thickness of about 200 feet of sandstone, as measured by aneroid, of which the greater part probably belongs to this grit, and in the bore itself it was found to extend to a depth of 50 feet before its base was reached. The thickness of the Nowra grit may therefore be about 250 feet, as suggested. This formation much resembles the muree rock of the upper marine series near Maitland in lithological character and contained fossils. The line of junction between the upper surface of the Nowra grit and the base of the encrinital shales suggests that the former was slightly eroded before the latter was deposited, as the shales appear to lie in hollows in the surface of the grit, as do the Wianamatta shales with regard to the Hawkesbury sandstone.

(*b.*) The Wandrawandian pebbly sandstones have been proved in the bore above-mentioned to have a thickness of at least 550 feet. These beds are dark grey mudstones, more or less gritty and pebbly throughout, with small boulders in places, and with abundant marine shells with the original calcareous material of the shell preserved, These beds outcrop strongly on the Nowra to Milton road, where it crosses the Wandrawandian Creek. Their thickness is not less than 550 feet, and may be somewhat more.

(*a*) *Conjola Beds.*—The upper strata are composed of pebbly sandstones, containing small boulders (perhaps erratics), with layers of ferruginous grit and conglomorate. These pass down into somewhat similar sandstones, very fossiliferous (a large species of strongly-carinated *Mæonia* being particularly abundant) and towards the base of the beds are mudstones and clayey sandstones passing into fine-grained sandstones, which last form the roof over the Clyde coal-measures. The thickness can be estimated only very approximately, according to our observations, to be about 1,400 feet. A knowledge of the thickness of these beds is of immediate importance, as the Conjola bore is now passing through them.

A b 1. *Clyde Coal-measures.*—Natural sections of these measures are exposed in several places near the head of the Clyde River and at Conjola. At the head of the Clyde River Mr. C. S. Wilkinson, F.G.S., has already examined the sections exposed in the precipitous sides of the Clyde Valley, and he gives the following account of the coal seams and their associated strata. (*Annual Report of Department of Mines*, 1885, *p.* 132) :—

The lowest of the coal seams, No. 8, gives the following section, commencing about 20 feet below the section measured by Mr. Norman Taylor, F.G.S., as quoted in the accompanying extract from the *Milton and Ulladulla Times*, which publishes Mr. Taylor's report, made for a company in Goulburn who have selected 1,920 acres of land in this locality :—

	(Roof) ft.	in.
Dark gray sandy shales		
Bituminous coal (sample A)	3	3
Black coaly shale	0	8
Splint coal	0	6½
Coaly shale	0	6½
Splint coal (sample B)	1	0
Black coaly shale	0	5
Splint coal (sample C)	0	7½
Coaly sandy shale	4	0
Bituminous coal	1	8
Coaly sandy shale	2	8
Bituminous coal	0	9
Shale and sandstone	30	0
Coarse pebble conglomerate	8	0

About 50 feet above this is the No. 2 seam, from 2 feet 11 inches to 3 feet 2 inches thick, of good bright bituminous coal, suitable for steam, coking, gas, smelting, and household purposes (sample D), and similar in quality to No. 1 seam (sample A).

In addition to these seams there is one 2 feet thick, and several others of less thickness ; but though they contain coal of good quality they occur too far apart from each other to be worked as one seam, and therefore could not be profitably worked. Associated with them are some layers of inferior kerosene shale, the best of which is from 6 to 12 inches thick. (*See analysis of sample E.*)

The upper portion of No. 1 seam, which contains 4 feet 9 inches of workable coal, will yield after due allowance for loss and waste in getting, at the rate of 3,778 tons of large coal and 1,259 tons of small coal per acre.

Taking the No. 2 seam as 3 feet thick, it will yield, after due allowance for loss, &c., at the rate of 2,352 tons of large coal and 783 tons of small coal per acre,

The following analyses are of sample taken from the whole thickness of each of the above-mentioned seams ; the samples were taken from near the outcrop of the seams :—

Sample.	Moisture.	Volatile hydrocarbons, &c.	Fixed carbon.	Ash.	Sulphur in coal.	Sp. gravity.	Coke.
A.	3·20	28·98	59·88	7·94	1·43	1·313	67·82
B.	0·85	32·15	56·18	10·82	1·63	1·302	67·00
C.	0·75	38·37	45·64	23·24	1·28	1·359	68·88
D.	1·60	32·30	59·22	6·88	1·21	1·291	66·10
E.	0·02	44·98	13·20	41·80	not detd.	1·412	....

The strata undulate slightly; where No. 1 seam crops out the dip is E. 35°, S. at 3°, and the outcrop of No. 2, about 10 chains higher up the river, it is W. 15°, S. at 3°; in some other places the strata are nearly horizontal.

From here the coal could be conveyed by a line of railway about 26 miles long to the large shipping port of Jervis Bay, or else by a shorter route to the harbour of Ulladulla. I have not personally examined these routes, but I am informed that they present no engineering difficulties for the construction of lines of railway.

In places the seams have been cut back a short distance artificially at the outcrop so as to expose the full thickness of solid coal, and tunnels have been driven on them for a short distance.

The generalised section of the measures, as observed by us, probably a trifle lower down the valley than where the section given by Mr. Wilkinson was measured, was a follows:—

Descending Section.

ft.	in.	
0	2	Coaly shale.
25	0	(about) Carbonaceous shale and sandstone.
2	6	Very hard fine-grained sandstone.
0	6	Mudstone, laminated.
5	5	Seam of coal, with bands.

Details.	ft.	in.
Clay shale, hard black.	0	4
Coal, hard, bituminous.	0	2½
Band, hard coaly shale.	1	1
Coal, good, hard, streaky, bituminous.	0	9½
Band, hard carbonaceous clay shale.	1	0
Clayey, dark-grey sandstone.	0	9
Stony, coaly shale.	0	7
Hard, streaky, bituminous coal.	0	1
Total,	5	5

ft.	in.	
		Floor.—Hard, flaggy, black sandy shale.
7	1	Hard black sandy coaly shale.
1	0	Very hard fine sandstone, weathering yellowish white.
8	6	Clay shale, with *gangamopteris* (?) and fossil seeds.
0	5	Fine hard pyritous sandstone, with a little carbonate of iron, weathering yellowish white.
2	0	Black carbonaceous clay shale.
0	5	Fine hard sandstone, weathering yellowish white, like the preceding sandstone.
9	7	*Coal seam.*

Details.	ft.	in.
Coal, good hard streaky bituminous.	3	0
Band, hard dark grey mudstone.	0	6
Coal, hard, top 2 in. bituminous, bottom 4 in. splint.	0	6
Band, hard stony shale.	0	6
Coal, hard streaky bituminous.	1	1
Band hard coaly shale.	0	5
Coal, good hard bituminous and splint coal.	0	9
Band, stony, coaly shale.	0	6
Chittery coal.	0	2
Band, chittery, coaly shale, with *Gangamopteris* (?) and *Glossopteris* (?)	0	10
Coal, somewhat splinty.	1	4
Total,	9	7

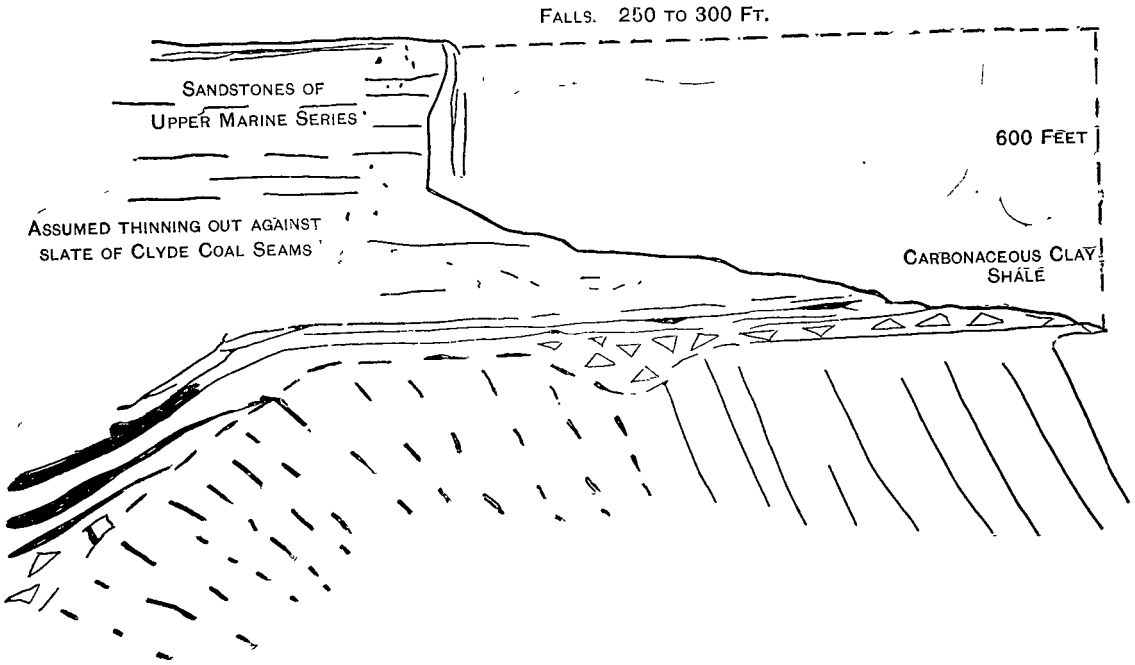
ft.	in.	
0	6	Clayey carbonaceous sandstone.
3	7	Flaggy, grey sandstone, very fine and hard.
1	7	*Coal*, good, hard, bituminous.
4	4	Laminated mudstones, and dark grey coaly clay-shales with *gangamopteris* (?)
2	0	Sandstone, flaggy and clayey.
1	6	Sandy carbonaceous clay shale.
3	0	Dark-grey clayey sandstone.
6	0	Sandy clay-shale, dark grey.
		End of coal-measures.
20	0	Basal grits and breccias, composed of fragments of slate and quartz.
Total, 105	1	
90	0	

Greenish grey slates, with quartz veins, probably of Silurian age, and auriferous in places, as at Yalwal, Mogood, and near Conjola. The portion of the 9 ft. 7 in. seam, containing the 3 feet of clean coal, would probably repay the expenses of working if it were situated in a less inaccessible locality, the coal being of very fair quality for steam purposes, and sufficiently hard to bear a good deal of carriage, without breaking up into slack coal. The general dip, according to aneroid levels, is slightly to the north and east, though at Mr. Higgins' camp, above the No. 1 tunnel, the dip is westerly at 3½ degrees.

The fossil plants found by us are, we believe, the first of a determinable species discovered in this locality, and prove these coal-measures to belong to some part of the Permo-carboniferous System. This fact strengthens the probability of the Clyde coal-measures being identical with the Greta coal-measures, which are the lowest and oldest of our workable coal-measures. In his original report, Mr. C. S. Wilkinson considered that at the Clyde the strata of the Upper Marine Series extended up for about 200 feet above the coal, and since then Mr. Stonier has found that the whole of the sandstones in the surrounding hills must also be included in the Upper Marine Series, as they contain marine fossils up to a vertical height of about 1,000 feet above the coal near the head of the Clyde River. With reference to the thickness of the coal-measures, as stated on the sections, it varies from 100 feet to nothing, the thinning out being due to local hills of slate rising above the general level of the coal basin. An example

of

of complete thinning out of the coal due to this cause is to be seen below the Falls, at about 50½ miles from Braidwood, on the road to Nowra, where the following section was measured by us :—



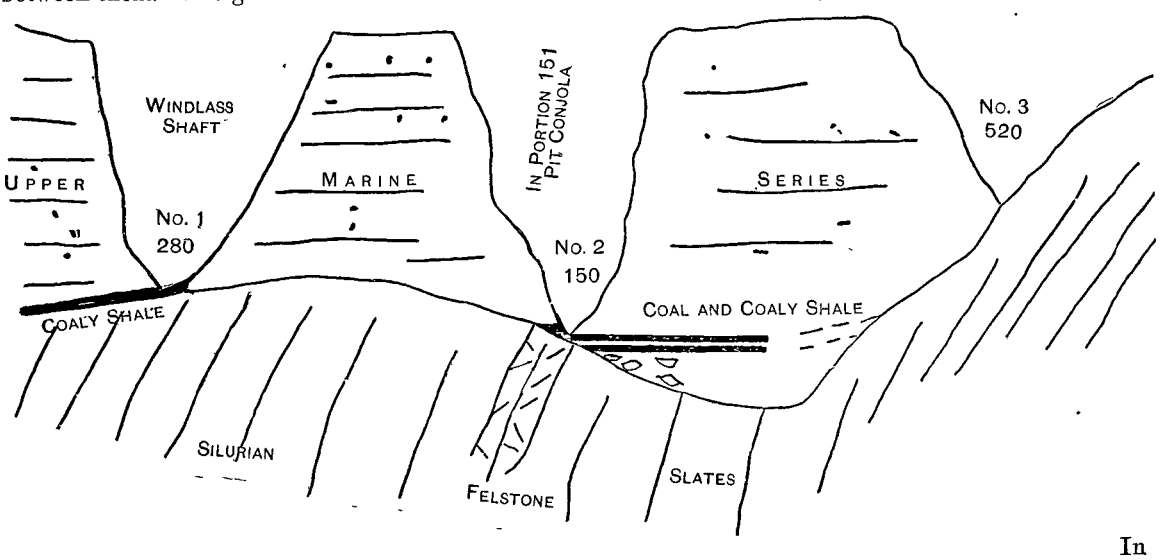
Sections similar to the above are observable near Conjola, on the Nowra to Milton Road. In places on the Clyde and Endrick Rivers, a seam of inferior kerosene shale occurs near the top of the coal-measures. At Conjola, at the first point where we examined the coal outcrops near the north-western boundary of portion 151, parish of Conjola, county of St. Vincent, the following section was measured by us :—

	ft.	in.	
	370	0	Chiefly sandstones of the Conjola beds, containing marine fossils, and terminating downwards next the top of the coal-measures in fine-grained massive grey sandstone.
	0	7	Laminated fine sandstone, with pebbles.
Top of coal-measures	0	1½	*Coal.*
	1	11	Leafy, black shale, passing into sandstone.
	0	7	*Coal,* splint.
	0	1	Coaly shale.
	2	0	Hard, dark grey mudstone.
	0	1	*Coal,* splint.
	0	11	Carbonaceous clayey sandstone.
	0	5	Hard coaly shale.
	0	1	*Coal,* splint.
	0	10	Hard, coaly, sandy shale.
	0	2	Chittery stony coal.
	1	4	*Coal,* splint.
	0	6	Flaggy carbonaceous clayey sandstone, with stems or roots of plants. Passes downwards into rather massive sandstone.

A short distance below these thin seams of coal are Silurian slates and felstone.

Glossopteris leaves, and remains of a leaf much like *gangamopteris*, were found by us here in the layers of clay shale between the coal-seams. These seams are no doubt part of the Clyde coal-measures and are, therefore, probably identical with the Greta coal-measures.

About 1 mile south-westerly from the preceding section we observed an outcrop of black coaly shale and some thin coal close to the junction line between the clay slate and the Upper Marine Series. At another point, west-south-west, about 5 miles from "Conjola Hotel," and 3½ miles west-north-west of the preceding, the Upper Marine beds were seen to junction with the slate rock, without any coal interposing between them. The general section of the formations between these three points is as follows :—



In

In the above section the vertical scale is enormously exaggerated as compared with the horizontal.

At No. 3 outcrop the Upper Marines have not been cut down far enough to expose the coal-seams. At No. 1 they have only just been cut down to the point where the seams are beginning to make, while at No. 2 the seams have already made to a slight thickness, but are as yet comparatively thin, though they would doubtless improve considerably towards the dip of the basin. The horizon of the coal has dipped from No. 1 outcrop towards No. 2 about 130 feet in a distance of about 125 chains in a direction about N. 35° E. The general dip of the strata in the neighbourhood of Conjola is between E.N.E. and N.E. at about 40°. The coal at the No. 2 outcrop dips at from 5° to 7° between N.E. and E.N.E. The dip from Conjola Hotel to a point on the road about 24 miles 75 chains from Nowra, is probably still about 4° or 3° to N.E. or E.N.E. At this point the dip steepens to 10° E.N.E., and continues at that high angle in the direction of Nowra for about ¼ mile, then flattens again. At Wandra-Wandian Creek the dip of the pebbly mud-stones is E.N.E. at 4°.

Near Tomerong, at 13 miles from Nowra, the dip is N. 10° E. at about 4°.

At Curranbene Creek, near Mr. Monaghan's sawmill, the dip is west at about 2°. At the "falls" previously described on the Nowra to Braidwood Road, the dip is E. 10° to 15° N. at 3½°

The general dip of the measures from the outcrop at Conjola as far as to near Tomerong may, therefore, be assumed to be in an E.N.E. to N.E. direction at 3° to 4°, and between the head of the Clyde and the Wandra-Wandian bore probably E. by N. or E.N.E. at 3½°, subject of course to local variations. Between the Wandra-Wandian bore and Mr. Monaghan's sawmill the dip is reversed so as to produce a small basin between this sawmill and the bore.

V. Wandra-Wandian Bore.—From the above premises we may be justified in drawing certain inferences with regard to what answers should be given to the second question propounded at the commencement of the report.

(1.) Is coal likely to underlie the site of the Wandra-Wandian Bore?

The chances of coal being met with at a depth here are in my opinion good, the rock here belonging to the formation, which overlies the coal at the Clyde, at Conjola, at Maitland, and at Greta. The general dip from the outcrops, both at the Clyde and at Conjola, is towards the Wandra-Wandian Bore. The chances are therefore strongly in favour of coal underlying this locality. There are, however, two elements of uncertainty here, in addition to the usual ones, which those who bore for coal have usually to encounter. The latter are rolls, faults, or local deteriorations in the seams, of which there may be no surface indications, so that a bore may happen to strike the deteriorated portions of the seams, or entirely miss the seams on account of its proximity to these local troubles. The two former are:—

(*a*) The possible thinning out of the coal-measures underground against a hill of slate rock, of the presence of which there is no surface indication, on account of nearly all such local elevations in the floor of the basin in which the coal seams formed having been completely buried under the thick sediments of the Upper Marine Series. In consideration, however, of the distance of the Wandra-Wandian Bore from the edge of the coal-basin, and its comparatively subcentral situation in the basin, we think the chances of this possible element of failure are not as great here as nearer the edge of the coal-basin.

(*b*) The possible destruction of the coal by eruptive rocks.

An eruptive rock was pointed out to us by Mr. Monaghan, between Tomerong and the Wandra-Wandian Bore, but as the latter is a considerable distance from the former, the eruptive rock may not necessarily have damaged the coal at the bore. In the neighbourhood of Kiama, however, which has been the scene of such intense volcanic activity, there can be little doubt that the Clyde measures will have been interfered with over considerable areas.

On the whole, therefore, we think that the chances of striking coal here are good, and we would strongly recommend that, unless the depth gets very excessive, the bore be continued until it strikes either coal, slate, or eruptive rock.

(2.) If coal underlies the site of the Wandra-Wandian Bore, what is its probable depth?

From the data available as to the amount and direction of the dip of the measures, and a comparison of the section of the core with the natural sections between the bore and the Clyde and Conjola respectively, we are of opinion that the bore at the 594 foot level had about reached the top of the Conjola Beds. If the roughly estimated thickness of the Conjola Beds be correct, and be also applicable to this particular spot the bore will have to go about 1,400 feet deeper before reaching the horizon of the coal, or a total depth from surface of say, about 2,000 feet. The remainder of the data available which, however, are rather meagre, lead us to suppose that the minimum depth will be between 1,400 and 1,500 feet from the surface, and the maximum as perhaps about 2,250. The depth at Maitland to the Greta Seams from the same horizon at which the Wandra-Wandian Bore commenced (if our correlation of the Muree Rock with the Nowra Grit is correct), would be over 2,400 feet. An exact persistence in thickness, however, of the same formations over so wide an area cannot of course be relied on.

(3.) If coal underlies the site of the Wandra-Wandian Bore, what will be its probable thickness and quality?

The chances in our opinion are in favour of the coal at the Wandra-Wandian Bore being thicker, or at any rate freeer from bands than it is at the head of the Clyde. The total thickness of coal at the Clyde is about 10 feet, and in the 9 ft. 7in. seam, there is 6 feet 8 inches of clean coal, so that if the bands in this seam thinned somewhat, this seam would be a good workable one, if the coal continues of the same quality as it is in the 3-ft. layer in this same seam at the Clyde.

In the districts of Maitland and Greta, these measures contain from 17 feet up to about 42 feet of coal, of very good quality. The thinness of the coal at the Conjola is probable due to its proximity to a rising surface of slate rock, as may be inferred from the dip of the coal being in excess of the normal.

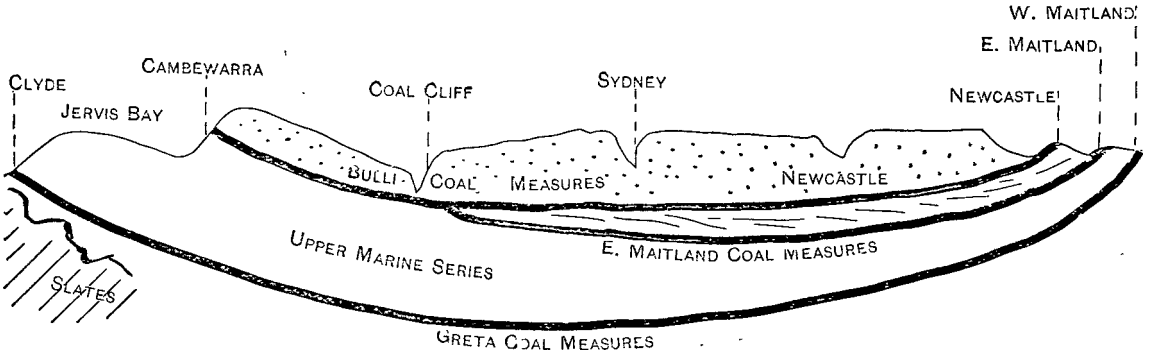
Summary.

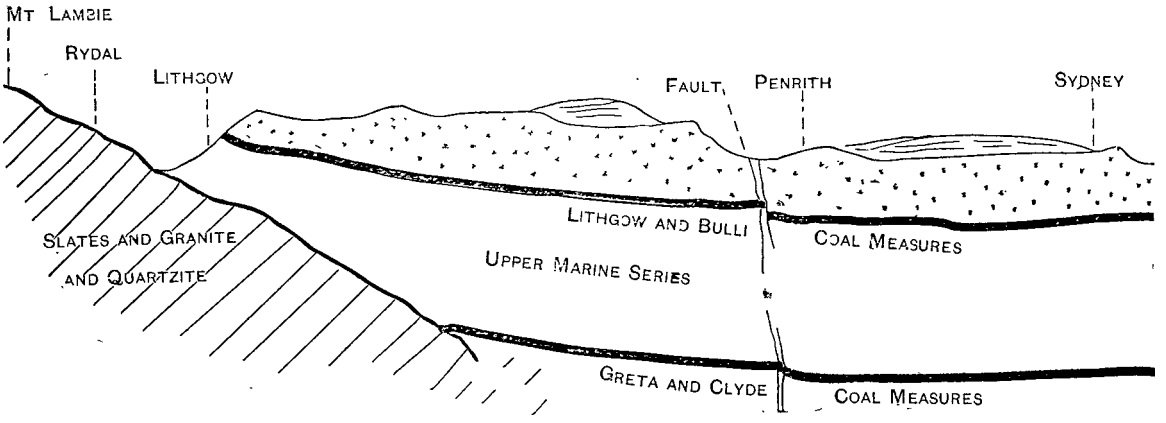
If the conclusions arrived at by us, as stated in this report, are correct, there is probably a vast deep-seated coal-field extending in the form of one or more basins from near Ulladulla, on the south, to Maitland, on the north, and westward from the sea-board at least as far as the foot of the Blue Mountains. A large area of this coal-field probably lies within a depth of 4,000 feet below the surface, the assumed maximum depth down to which coal can be profitably worked, even with the best modern appliances. There may, however, be a far larger area of this coal-field in which the depth of the Clyde and Greta coal exceeds 4,000 feet.

Under Sydney, for instance, the depth to the Greta coal, if it underlies this area, and has not thinned out against a concealed hill of slate or granite, &c., would probably be not less than 7,000 feet, at which depth the temperature of the rocks and the coal would probably be above that of boiling water. In view, however, of the great progress which mining engineering has made of late years in improving the ventilation of mines, it is possible that in the future coal will be worked to depths exceeding 4,000 feet.

The principal tract in the southern coal-field, in which the Clyde coal-measures may be expected to be met with at depths less than 4,000 feet, lies between the Clyde River, Ulladulla, and Wollongong, the fine harbour of Jervis Bay lying within this area. If, therefore, workable coal be proved in the present bore the estimates previously formed of the quantity of unworked coal in this country available for future use must be considerably increased, and the national assets in coal will subsequently be far greater than formerly supposed. Even should the present bore prove a failure from some of the possible mischances alluded to above, it would not of course prove the non-existence of coal in this basin, but rather a local thinning out of the measures at the spot where the bore was put down.

As regards the depth of coal at Jervis Bay, it would be premature to attempt to calculate it exactly until the completion of the Wandra-Wandian bore. At Huskisson, on the west side of Jervis Bay, a bore has already been put down to a depth of nearly 2,000 feet, without reaching coal, and this is quite in accord with the surface geological evidence, as according to the direction and rate of dip of the coal from the Clyde and Conjola towards Huskisson, its depth at the last place should exceed 2,000 feet. Our recent observations in the Illawarra and Shoalhaven districts, appear to us to have supplied the last piece of evidence necessary to complete the preliminary correlation of the palæozoic coal-fields of New South Wales, so far as relates to the northern, southern, western, and south-western coal-fields. The discovery by us of the fossil plants *glossopteris* and *gangamopteris* (?) in the coal-measures at Conjola and the Clyde, when added to the evidence previously collected, enables us confidently to correlate the Clyde measures with the Greta coal-measures. The possible relations to one another of our principal coal-fields are shown on the sections below:—





It is by no means certain that the Greta coal-measures extend in an unbroken basin from the Clyde to Maitland, and from Penrith to Sydney, as shown on the above sections, as their continuity may be broken by underground ridges and islands of slate-rock, &c., perhaps to such an extent as to produce a number of isolated basins, rather than a single continuous one.

The

The evidence for the correlation of these coal-fields was collected principally by the Rev. W. B. Clarke, F.R.S., and it is to him that the credit of the preliminary correlation lately completed by us is principally one. The geological observations of Mr. C. S. Wilkinson, F.G.S., and the palæontological researches of Mr. R. Etheridge, junior, have largely contributed to this end, and we have freely availed ourselves of the results of their labours when compiling the above report. Our thanks are specially due to Mr. R. T. Thorburn, Mr. A. Morton, and Mr. Monaghan, of Nowra, and to Mr. G. Alley, of Sassafras, and to Mr. Samuel Hitchens, for the personal help rendered us during our geological examination of the Shoalhaven district.

We have, &c.,
T. W. EDGEWORTH DAVID,
GEO. A. STONIER,
Geological Surveyors.

The Under Secretary.

APPENDIX No. 2 K.

Report on Coal near Lake Illawarra, and on Coal Permits, in parish of Wongawilli.

Sir, East Maitland, 18 October, 1890.

In compliance with your verbal instructions, in company with Mr. Geological-surveyor Stonier, I have examined cursorily the general geological features of the coal-measures in the neighbourhood of Lake Illawarra, and specially the Bulli coal-measures, in the parish of Wongawilli.

The area examined may be divided into (1) the plain, in which lies Lake Illawarra, and (2) the table-land.

No coal has as yet been found under the first, though it is more than probable that the Clyde (Greta) coal-measures underlie part, if not the whole of this plain, as the formation here consists chiefly of the upper marine series, which is the formation which, at the Clyde River and at Maitland and Greta, overlies the Greta coal-measures.

Volcanic rocks are strongly developed near Lake Illawarra, and extend from here to a short distance beyond Dapto. They are a continuation of the lavas which attains such a thickness at Kiama, as described in my previous report. Besides the lavas, intrusive dykes are observable, which have burnt the Bulli coal-measures in places, and which, therefore, would also have burnt the Greta coal-measures. As the depth to the Greta coal-measures at Lake Illawarra, if they underlie it, would be probably not less than 3,000 feet (according to the measurements taken by Mr. Stonier and myself), and as there is a strong probability of their having been more or less damaged by the intrusive dykes, they are not likely to be of any economic importance, at all events, not for some time to come.

As regards (2) the table-land, the formation here consists of the Bulli coal-measures, capped by the sandstones and shales of the Hawkesbury series. The base of the Bulli coal-measures passes down into tuffaceous shales, associated with the sheets of lava at the top of the Upper Marine Series.

The rocks of the Hawkesbury series, consisting of sandstone with bands of purple shale, terminate seawards in a steep escarpment, in many places precipitous, The rubble falling from these steep slopes and cliffs has in places completely covered the upper portions of the more gently sloping surface of the softer strata of the coal-measures below. Extensive landslips also from the overlying Hawkesbury series have in places completely hidden the line of junction of the Bulli coal-measures with the former formation, and these rubble slopes being clothed with a dense vegetation of bloodwood, turpentine, beefwood, sassafras, &c., with an undergrowth of a great variety of ferns and vines, the task of tracing the outcrops of the coal seams along this belt of tangled bush is not altogether an easy one.

The principal work of opening up the seams along the escarpment of the table-land on the east boundary of the parish of Wongawilli has been done on the properties of (1) the Hon. J. B. Watt; (2) on that of the late Mr. J. Biggar; and (3) on that of the Ocean View Company.

All the work was confined to the eastern slope of the table-land, as the western slopes are reserved for the water supply of Sydney and suburbs, and holders of permits are not allowed in consequence to break the surface for coal-mining purposes within this reserved area.

At the Hon. J. B. Watt's property, the tunnels and shaft were in such a state of collapse that we were unable to explore any of them except the top tunnel, which, however, being driven on the Bulli seam, is the most important. At the latter tunnel, which has been driven in a direction W. 28° N. for about 16 yards, a thickness is observable of 2 ft. 2 in. of good splint coal, under a roof of sandstone, and resting on a floor of sandy clay shale. We were unable to reach the end of the tunnel on account of water, but the thickness of the coal here appeared to be about the same throughout.

About 20 feet, as measured by aneroid, below the top seam, a thickness of 2 ft. 3 in. of perished coal was observable in a small cutting. This represents what is commonly known as the 4-foot seam.

About 55 feet below the 4-foot seam, at the mouth of a fallen-in tunnel, was a partial section of what is commonly known as the 17-foot seam, showing 8 feet of coal, rather heavy and a trifle dirty.

Sixty feet lower down the hill is a seam giving the following measurements, from the roof downwards:—Coal 7 inches; clay ironstone, 2 inches; coal and bands (about), 2 ft. 6 in.

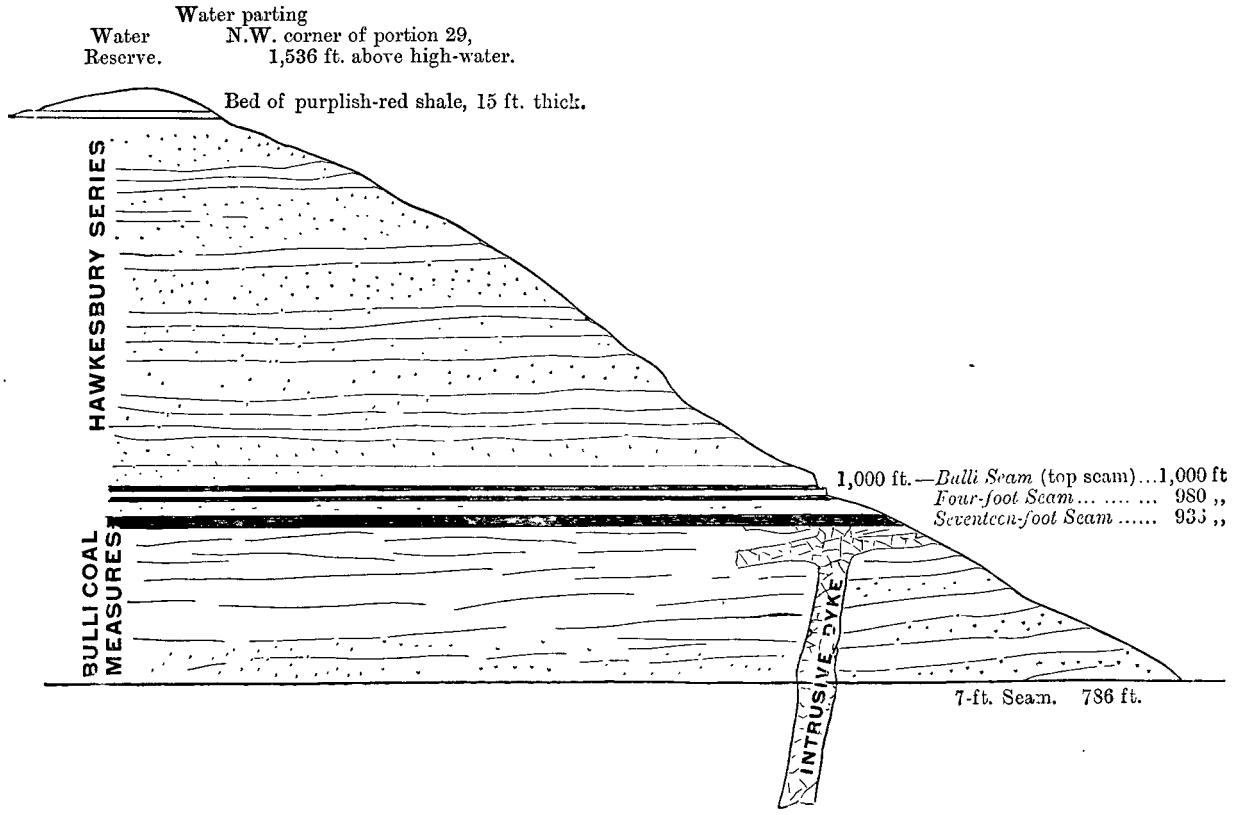
About 50 feet below the last seam was a fallen-in tunnel on a seam probably corresponding to what is known as the 7-foot seam.

It was impossible for us to form an opinion of the coal in the last seam, or in the 17-foot seam, owing to the collapsed state of the workings. In other parts of the Illawarra district, however, these seams are not considered workable.

The top seam, and the 4-foot seam, both of which are worked in places in the Illawarra district, particularly the top seam, are here probably too thin to be workable, at present at all events. The tunnels, however, having been driven for only such a very short distance, this property cannot yet be considered to have been at all fully tested. (2) On the property of the late Mr. J. Biggar, the tunnels are in a better state of repair, except those on the top seam and the 4-foot seam respectively, both of which had collapsed.

The

The following is a general section of the strata and coal seams on this property:—

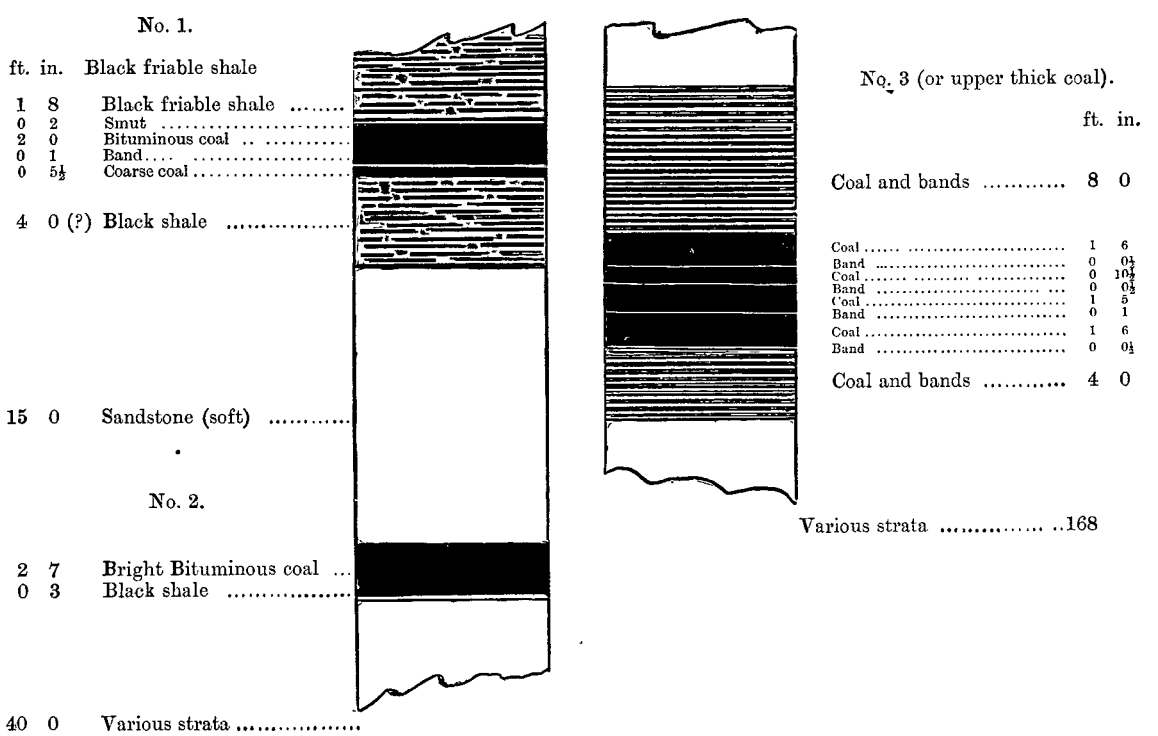


Vertical Scale 200 ft. to 1 in.

At the fallen-in tunnel on the top seam (Bulli seam), here we were able to see the following descending section:—Black sandy shale, 4 ft. 10 in.; coaly shale, 8 inches; coal, 2 feet (remainder of coal hidden by debris), but evidently the whole seam must be thin, as the floor of this seam is observable a very short distance lower down.

In the annual report for 1888, Mr. J. Mackenzie, F.G.S., the Engineer of Coal-fields, gives the following section:—

Seams of coal and strata proved by adits, &c., by Mr. Biggar, on his property near Dapto, and adjacent to his authorities to mine.



No. 1.

ft.	in.	
		Black friable shale
1	8	Black friable shale .....
0	2	Smut .....
2	0	Bituminous coal .. ..
0	1	Band.... .....
0	5½	Coarse coal .....
4	0 (?)	Black shale .....
15	0	Sandstone (soft) .....

No. 2.

2	7	Bright Bituminous coal ...
0	3	Black shale .....
40	0	Various strata .....

No. 3 (or upper thick coal).

	ft.	in.
Coal and bands	8	0
Coal	1	6
Band	0	0½
Coal	0	10½
Band	0	0½
Coal	1	5
Band	0	1
Coal	1	6
Band	0	0½
Coal and bands	4	0
Various strata		..168

The 4-foot seam, the roof of which is about 16 feet below the floor of the top seam, could not be measured by us on account of the complete collapse of the tunnel.

Mr. Mackenzie, however, gives the following section of it (loc. cit. p. 148).

The

257

COUNTY OF CAMDEN,
PARISH OF WONGAWILLA.

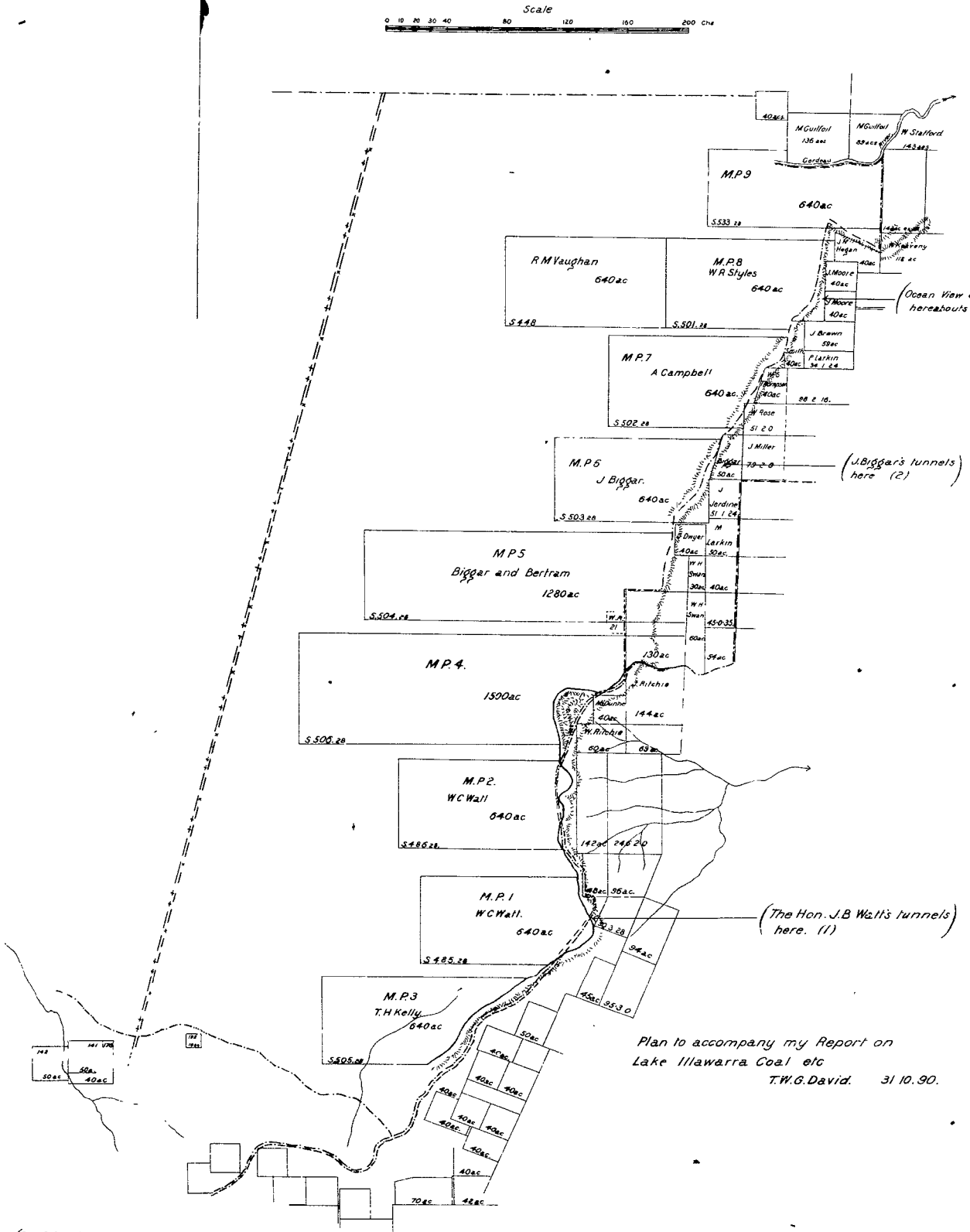


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PHOTO-LITHOGRAPHED AT THE GOVT PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES

The tunnel in the 17-foot seam being in a fair state of repair, we were able to measure the following section from the roof downwards, partly at the face of the tunnel, 90 feet in, and partly at its mouth :—

3 ft.	0 in.		perished coal and black shale.
0 „	3 „		band of white clay.
6 „	6 „		*coal*, rather dirty, with several bands.
0 „	1 „		band, hard brown, clay shale.
4 „	0 „		*coal*, coarse, brittle, bright black, bituminous in upper 2 ft. 2 in., and splint and bituminous mixed in lower 1 ft. 10 in.
0 „	1 „		band, hard black and brown clay shale.
0 „	7 „		*coal*, coarse, brittle, bituminous.
0 „	0½ „		band brown clay shale.
1 „	3 „		(about), *coal*, splint, and bituminous, mixed, a trifle dirty.
15 ft.	9½ in.,		total.

The coal in this seam appears rather coarse and brittle, and must contain a rather high percentage of ash. A mass of volcanic rock a short distance northerly from this tunnel has burnt out a large proportion of the coal in this seam, and has converted the remainder for a depth of 2 ft. 6 in. below the line of contact into a natural coke.

It is a seam of coal which has not yet been worked in any part of the Illawarra district.

It is evident from Mr. Mackenzie's sections, as well as from our own observations, that the two upper seams of coal at the point where they have been proved in the prospecting tunnels are too thin to work profitably, at all events at present.

The coal in the 7-foot seam at the tunnel is of somewhat better quality than that in the 17-foot seam, but appears to have suffered slightly from its proximity to volcanic rock.

The following is a descending section of the seam as measured by us :—

Roof, Black Stony Shale.

3 ft.	0	in.	hard splint coal.
0 „	1½	„	band hard brownish-black clay shale.
1 „	11	„	*coal* hard splint, rendered slightly anthracitic by volcanic rock.
0 „	4	„	band of coal with small concretions of iron, and containing much ash, probably altered by volcanic rock.
1 „	3	„	*coal* bituminous, fairly good.
0 „	3	„	band similar to preceding band.
0 „	2	„	*coal*, soft, dusty.
0 „	4	„	stony coal.
7 ft.	4¼	in.,	total.

Floor.—Hard black stony shale.

At the Ocean View Coal Company's freehold property neither the top seam nor the 4-foot seam appeared to us to have been opened.

A tunnel, however, has been driven 7 yards in distance on the 17-foot seam, and at the end of this tunnel I measured the following descending section :—

Roof, not seen.

1 ft.	2	in.	*coal*, rather coarse.
0 „	1¼	„	band of brown clay.
0 „	6	„	*coal* rather coarse and soft.
0 „	1¼	„	band of blackish clay shale.
2 „	3	„	*coal*, fairly clean, bituminous.
0 „	0½	„	band rusty brown clay.
3 „	7	„	(?) coal.
0 „	1	„	band brown clay.
2 „	3	„	*coal*, soft, bituminous, and splint mixed.
10 ft.	1	in.,	total.

Floor.—Not seen.

To the north of the Ocean View Company's ground the Southern Coal Company have driven about half a mile into the mountain on the top seam, but so far it has proved of rather inferior quality, and for this reason has not yet been worked here to any extent.

Conclusions.

It is evident that there are considerable areas of coal land in that part of this district, which contains the Bulli coal-measures from the Ocean View Company's provings as far south as those of the Honorable J. B. Watt, which, up to the present, are practically unprospected. It is possible that patches of good coal may underlie these areas, but so far as can be judged from the limited amount of prospecting already done, the Bulli seam appears to have thinned down to such an extent as to be unworkable at present at localities which have been described in detail above.

The Clyde (Greta) coal-measures probably underlie Lake Illawarra, but as their depth would most likely exceed 3,000 feet, they may be omitted from any estimates of the coal resources of this district so far as the near future is concerned.

I have the honor to be, Sir,
Your obedient servant,
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

APPENDIX No. 2L.

Report on Diamond Drill Bore, Raymond Terrace.

Sir, Denison Town, 12 November, 1890.

I have the honor to report that I have carefully examined the core from this bore, which is being put down with a view of proving productive coal in the neighbourhood of Raymond Terrace. The bore is now down, I am informed, about 900 feet from surface, and, as far as I can recollect from memory, for the last 300 feet (or thereabouts) the bore has been passing through volcanic rock. It is clear from the general character of the rock, as well as from its microscopic structure (microscopic sections of it having been prepared by our lapidary) that it is an old lava, and not an intrusive dyke. Consequently, it will not necessarily have destroyed any coal which may underlie it, such as "Garrett's seam," provided the seam is protected by a tolerable thickness of sedimentary material, or volcanic dust, as it is at Garrett's. From the under surface of this lava sheet I find, however, that the lava just here is unfortunately immensely thick, being 65 chains about in width, measured horizontally at right angles to its strike and dipping at an average of 30 degrees, which would give a vertical depth for it of approximately 2,500 feet. Assuming that the sheet may have thinned to the extent of 200 feet at the present bore, and that the bore has already penetrated 300 feet into the lava sheet, the bore would still have to go a further distance of about 2,000 feet, or a total depth of 2,900 feet (approximately), before it could be expected to reach the horizon of Garrett's seam.

I would therefore strongly recommend that the present bore be discontinued.

The question as to what has become of the Greta coal-measures in this locality is probably one of the most difficult questions which have ever been referred for investigation to the geological survey of this Department. A detailed report upon it will be furnished by me upon the application made by the company owing this drill for aid out of the Prospecting Vote.

I have, &c.,
T. W. EDGEWORTH DAVID,
Geological Surveyor.

The Under Secretary.

APPENDIX No. 3.

Progress Report.

Sir, Geological Survey, Department of Mines, Sydney, 6 January, 1891.

According to your instructions, I have the honor to furnish you with a report of the work upon which I have been engaged during the year 1890.

During the month of January I was engaged in office work.

On February 10th I left Sydney for Nyngan and reported as to the advisability of boring for artesian water in the neighbourhood of that town. This report forms *Appendix No.* 3A.

On February 17th I passed through Dubbo and visited Peak Hill, where I was engaged till March 2nd in mapping the geological features in the vicinity of the hill. This map was subsequently published and accompanied my report which forms *Appendix No.* 3B.

From 24th March till 13th April I was on leave (annual holidays).

On May 12th I left Sydney for the southern coastal district, travelling *via* Tarago and Moruya. I went as far south as Pambula, and reported upon the newly-discovered gold-field there (*Appendix No.* 3C.), and dealt with numerous prospecting vote papers at Nerrigundah, Mt. Dromedary, Bermagui, and Pambula. I also made a geological sketch map of Mt. Dromedary and its neighbourhood, and reported upon that gold-field. (*Appendix No.* 3D.) While in this district I examined and had excavated numerous shell heaps or kitchen middens, which had been accumulated by the aborigines, along the shores of the many lakes which indent this coast. These interesting deposits form the subject of a paper in the Records of the Survey, vol. II., part 2, page 52. I returned to town in the middle of June.

On 21 July I visited Young, and from there drove to the Great Southern Silver-mining Co.'s leases, near Grenfell. My report upon this country forms *Appendix No.* 3 E. From Young I went to Cootamundra, and visited the Muttama reefs, where I reported as to the advisability of continuing the prospecting aid, after the party had struck payable gold.

On 11th August I accompanied Mr. David to Sunny Corner, where we made a minute examination of the Silver King property (for report see *Appendix No.* 2). From Sunny Corner I went to Gulgong, and inspected some land in the township, the alienation of which was wanted for school purposes. I returned to town on the 18th.

From 26th August to 11th September I was engaged in the Northern District as a member of the Prospecting Board. I dealt with applications at Cell's Creek, about 70 miles to the east of Walcha. From the latter place I travelled, *via* Tamworth, to Bingera, and dealt with numerous applications in that district. I next proceeded to Vegetable Creek, and afterwards to Deepwater; in the neighbourhood of both places prospecting applications being dealt with.

On 13th October I left town for Tumut, and from that place visited the Miccalong Reefs, and dealt with the prospecting application which had been submitted by the Company who work the reef. From Tumut I next proceeded, *via* Adelong, to Tumberumba, and visited the Jingellic Silver Leases. My report thereon forms *Appendix No.* 3 F. I returned to Sydney on 29th October.

On 4th December I visited the Orange District, and dealt with an application for aid at Forest Reefs. I next proceeded to Cargo, where I made an examination of the district. My report forms *Appendix No.* 3 G. On 11th December I visited Blayney, and from that place drove to the Kaloola Gold-field, where I dealt with a paper relating to the alienation of certain lands, and returned to Sydney on 12th December.

From 16th December till 24th December I was engaged in the Cobar District as a member of the Prospecting Board, and dealt with numerous cases at Cobar, Mount Billygoe, and Bald Hills.

During the intervals between these periods of field work I have been engaged in the office in writing reports and preparing my maps for publication. I have contributed, during the year, three papers

papers to the Records (Vol. II.), viz. :—"On the Tertiary deep lead at Tumberumba;" "On the Shell-heaps, or Kitchen Middens accumulated by the Aborigines of the Southern Coastal District;" "Description of some Stone Weapons and Implements used by the Aborigines of New South Wales." During your absence in England, and while Mr. David was in the field, I have taken charge of the office work.

I have, &c.,

WILLIAM ANDERSON,

The Geological Surveyor-in-Charge. Geological Surveyor.

APPENDIX No. 3A.

Report on Boring for Artesian Water at Nyngan.

Sir, Geological Survey Branch, Department of Mines, Sydney, 7 March, 1890.

In accordance with your instructions, I have the honor to furnish you with a report relative to the boring for artesian water in the neighbourhood of Nyngan, with the primary object of obtaining a permanent water supply for the use of the inhabitants of that town.

During a previous examination of this part of the country in 1887, I ascertained that the Palæozoic slates rise to the surface a few miles to the west of the town of Nyngan, and their outcrop is more or less persistent westward towards Nymagee and Cobar with the intermittent occurrence of small basins of Cretaceo-Tertiary strata. It is, therefore, evident that during Cretaceous times the country to the west and south-west of Nyngan was either largely dry land or covered merely by shallow water; and if the latter, much of the strata deposited therein has been subsequently removed by denudation.

We have sufficient evidence that a southern extension of the general Cretaceous formation, lying north of the Darling, exists in the basin of the Macquarie River. The presence of this Cretaceous area has been proved as far south as Nevertire and Trangie, where undoubted Cretaceous strata were passed through in bores, which, however, were discontinued before they tested either the actual thickness of the formation, or the presence of artesian water in this Cretaceous basin, which deflects from the Macquarie River to the south-east of Nyngan, and passes in a south-westerly direction towards the Bogan, the Harvey Ranges, to the south-west of Dubbo, forming its south-eastern boundary. The railway line between Narromine and Nyngan crosses this basin almost at right angles, and it is here nearly 80 miles in breadth. Near Narromine, the south-easterly edge of the Cretaceo-Tertiary plain is formed of altered Silurian slates, which, about the 294-mile peg, are seen to dip north-westerly off the granite which lies to the west of Dubbo, and to pass under the plain. Nevertire and Trangie thus occupy a central position on this plain, and probably overlie the deeper portions of the basin; and it is very probable that artesian water will be obtained over a large area of this plain.

The Cretaceo-Tertiary strata must necessarily thin out from the Macquarie River and Nevertire towards Nyngan, on the Silurian rocks which outcrop to the west of the township. It is therefore probable that the formation will be of no great thickness in the near neighbourhood of the town, unless the surface of the Palæozoic rocks on which it rests slope rapidly downwards towards the south-east. Numerous wells have been sunk on various properties within a radius of 10 miles of the town, but none of them attained a much greater depth than 100 feet, with the exception of one put down to a depth of 250 feet by the Railway Department, near the railway station. In all of these salt water was struck, and in a few nearly fresh water as well; but, although they all passed through Cretaceo-Tertiary beds, none of them were deep enough to prove the actual thickness of the formation; and, until this is done, the presence or absence of artesian water, in sufficient volume to be utilised as a town supply, in the near neighbourhood, remains enigmatical.

Under these circumstances, I think that there is sufficient data to justify the sinking of a trial bore a short distance to the east of the town; and I would therefore recommend that such a trial bore be sunk, in the position shown on the accompanying tracing, on Reserve No. 2, parish of Nyngan, about a mile east from the 377-mile peg, at the station.

In the event of a sufficient supply of artesian water not being obtained in the trial bore, I would recommend that another bore be put down further to the east; but it would not be advisable to fix the exact position of this second bore until the result of the trial bore has been ascertained.

I have, &c.,

WILLIAM ANDERSON,

The Geological Surveyor-in-Charge. Geological Surveyor.

APPENDIX No. 3B.

Report on Peak Hill.

Sir, Geological Survey, 20 March, 1890.

In accordance with your instructions I proceeded to Peak Hill, and mapped geologically its immediate neighbourhood, besides examining the country between the Peak and Tomingley, with a view to ascertaining if there were any indication of deep leads occurring along that line.

The whole country, from some distance north of Tomingley, to near the Ten-mile Creek, is approximately a plain, extending westward across the Bogan River. Large areas of this plain country are occupied by superficial gilghies, which contain water, or are black muddy swamps, according to the amount of rainfall. It is naturally a dry country, and is bounded on the east by high hills of Silurian slates, which form the Harvey Ranges. Westward of these ranges, ridges of Palæozoic rocks, more or less parallel to them, rise sometimes only to the level of the plains, and sometimes to a considerable height above them. From the Ten-mile Creek to within a mile of the southern end of the Peak, the country is ridgey formed of Palæozoic rocks, with intruded diorites. In a northerly line from the Peak to Tomingley, there is a Silurian ridge, which generally rises to the level of the plains, and which in places appears above that level, and forms isolated north and south ridges of limited extent. Between this ridge and the Bogan River the country is quite flat, or having a very slight fall towards the river. This plain country forms the south-western termination of the Cretaceo-Tertiary basin of the Macquarie River and Nevertire, so that it is probable, as my colleague, Mr. David, pointed out in his report on the Peak (Annual Report of the Department of Mines for 1889-90, p. 216), that the older auriferous alluvial deposits which have been formed by drainage off the Peak, and the other Silurian ridges in this plain, may have been

been affected by the deposition of the Cretaceo-Tertiary strata in this neighbourhood, and widely distributed as beach-deposits (similar to those occurring near Mount Brown, described by yourself in Part I, Vol. 1, of Records of Geological Survey of New South Wales, p. 8), instead of being deposited in confined channels on the slate bottom under the plains. But auriferous alluvial-filled drainage channels which have been formed subsequently to the deposition of the Cretaceo-Tertiary formation will be found to have eroded these latter strata to variable depths, and for this reason the Post-Tertiary auriferous alluvials in many cases may be found to rest, not on the Silurian bed-rock, but on some portion of the Cretaceo-Tertiary strata, possibly clay beds, which will thus have the appearance of a false-bottom. It is therefore of the greatest importance that any confined alluvial deposits showing traces of gold, at whatever depth they may be struck on the plains away from the ridges, should be followed on that level, and not passed through in order to prospect for a lead on the slate bottom. It will thus be evident that runs of payably auriferous alluvial coming off the slate ridges will be found at various depths on the plains, resting on an apparent false-bottom, and not on the Silurian slates. This is an important fact to be borne in mind by prospectors when they are engaged prospecting at any distance on the plains, away from the superficial Pleistocene deposits on the ridges. Such a clay false-bottom was passed through in some of the deep shafts which have been sunk on the flat to the east of Peak Hill, and in the drift resting on it, colours of gold were got, but no defined channel was prospected for at this level.

The Peak itself is an approximately north and south ridge, formed of altered Silurian slates, which on its eastern side dip to the east, and whose strike is parallel with the trend of the hill. Interbedded quartzite beds occur in its north-eastern slope. The slates themselves are very ferruginous, and have contained a considerable amount of iron pyrites, the outcrop of many of the beds, presenting quite a honeycombed appearance from the abundance of the cavities left by their decomposition. In some cases this pyrites has contained gold, and by the decomposition of the former it has been set free, so that the result of crushing and washing these altered pyritous rocks returns traces of gold, and for this reason, they have on certain positions on the hill been mistaken for true reefs or lodes. Although the decomposed portions of such pyritous rocks might pay to work above the water-level, below it the pyrites will be intact, and the gold will have to be extracted from it, as the rock will not contain free gold, nor is it at all likely that such pyritous beds will be payably worked at a lower level.

The true gold-bearing lodes are in the form of pyritous quartz reefs, which have in many cases a superficial capping of decomposed ferruginous gossan and iron oxide. They occur traversing the slates of the hill in two directions. One set, chiefly confined to the eastern side of the hill, of which Gorman's reef is an example, strikes approximately N. 10° E., while the other set, which occur on the top and western slope of the hill have a general strike of N. 35° W. The latter have chiefly ferruginous gossan cappings, while the outcrops of the former are of white quartz, and come very near the strike of the slates, which on the hill itself looks more like cleavage than bedding, but to the east of the hill the strata are much less altered, and have an undoubted easterly dip, so that the apparent cleavage on the hill is coincident with the lines of bedding. As before stated this belt of slate extends as an outcrop as far north as Tomingly, and at various points along it reefs occur with a strike approximately the same as the first set of reefs referred to as occurring on the eastern slope of the Peak. It is therefore probable that all those reefs in this belt of strata, whose strike (reefs) is a few degrees from north, belong to the same series of reefs, and were doubtless formed at the same time. They differ somewhat in character from those which occur on the western slope of the hill, and which have a strike of more than 30° west of north. The reefs at Myall and Tomingley have been, subsequent to their formation as reefs, cut across by the intrusion of numerous diorite dykes, which cross the strata in a general east and west direction. Evidences are not wanting of the presence in the neighbourhood of the Peak of similar and probably synchronously formed diorite dykes. It has been the experience at Tomingley and Myall that the richness of the quartz in the immediate vicinity of the diorite dykes, has been appreciably increased by their presence, so that a similar occurrence may be expected in the neighbourhood of the Peak, when these reefs are tested wherever they are cut across by diorite dykes. The quartz reefs which occur on the east of the Peak contain free gold, and rich specimens have been obtained from them, and they seem to all appearance to be of a more permanent and well-defined character than those occurring on the west side of the hill. It is, I think, beyond question that the majority of the Peak Hill reefs will at a depth turn into pyritous reefs, and it will be impossible to extract the gold by the ordinary simple methods of crushing and washing.

The alluvial gold, which has been got in the surface soil of the hill, in the beds of the creeks draining off it, and in the deep ground on the flats has been derived locally from the reefs and pyrites in the rocks of the hill. It is never much water-worn, and in the near neighbourhood of the hill, it is not generally fine. In many cases it contains pieces of ferruginous quartz adhering to it.

On the accompanying map the alluvial deposits which have been worked, ranging from a few inches to 120 feet in depth, are shown approximately in the immediate vicinity of the Peak. On both sides of the Hill to the east of the township the alluvial has been entirely worked, so that on this part of the hill there is no reason why the gold-bearing capacity of the reefs should not be tested at once. As yet the only returns of payable gold have been from the shallow alluvial deposits on the hill. These have been worked to its base, and a little way on the flats where the prospectors find it difficult to trace the course of the auriferous alluvial. As pointed out in the early part of this report the courses of the Pleistocene drainage channels, when they leave the hill and pass into the flats, are difficult to follow because of the fact that, during their formation, they had to cut their way to various depths in the superficial deposits already accumulated on the Silurian rocks below, and it is unlikely that there are many cases where they have eroded their channels down to the slate-rock, so that in prospecting on the flats for deep gold-bearing channels, particular care should be taken to test and follow up any of the more shallow auriferous gravels which may be met with when proving the deep ground.

About a mile to the east of the Peak, a ridge composed of Silurian slates and quartzites with outcrops of quartz reefs, occurs running parallel to the Peak and passing to the south into the Silurian ridges which extend northwards from the Ten-mile Creek. This ridge, with the Peak, enclose between them a broad flat which narrows southwards, and the Silurian floor of which, judging from the contour of the ridges which enclose it, must have a general slope to the northward. Comparatively deep auriferous alluvials have been worked at the eastern base of the Peak on G. L. 40, and east of G. L's. 50 and 3, and so far as these deep runs have been prospected they trend into the flat above-mentioned. I think it is very probable that somewhere in this flat there exists a main Pleistocene drainage channel, probably auriferous, which

which has drained both these ridges and passed from south to north, receiving tributaries from both sides. This drainage channel must have flowed towards the Bogan, and to do so it must have passed through the north and south ridge of which The Peak forms a part. It certainly could not have passed round the southern end of the Peak, but it probably wound round its northern end. About a mile and a half from the township, on the road to Dubbo, an intrusive rock with slates crops out on the surface. This would indicate that the flat between this outcrop and the Peak Hill would be a good place to prospect for deep ground, as there is a probability of the occurrence here of a Pleistocene drainage channel. The same may be said of the flat just referred to, which exists immediately to the east of the Peak Hill. Both these positions are preferable to the indiscriminate prospecting of the flat country away from the ridges where there is nothing to indicate the probable position of auriferous channels.

Still further to the northwards at the "Old Rush" on the Barabadine Creek there is another position, in which auriferous deep ground may reasonably be expected to be found, where, previous to the levelling of the plains, the ridge has been worn through to a considerable depth. Indeed much work has already been done in prospecting for this supposed channel, but with the recent rains the ground has been too wet to allow of work being carried on satisfactorily.

There is a popular delusion among many of the miners working at the Peak that the hill is in structure similar, and in probable gold-bearing capacity equal to Mount Morgan in Queensland. This idea is however utterly fallacious, as the stalactitic ironstone which occurs in a few of the reef outcrops on the hill is evidently a secondary origin, although it doubtless bears a somewhat distant superficial resemblance to some of the ironstone present at Mount Morgan.

In conclusion, I desire to record my indebtedness to Messrs. Gibson, Cox, and Warner for affording me assistance and information during the time I was engaged at the Peak.

I have, &c.,

WILLIAM ANDERSON,

Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 3C.

Report on Pambula Gold-field.

Sir, Geological Survey Branch, Department of Mines, Sydney, 25 June, 1890.

In accordance with your instructions, I have visited the newly discovered gold-field in the neighbourhood of Pambula, and have know the honor to furnish you with my report thereon.

The Bega and Pambula district forms a portion of the comparatively low undulating country which constitutes the littoral region between the Monaro tableland and the coast. To the north of Bega there are ranges of granite and slate which rise to a considerable height, while to the south, in the neighbourhood of Eden, elevated slate mountains occur. Between Bega and Pambula, the Wolumla Mt., with its subsidiary granite ridges, forms a somewhat elevated range, crossing the district between the tableland and the sea. Around Bega the country is occupied by an extensive mass of intrusive granite, which passes westward through the Tantawanglo Mt. underneath the tertiary basalts of Monaro. This granitic mass is, however, cut off to the eastward, in the direction of Tathra, by a narrow belt of slate which forms the seacoast, and which passes northward beyond Bermagui, where it, in its turn, is cut off by the granite of Mt. Dromedary. Southward, this costal belt of slate passes into the general slate area around Pambula and Eden. Auriferous quartz reefs, a few of them payable, have been discovered in this belt of slate, near its junction with the Bega and Cobargo granite, and it is very probable that others may be found of a payable nature. Between Wolumla and Pambula, and also in various places to the south-west of the latter township considerable areas are occupied by more or less horizontally bedded conglomerates of considerable thickness, which rest unconformably on the upturned edges of the Silurian slates, and which are undoubtedly of Devonian age. The Black Range, between Wolumla and Bega has also a capping of this conglomerate. All these Devonian cappings are generally extensive along a north and south line, but are rarely of any great width. Wherever the Pleistocene and Recent gulleys, draining off these conglomerate capped ridges, have been prospected, traces of gold have been obtained, which has, no doubt, been largely derived from the denudation of the Devonian conglomerates, but, so far, in no place has this alluvial proved payable.

The neighbourhood of Pambula is wholly occupied by Silurian slates, quartzites, and conglomerates, which have been locally intruded by quartz and felsphar porphyries, while in a few localities they are capped by out-liers of Devonian conglomerates. The position in which the recently discovered auriferous rocks occur in the parish of Yowaka, is about 3 miles to the south-west of the township, where they form the basin of the Pipeclay Creek. Prospecting operations have chiefly been carried on on the ridges forming the northern watershed of the creek, although some little work has been done on the hills forming its southern slopes. Little or no prospecting has yet been done among the alluvials which have been formed in the neighbouring gullies, from the denudation of these gold-bearing Silurian rocks. A large number of claims have been taken up along the ridges, and on these leases numerous shafts have been sunk, the deepest, at the time of my visit, being down 50 feet. The only one of the shafts which has yet been sunk up on a quartz reef or lode was the original prospecting shaft on lease No. 1, where there were a few ill-defined leaders of quartz, which were, however, by no means rich in gold. To the north of the ridge, forming the northern slope of the creek, and on the western end of the ridge itself, patches of intrusive quartz and felspar porphyry occur, which have evidently been intruded among the Silurian strata. These intrusions have probably been the more immediate cause of the local metamorphism of the rocks forming the ridges, and it is likely that they are off-shoots from the general mass of intrusive granite which occupies such a large area to the north around Bega.

The occurrence of the gold in the rocks at Pipeclay Creek is somewhat peculiar, from the fact that so far as prospecting has been carried on, it has been found to occur, not in the reefs nor lodes, but disseminated through the Silurian quartzites and conglomerates. The quartz reefs which traverse these strata have not yet been proved to carry payable gold. I have seen a few specimens of quartz-porphyry from this district showing free gold, but during my visit I was unable to discover the exact position from which they were taken, as it was altogether unlike the porphyry which occurs on the western end of the ridge. In these specimens the gold was of a scaly character, and had evidently been redeposited as secondary gold, by percolating water, on the joints of the rock. The gold occurring in the conglomerates and quartzites is generally of a

similar

similar character, for, in a large proportion of the specimens which I have examined, it occurs as minute scaly patches on the joints of the rock, and around the peripheries of the pebbles, between them and the matrix of the conglomerate. From these facts I am rather inclined to think that the greater portion of the free gold in these rocks is of secondary origin, and that it has been redeposited from solution, and was not Silurian alluvial gold deposited in its present position at the time when the conglomerates and sandstones were being formed. The rocks in which the free gold occurs contain a considerable quantity of iron pyrites, and in some instances, where that has undergone decomposition, free gold exits in the cavities which the pyrities occupied, thus showing that the pyrites is auriferous. It is, therefore, probable that the auriferous pyrites which has been decomposed out of the denuded strata, which has been superposed to the present outcrop, has yielded a large percentage of the free gold now being obtained from the surface strata.

Although we have as yet no undoubted proof of the occurrence of pre-silurian auriferous quartz-reefs or lodes, it is, however, just possible that some of the free gold may have been originally deposited as alluvial gold along with these Silurian sediments. If this gold forms only a small percentage of the total amount of free gold in the rocks, as I think is the case, it is unlikely that free gold in payable quantities will be found at any depth below the water level. When that depth is attained the auriferous pyrites will be the chief source of the gold, and that will, of course, require to be treated by chlorination to effect the liberation of the gold in a free state. The depth of the water level has not yet been proved by any of the sinkings, and owing to the relative thickness of the beds in which the gold occurs and the extent of the gold-bearing outcrops, there must be a considerable body of payable stone carrying free gold. From the examination which I made of the various claims at work, I do not think that the free gold is uniformly distributed throughout all the beds of silurian strata forming the ridge, but it seems to be more or less confined to a narrow belt of these, which strike diagonally across the ridge from N.W. to S.E., some distance to the S.W. of the S.W. corner of John Lloyd's selection, No. 48.

The drainage of the northern side of the ridge upon which the auriferous rocks occur, passes through Pambula Flat into the Pambula River, immediately above the township. It is very probable that payable auriferous alluvial deposits may be found to exist both in the valleys of the creeks draining the northern slopes of the ridge and also in the Pambula flat itself. This flat is, however, of considerable extent, and will doubtless be found to be very wet, with the necessary consequence that the prospecting of it will be attended with considerable difficulty and expense.

The present development of the field is not yet sufficient to warrant any decided opinion being given as to its future capabilities, except so far as has been stated above, that there is a considerable body of stone carrying free gold. If, as I have suggested, the greater bulk of this free gold has been derived from the decomposition of the pyrites contained in the rocks, then it would necessarily follow that the pyrites-bearing stone below the water level will not be so rich in gold as the more superficial stone now being sunk in, which carries free gold.

There are, however, localities in this neighbourhood to which the attention of prospectors should be directed in their search for auriferous lodes or reefs. These positions are in the vicinity of the junction between the intrusive quartz-porphyries and the Silurian strata. In various places in the district there are areas occupied by these intrusive quartz and felspar-porphyries, and to the boundaries of such areas particular attention should be given.

I have, &c.,

WILLIAM ANDERSON,

Geological Surveyor.

The Geological Surveyor-in-charge.

APPENDIX No. 3D.

Report on Mount Dromedary.

Sir, Geological Survey Branch, Department of Mines, Sydney, 18 July, 1890.

In accordance with your instructions, I have the honour to report that, I have made a geological examination of the neighbourhood of Mount Dromedary, and have mapped generally the area occupied by the granite forming the mountain, and embracing the parish of Noorooma, county of Dampier.

The mountain is an isolated granitic mass, occupying the south-western part of the parish of Noorooma. It rises to the height of 2,706 feet, and is a distinctive land mark when seen from a distance out at sea. It is said to have been named Mount Dromedary by Captain Cook, from the fact that when seen from seaward its summit presents two peaks, or humps, connected by a slightly depressed ridge. The mountain has been long known to contain auriferous reefs and lodes, and one or two of these have been proved to be of a payable nature.

The granitic mass is almost entirely surrounded by silurian slates, except at one point of the coast, in the neighbourhood of Tilba Tilba Lake. The evidences of its intrusive character are very well marked particularly at the place just mentioned, where its junction lines with an andesitic rock, which has itself intruded the slates, are well seen. I purpose furnishing a more detailed description of these rocks in the forthcoming part of the Records, but I may here state that the main mass of the mountain consists of a hornblendic granite, which locally differs to a great degree both in texture, and the proportionate abundance of its component mineral constituents.

In the Silurian rocks which surround the outcrop of this intrusive mass of granite, there are many localities in which gold-bearing reefs have been prospected, and to a certain extent opened up. At Nerrigundah, to the north-west of Mount Dromedary, and over the first ridge of the coastal range of mountains, a large amount of work has been done in reefing. In former days the valley of "The Gulph," in which Nerrigundah is situated, produced from its alluvial deposits large quantities of gold. The reefs have, however, so far, proved to be of a lenticular character, and although some of them were very rich locally, none of them have yet turned out to be of a permanent and payable character. In the south-eastern corner of the parish of Wagonga, two reefs, the "Belle of Australia" and the "Lady Carrington" have had a considerable amount of work done on them, and the former reef is still being worked with fairly good returns, the last crushing of 500 tons having given half an ounce to the ton. Many other reefs have been prospected around this district, but the two above-mentioned localities are the only places where work is being permanently carried on in the neighbourhood of the mountain.

Resting on the Silurian slates, and further to the north in the neighbourhood of Moruya, on the granite, there occurs a belt of quartz drift averaging over a mile in width, and consisting chiefly of angular,

angular, subangular, and rounded pebbles of pure white quartz. This drift can be traced along the coast, almost continuously, from the Wagonga River to Mogo, between Bateman's Bay and Moruya. It follows the coast line, and is never more than a few miles inland. Many of the recent coastal creeks that have crossed this belt of drift, and denuded a passage through it, have contained a certain amount of alluvial gold which has undoubtedly been largely derived from the drift itself. The latter has been prospected in various places to a depth of over 100 feet, north of the Wagonga River, and south of Mogo, and although colours of gold have been obtained from it, no payable areas have yet been discovered in it. This drift has not the general characters of a river drift, and although there are no authentic records of the occurrence of marine shells in it, still I am inclined to think that it is of marine origin, representing a time, not geologically very old, when the coast line was some miles further inland than it now is. This being the case, the deposit generally will have the gold, which is undoubtedly present, disseminated widely through it, but there are sure to be local patches of it in which the gold will be found concentrated enough to make it payable to work. These patches will, however, require considerable prospecting to discover, unless they are by chance hit upon at once, for there are no superficial evidences to guide one as to the localities in which they occur.

The chief amount of work that has been done on the mountain itself has been about half-way up, and near the top of the more southerly of the two peaks. In the latter position, numerous tunnels have been driven at various levels upon a pyrites quartz-lode, which traverses the granite in a direction of west 15 degrees south, and east 15 degrees north. It varies much in thickness, from a few inches to over a foot. The granite in which this lode occurs has undergone decomposition to a considerable depth from the surface, and consequently in all the tunnels the rock has been very soft and easily worked, except where undecomposed kernels or patches of hard granite were not infrequently met with, their presence being due to the mode by which granite undergoes decomposition. It does not decompose uniformly throughout, but in a somewhat similar way to the botryoidal decomposition of some basalts, but on a larger scale. The result of this method of decomposition is that the centres of these areas are the last to undergo decomposition, and they therefore appear like enormous boulders of hard rock imbedded in an apparently loose felspathic sandy deposit, which, however, has been originally the same hard granite. Owing to the great degree to which the granite in the neighbourhood of the superficial portion of the lode has been decomposed, the pyrites in the latter has also undergone decomposition, with the result that the gold which was originally combined in the pyrites has been chemically set free, and is now obtained by merely crushing and washing the lode stuff and the decomposed granite in its neighbourhood. In the latter position, the gold is, of course, of secondary origin. Here, as well as lower down the mountain, many of the points in the granite, where there were no evidences of the presence of lodes or reefs, have been driven upon, and the decomposed granite which enclosed them has been found to be sufficiently rich in gold to pay for crushing. This gold is certainly of secondary origin, and has been derived by decomposition from pre-existing pyrites lodes at a higher level than the present surface, and partly, no doubt, from the decomposition of the hornblende in the granite itself. The chief difficulty in the working of the lodes on Mount Dromedary is due to the fact that the soft decomposed granite holds such an enormous quantity of superficial water, which soaks into it until the rock is saturated like a sponge, and unless great precautions are taken shafts and tunnels in it get completely filled up by the debris, loosened by the percolating water.

There are numerous claims at present being worked on the mountain, and a few of these are giving payable returns. The machinery used consists of two batteries—one near the top of the mountain, and the other about half-way down—but these can only save such free gold as is present in the material put through them. There is little doubt that most of the reefs which occur in the granite here have originally been pyrites reefs, but below the superficial area of decomposition the gold will be found to be almost entirely confined to the pyrites. Even in the present workings, which are all in the decomposed area, large masses of undecomposed pyrites are met with, and the gold cannot be obtained from this pyrites by treatment with the present machinery. The gold-bearing joints containing free gold, mentioned above, cannot be expected to go to any depth below the decomposed portions of the granite, which, however, have been proved to a depth of over 150 feet from the surface, although I think there is some likelihood of the pyrites reefs being of a somewhat permanent character.

Considering the length of time that has elapsed since the discovery of auriferous reefs on this mountain, there has been comparatively little prospecting done on it, the northern and western slopes being almost entirely unprospected, and I think that the attention of prospectors should be directed to these areas. There will be, no doubt, considerable difficulty attendant on the prospecting of these portions of the mountain, because of the ruggedness of the surface, and the dense character of the vegetation, but there is every reason to believe that prospectors might be rewarded for their trouble by the discovery of payable alluvial or reefs.

Auriferous alluvium has been discovered and worked in many of the gullies which drain the eastern and southern slopes of the mountain, and even in the comparatively flat littoral area between the mountain and the sea, auriferous deposits are known to exist in Wallaga Lake and Tilba Tilba Swamp, the latter of which is simply one of the old coastal lakes silted up. All the drainage of the eastern slopes of this district has to pass to the sea through these coastal lakes, and of necessity much of the material carried down along with the drainage has been deposited in the lakes where the first slow flowing currents have been met with. It is therefore very probable that, at the head of these lakes, where the drainage channels have entered them, the accumulated deposits may contain payable alluvium, but whether these are rich enough to pay, notwithstanding the wetness of the ground, can only be proved by actual prospecting.

There is a wide field for mining enterprise in this southern coastal district, for what little has been done is of a most primitive kind, no systematic efforts having yet been made even to prospect to any extent, except locally, the large tracts of metalliferous country forming the coastal ranges, which exist between the Monaro table-land and the sea coast.

I have, &c.,

WILLIAM ANDERSON,

Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 3 E.

Report on Arramagong Silver-field.

Sir, Geological Survey, Department of Mines, Sydney, 30 July, 1890.

In accordance with the verbal instructions conveyed to me by yourself, and also personally by the Under Secretary, I have visited the Arramagong silver-field, between Young and Grenfell, and I have now the honor to furnish you with a report thereon.

This silver-field is situated about 25 miles in a northerly direction from Young, and about 12 miles from Grenfell. The country between Young and the silver-field consists entirely of granite, the denudation of which has produced a considerable amount of alluvial gold, which has been worked to considerable advantage in the neighbourhood of the township of Young. Indeed, in almost every water-course in the district traces of gold can be got in the alluvial deposits, and for this reason the widespread and uniform distribution of the alluvial gold would lead to the supposition that it had been chiefly derived from the granite itself or from its contained minerals. A few sluicing claims are still being worked in the neighbourhood of the town, and one of these is reported to be payable.

As yet, there is only one silver claim at Arramagong on which there has been any work done. It is known as the Great Southern Silver-mining Company, and is situated on a conditional purchase, No. 17, in the parish of Tyagong, county of Monteagle. It consists of a true fissure lode, traversing the granite, striking E. 20° S. and W. 20° N., and having a northerly dip. The lode was first prospected by an underlay shaft to a depth of about 50 feet, which now communicates at that depth with a small vertical shaft which is about 60 feet deep. Near the bottom of the shaft the lode is about 10 feet in thickness. The granite walls are well defined but irregular, the hanging wall being the more regular of the two. The composition of the lode-stuff varies much locally, even in the 60 feet that has already been sunk. Patches consist almost entirely of green and blue carbonates of copper, others of solid argentiferous galena, and others of massive mispickel and other iron ores. Native silver also occurs frequently coating the joints in the lode-stuff. The presence of this native silver has no doubt largely increased the percentage of silver in the assays that have been made of this superficial portion of the lode. The silver returns from these various classes of ore have necessarily been very variable. Little or no zinc-blende has yet been met with in the lode-stuff. From information supplied me by Mr. Bell, it would appear that the returns of the various assays that have already been made vary from 1 oz. of silver per ton up to 309 oz. 10 dwt. 8 gr. per ton, while an average taken of these assays gave 52 oz. 3dwt. 8 gr., with 53·8 per cent. of lead. Two samples which I obtained from the workings gave the following assays:—An average sample of the lode-stuff at 50 feet gave 5 oz. 13 dwt. 5 gr. of silver per ton, while a solid lump of mispickel ore gave 12 oz. 3 dwt. 6 gr. of silver per ton, with a trace of gold in both samples. These assays are not very high, but, as solid galena ore seems to be making at the bottom of the shaft, it is likely that the amount of silver may increase with it.

A good deal of trenching has been done along the line of outcrop, and traces of argentiferous galena are said to have been met with. The fracture in which the lode occurs has been traced in these for a few hundred yards to the westward of the present outcrop; but there is no lode-stuff visible from that distance. It would therefore appear as if the lode-stuff occurred along this line of fracture in lenticular masses, upon one of which the company have sunk their shafts. These masses of ore may, however, prove to be of considerable extent, both vertically and laterally, and it is possible that they may occur in close proximity to one another. No estimate of their probable extent can at present be obtained from the amount of work that has been done on the lode, but the ore mass upon which they are now sinking has every appearance of being of a considerable extent, both horizontally and vertically.

I have, &c.,

WILLIAM ANDERSON,

Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 3F.

Report on the No Place Diggings.

Sir, Geological Survey, Department of Mines, Sydney, 12 November, 1890.

I have the honor to report that in accordance with your instructions I have visited the "No Place" diggings near Jingellic, in the county of Selwyn.

The reefs lie about 30 miles in a south-westerly direction from Tumbarumba. The country between the two places is gently undulating, and consists chiefly of intrusive granites, with here and there patches of Silurian slates. The locality known as Silver Valley, where the silver lodes occur, is situated on the water-shed between the waters which flow into the Tumut River and those which flow directly into the Murray. The already-discovered reefs occur in granite, but in the near neighbourhood the Silurian slates crop out, showing a well-defined contact line between them and the intrusive granite.

The reefs occurring here form three parallel lines known respectively as the "Rothschild," "Cash Down," and "Bank of England." Their general strike is south 27 degrees east, and they are nearly vertical. They have, as yet, had very little work done on them, the deepest shaft (that on the Rothschild line), being down 46 feet, but at the time of my visit it was nearly full of water. I had an opportunity, however, of examining some of the ore which had been taken from various depths in the shaft. The matrix of the lodes in all cases is quartz. Near the surface the lode-stuff was much decomposed, the metallic compounds being chiefly zinc-blende, iron pyrites, and galena. Where these had undergone decomposition the silver was in the form of chloride, with the result that the assay returns near the surface were extremely good, the highest being 400 oz. to the ton. Near the bottom of the shaft the zinc-blende had nearly all disappeared, with a proportionate increase in the amount of galena, which is argentiferous. This galena ore also gave good assay returns of silver, one assay giving 82 oz. and 15 per cent. of lead, The ore-bearing quartz was not of any great thickness even at the 40-feet level, and the granite-country rock is very hard to work.

Nearly on the same line another lode has been opened out for a depth of about 20 feet. Here lenticular bodies of argentiferous quartz have been met with, but they vary much in thickness, pinching out in places and making to over a foot in others.

On the other two lines of reef little or no work has been done except a little trenching, which has exposed in places the outcrops of argentiferous quartz veins of very irregular character.

All

All these reefs seem to occur in the contraction joints of the granite, which, during its solidification into a hard crystalline rock, underwent a certain amount of contraction as a mass, producing along certain definite lines fissures or cracks of very unequal extent, but all striking in one direction. These cracks were subsequently filled with argentiferous lode-stuff consisting chiefly of silica, zinc-blende, iron pyrites, and galena. From the nature and origin of their formation it is unlikely that they will persist on any one line to a great depth; but should they do so, the occurrence of the lode-stuff along them will by very irregular, the thicknesses of the reefs being very variable.

In connection with this occurrence of argentiferous reefs in granite, I would point out that, in many of the granite areas in this Colony, similar lodes have been tried, but in few or no instances have they turned out of a payable or permanent character, because, occurring in contraction joints, they are not true fissure lodes, and although in one or two places we have undoubted fissure lodes in the granites of this Colony, the principal position in which permanent reefs occur in connection with granite is upon the junction between it and the slates.

In various other parts of the neighbourhood, reefs carrying silver and other metals have been discovered, and to a certain extent opened up, but none of them have yet been developed. As much of the granite of this district is of an intrusive character, it is more than likely that persistent reefs may yet be discovered in connection with their junction lines with the slates, which under such circumstances are always favourable positions for the occurrence of reefs or lodes.

Considerable activity has lately been evinced in prospecting the Tertiary deep lead which exists between Tumbarumba and Bago. Much ground has been taken up all along the basalt range capping the lead, and numerous parties are at present engaged tunnelling below the basalt, particularly higher up the lead towards Bago. In many cases the Tertiary wash-dirt has been struck, and good prospects of gold obtained from it. In the immediate neighbourhood of Tumbarumba the level of the wash-dirt in the Tertiary lead occurs at a considerable depth below the level of the present valley, so that here it is impossible to get at the auriferous wash except by sinking shafts through the basalt, and, in so doing, the abundance of water in the drift is the chief difficulty to be contended with. Towards Bago, however, the Tertiary wash-dirt is at higher level than the present Tumbarumba Creek, and, therefore, there is a large extent of the lead south of Bago, which can be easily worked by means of tunnelling. Once the exact level of the wash-dirt is obtained by tunnel in the upper part of the lead, the auriferous wash may readily be struck lower down the lead by making allowance, in fixing the position of the tunnels, for the slope of the old creek bed. There is every evidence in this tract of basaltic country that an extensive and probably payable deep lead exists, which, if systematically and carefully opened up, will prove of great importance in reviving alluvial mining in this district.

I have, &c.,
WILLIAM ANDERSON,
Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 3G.

Sir, Geological Survey Branch, Department of Mines, Sydney, 19 December, 1890.

I have the honor to report that according to your instructions I have visited Cargo, and examined the surrounding country, visiting the chief mines in the neighbourhood.

From Orange to about a mile past the half-way house the road passes over the andesitic lavas, which were, in Tertiary times, erupted from the hills in the neighbourhood of Orange, known as the Canoblas. These lavas are followed by a belt of Silurian slates, which within 4 miles of Cargo are overlaid by another lava sheet about 3 miles in width. The immediate vicinity of Cargo is occupied by an intrusive mass of quartz—porphyry and felsite, which has intruded the slates in a more or less north and south direction. In connection with this intrusive rock numerous auriferous pyrites reefs occur, some of which are of a persistent character, and have been extensively worked.

As exhibited in the sections exposed in the workings of the Ironclad and other mines at Cargo, the intrusive rock is of a very variable character. In places, where slightly weathered, particularly in close relation to the westerly side of the Iron Clad Lode, it is a nodular or bouldery felsite and quartz-porphyry, of a greyish colour, and bearing a remarkable resemblance in its general appearance to the felsites and quartz porphyries which occur in connection with the silver bearing lodes at Sunny Corner. Along with these nodular felsites and porphyries other eruptive rocks occur, which are more or less allied to the former. A detailed description of these rocks will be furnished in course of time in a separate paper. The majority of these lodes opened up in the neighbourhood are in connection with these intrusive rocks.

The principal mine, and that upon which most work has been done is known as the Ironclad. It is situated close to the town, on the hill upon the slopes of which the township is built. It is now a number of years since the mine was first opened up, and the underground workings are of considerable extent. The outcrop of the lode has been traced in a generally north-east and south-west direction for a considerable distance, and numerous shafts have been sunk upon it, the deepest of which attains a depth of 470 feet. For the first 200 feet the lode is nearly vertical, and below this depth its average dip is 65° in a south-easterly direction. It chiefly consists of iron and copper pyrites, and varies in thickness from a few inches to over a foot, but it has been proved to be persistent to nearly 500 feet. The foot-wall consists of a light coloured quartz-porphyry, which in places is a non-porphyritic felsite, and possesses a nodular structure where in contract with the lode. This is no doubt due to the ready decomposition which the rock undergoes along that line. The hanging wall is formed of a porphyritic rock, containing microscopic crystals of hornblende and felspar, and thereby differing from the quartz-porphyry of the foot-wall. In the neighbourhood of the lode proper, both walls are impregnated with pyrites to such an extent, that locally the width of treatable ore is largely increased beyond the actual thickness of the lode.

The pyrites to a depth of 130 feet had undergone decomposition to such a degree, that the contained gold occurred in a free state, in the position of the lode and its immediate vicinity, but below that level the gold was entirely confined to the pyrites which has to be specially treated for its extraction. In places the

the lode consists entirely of solid iron and copper pyrites. At the 300-foot level at the northerly end of the workings the lode contains such large quantites of calcite, that it is impossible to treat this ore by itself, because of the high percentage of lime which is present. At a lower level, however, the calcite diminishes in quantity, and there is a proportionate increase in the cupriferous ore, and according to the experience of the manager, Mr. Marsh, in other parts of the lode, wherever the percentage of copper ore was large, there was an appreciable increase in the yield of gold from the ore, particularly if the copper existed in the form of the black oxide. At present there are considerable bodies of the iron and copper pyritous ore in sight, and there is every probability that the lode will be found to persist to a depth, but it is likely to be very variable in thickness.

From the difference in the character of the two rocks which forms its walls, it would seem as if the lode had originated in a contact fissure, and that the porphyritic hanging-wall rock had been subsequently intruded into the quartz porphyry and felsite, in the form of a dyke, on the western side of which the Iron Clad lode occurs. It is very probable that there may be, at the eastern edge of this dyke, where it joins the quartz-porphyry, pyritous lode stuff which might be worth prospecting for gold. This eastern line of junction must occur between the present Iron Clad lode and the road from Cargo to Canowindra, because on the easterly side of this road the hills consist entirely of the light-coloured quartz-porphyry which is almost destitute of hornblende and is evidently the same rock which forms the foot-wall of the Ironclad lode.

On the hills to the north west of the Iron Clad numerous parties have at one time and another sunk numbers of shafts on small leaders which however have not proved of sufficient width nor thickness to encourage them to proceed to any depth with them. One of these claims is known as the Golden Clad which consists of thin veins of gossan (decomposed pyrites) which have been sunk upon to a depth of 60 feet. Crushings from this claim are reported to have gone about one ounce to the ton, but the veins are so thin that the expense of getting out the ore in sufficient bulk would be too great to work the vein by itself. The same party have however another claim on the south east of the Cargo and Canowindra road in which there is a considerable bulk of surface stone which on assay yields a few dwts. per ton, and which the party purpose to treat with the Golden Clad stone. In the claim referred to, on the south east of the road, there are no evidences of reefs or lodes, but the quartz-porphyry has local areas in it which almost entirely consist of ferruginous gossan carrying a little gold. These areas have no doubt been originally occupied by iron pyrites which, by segregation, have formed specialised areas, the pyrites in which has subsequently undergone decomposition, leaving a siliceous gossan containing a small percentage of free gold. One such patch of gossan has already been opened out and appears to be of considerable extent, but when they are sunk upon, if they extend below the water level the gold will be wholly confined to the undecomposed pyrites. The occurrence of these segregated patches of pyrites will be found to be very uncertain, and their individual extent will be exceedingly irregular.

About 2 miles to the south of the Iron Clad is a mine known as the Dalcooth. The outcrop of this lode runs nearly north and south, and a great deal of work has been done in the sinking of shallow shafts upon it. The deepest shaft sunk by the present party is down 130 feet on the underlay of the reef. From what I could learn the reef was of a similar character to the Iron Clad and passes at a depth into an iron and copper-pyritous lode. In thickness it varies from a few inches to over a foot and has, according to report, yielded good returns. As there was no one at work at the time of my visit I was unable to examine the underground workings, but from what I could gather from the rocks, which had been brought to the surface from the various shafts, the lode seems to occur among a similar set of rocks to those among which the Iron Clad lode occurs. From some specimens which were picked up here it would appear as if the dyke rock was more of the nature of a dioritic or syenitic rock, consisting chiefly of altered hornblende and felspar. There is a great likelihood that this lode occurs along the junction line of the same dyke upon which the Iron Clad lode occurs, although in the two positions the dyke rock presents a considerable difference in structure and composition. In both places, however, it has originally contained a large percentage of hornblende which has now been much decomposed and in places altogether replaced by chlorite. The decomposition of the hornblende in the dyke rock has no doubt largely increased the quantity of free gold in the lodes, particularly in the upper superficial parts, for it is a well-known fact that the ultimate analysis of hornblende almost always produces traces of gold. From its position it is probable that it will be found like the Iron Clad to be persistent to a considerable depth.

At Paling Yards, about 8 miles from Cargo, a considerable amount of work has been done in sinking upon various reefs, which consist chiefly of auriferous pyritous quartz, carrying a little galena, and near the surface forming veins of ferruginous gossan. They occur in connection with an intrusive rock which exhibits very large porphyritic crystals of felspar, which are probably sanidine. Court's Reef varies from a few inches to a foot in thickness and dips to the west. Numerous shafts have been sunk on it to a depth of 40 to 60 feet, at which depth the lode stuff is pyritous quartz. Various bulk crushings have been made from it at different times, and the average yield has been about 15 dwt. per ton. The party are at present putting a small battery in order to begin crushing what ore-stuff has been already raised from the shafts. A few other reefs have been slightly prospected in the vicinity, but none of them to any great extent.

The valleys formed by the drainage from the hills in the neighbourhood of Cargo, upon which the auriferous lodes occur, have all carried a fair amount of gold in their alluvial deposits. Those passing to the south-west and west open into an extensive alluvial valley known as Gum Flat. Many efforts have been made to trace the gold-bearing drift out into this flat, but so far they have not been able to bottom upon a gutter. In one place Government aid was granted to assist in prospecting the flat, but as yet no good results have been obtained. There is no doubt that there exists here numerous old Pleistocene channels, which are likely to carry payable gold; such channels would, I think, most readily be discovered by tracing them from among the ridges and following them outwards on to the flat.

A few miles from Cargo, at Deep Creek, some shafts have been sunk through the Tertiary lava for the purpose of testing the presence of a deep lead underneath. Government aid was granted at this place to further prosecute the search, but the selection of sites for shafts which might strike the channel would be, from a cursory superficial examination, almost impossible. Up to the time of my visit no party had accepted the aid which had been granted to the Progress Committee to sink at Deep Creek. It is, I think, certainly probable that this run of lava covers up a Tertiary valley which must contain drift which might contain payable gold.

Besides the mines mentioned in this report there are many others in the neighbourhood of Cargo which have been sunk upon, but never opened out.

Taking the district as a whole, there seems every reason to believe that it may yet prove comparatively rich in minerals. The reefs at a depth seem to make into pyrites, associated with copper, which are generally gold-bearing, and there is little doubt that if opened up this would be a very important district for obtaining auriferous pyritous ores on a large scale.

The presence of so many intrusive dyke-rocks should lend encouragement to prospectors to continue prospecting operations, particularly in the neighbourhood of such intrusive rocks, because so far as has been proved in the vicinity of Cargo the most permanent of workable lodes occur as contact lodes between these intrusive dykes and the rocks which they have intruded.

I have, &c.,

WILLIAM ANDERSON,
Geological Surveyor.

The Geological Surveyor-in-charge.

APPENDIX No. 4.

Progress Report for the year 1890, by Geo. A. Stonier, C.E., Geological Surveyor.

Sir, Geological Survey Office, Department of Mines, 13 April, 1891.

I have the honor to furnish you with the following report of the work upon which I have been engaged during the year 1890.

During January my time was occupied with office work and a general examination of the formations developed about Sydney. The latter work is now in a fairly forward condition and the junction-line between the Wianamatta and Hawkesbury Series completed over an area of about 40 square miles near the City. This junction-line is not at all clear in places, the typical shales passing downwards into quarry sandstones without there being any sharp division line. That the Hawkesbury series was much denuded before the deposition of the Wianamatta beds is evident from a great number of sections of which there is, perhaps, none clearer than that to be seen close to the Marrickville Railway Station, on the Illawarra line. There is still much to be done in working out the alluvials, &c., but I hope to be able to give some attention to it from time to time during 1891.

From February 3rd to February 11th I was present at the Clyde Chlorination Works to witness the treatment of three parcels of ore, sent by prospectors who had been aided out of the Prospecting Vote.

On February 11th I accompanied you on your visit to Nowra and the Shoalhaven district for the purpose of dealing with applications for the use of the diamond drill to test the Coal-measures near Tomerong and Milton. On the 18th February you left Nowra for Mittagong, and I remained in the Shoalhaven district until 4th March. The result of my work is given in a joint report made by Mr. Geological-Surveyor David and myself later in the year. (*See Appendix No.* 2 J.)

On March 10th I visited Wattle Flat and reported upon the gold-field in the vicinity of the township.

From March 18th to March 25th I was engaged upon an examination of that portion of the Gunnedah Coal-measures developed at Curlewis. My report upon the field forms Appendix No. 4 A, and further reference has already been published in the records of the Geological Survey, vol. II, pt. 2.

On April 11th I went again to the Clyde Works, and remained until the 14th during the treatment of a parcel of ore.

On May 5th I accompanied Mr. David to the Illawarra district in order to examine the deposits of iron ore said to occur there. Mr. John Biggar (since deceased) kindly gave a great deal of valuable information, and as he had been a resident of the the southern coast for many years he was able to supply particulars which facilitated the inspection.

On May 14th and 15th I was again at the Clyde Works.

On May 19th I left Sydney for Muswellbrook, and, in accordance with my instructions, arranged a collection of minerals for exhibition during the currency of the Show at the Agricultural Show Ground. The collection had been prepared by me specially with a view of bringing under the notice of visitors to the Show not only the minerals which were likely to be found in the district, but also the kind of information which is of value in elucidating its geology, so that it is hoped that some practical good may follow the display. That it was appreciated was evinced by the lively interest shown by the mining men of the district.

From June 2nd to June 4th, I was with Mr. David, at Bellambi, the time being spent in a further examination of the iron deposits of the Illawarra district. We were of opinion that the deposits discovered up to date were not of sufficient importance to justify much attention.

On June 12th I accompanied Mr. David on a visit (the second one) to Peak Hill. (*See Appendix No.* 2D.)

From June 23rd to July 5th, I was in the Western district with Mr. David, when he inspected the Junction Mine, at Mandurama, the Bathurst Water Supply (*see Appendix No.* 2F), and dealt with Prospecting Vote applications at Canowindra and Blayney. (*Vide Appendix No.* 2G.)

On July 22nd I was again at the Clyde Works.

From August 4th till August 9th I was at Narrabri, and arranged there an exhibit of minerals, &c., similar to those shown at Muswellbrook, although on a larger scale.

On August 18th I left Sydney for Tamworth, and, with the assistance of Mr. Dun, arranged some of the minerals which had been sent from Narrabri to Tamworth, to await the opening of the Show at the latter town. This same collection was subsequently sent to Germanton, under the charge of Mr. Dun. From Tamworth I proceeded to Armidale, and reported upon the Toryburn Gold-field, and, while in the district, I visited Hillgrove, and secured the specimens which were required for exhibition at Ballarat.

On

On September 1st I accompanied Mr. David to the Shoalhaven district, in order to report (*see Appendix No.* 2J) upon the continuation of the diamond-drill bore, the site for which you yourself had inspected early in the year. The continuation of the bore was recommended, and after boring 700 feet further, coal was struck. We returned to Sydney on September 27th, after having inspected the mineral leases at Wollondilly, near Wollongong.

From this date till October 21st, I was busily engaged in the preparation of a collection of minerals, &c., for display at Ballarat, in connection with the Juvenile Industrial Exhibition to be held there. On October 21st, I started for Ballarat, and finally settled with the Committee of the Exhibition the amount of space, &c. The show-cases occupied an area of 40 feet by 19 feet, and as this space was in the main hall, and immediately in front of the stage, the position was all that could be desired. The collection was prepared to illustrate the economic importance of the minerals found in New South Wales, and although it was impossible to attempt to exhibit in bulk, the specimens selected were as large as was convenient for display under glass-cases. The special object in view was to give to Ballarat residents and visitors to the Exhibition an idea of the many openings which exist in New South Wales for the investment of capital, rather than to illustrate the particular richness of any of its districts, or the abundance of certain minerals which are of interest merely from a scientific point of view. From Ballarat I went on to Broken Hill, and, with the kind assistance of Captain Dudley and Inspector Rue, secured a representative collection of the ores of that wonderful mining district. At Broken Hill there is, at Mr. Aldridge's hotel, an exceptionally fine collection of silver and lead ores which have been obtained from the mines of the district, and until seen, the possibility of such a collection being made, even from the Broken Hill mines, would be doubted. In view of the value which specimens of the oxidised ore will have in the future, it is very desirable that a good suite of ores should be obtained for the Mining and Geological Museum. Mr. C. Cullen deserves credit not only for the careful and efficient packing of the exhibits, every one of which, including some very fragile bones, arrived at Ballarat without having suffered damage of any kind, but also for the assistance which Mr. Cullen rendered to me in the arranging of the collection at the Alfred Hall. I returned to Sydney on November 27th, and shortly after my return Mr. Dun left for Ballarat to take charge of the collection.

From December 11th to December 20th I was engaged with Mr. Warden Baker in dealing with the Prospecting Vote applications in the Temora and Barmedman districts.

On December 30th I started for Nowra, in order to be present at the Wandrawandian bore during the boring-through of one of the coal-seams.

From the above report it will be seen that during the year I have reported upon five crushings at the Clyde Works; have prepared five collections, and personally arranged four of them; and have visited, in connection with Departmental work, Broken Hill, Hillgrove, Peak Hill, Bathurst, Blayney, Mandurama, Canowindra, Temora, Barmedman, Nowra, Kiama, Wollongong, Bellambi, Wattle Flat, Toryburn, &c. Whenever I have been in town I have assisted Mr. David in dealing with the various official papers which have been sent to the branch, and these have been so numerous that it was impossible for me to devote much time to the ordinary duties of the Curator's office.

I have, &c.,
GEO. A. STONIER, C.E.,
Geological Surveyor.

APPENDIX No. 4A.

Curlewis District.

Sir, Department of Mines, Sydney, 9th June, 1890.

In accordance with your instructions (attached), and while reporting upon the reservation of certain land, I examined the country in the immediate vicinity of Curlewis, and have now the honor to submit the following report:—

Curlewis is situated in the County of Pottinger, and is distant 283 miles from Sydney, on the Narrabri line, and 11 miles southerly from the town of Gunnedah. A short distance from Werris Creek, the station where the Narrabri line branches off from the Great Northern Railway, a patch of old basalt is observable in the railway sections, and this is succeeded by a series of Devonian (?) conglomerates, sandstones, &c., dipping steeply in an easterly direction. After passing through the Gap, the line enters upon a plain of black soil which extends for about 8 miles until Breeza is reached, where the red soil country commences, with here and there outliers of carboniferous beds with intrusive basalt. The railway then runs in the same direction as the Mooki River past Curlewis, and at Gunnedah is within a few chains of the junction of the Mooki with the Namoi.

Thus at Curlewis the formations represented are—I. Pleistocene black and red soil; II. Permo-Carboniferous; III. Basalt.

I.—Pleistocene.

The reason for the difference between the black and red soil will be readily understood when it is remembered that the former is the flood deposit of the rivers, and black, as we find all river deposits now forming, owing to the presence of decomposed vegetable matter and unoxidized iron—the iron being, probably, present in the form of a carbonate—while the latter is almost devoid of decayed vegetation, but iron is present in the form of ferric oxide, and gives to the formation its distinctive colour.

I did not see any sections in which the one formation actually overlapped the other, but the junction-line between the two is very marked, for the black soil carries timber in patches only, and that chiefly along the watercourses, while the red soil is well timbered with pine and rosewood. The surface of the former, as would be expected, is level, while the latter has in places as much as 100 feet fall per mile. In this district the black soil seldom exceeds 5 feet in thickness, and clays and gravels, probably of tertiary age, underlie both formations. The bed rock is sandstone, shale, &c., or basalt; and, owing to the unevenness of the old valley, the depths of shafts to bed rock vary. Thus, near the railway a shaft was bottomed at but a few feet from the surface, while, nearer to the range which runs parallel to the railway line, a shaft was sunk 130 feet without bottoming.

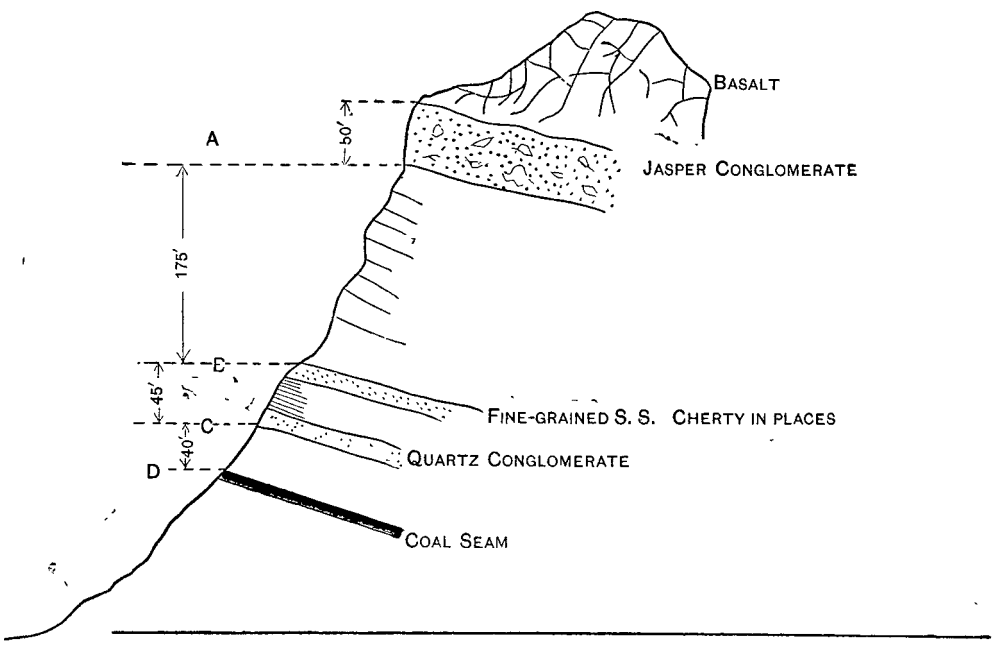
II.—

II.—Permo-Carboniferous.

The coal measures consist of shales, sandstones, grits, conglomerates, &c., and, so far as I could determine, are entirely freshwater. The beds generally dip at rather a low angle, and, what with rolls and faults, not more than 300 feet of section can be seen. At several horizons glossopteris and vertebraria occur in abundance, the latter generally being vertical with regard to the stratification of the rocks. In reporting on coal at Gunnedah in 1886 (Annual Report, Mines, p. 153), Mr. Geological Surveyor T. W. E. David, B.A., F.G.S., correlates the measures with the Newcastle or East Maitland series. The horizon at which I got glossopteris is perhaps higher in the series than that found at Gunnedah, but my observations have not thrown any light on the question of the relative age of these coal measures as compared with those of Greta, East Maitland, and Newcastle. Hence it is impossible at present to say what seams may be expected to underlie that already found.

Up to the present the measures at Curlewis have been tried for a distance of 3 miles, but payable coal has been found only at one place, viz., M.L. 17, shown on the accompanying plan, the property of the Centenary Coal and Coke Company. The coal was driven on for a distance of 345 feet with cross drives, and the company is now supplying coal for railway consumption. As will be seen on the accompanying plan, the mine is but 2 miles from the railway. A branch line is now being constructed to connect the mine with the railway.

The section of the measures at this property is as shown on the section below. The figures can be taken as only very approximate, for owing to the constant change in dip and strike it was impossible to accurately determine the various thicknesses. Of the distinctness of the two beds, A and B, I am pretty well satisfied from the sections observed here and in other parts of the district, as for instance, at the Butler's Gap. The thickness, however, of the strata intervening between the two beds varies in different localities.



A.

The most marked bed is the jasper-conglomerate, which forms quite a feature in the hill scenery, and should be a most valuable bed for working out the structure of the Gunnedah measures. It is at least 50 feet thick, and consists chiefly of pebbles, subangular and well-rounded, of quartzite, with quartz, altered sandstone, jasperoid quartz and quartzite, and a few of quartz-porphyry and felspar-porphyry. It can be traced south-easterly to M.L. 169, a distance of 3 miles, the coarse nature of the bed with these jasper-pebbles making its recognition an easy matter.

B.

This bed is a whitish-grey sandstone, 4 feet thick, in places cherty, and at the mine is overlaid by a quartz-conglomerate about 5 feet thick.

C.

Occurs about 45 feet (?) below the bottom of B. The bed is a quartz grit, with layers of pellucid rounded quartz up to 2 inches in diameter, and a few small black water-worn slate pebbles.

D.

Coal Seam.

The following is a section of the seam measured by me, 345 feet from its outcrop, together with analyses made by J. C. H. Mingaye, F.C.S., the Department's Analyst, from samples selected by myself:—

Section.

Sample D 1, 9 feet 10½ inches, inferior splint coal, with bands.
„ D 2, 1 foot to 1 foot 6 inches, splint coal.
„ D 3, 4 feet 6 inches to 5 feet, bright bituminous coal.
6 feet seam worked.
Floor, dark blue clay shale.

Details—

Details—D 1.

1 foot	0 inches	inferior splint coal.
	5 „	bituminous coal, with bands.
3 feet	2½ „	inferior splint coal.
	1 inch	dark grey sandy shale.
2 „	6 inches	inferior splint coal.
	3 „	grey sandy band
2 „	6 „	inferior splint coal.
9 feet	11½ inches.	

Analyses.

Sample D 1, No 898.

	Proximate analysis.	
Hygroscopic moisture	3 05	
Volatile hydrocarbons	19 25	
Fixed carbon	48·62	Non-coking.
Ash	29 08	
	100 00	
Specific gravity	1 596	
Sulphur in coal	·425	per cent.

Coke:—Non-coking coal, the powder slightly fritted together, readily falling to pieces on handling.
Ash.—Pink in colour, dense.

Sample D 2, No. 835.

	Proximate analysis	
Hygroscopic moisture	3 10	
Volatile hydrocarbons	29 40	
Fixed carbon	58 47	
Ash	9 03	
	100 00	
Specific gravity	1 401	
Sulphur in coal	·375	per cent.

Coke—67 50 per cent, partly coked only, dull lustre, fairly hard.
Ash:—Light grey in colour; no copper detected in it.

Sample D 3, No 834.

	Proximate analysis	
Hygroscopic moisture	3 16	
Volatile hydrocarbons	33 08	
Fixed carbon	50 12	
Ash	13 64	
	100 00	
Specific gravity	1 363	
Sulphur in coal	·758	per cent.

Coke:—63 76 per cent, well swollen up, with cauliflower-like excrescences, firm and bright.
Ash.—Dark grey in colour.

NOTE—On an examination being made of the ash, a strong trace of copper was detected The coal was examined by aid of the microscope, and small patches of copper pyrites were plainly visible.

Probable yield of coal per acre.

Taking the seam as 6 feet thick, and the specific gravity at 1·37, the quantity of coal contained in the seam per acre would be about 9,978 tons. Deducting one-third for loss in getting, faults, rolls, &c., and assuming that one-fourth of the remainder would be small coal, it should be possible to work from this seam 4,989 tons of large, and 1,663 tons of small coal per acre.

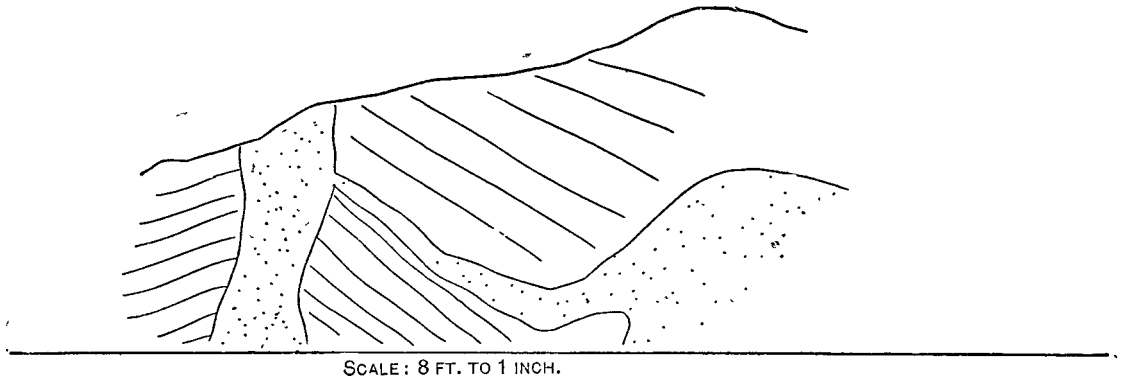
Crop.

The crop of the seam shows only by a thin black streak, and this, when driven on, is found to increase to the full thickness within a distance of 60 feet. An interesting feature is the presence in the smut of numerous but thin fire-clay partings, which, at a distance of 70 feet from the crop, suddenly disappear at what is locally known as a "greyback." "Greybacks," which are in reality small reverse faults, are of frequent occurrence, and, as a rule, run N.E. and S.W with a throw to the N.W. of about 2 inches. The measures themselves, in which the seam occurs, can be traced, as has been already stated, for 3 miles in a south-easterly direction, and it was to prospect these for coal that M.L. 166 to 169 were applied for. A good deal of money has been spent in driving tunnels, sinking shafts, &c., but so far without meeting with the least encouragement, as with but one exception, the beds driven on have proved to be bituminous shales, with thin, bright black, bituminous coal bands. In only one case, however, have the measures been prospected in about the same position with reference to the jasper conglomerate as the mine seam, viz., at Butler's Gap, and in that case the coal seems to have been replaced by bituminous shale, full of thin sandy grey partings—very numerous but lenticular. It would, however, be useless to continue this tunnel with the expectation of these bands giving out, and good coal making. Although so far prospecting operations have not been attended with success, the intermediate country between the tunnel at Butler's Gap and the mine cannot be considered to have been proved, for almost all the work has been on beds which

which are close to the conglomerate, and consequently above the coal seam worked at the Curlewis Mine. Those beds are, however, worth trying in other places, as it may prove to be the case with them as with the mine seam, that good coal occurs in them in patches. Below the mine seam, only about 50 feet of strata have been proved, so that the existence of other seams within a workable depth is a matter yet to be tested.

III.—Basalt.

The occurrence of basalt in this district has been so fully described by Mr. Geological Surveyor T. W. E. David, B.A., F.G S., in his notes on the Gunnedah Field (Annual Report, Department of Mines, 1886, p. 152), that it is only necessary for me to note the occurence at Curlewis, near M. L. 167, of what appear to be two distinct flows of basalt, one of which caps the jasper conglomerate, while the other occurs at least 150 feet below it. The shales also just below the jasper conglomerate have been intruded by basalt, as shown by the diagram.



SCALE: 8 FT. TO 1 INCH.

Gunnedah Measures.

Since Mr. Geological Surveyor David's report in 1886, a seam of coal has been opened out by Mr. M'Cosker in the Black Jack Range, a section of which, together with analyses made by Mr. J. C. H. Mingaye, the Department's Analyst, of samples selected by myself is as follows:—

Section.

	ft.	in.	
Sample G. 1	1	9	splint coal.
Sample G. 2	5	5	splint, with thin layers of bituminous coal.
	7	2	seam worked.

Floor:—Dark-grey clay shale.

Analyses.

Sample G. 1, No. 896.

	Proximate analysis.
Hygroscopic moisture	4·36
Volatile hydro-carbons	26·52
Fixed carbon	61·47 } non-
Ash	7·65 } coking.
	100·00
Specific gravity	1·378
Sulphur in coal	1·17 per cent.

Coke:—Slightly caked, the mass falling into powder on handling; not a true coke; dull in colour.
Ash:—Pinkish colour; dense.

Sample G. 2, No. 897.

	Proximate analysis.
Hygroscopic moisture	3·70
Volatile hydro-carbons	32·79
Fixed carbon	52·48
Ash	11·03
	100 00
Specific gravity	1·365
Sulphur in coal	·617 per cent.

Coke:—63·51 per cent; well swollen up, firm and lustrous.
Ash:—Light-grey; dense.

Although this seam occurs at 200 feet above Pryor's coal, W. H. M'Kenzie, Esq., F.G S., Examiner of Coal-fields, who has examined both sections, is of opinion that M'Cosker's is identical with Pryor's seam.

In a hurried examination of the strata above M'Cosker's seam, I observed small blocks of the jasper conglomerate, which is so well developed at Curlewis; but the hill on which they occur has been disturbed by an intrusion of basalt, and thus it was impossible to determine the various thicknesses of the beds between the conglomerate and the seams. They do not, however, correspond in lithological character with the Curlewis beds; the seam itself, consisting as it does of bright bituminous coal, and the upper part splint coal, resembles the Curlewis seam.

At both Curlewis and Gunnedah, the dip is to the west, and one would naturally expect the Curlewis seam to be much lower in the series than M'Cosker's; but it is probable that, even if not identical, there may not be a very great thickness of strata separating them, for, in the hill sections, several faults, and in one case a step-fault, can be readily distinguished.

It

It is evident that there is in sight a quantity of coal, which will suffice to meet local wants for some time to come, as the demand at present is not very large. It is, however, a matter of importance to know that seams of coal exist here, which are available for the trade on the Great Northern Railway Line, so that for future prospecting the chief point to be taken into consideration is the distance from the railway line.

With a view of meeting the Barrier trade, it has been proposed to establish coke works at Curlewis, taking advantage of the river Darling to send the coke on pine rafts, which could themselves, at the end of the journey, be broken up and sold; but nothing has yet been attempted in this direction.

In conclusion, I would express to the Messrs. Poole my thanks for their kind attention and assistance.

I have, &c.,

GEO. A. STONIER, C.E.,
Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX No. 5.

PROGRESS Report for 1890, by Robert Etheridge, jun., Palæontologist.

Sir,

I have the honour to hand you herewith a Progress Report of Palæontological work done during the past year, 1890.

Memoirs.—The following Memoirs of the Palæontological Series have been published:—

No. 3.—Geological and Palæontological Relations of the Coal and Plant-bearing Beds of Palæozoic and Mesozoic Age in Eastern Australia and Tasmania, &c., p p. 186, 30 plates. (4to, Sydney, 1890.) By OTTOKAR FEISTMANTEL, M.D.

No. 4.—The Fossil Fishes of the Hawkesbury Series at Gosford, p p. 57, 10 plates. (4to, Sydney, 1890.) By ARTHUR SMITH WOODWARD, &c.

No. 7.—The Mesozoic and Tertiary Insects of New South Wales, p p. 12, 2 plates. (4to, Sydney, 1890.) By R. ETHERIDGE, JUNR., AND A. SIDNEY OLLIFF.

No. 8.—Contributions towards a Catalogue of Works, Papers, and Reports on the Anthropology, Ethnology, and Geological History of the Australian Aborigines, Part 1, p p. 31. (4to, Sydney, 1890.) By R. ETHERIDGE, JUNR.

With regard to Nos. 3 and 4, my share was purely editorial. I am glad to be able to state that Part 1, of No. 5.—the Corals of the Permo-Carboniferous Invertebrate of New South Wales—was completed shortly before your return from London, and has been handed in for printing and publication. The Part 2 of this work, containing the Echinodermata, and Nos. 6 and 9, are in active progress.

Records.—The Index to Vol. I of the *Records of the Geological Survey of New South Wales* has been published, and Parts 1 and 2 of Vol. II. These contain the following official papers, wholly or in part by myself, viz.:—

(*a*) On the occurrence of the genus *Tryplasma*, Lonsdale (= *Pholidophyllum*, Lindström), and another Coral, apparently referable to *Diphyphyllum*, Lonsdale, in the Upper Silurian and Devonian rocks of New South Wales; Part 1, p.p. 15–21, t.1.

(*b*) The Aboriginal Rock Carvings at the head of Bantry Bay, Middle Harbour, Port Jackson; Part 1, p.p. 26–35, t. 2.

(*c*) Note on *Dromornis*, Owen; Part 2, p. 36.

(*d*) The Raised Beaches of the Hunter River Delta. [With T. W. EDGEWORTH DAVID, B.A, &c.] Part 2, p.p. 37–52, t. 3.

(*e*) On some beautifully-formed Stone Spear-heads from Kimberley, North-West Australia; Part 2, p.p. 61–65, t. 6.

(*f*) Note on the Occurrence of Fish-remains in the Rocks of the Drummond Range, Central Queensland; Part 2, p p. 71–72.

(*g*) Description of two Undescribed Univalves from the Lower Carboniferous Rocks of New South Wales; Part 2, p.p. 81–83.

Miscellaneous Determinations.

1. Plants of a Lower Carboniferous facies from Port Stephens; collected by Mr. T. W. E. David, B.A. These include species of genera allied to *Calymmotheca*, and *Diplothmema*, even if not directly referable thereto.
2. *Diprotodon* bones forwarded from Parkes by Warden Sharpe.
3. Permo-Carboniferous fossils from Moonan Brook, thirty-five miles east of Scone (collected by Mr. W. Anderson), including an undetermined *Euomphalus*, cast of *Loxonema*, and a *Bellerophon* of the group of *B. giganteus* or *B. pinguis*.
4. Permo-Carboniferous fossils from West Maitland; presented by Mr. R. W. Thompson, M.P.
5. Raised Beach shells from the Hunter River Delta. (*See Records Geological Survey New South Wales*, 1890, ii, Part 2, p. 37.)
6. Cretaceous Fossils from Central and Northern Queensland, presented by Mr. G. Sweet, of Brunswick, Melbourne.
7. Semi-recent shells from the river borings for the Northern Railway Bridge, Hawkesbury River.
8. Plant-remains from the Hawkesbury-Wianamatta Series, Liverpool Bore, Moorebank Estate, Liverpool.

9. Fish-remains from the Carboniferous beds of the Drummond Ranges, Central Queensland; presented by Mr. C. T. Musson.
10. An interesting plant, probably of Devonian age, from Louth, Darling River; presented by Mr. J. F. Josephson.
11. Preliminary Collection of Marsupial Bones from Kybean Caves; collected by Mr. W. S. Leigh.
12. Crinoidal Limestone with Corals from Currububula, Glendonald; presented by Mr. D. Donaldson.
13. Fossils of a strong Carboniferous facies from Torryburn, Paterson; presented by Mr. J. Waterhouse, M.A. (*See Records Geological Survey New South Wales*, 1890, ii, Part 2, p. 81.)
14. A collection of Tasmanian *Stenoporæ;* partly collected by Mr. W. Anderson, and partly presented by Mr. R. M. Johnston, F.L.S., Government Statist, Tasmania.
15. Large Collection of Devonian fossils from Mudgee; forwarded on loan by Mr. A. Lowe.

Unpublished Researches.—I have completed, ready for publication, a description of two interesting low forms of plant life, which I believe to be fungi—one allied to *Palæachlya*, and the other a new genus. These are parasitic and endophytic on Permo-Carboniferous corals. I have also prepared a Memoir dealing with the distribution, geological as well as geographical, of *Lepidodendron australe*, M'Coy.

Distribution of Types.—A type named Collection of the Hawkesbury Fish, from Gosford, has been sent to each of the following Museums:—National Museum, Melbourne; University, Adelaide; Queensland Museum, Brisbane; and Geological Survey Museum, Townsville.

Field Work.—During October I visited the Kybean and Yarrangobilly Caves with the Inspector, Mr. W. S. Leigh, to investigate the extent of the bone-deposits at the former, and conduct a general examination of the latter, when I obtained some interesting specimens and notes on the geology of the respective neighbourhoods.

Australian Museum.—The Trustees of the Australian Museum did me the honour to appoint me, with the approval of the Minister for Mines and Agriculture, Acting-Curator of that Institution during the unavoidable absence of the Curator through serious illness. The period was comprised between the dates April 23 to July 24, and during that time I was unable to devote myself to the duties of this Department.

I have, &c,
R. ETHERIDGE, Junr.,
Palæontologist.

C. S. Wilkinson, Esq., F.L.S., &c., Geological Surveyor-in-Charge.

APPENDIX No. 5A.

Miscellaneous Contributions to the Palæontology of Australasia.

No. 18.—Permo-Carboniferous Mollusca from the Hastings River, New South Wales.

Amongst some specimens of greyish-white crystalline limestone, to which the Curator called my attention, and presented by Mr. W. J. Gracie, are the remains of bivalve mollusca. These are a large *Aviculopecten*, resembling *A. limæformis*, Morris, and portions of the ponderous shell *Eurydesma*, showing parts of the hinge. Both these are typical Permo-Carboniferous species, and probably represent the Lower Marine Group.

R. ETHERIDGE, Junr.,
27/1/91.

The Geological Surveyor-in-Charge.

APPENDIX No. 6.

Progress Report for 1890 by J. E. Carne, F.G.S., Curator and Mineralogist.

Sir, Mining and Geological Museum, Department of Mines.

I have the honor to make the following report for the year 1889:—

During the early part of the year, in accordance with your instructions, I visited and reported on the iron deposits at Lithgow, Newbridge, Blayney, Brown's Creek, near Blayney, and Lyndhurst, near Cowra.

In March I visited the Armidale and Uralla Pastoral and Agricultural Shows in charge of small representative collections of minerals and fossils. At the latter town I gave a short address on the mineral resources of the Colony, and a popular address on geology, illustrated with lantern views, to good audiences, who testified their appreciation of the information thus given.

In April I was largely occupied in obtaining exhibits to supplement those of the Colony at the New Zealand Exhibition, for the purpose of additional display at the International Exhibition of Mining and Metallurgy, which was opened at the Crystal Palace, London, on the 28th July. The exhibits in New Zealand were very expeditiously packed and dispatched under the direction of the Commissioner—Mr. O. Meyer—who had also been appointed Executive Commissioner for New South Wales to the Mining Exhibition.

On the 1st May, in accordance with instructions from the Honorable the Minister for Mines, I left with you for England, to arrange the New South Wales exhibits under your direction. Reaching London on the 13th June, we proceeded to the Crystal Palace on the following day to inspect the space set apart for New South Wales. It was at once evident that the site—in the galleries—was unsuitable, both on account of want of prominence and insufficient strength for the weight to be placed upon it. A meeting was thereupon arranged for the 17th inst. of the New South Wales Commission, the Mining Exhibition Council, and the Directors of the Palace Company, to discuss the question of obtaining a prominent position in the main south nave, which we had decided from inspection to be most suitable for the purpose. At the meeting of the above, after the question had been fully stated by Sir Saul Samuel, C.B., K.C.M.G., and supported by yourself, it was decided that a plan should be prepared showing the proposed arrangement of the exhibits, to enable the Palace Company to decide if it would be in keeping with the important position required. I was, therefore, instructed to prepare a plan, which the following day was handed to the Secretary of the Company, and received the approval of the Board of Directors at their next meeting.

The

The efforts of Sir Saul and yourself to secure a better position for our exhibits were warmly supported by the Secretary of the Mining Exhibition Council, Mr. Geo. A. Ferguson.

At the commencement, the work of preparation was considerably retarded, owing to difficulty in passing the first shipment of exhibits unopened through the Customs, on account of the Exhibition not being under royal patronage. However, the opening having been postponed until the 28th July, the Court presented a splendid appearance on that day, and evoked very favourable comment. There is no doubt that the extensive display made by New South Wales established the success of the Exhibition.

A few days after the opening the arrangement of the exhibits under your direction was completed, with the exception of a few incidental exhibits not then arrived.

During the currency of the exhibition, with the exception of one week at Cardiff and Swansea and another at Glasgow, inspecting mining and metallurgical works with your sanction, I was in close attendance, and endeavoured to give the fullest possible information to all inquirers. Towards the close I prepared a number of collections for exchange and distribution which had been promised with your approval, a list of which is appended. *Appendix No.* 6(*a*). A number of bulk and other samples were also supplied to companies and persons investigating refractory ores with a view of economic treatment, chief amongst them being the following:—

Newbery-Vautin (Patents) Gold Extraction Company, Ld., 42, Old Broad-street, London, E.C.—Supplied with samples from White Rock, Nambucca, Hillgrove, Buckinbar, Sunny Corner, Red Rock, Mount Costigan, Lewis' Ponds, Wallah Wallah, British Broken Hill, and the Peak; also, chrome iron, from Nundle.

The Pollock Gold Extraction Company, Glasgow.—Samples from Buckinbar, Cargo, Sunny Corner, Nambucca, The Peak, Eleanora, Hillgrove, and Mitchell's Creek.

The Cassell's Gold Extraction Company, Glasgow (M'Arthur-Forest Process).—Samples from Buckinbar, Sunny Corner, The Peak, Cargo, Hillgrove, and Mitchell's Creek.

Jordan's Patent Centrifugal Gold Process, 15, George-street, Mansion House, London, E.C.—Samples from Adelong, The Peak, Mitchell's Creek, and White Rock.

Askham Bros. and Wilson's Dry Pulverising Machine—Samples from Adelong and White Rock.

Coward's Niagara Crusher (Dry).—Samples from Barrier Range Tin-field, White Rock, and Adelong.

Stanfield & Clarkson's Centrifugal Concentrator.—Samples from Nambucca, White Rock, Adelong, British Broken Hill, Webb's Consols, Lewis Ponds, Mount Costigan, Sunny Corner, and Mitchell's Creek.

During the whole of my labours in connection with the exhibition, I was greatly assisted by the Superintendent, Mr. Thomas Ford, whose lengthy experience of exhibition work rendered his services of great value. I desire also to acknowledge the ready and willing assistance at all times rendered me by the Secretary of the Mining Council; Mr. George Fergusson; the engineer, Mr. E. Wilkinson; and the other officers of the Exhibition Committee.

During the visit with yourself to South Wales, under the auspices of the Cornish Mining Institute, I was enabled to witness, in the vicinity of Cardiff, operations connected with deep coal workings and a new method of baling in wet shaft sinking; the washing of coal slack, and manufacture of coke and patent fuel; coal tips, and other shipping facilities, at the Bute and Barry Docks; and a most interesting and important series of experiments with safety explosives for use in fiery mines. At Swansea several metallurgical works were also visited.

The famous Welsh steam coal is obtained from mines in South Wales, chiefly in the vicinity of Cardiff. The coal-seams lie at considerable depths below the surface, the deepest mine being Harris' Deep Navigation Colliery—2,130 feet. The coal-seams, I understand, average about 4 feet 6 inches in thickness, and are very gaseous. I was informed by the manager of the Cymmer Colliery that, at the time of our visit, 4,000 cubic feet of gas—fire-damp—per hour was being discharged from the face of the coal-workings, principally from "blowers;" these are cemented round and pipes inserted, and the gas conducted to the surface, where, after slight purification, it is used for illuminating the works. The proprietors of this colliery had just completed an exhaustive series of tests, with a view of obtaining a perfectly reliable safety explosive which would not ignite the fire-damp when "blown-out" shots occurred. The appliances for testing were simple and inexpensive, yet extremely efficacious. A disused steam boiler was utilised for the purpose, one end being removed, and a hole, to serve as a safety-valve, cut in the top, near the closed end; a brattice of cloth was fixed across the centre of the boiler, thus giving a chamber of known capacity—300 cubic feet. The charge was inserted into a hole drilled in an iron block in the end of the boiler. A roughly extemporised fan of tin plate attached to an iron rod was fixed in the centre of the chamber, and revolved by means of a handle on the outside. This was used for thoroughly mixing the contents of the chamber just before firing the charge. At a short distance from the apparatus a large meter received the fire-damp direct from the face of the workings. From this a definite quantity of the gas was measured into the chamber. Previous experiments had proved that the most dangerously explosive mixture obtainable resulted from the addition of 10 per cent of fire-damp to ordinary air. To approach the conditions under which shots are fired in the mines, and increase the liability of ignition, a couple of shovelfull's of coal-dust were thrown in, and the whole contents thoroughly mixed by means of the fan. All being in readiness, the shot was fired from a distance by means of an electric battery.

The result of the first charge—8 oz. of *carbonite*, a new explosive—was a loud report, the coal-dust blown out, but no flame. Under precisely similar conditions, charges of the same quantity of ordinary blasting-powder, *roburite*, *ammonite*, miners' patent safety explosive, dynamite, and *securite*, were successively tried, and the result in each and every case was a violent report, with a belching sheet of flame, the most vaunted, if anything, being the worst. A heavier charge of carbonite was then fired, with a result equally as good as in the first trial. The manager stated that in only one instance out of seventy-two tests with the explosive was the gas ignited. The inventor claims that carbonite, at the moment of explosion, does not raise the temperature sufficiently high to ignite the fire-damp, which requires a temperature of about 3,000 degrees to ignite.

New South Wales coal workings have been, so far, comparatively free from fire-damp, but in the most northern extension of the Southern Coal-field, as the depths of the workings increase, this gas is making freely, and will have to be guarded against. The value, therefore, of the above satisfactory tests of a safety explosive cannot be over-estimated.

At the Great Western Colliery, which was next visited, the small coal or slack is washed, and converted into coke. In the process of washing, a division is established between the coal and shale particles by means of small fragments of felspar, the specific gravity of which is slightly greater than that of coal, and less than that of shale. The sucking, pulsating action of the water in the washing machines sorts the particles into layers, according to their specific gravities, whilst the finest particles, or mud, pass through the screen at the bottom.

The washed coal is charged into coking ovens, and ignited by means of gas—the volatile product of previous charges. The coke is discharged from the ovens by means of a small ram, worked by a donkey-engine running on rails at the back of the coke ovens, and is cooled by a jet of water. The resulting coke presents a short dense appearance, very unlike the long fibrous character of most New South Wales cokes; the greater density of the former being probably the secret of its bearing a greater furnace burden.

The hauling machinery at Harris' Deep Navigation Colliery, which was also visited, is reported to be the most powerful of its kind in England; indeed, all the appliances connected with this mine are of the finest description, and designed for strength, safety, and economy of labour. From the great depth of 2,130 feet the cage is raised, when loaded with coal, in one minute, and in one minute and a half when the miners are being brought up. The gross weight of the rope and cage, with two skips of coal, is 20 tons, viz., wire rope, 8 tons; cage and skips, 6 tons; and coal, 6 tons.

At Llanbradach, where a shaft was being sunk for coal-mining, a simple, but ingenious, method of raising water was adopted by the contractor, Mr. Galloway. A closed cylindrical barrel, about 10 feet high, with a holding capacity of about 600 gallons, was lowered to the bottom of the shaft as required, and connected by means of tubing, with an empty boiler on the surface, from which the air was exhausted by means of an air-pump, worked by the driving-engine. When connection was made between this vacuum and the barrel by means of the tubing, great suction was induced by the relief of pressure, and the water rose rapidly in the barrel through an inward opening valve at the bottom, until it was filled, though the height of the vessel was several times greater than that of the water in the shaft.

At Cardiff and Swansea, patent fuel works were visited. The manufacture of patent fuel or briquettes from small coal or "slack" is a most important industry, whereby the loss in coal-winning is greatly minimised, and which must eventually be of great value in this Colony, where as yet the small coal or slack is of little value, and where coal-seams in remoter coal-fields remain undeveloped, even for local purposes, owing to the occurrence in them of numerous bands precluding the use of the coal as fuel in the ordinary way. In the United Kingdom, and on the Continent, the "slack" finds ready sale to the patent fuel manufacturers. It is first screened to separate the "nuts" (which are sold to bakeries, &c.), then washed, excepting where the coal has been derived from a clean, friable, bituminous seam—like one at Swansea, worked entirely for this purpose. It is afterwards ground to a rough powder, Carr's disintegrators being used in the case in point, and then mixed with from 8 to 10 per cent. of pitch, according to the quality of the coal. This mixture, or "duff," is heated in some works by super-heated steam, in others by dry-heat; the pitch becoming softened by the heat is ready to bind the particles. The heated "duff" is next raised by means of scoops on an endless elevator chain, and fed into an upright cylindrical receiver, the bottom of which is over a revolving press, with a number of moulds, somewhat resembling a pugmill. Each of the moulds is filled as it is brought under the cylinder by a jerking rotatory motion. Tracing the progress of the material in one mould, the succeeding movement brings it over a hydraulic press, which exerts a pressure of 100 tons, converting the duff into a solid symmetrical block; the next movement forces it half out of the mould, and the following sees it swept off the press on to the step of an elevator or into a shoot, in the latter case, endless cable wires traverse the shoot or groove, and carry the single briquettes to the cooling sheds or platforms, from which the trucks or barges are filled. The whole process of filling, compressing, discharging, and delivery, is automatic and continuous. Upwards of 1,000 tons of briquettes per day were being turned out at one establishment visited at Swansea. The briquettes are made of various sizes, from 7 lb. to over 20 lb. in weight. They are largely exported to the Continent and India for steam and household purposes. Owing to their symmetrical shape, a greater weight can be stowed in a given space than in the case of ordinary coal; and when properly made will resist breakage in handling better than the latter.

At Cardiff, a machine for testing the hardness of briquettes was inspected; it consisted of a revolving barrel, formed of iron bars, about 3 inches apart; into this a given weight of broken briquettes was placed, and the barrel revolved for a set time, the resulting slack escaping through the open bars, it was then re-weighed, and the loss noted, which was about 10 per cent. in the case in question. The fracture of the fuel thus tested in our presence was as clean and bright as the best steam coal.

At Swansea I was enabled to visit a copper smelting works, but as the process in use was identical with the ordinary method of reduction adopted in the Colony, there was nothing special to note. At the Spelter or Zinc Reduction Works, next visited, I noted that the ore chiefly used was the sulphide, zinc blende, or "Black Jack," of the miners. It is first roasted in conical heaps in the open to get rid of the bulk of the sulphur, then ground very fine, and re-roasted to expel the remaining sulphur as completely as possible, the desideratum being to leave not more than 1 per cent. in the ore. It is next mixed with calcined and ground calamine (carbonate of zinc), flue dust, and small coal, and charged into earthenware retorts, about 6 feet long, with an internal section of about 9 by 7 inches. One end of each retort is closed, to the other is luted an earthenware nozzle at a downward angle. The retorts are placed in double rows in the furnace, one above the other, with intervals between; they are heated at a low temperature—gas being the fuel used. At first the remaining sulphur and the carbonic acid gas are given off, a certain waste of zinc oxide afterwards follows, then the metal runs down into receptacles placed to receive it.

I was also privileged to witness the interesting process of manufacturing commercial tin plates from the first stage of converting pig-iron, iron scrap, and iron ore, into steel, by the Siemens-Bessemer process—gas being the fuel used—to the final process of dipping the thin iron plates into the bath of molten tin, the thickness of the tin coating being regulated by the number of dips—one dip only being the usual practice. The surface of the iron is prepared for greater affinity for the tin by a preliminary bath of palm oil.

Cardiff is credited with the largest coal export of any port in the United Kingdom, 11,075,996 tons of coal being shipped during 1883; and consequently its dockage and shipping facilities are on a correspondingly liberal scale. To the observer from Australia, a glimpse is obtained of what must eventually be the destiny of our port of Newcastle, some notes therefore on the above may not be out of place.

The

The Bute Docks, consisting of the West Dock, the East Bute Dock, the Roath Dock, and Roath Basin, have a united area of 109¼ acres, and a quayage of about 5 miles. Each dock is approached by a lock, varying in length from 200 to 600 feet. At frequent intervals on the quays hydraulic cranes for loading and unloading are stationed.

The Barry Docks at Penarth, embrace an area of 73 acres, tidal basin 7 acres, and timber pond 24 acres, total, 104 acres; and a quayage of 2 miles; with a depth of water 37 feet at spring, and 29 feet at neap tides. At both Bute and Barry Docks, are huge graving and floating docks, capable of accommodating the largest vessels.

At frequent intervals on the Barry Dock Quay, are erected coal tips on a level with the railway lines, at a considerable elevation above the water. As the loaded waggons, each containing about 10 tons of coal, are run separately on to a movable stage, at the edge of the dock, hydraulic power is set in motion, which tilts the waggon to an extreme angle, and discharges the coal down a shoot into the hold of the vessel being loaded; the stage is also raised or lowered before tilting to suit the position of the ship as the tide rises or falls. In other instances enormous cranes move on rails along the quay so as to load into the different holds without moving the vessel.

At the Bute Docks a special tip for brittle coal was inspected: the coal was first tipped from the coal truck into a large hopper beneath the level of the truck lines; this was then lifted, carried over the vessel, and lowered right into the hold by a travelling crane; but the advantage claimed for this mode of tipping was hardly apparent, as it necessitated two discharges, though certainly the discharging of the hopper in the hold of the vessel is not likely to cause much breakage.

During my stay in Glasgow through the courtesy of the Proprietary I was enabled to visit the Tharsis Copper Reduction Works. The Spanish ore treated at these works consist chiefly of iron pyrites with a percentage of copper pyrites equal to about 3 per cent. of metallic copper; the sulphur being equal to from 46 to 48 per cent.; very small quantities of gold and silver are also present. The ore is first roasted at the Sulphuric Acid Works, in the immediate vicinity, to obtain the sulphur, about 4 per cent., however, being purposely left in the calcined ore; it is then mixed with 16 per cent of salt and charged into roasting furnaces in charges of about 3½ tons exclusive of the salt. The furnaces are known as blind muffles, the charge being within a central brick oven out of contact with the flames. The roasting continues for about ten and a-half hours. The fumes are led from the muffles into towers containing coke, over which water is constantly trickling, which absorbs the gases given off. A small proportion of gold is carried down in the acid solution, and is precipitated along with the other metals present by a small quantity of sulphide of calcium, which is allowed to trickle into the solution at the points where it issues from the base of the towers into the settling vats. The clear acid solution, which contains about 30 grains of copper per gallon, is in part used for washing the roasted ore, the balance being treated with scrap iron to precipitate the copper.

The roasted ore is thrown into vats and hot water pumped on to the top, as it percolates through the mass it dissolves the soluble copper salts formed by roasting; the copper solution passes through the filter bottom into the adjoining compartment. The ore is then discharged into another vat and rewashed, the weak solutions being constantly charged into the ore vats until they reach a certain strength. The gangue is washed until no appreciable quantity of copper is left; the completely decopperised gangue (oxide of iron) is known as "blue-billy," and is sold to the iron foundries for fettling purposes. The strong copper solution is pumped into vats and treated with iodide of zinc to precipitate the silver, the solution is after a time drawn off and treated with iron scrap to precipitate the copper in the metallic state; the resulting copper scale is washed and then smelted into ingots in the ordinary way.

The precipitates obtained with the sulphide of calcium and iodide of zinc are sent to Birmingham for treatment. In the above interesting and economic process there is, therefore, no waste, all the commercial constituents of the ore being extracted. It should be possible of adoption in this Colony where poor sulphide ores abound; the increased cost of salt here, as compared with Glasgow, might be balanced by a two or three per cent richer ore.

At the Pollock Chlorination Process for the extraction of gold, which was also visited, the ore is crushed in an ordinary breaker, Robey's being preferred, then passed through rolls, and through a screen of preferably thirty holes to the square inch; if not pyritous the screened ore is next fed into a long, inclined, slowly revolving cylindrical furnace lined with firebrick, which is heated by gas; the particles occupy about fifteen minutes in passing through this furnace which is sufficient to drive off all moisture. Pyritous ores are mixed with salt and roasted from ten to twelve hours at present in an ordinary reverberatory furnace.

The roasted ore in each case is spread on the cooling floors, and afterwards mixed with 1½ per cent. of salt cake (sulphate of soda) in preference to sulphuric acid, and 60 lb. of chloride of lime to the ton, and charged into the chlorinating barrel or vat; the charge being 2 tons, and quite filling the vat; water is then forced in until the pressure reaches 100 lb. to the square inch. The barrel is then revolved for one and a-half hours. The contents are then discharged into a filter tank beneath; the solution being drawn off from the bottom into settling tanks where the gold is precipitated by ferrous sulphate—30 lb. of the latter being used to the ton of ore treated. When the solution contains copper the latter is precipitated from the waste liquor by scrap or pig-iron.

Ores containing over 5 per cent of lead, copper, or zinc are more difficult and less satisfactory in treatment as regards results.

At the Cassells Cyanide Gold Extraction Works the ore is crushed in stone breakers, and afterwards passed through a mill resembling a Huntingdon Mill; it is then charged into vats holding about 1 ton of ore, and treated with a 1 or 1½ per cent. cyanide solution—cyanide of potash being the salt used. In about one hour the liquor is drawn off into a settling vat in which zinc-sponge is placed, which precipitates the gold and silver; the waste liquor is brought up to the proper strength by the addition of a further supply of cyanide, and used for the next charge. It is claimed for this process that the gold and silver can be extracted direct from raw iron pyrites and other refractory ores without the need and cost of roasting, which is one of the largest items of expenditure in the treatment of pyritous ores.

Mining and Geological Museum.

In accordance with verbal instructions from the Honorable the Minister for Mines and yourself, I availed myself of every opportunity during my recent visit to England in connection with the late International Exhibition of Mining and Metallurgy, of visiting museums for the purpose of ascertaining the best methods of arrangement, in view of fitting up a proper Mining and Geological Museum at an early date.

The museums visited were the British Museum at Bloomsbury, the Natural History Section of the latter at South Kensington, the South Kensington Museum of Science and Art, the Jermyn-street Museum, the Royal School of Mines Museum, the Glasgow University Museum, the Edinburgh Museum, and the museums at Naples and Colombo.

Of the above the Natural History Section of the British Museum is undoubtedly the finest of its kind, but as regards the classification of specimens, is, perhaps, too far advanced, and too scientific to serve as a model for the contemplated museum; the style of wall and table cases, mounting and setting up of specimens, labelling, &c., however, cannot well be surpassed, and forms an admirable example to follow. Measurements of the show-cases, and samples of mountings, holders, labels, &c., were generously provided me by Dr. Woodward and Mr. Etheridge, of the museum.

The system of classification and arrangement adopted in the Jermyn-street Museum is, in my opinion, best suited for a practical working museum in connection with the Geological Survey and proposed metallurgical works in this Colony. The collections in this institution are arranged on a teaching basis in connection with the Royal School of Mines, of which it once formed a part. The minerals are grouped according to locality, and the fossils according to stratigraphical position. The latter in the Natural History Museum being grouped and classified partly according to zoological order.

The system in vogue in the Jermyn-street Museum, has, as far as our limited opportunities would allow, already been adopted in our temporary museum and in exhibition collections.

It is unnecessary to particularise the modes of arrangement in the other museums visited, a selection from each of the methods adopted in the two institutions mentioned being, in my opinion, most suited for the requirements of the proposed museum. In nearly everyone of the above, however, I noted something in the detail arrangements likely to be of value in fitting up specimens.

In addition to the museums described I have on previous occasions visited others in Melbourne, Adelaide, Hobart, Dunedin, Christchurch, Wellington and Auckland.

From a careful study of the geological contents of the whole of the above, I am confident that New South Wales could from her own resources fit up a museum second only in importance to the Natural History Museum of London. Yet, as compared with the extent and importance of the mineral resources of each of the countries possessing the above institutions, New South Wales is the most inadequately supplied in the matter of museum space devoted to this subject. Outside her borders at exhibitions, the Colony challenges the world for comparison with the variety and richness of her mineral wealth; and erroneous impressions are frequently formed, on such occasions, of the extent and importance of the Mining and Geological Museum, from which most of the exhibits are taken. It is humiliating to meet within the restricted, unweathertight iron shell serving as a museum, visitors who have gauged its importance from the magnificent displays at exhibitions, which liberal provision of space and money have brought together to the credit alike of the Colony and the Department entrusted with the duty of representation, to say nothing of the satisfaction of those intrusted to carry out the practical work of collection, preparation, and arrangement, who regard the success of such opportunities as an evidence of what could, and I venture to think, should, be done within the Colony did but opportunity offer.

The Laboratory.

During the year numerous samples were submitted to the Department for examination and assay, of these 3,323 were selected for treatment in the laboratory. By the close of the year 3,219 were completed, and the balance early in January. The following is a summary of the work performed in connection therewith:—

Separate tests for Metals.

Gold	3,084
Silver	3,083
Tin	18
Lead	25
Copper	26
Bismuth	7
Antimony	21
Iron	20
Chromium	6
Manganese, Nickel, Cobalt	24
Platinum	5
Mercury	1
Lime	7
Total	6,327

Complete and partial Analyses.

Coal	42
Coke and coke ashes	20
Shale	26
Iron	45
Limestone	4
Water	6
Miscellaneous substances	34
	177

By direction of the Honorable the Minister for Mines, a number of analyses were made of cokes manufactured within the Colony, and of the ash derived from each, with a view of ascertaining their suitability for smelting purposes. The results of this important investigation, with notes, and a tabulated statement of the composition of the coals of the Colony, as determined by analyses made in the laboratory, forms the subject of a special report by the Assayer and Analyst, Mr. J. C. H. Mingaye, F.C.S. [*See Appendix No.* 7 A.]

Nine samples of iron ores from New Caledonia were also analysed for the purpose of determining whether they could be profitably utilised in connection with New South Wales iron ores for iron smelting. [*See Appendix No.* 7 B.]

During my recent visit to England I had opportunities of visiting several laboratories connected with scientific and educational institutions, and am of opinion that the Departmental laboratory bears very favourable comparison with the best of them, in some respects surpassing, particularly as regards accommodation, cleanliness, and order.

The

The correspondence in connection with the assay work, necessitated the preparation of over 2,450 letters, in addition to the ordinary official registration of the samples and returns. The identification of samples received by post, train, or steamer, frequently occupies a considerable amount of time, owing to the omission of the senders to properly mark their samples. My assistant, Mr. E. Whittel, and the temporary assistant, Mr. Fraser, are deserving of credit for keeping this work so well in hand during my long absence, in addition to other office routine work.

Mr. G. A. Stonier, Geological Surveyor, in addition to general assistance rendered during my absence, prepared a representative collection of minerals and fossils for the Ballarat Juvenile Exhibition, now open to the public. Small displays were also made at several local shows in this Colony.

The collector, Mr. Charles Cullen, during the year, added a number of useful collections to the general stock, but which, from want of sorting room, are still packed up.

Appendix No. 6 C, gives the list of donations to the Mining and Geological Museum.

Library.

The donations to the library have been numerous during the year, as will be seen by the list of books received (*See Appendix No. 6 D*). At the close of the year, with your permission, Mr. R. Etheridge, Palæontologist, took charge of the Library. That officer's vast knowledge and experience of library work, gained at the British Museum, renders him most competent for the position of Librarian. This change will also enable me to more effectually cope with the numerous other duties intrusted to me.

I have, &c.,

JOSEPH E. CARNE, F.G.S.,

Curator and Mineralogist.

APPENDIX No. 6A.

Collections of New South Wales minerals prepared and presented to the following, at the Mining Exhibition, London, 1890, by direction of the Geological Director, Mr. C. S. Wilkinson, F.G.S., F.L.S., Government Geologist:—

Cameron Institute, Cornwall.
Hunt Memorial Museum, Cornwall.
Sheffield Museum.
Sardinian University and other Institutions, per the representative of Sardinia.
Royal Science Schools, South Kensington.
New Mining and Science Schools, Penzance, Cornwall.
Mexican Government, per representative of Mexico.
South Australian Government, per representative of South Australia.
South African Government, per representative of South Africa.
City and Guilds of London Institute for the advancement of Technical Education.
Metal Market and Exchange Company, London.
Novelli and Co., in exchange for Spanish ores, 4, Eastcheap, London, E.C.
J. A. Osborne, 66, Grove Road, Eastbourne, Surrey, Exchange.
A. E. Thomas, Redruth, Cornwall, Exchange.
B. Kühn, 36, St. Mary-at-Hill, London, E.C., Exchange.
E. W. Newton, Camborn, Cornwall, Exchange.
Pritchard Morgan, M.P., Queen Victoria-street, London, E.C., Exchange.
D. C. Glen, Glasgow, Exchange.
J. Wickett, Redruth, Cornwall, Exchange.
Police Orphanage Schools, Peckham London.
Royal Normal College for the Blind, Norwood.
Engineering School, Crystal Palace.
Hayes' School, near Beckenham, Kent.
Headquarter's School, Heybridge.
Board School, Glascote, Tamworth.
W. Wallace, Audit's Office, Euston Square.
J. Duff.
Ellis Cullan, Eveleigh-street, Tollington Park.
British Museum (Nat. Hist.), a few selected specimens.

NOTE.—In addition to the above, numerous small specimens were distributed from the bulk exhibits to persons interested in the different ores exhibited.

APPENDIX No. 6B.

Collections prepared at the Mining Museum for the following Institutions:—

Melbourne National Museum—Collection of Triassic fish from Gosford.		
Queensland Museum, Brisbane	,,	,,
Townsville, Geological Survey Museum	,,	,,
Adelaide University Museum	,,	,,
New Orleans, per United States Consul—Collection of minerals.		
Exhibition Trustees, Melbourne	,,	,,
Gordon Technical College, Geelong	,,	,,
Vancouver City, per D. Oppenheimer	,,	,,
School of Arts, Kogarah	,,	,,
School of Arts, Bowral	,,	,,
St. Joseph's College, Hunter's Hill	,,	,,
Warden's Office, Barmedman	,,	,,
Town Council, Hill End	,,	,,

APPENDIX No. 6c.

DONATIONS to the Mining and Geological Museum during 1890.

Donor.	Donation.	Locality.
Mr. J. P. Abbott, M.P.	Agates	Tweed River.
Mr. S. Barrett	Auriferous grit	Johannesberg, Transvaal, South Africa.
Mr. Best	Malachite	Lismore district.
Mr. E. H. Becke	Scheelite with cervantite and stibnite	Hillgrove.
Messrs. Binstead & Palmer	Mica	Binstead and Palmer's Mica Association, Hart's Ranges, Macdonell Ranges, Central Australia.
Mr. Blaxland	Garnets	Grafton district.
Mr. J. Buckett	Blue carbonate of copper	Cobar.
Mr. Butler	Topazes	Emerald Mine, New England.
Mr. W. Caswell	Quartz showing free gold	Gibson's Lease, Peak Hill.
,,	Ferruginous quartz showing free gold	Peak Hill.
Mr. C. A. Chesney	Quartz with chloride of silver and free gold	Chesney Cobar Mine, Cobar.
Mr. H. Copeland, M.P.	Stalactitic limonite	Near Mittagong.
Rev. Father Curran	Plant impressions	8 miles south of Dubbo.
Mr. D. Donaldson	Collection of fossils	Currabubula, near Tamworth.
Mr. J. D. Donnelly	Diabase porphyrite	Cowra.
Mr. B. Finkermagel	Lepidodendron and other plant remains	Near Barraba.
Mr. J. Foster	Antimony ores	Portugal.
Mr. Ch. Garland, M.P.	Yellow gossan with cerussite	Broula, near Cowra.
Mr. C. H. Givney	Ilmeno-rutile	Uralla.
Mr. D. C. Glen	Collection of minerals	Great Britain.
Mr. J. Hood	Dendrites	Near Gulgong.
Mr. Icely	Jasper	Lord Howe Island.
Mr. J. Jagger	Paper-weight of black marble with fossils	Windellama.
Mr. J. E. Kelly	Auriferous ferruginous quartz	Peak Hill.
Mr. B. Kühn	Collection of minerals	
Mr. F. Mackinson	Lode tin ore	Tumbarumba.
Capt. Maher	Zinc blende, copper pyrites, and mispickel	Bethangra Mine, Victoria.
,,	Diamond drift and associated rocks	South Africa.
Mr. J. O. M. Manly	Pseudomorphs of limonite after pyrites	Narellan.
Mr. S. Marsden	Bornite	Burley Jackey Mine, near Woodstock.
Mr. M'Ewan	Auriferous quartz	Oban River, County Clare.
Mr. M'Glew	Quartz with tinstone and schorl	Bendemeer.
Mr. D. M'Rae	Auriferous ferruginous quartz	Gorman's Lease, Peak Hill.
Mr. T. M'William	do quarts	Berricoe Creek, Gloucester district.
Mr. T. E. Mills	Lode tin ore	Ben Lomond, Tasmania.
Mr. S. W. Moore	Quartz with tin oxide	Glen Lindale, near Irvinbank, 75 miles from Cairns, Queensland.
Mr. P. Morgan, M.P.	Auriferous quartz	North Wales.
Mr. R. S. Nelson	Wolfram	New England.
Mr. E. W. Newton	Collection of minerals	Camborn, Cornwall.
Mr. Nicholson	Green fluorite and sandstone with ferruginous veins	Shoalhaven River.
Messrs. Novelli & Co.	Collection of ores	Spain.
Mr. J. A. Osborne	do of fossils	
Mr. W. C. Proctor	Hornblende	Oakland, New England.
,,	Gold and silver ores, &c.	Various localities.
Representative of Mexico at Mining Exhibition, London.	Collection of minerals	Mexico.
Representative of Sardinia at Mining Exhibition, London.	do do	Sardinia.
Representative of South Africa at Mining Exhibition, London.	do do with maps and sections	South Africa.
Representative of South Australia at Mining Exhibition, London.	Collection of minerals	South Australia.
Representative of Western Australia at Mining Exhibition, London.	do. do.	Western Australia.
Mr. P. Richardson	Auriferous mispickel	Mount Pigott, Nambucca River.
Mr. Rigaut, L.S.	Bones of diprotodon	Narrabri.
Mr. G. J. Rivers	Porous ferruginous quartz, showing free gold	Long Gully, Drake.
Mr. R. W. Saddington	Chloride of silver	Lubra Silver-mine, Purnamoota.
Mr. J. C. P. B. Seaver, M.P.	Siliceous sinter	New Zealand.
Mr. G. Smith	Crystalline quartz, with stibnite	Eleanora Gold and Antimony Mine, Hillgrove.
Mr. H. E. Southey	Prismatic sandstone	Jelloco, county Camden.
Dr. Storer	Garnets in matrix	Mount Macdonnell, Central Australia.
,,	Chrome iron	New Caledonia.
Mr. J. Tarrant	Opal in matrix	Queensland.
Captain J. Thomas	Tin ores, photographs, &c.	Dolcoath, Cornwall.
Mr. A. E. Thomas	Collection of minerals	Cornwall.
The Curator, Sheffield Museum	Collection of fossils	
Mr. J. E. Tonkin, M.P.	Ironstone concretion	Capertee.
Tregurtha Downs Tin Mining Co.	Tin ores	Company's Mine, Cornwall.
Mr. E. Vanzetti	Ferruginous quartz with galena	Melrose.
,,	Galena	do
West Kitty Tin-mining Co., per F. W. Thomas, Esq.	Tin ores, and show-case of specimens, showing dressing	Company's Mine, Cornwall.
Mr. J. Wickett	Collection of minerals	Cornwall.
Mr. W. Wiley	Coal	Great Wollongong Coal-mine, Illawarra.
Rev. C. E. Williams	Tomahawks (aboriginal's)	Between Nymagee and Hillston, and from Narrabri.

APPENDIX No. 6D.

DONATIONS to the Library of the Mining and Geological Musem during 1890.

Author.	Title.	Donor.
Barnett A. K.	Observations on t' e Elvan Courses, Greenstones, and Sandstones of Cornwall, with remarks on their associated minerals.	Mr J. H. Collins, F.G.S.
Barrois C.	Faune du calcaire d'Erbray	The Author.
Bennie J. and Scott T.	The Ancient Lakes of Edinburgh...	,,
Carpenter P. H.	On Certain Points in the Anatomical Nomenclature of Echinoderms.	,,
Clarke Rev. W. B.	Plain Statements and Practical Hints respecting the Discovery and Working of Gold in Australia.	Mr. C. Mayes.
Collins J. H.	Sketch of the Geology of Central and West Cornwall.	The Author.
,,	Note on the Occurrence of Stanniferous Deerhorns in the Tin Gravels of Cornwall.	,,
,,	On the Nature and Origin of Clays	,,
,,	Notes on the Great Mother Lode of California	,,
,,	Preliminary Note on Penwithite, a new Cornish mineral	,,
,,	On the Geological History of the Cornish Serpentinous Rocks.	,,
,,	On the Serpentine and Associated Rocks of Porthalla Cove.	,,
,,	On the Sudbury Copper Deposits	,,
,,	On the Geology of the Rio Tinto Mines, with some general remarks on the pyritic region of the Sierra Morena.	,,
,,	Recent mineralogical analysis from the Laboratory of the Royal Institute of Cornwall.	The Author.
,,	Note on the supposed serpentine of St. Veep	,,
,,	Proposals for increasing the usefulness of the Mines Association.	,,
,,	On Cornish tin-stones and tin-capels	,,
,,	On the minerals of the Rio-Tinto Mines	,,
Collins & Collins (H. F.)	The geological age of Central and Western Cornwall	The Authors.
Davis (A. T.)	The phenomena of heaves or faults in the mineral veins of St. Agnes, Cornwall.	Mr. J. H. Collins, F.G.S.
Dawson (Sir J. W.)	On fossil plants from the Mackenzie and Bow Rivers ...	The Author.
,,	New species of fossil sponges from the Siluro-Cambrian, at Little Metis, on the Lower St. Lawrence.	,,
,,	Air-breathers of the coal period. A descriptive account of the remains of land animals found in the coal formation of Nova Scotia.	,,
,,	Canadian and Scottish Geology	,,
,,	Revision of the land snails of the Palacozoic Era, with descriptions of new species.	,,
,,	On the Fossil Plants of the Laramie Formation of Canada.	,,
,,	Some points in which Geological Science is indebted to Canada.	,,
,,	Note on fossil woods and other plant remains from the Cretaceous and Laramie Formations of the Western Territories of Canada.	,,
,,	On new plants from the Erian and Carboniferous; and on the characters and affinities of Palacozoic Gymnosperms.	,,
,,	Specimens of Eozoon Canadense, and their geological and other relations.	,,
,,	On the fossil plants of the Erian (Devonian) and Upper Silurian formations of Canada. Part II. 1882.	,,
,,	On Rhizocarps in the Erian Devonian period in America.	,,
,,	On the Eozoic and Palaeozoic rocks of the Atlantic coast of Canada, in comparison with those of Western Europe and of the interior of America.	,,
,,	On new tree ferns and other fossils from the Devonian...	,,
,,	Remarks on recent papers on the Geology of Nova Scotia.	,,
Dawson & Penhallow (Prof.)	On the Pleistocene Flora of Canada	The Authors
,, ,,	On the Cretaceons and Tertiary Floras of British Columbia and the North West Territory.	,,
,, ,,	On the results of recent explorations of erect trees, containing animal remains in the coal formation of Novia Scotia.	,,
,, ,,	On Nematophyton and allied forms from the Devonian of Gospé.	,,
Delgado (J. F. N.)	Relatorio ácerca da decima sessão de Congresso Internacional de Anthropologia e Archeologia Prehistoricos	The Author.
Feistmantel (W. E. O.)	Ubersichtliche darstellung der Geologischpalaeontologischen vertraltorisse Süd Afrikas. 1 Theil. Die Karoo-formation und die dieselbe unterlagernden schichten.	,,
Fontames (F.)	Note sur la découverte d' un unio plissé dans le Miocène du Portugal.	,,
,,	Note sur quelques gisements nouveaux des Terrains Miocènes du Portugal et description d' un portunien du Genre Achelous.	,,
Helland (A.)	Lakis Kratere og lavastromme	,,
Hutton (Prof. F. W.)	Report on the Tarawera volcanic district	,,
Jack (R. L.)	On some salient points in the Geology of Queensland ...	,,
Krause (F. M.)	The Biggenden Mine, Degilbo, Queensland	,,
Kidston (R)	Additional notes on some British Carboniferous Lycopods	,,

APPENDIX No. 6c.—*continued.*

Author.	Title.	Donor.
"Lumacus"	The Island of Lord Howe; the Madeira of the Pacific...	The Author
Mitchell (J.)	The Geological Sequence of the Bowning Beds	,,
,,	Notes on the Geology of Bowning	,,
,,	On some new Trilobites from Bowning	,,
,,	On a new Trilobite from Bowning	,,
Peach (B. N.) and Horn (J.)	The Old Red Sandstone of Orkney	,,
,, ,,	The Glaciation of the Shetland Isles	,,
,, ,,	The Glaciation of the Shetland Isles: Reply to Mr. Milne Home's criticisms, in the May number of the *Geological Magazine*, 1881.	,,
,, ,,	The Glaciation of Caithness	,,
,, ,,	The Glaciation of the Orkney Islands...	,,
Peach (B. N.), Horne (J.), Gunn (W.), Clough (C. F.), Hurymman (L.), and Cadell (H. M.).	Report on the recent work of the Geological Survey in the North-west Highlands of Scotland, based on the field-notes and maps of the authors.	,,
Penhallow (D. P.)	Notes on the Devonian Plants	Sir J. W. Dawson.
Reush (H.)	Bommelœn og Karmoen med omgivelser geologish beskrevne.	The Author.
Ribeiro (C.)	Des formations Tertiaries du Portugal	,,
Ricketts (C.)	On some physical changes in the Earth's Crust	,,
Sacco (F.)	Note di Paleoienologia Italiana	,,
,,	Le Ligurien	,,
,,	Intorno ad alcune impronte organiche dei terreni Terziari del Piemonte nota.	,,
,,	On the origin of the great Alpine Lakes	,,
,,	Classification des Terrains Tertiarires conforme a leurs facies.	,,
,,	Un coin intéressant du Tertiarire d'Italie sur la position stratigraphique des charbons fossiles du Piemont.	,,
,,	La caverna ossifera del Bandito in val jesso	,,
Ulrich (E. O.)	Waverley Bryozoa	,,
Whiteaves (J. F.)	Descriptions of eight new species of Fossils from the Cambro-Silurian rocks of Manitoba.	,,

REPORTS, SERIALS, &c.

Belgium.

Fondation Teyler	Catalogue de la bibliothéque, 1885 to 1889	The Secretary.
Musée Teyler	Archives, 1867 to 1889	,,
,,	,, Series 2, vol 3, quatrième partie, 1890	,,
Société Belge de Geologie de Paleontogie and d'Hydrologie	Troisième année, tome 3, fase IV to VI, 1889	,,
Société Royale Malacologique de Belgique.	Annales, tome xxiii, 1888	,,
,, ,,	Procès-verbaux, 1 er Juillet, 1 er Decembrh, 1888; and 5 Janvier, 7 Juillet, 1889.	,,

Canada.

Canadian Institute	Annual Report, 1887-9	,,
,,	Proceedings, Vol. 6, fasc. No. 2, 1889	,,
	,, Vol. 7, fasc. No. 1, 1889.	
	,, Vol. 25, No. 153, fasc, No. 2, 1890.	
Geological and Natural History Survey.	Contributions to the Micro-Palaeontology of the Cambro-Silurian rocks of Canada, Part II, 1889. By E. O. Ulrich.	The Director.
,, ,,	Annual Report, vol. 3, Parts 1 and 2, 1887-88	The Secretary.

Cape of Good Hope.

Department of Crown Lands and Public Works.	Report of the Geological and Irrigation Surveyor for 1889.	,,
,, ,,	Report of the Inspector of Mines, Knysna, for 1889.	,,
,, ,,	Reports by the Inspectors of Diamond Mines in the late province of Griqualand West for 1889.	,,

France.

Des mines	Annales. Tome XV-XVII, 1889-90	,,
Ministère des Travaux Publics	Statistique de l'Industrie Minérale et des appareils à vapeur en France et en Algérie, pour l'année, 1887.	,,

Germany.

Bergens Museum	Aarsberetoring. 1888	,,
Geologischen Reichs-Museums in Leiden.	Sammlungen. Nos. 18-20, 1889-90	,,
Naturhistorischen Vereines der Preussischen Rheinlande Westfalens.	Verhandlungen. Zweite halfte, 1889; Erste halfte, 1890.	,,
Vereines fur Erdkunde zu Leipzig	Mittheilungen. 1888 and 1889	,,

Great Britain.

British Museum (Natural History)	Catalogue of the Fossil Reptilia and Amphibia. Parts 3 and 4. 1889-90.	The Trustees.
,,	Guide to the Galleries of the Department of Geology and Paleontology. Parts 1 and 2. 1890.	,,
Edinburgh Geological Society	Transactions. Vol. VI, part 1. 1890	The Secretary.

APPENDIX No. 6c.—*continued.*

Author.	Title.	Donor.
Geological Society	Quarterly Journal. Vol. XLVI, part 1, No 181. 1890	The Secretary.
Home Office	Explosion during illegal manufacture of quick-firing ammunition on the River Tyne No. lxxxix. 1890	,,
,,	Summaries of the statistical portion of the Reports of Her Majesty's Inspectors of Mines. 1890.	,,
,,	Mineral statistics of the United Kingdom of Great Britain and Ireland with the Isle of Man, for 1889.	,,
,,	Report of an inquiry into the suitability of the existing position of the Gunpowder Magazines on the River Mersey. 1890.	,,
,,	Report for the West Scotland District. 1889.	,,
,,	Report for the Newcastle District. 1889	,,
,,	Report for the Durham District. 1889	,,
Literary and Philosophical Society of Liverpool.	Proceedings. Nos. xli to xliii 1886-89	,,
Linnean Society	Journal. Vol. XX, Nos 124, 125. 1890. Vol. XXII, No. 145. 1890. Vol. XXVI, No. 174. 1890. Vol. XXVII, Nos. 181, 182. 1890.	,,
Leeds Philosophical and Literary Institute.	Annual Report. 1889-90	,,
Mining Association and Institute Cornwall.	Transactions. Vol. II, Part 2. 1889	,,
Mining Institute of Scotland	Transactions. Vol. XI, Parts 1 to 7. 1889. Vol XII, Parts 2-4. 1890.	,,
,, ,,	Report of the Committee on Coal-cleaning. 1889	,,
Manchester Geological Society	Transactions. Vol. XX, Parts 11 to 21. 1888-90	,,
Philosophical Society of Glasgow	Proceedings. Vol. XIX. 1887-8	,,
Royal Society of Edinburgh		
Royal Dublin Society	Scientific Proceedings. Vol VI, Parts 7 to 9. 1889-90	,,
	India.	
Geological Survey	Records. Vol. XXII, Part 4. 1889. Vol. XXIII, Parts 1 to 3. 1890. Vol XXIV, Part 2. 1890.	The Director.
,,	Memoirs. Series 13, Vol. IV., Part 1. 1889	,,
	Italy.	
Musei di Zoologia ed Anatomia Comparata della R. Università di Torino.	Bollettino. N. 86, Vol. V. 1890	The Secretary.
Società Africana d'Italia	Bollettino. Anno VIII, Fasc 11-12 1889 Anno IX, Fasc I-VI. 1890.	,,
Società Toscana di Scienze Naturali.	Processi verbali. Vols. VI-VII. 1889-91	,,
,, ,,	Memorie. Vol. X. 1889	,,
	Japan.	
Imperial Mining Bureau	Mineral Map of Japan	The Director.
	New South Wales.	
Australian Museum	Report for 1889	The Trustees.
,,	Records, Vol. I, Nos. 3 and 4, 1890	,,
,,	Guide to the Contents	,,
,,	Catalogue of Australian Birds. Part II, Striges	,,
,,	Supplement to the Catalogue of Australian Accipitres or Diurnal Birds of Prey, in the collection of the Australian Museum.	,,
Department of Public Instruction	Wattles and Wattle bark. By J. H. Maiden, F.L.S.	Mr. J. H. Maiden.
Department of Public Works	Hunter River Floods. By G. Gordon, C.E.	The Secretary.
Government Observatory	Results of Rain, River, and Evaporation Observations, made in N. S. Wales during 1889. H. C. Russell, B A., Government Astronomer.	The Government Astronomer.
,,	Results of Meteorological Observations made in N.S. Wales during 1888.	,, ,,
Linnean Society	Proceedings. Vol. IV, Parts III and IV, 1889, and Vol. V, Parts I and III, 1890.	The Secretary.
Royal Society	Journal and Proceedings. Vol. XXIII, Parts I and II, 1889.	,,
,,	Presidents' Address, May 7, 1890	,,
,,	Catalogue of the Scientific Books in the Library, Part I, General Catalogue, 1889	,,
Technological, Industrial, and Sanitary Museum.	Tenth and Final Report of the Committee of Management for 1889.	The Trustees.
	New Zealand.	
Colonial Museum and Geological Survey.	Twenty fourth Annual Report on the Colonial Museum and Laboratory, 1888-89.	The Director.
,, ,,	Reports of Geological Explorations during 1888-89	,,
,, ,,	Studies in Biology for New Zealand Students, No. 4. 1889	,,
,, ,,	Catalogue of the Colonial Museum Library, 1890	,,
Mines Department	Report on the Mining Industry, 1890	The Secretary.
New Zealand Institute	Transactions and Proceedings. Vol. XXII, 1889	,,
Survey Department	Report for the year 1889-90	,,
	Nova Scotia.	
Department of Mines	Report for 1888	,,

APPENDIX No. 6c.—*continued.*

Author.	Title.	Donor.
	Portugal.	
Commissão dos Trabalhos Geologicos de Portugal.	Communicacœs. Tom II, fasc I, 1888-9	The Secretary.
„ „ ...	Flora Fossil de Portugal. Monographia do Jenero Dicranophyllum (Systema Carbonico). W. de Lima, 1888.	„
Commission des Travaux Geologiques du Portugal.	Etude Géologique du Tunnel du Rocio, contribution à la connaissance du sous-sol de Lisbonne. Paul Choffat, 1889	„
„ „ ...	Description de la Faune Jurassique du Portugal. Embranchement de Echinodermes. P. de Loriol, 1890	„
	Queensland.	
Department of Mines	Annual Report. 1889 ...	„
„	Water Supply. Report of the Hydraulic Engineer. 1890.	„
Geological Survey	Annual Progress Report. 1883	The Government Geologist.
„	Taranganba Gold Mine. Report by R. L. Jack, Government Geologist.	„
„	Report on the Albert and Logan District. W. H. Rands, Assistant Government Geologist.	„
„	Mount Biggenden Bismuth Mine, Gibangle, and the Mount Shamrock Mine.	„
„	Report on Geological Specimens from New Guinea ...	„
„	The Coal Measures, Neardie Antimony Mine and Tubar and Culgoa copper lodes, Tiaro District.	„
Royal Geographical Society, Queensland Branch.	Annual Report, 1889 ...	The Secretary.
„ „ ...	Proceedings and Transactions. Vol IV, 1889, and Vol. V, Parts 1 and 2, 1889-90.	„
	South Australia.	
Department of Mines	A record of the Mines of South Australia. H. Y. L. Brown, Government Geologist.	„
	Sweden.	
Sverige's Geologiska Undersökning.	Description de la formation Carbonifère de la Scanie. Par E. Ardmann.	„
„ „ ...	Beskrifning till karta öfver Berggrunden i norra delen af orebro law. Scr. Bb., No. 3 and 4. 1872–1889.	„
„ „ ...	Liste systematique des publications. 1890	„
	Tasmania.	
Office of Mines	Report on the state of the Mining Industry on the West Coast. By A. Montgomery.	„
	United States.	
American Geographical Society ...	Bulletin. Vol. 21, Parts 2 and 4, and title page and table of contents, 1889, Vol. XXII, Parts 1–3, 1890.	„
American Academy of Arts and Sciences.	Proceedings. Vol. XXIII, Part II, 1888	„
Bureau of Ethnology	Fifth and Sixth Annual Reports. 1883–8	„
„	Bibliography of the Iroquoiran Languages. J. C. Pilling. 1888.	„
„	Bibliography of the Muskhogean Languages. J. C. Pilling. 1889.	„
„	Textile Fabrics of Ancient Peru. W. H. Holmes. 1889	„
„	Problem of the Ohio Mounds. C. Thomas. 1889	„
„	Circular, square, and octagonal earthworks of Ohio. C. Thomas. 1889.	„
Cincinnati Society of Natural History.	Journal. Vol. XII, Nos. 1–4. 1889–90	„
California State Mining Bureau ...	Sixth to Ninth Annual Reports of the State Mineralogist. 1886–89.	The Director.
Davenport Academy	Proceedings. Vol. V, Part 1. 1884–89	The Secretary.
Geological Survey	Seventh Annual Report. 1885–86	The Director.
„	Bulletin. Nos. 48–53. 1888–89	„
„	Monographs. Nos. 13, 14, with Maps. 1888.	„
Geological and Natural History Survey of Minnesota.	Annual Reports, 16 and 17. 1887–88	„
„ „ ...	Bulletin. Nos. 1 and 5. 1889	„
Geological Society of America	The pre-Cambrian Rocks of the Black Hills. By C. R. van Hix. 1890.	The Secretary.
Iron and Steel Institute ...	Journal. No. II. 1889.	„
Museum of Comparative Zoology at Havard College, Mass.	Annual Report. 1888–89	The Director.
„ „ ..	Bulletin. Vol. XVI, Nos. 7–9, 1890. Vol. XVIII, 1889. Vol. XIX, Nos. 1–4, 1889. Vol. XX, Nos. 1 and 2, 1890.	„
New York Academy of Science ..	Transactions. Vol. VIII, 1888–89. Vol. IX, Nos. 1 and 2 1889–90.	The Secretary.
Smithsonian Institution	Annual Reports. 1867, 1876, 1886, Part 1	„
State University of Iowa	Bulletin from the Laboratories of Natural History. Vol. 1, Nos. 2–4, 1889–90. Vol. II, No. 1, 1890.	The Director.

Author.	Title.	Donor.
	Victoria.	
Ballarat Scohol of Mines and Industries.	Auuual report. 1889	The Secretary.
Bendigo School of Mines and Industries.	Annual report. 1890	,,
Department of Mines	Mineral statistics for 1888	,,
,,	Annual report. 1889	,,
,,	Annual report of the Secretary for Mines on the working of the Regulations and Inspection of Mines and Mining Machinery Act during the year 1888.	,,
,,	Reports and statistics. 1890	,,
,,	Reports of the Mining Registrars for the quarters ending 30th September and 31st December, 1889.	,,
Geological Society of Australasia...	Transactions. Vol. I, Part 4; and Vol. VII, Part 2. 1890.	,,
Melbourne National Museum	Prodromus of the zoology of Victoria. Decades XVII, XVIII. 1888-89.	,,
Royal Geographical Society of Australasia, Victoria Branch.	Proceedings. Vol. VII, Part 2; and Vol. VIII, Part 1 1880.	,,
	Western Australia.	
Department of Mines	Annual general report for 1888-89. By H. P. Woodward, Government Geologist.	,,

Appendix No. 7.

Progress Report for 1890, by J. C. H. Mingaye, F.C.S., Assayer and Analyst.

Sir, Department of Mines, Geological Survey Branch Laboratory, Sydney, 23rd February, 1891.

I have the honour to furnish you with the following Progress Report of work performed in the Laboratory during the year 1890:—

Three thousand three hundred and twenty-three numbered samples were received for analysis, assay, and examination, and 6,361 assays made for various metals; 140 ultimate and proximate analyses were furnished, and 11 qualitative analyses. Several samples of infusorial earth were examined and prepared for microscopic examination, and handed over to the Government Palæontologist.

1,210	samples	assayed for	silver,	yielded nil.
1,741	,,	,,	,,	under 20 oz. per ton.
132	,,	,,	,,	over 20 oz. ,,
1,715	,,	for gold	,,	nil.
1,013	,,	,,	,,	under 10 dwt. ,,
356	,,	,,	,,	over 10 dwt. ,,

The following assays were made during the year:—

Antimony.—Twenty-one samples.
Bismuth.—Seven samples.
Chromium.—Six samples.
Copper.—Twenty-six samples.
Manganese, Cobalt, and Nickel.—Twenty-four samples.
Iron.—Sixty-two samples.
Silver.—3,084 samples.
Lead.—Twenty-five samples.
Mercury.—One sample.
Platinum.—Five samples.
Tin.—Eighteen samples.
Zinc.—
Gold.—3,083 samples.

The following analyses were made during the year:—

Coal.—Forty-two samples.
Shale.—Thirty-two samples.
Iron.—Twenty-seven samples.
Limestone.—Four samples.
Potable Waters.—Two samples.
Mineral Water.—Three samples.
Infusorial Earth.—One sample.
Coke.—Ten samples.
Ash in Coke.—Ten samples.
Plumbago.—Two samples.
Fire Clays.—Three samples.
Miscellaneous.—Three samples.
Manganese Ore.—One sample

The following shows the number of samples received from the year 1883 to 1890:—

Year 1883	242 samples.	Year 1887	2 222 samples.
,, 1884	664 ,,	,, 1888	5,245 ,,
,, 1885	1,428 ,,	,, 1889	3,287 ,,
,, 1886	1,807 ,,	,, 1890	3,323 ,,

Full particulars of most of these assays and analyses will be found on referring to the annual report furnished by the Under Secretary to the Honorable the Minister for Mines and Agriculture.

On comparing the work for this year, it will be observed that there is an increase of thirty samples over the previous one, the analyses being about the same in number as last year, with the exception of the qualitative analyses, which are less.

Acting on instructions received from the Department, at the suggestion of The Honorable the Minister for Mines and Agriculture, that analyses and a report should be furnished of the various cokes manufactured in the Colony, with a view of ascertaining their suitability for smelting purposes, the matter was taken in hand, and analyses and report sent in, which was laid on the table of the Legislative Assembly and ordered to be printed on 1st October, 1890 (*see Appendix No.* 7A). As pointed out by Mr. Geological Surveyor David in his report to the Under Secretary on the 18th September, 1890, the analyses made show fairly well the relative values of the cokes of the different districts represented by the samples sent, and, though not giving the value of all the cokes manufactured in New South Wales, may be taken as representing the most important coke-producing mines. The coke imported into South Australia has largely increased for this year, and shows an increase of 20,000 tons over the preceding year, the bulk of it being used at the Broken Hill mines and other metallurgical works for smelting purposes. From foreign

foreign ports, 37,279 tons were imported for 1889, and this year 57,798 tons. From intercolonial ports, for 1889, 10,732 tons, and for this year, 10,182 tons. The total importations amounted to 48,011 tons in 1889, and 67,980 tons for 1890, an increase of 19,969 tons, or nearly double the whole of the collective importations for the other Colonies. The total importation shows an increase, while the intercolonial trade shows a decline of 654 tons, so that practically the whole of the benefit derived from the increased consumption has been out of the Colonies.

The large amount of coke imported from England, Germany, and elsewhere over that supplied from New South Wales is a serious matter, considering the large amount of coal which is available for the manufacture of coke. The objection to the use of the New South Wales coke at Broken Hill seems to be the large amount of ash present in very many of our coals over the cokes manufactured from the British coals, the ash being useless material and expensive to handle, and suggests that it would be beneficial to the interests of our colliery proprietors to conduct a series of experiments with a view of ascertaining if it is possible to purify our coals by washing, and thus raise the standard of the coke, and so be able to compete with the imported article.

The question of smelting our iron ores having lately been prominently brought before the public of New South Wales and capitalists in England, induced experts to send out to the Colony Mr. Ormiston, who, with Mr. Mitchell, M,P., made an exhaustive examination of the iron ore deposits. A large number of these ores were received for assay and analyses, some sixty-two samples being assayed for the percentage of iron, silica, and insoluble matter; and twenty-seven analyses furnished.

The iron ores of New Caledonia, which are said to occur in large masses and of great purity, it was thought by Dr. Storer that this ore could be imported into New South Wales and smelted with our poorer hematite ores. Nine average samples were received and submitted to a complete analyses, which proved them to be of excellent quality. For analyses and report on these samples, *see Appendix No.* 7B.

In several samples of magnetite, a large percentage of titanic acid was found present, one specimen yielding 17·79 per cent., while another yielded as high as 18·26 per cent. Iron ores, containing a large amount of titanic acid, cannot be smelted to advantage if the titanic acid present exceeds about 8·0 per cent., as they are exceedingly refractory and difficult to flux, also wasteful to fuel. The more titaniferous variety, however, have their advantages, they being used in fettling or lining pudding furnaces. A large proportion of the titanic acid is separated from magnetite by means of the magnet, that taken away being proportionately richer in iron and poorer in titanic acid. This process is used in various parts of the world for reducing the amount of titanic acid present in magnetites before smelting the ore.

Analyses were made of a water taken from a hot spring at Yarrongobilly caves, two samples of mineral water from the Rock Flat springs, near Cooma. This water is sold in Sydney and retailed in several shops at three-pence per glass, and is spoken well of in the "Australasian Medical Gazette" for January, 1891. Reference is also made in this journal to the Ballimore water, Talbragar River, near Dubbo, the water being recommended in cases of diabetes, dyspepsia, splenic and hepatic disorders.

Analysis of a water marked "No. 1197" was made with a view of ascertaining its suitability for use in steam boilers, and the water found to exert a decided corrosive action on iron. Experiments were made and a report given suggesting a means of remedying this action.

Water taken from a Government tank at Byrock was examined, and the sample found to be contaminated with sewage matter, and reported unfit for human consumption.

A sample of gold-bearing stone, obtained in the Adelong district, was received for analysis and report, it being stated that a large amount of the gold was lost by the ordinary method of treatment, *i.e.*, crushing and amalgamating. (*See Appendix No.* 7C).

A sample of copper ore which, on smelting, it was stated destroyed the bottoms of the furnaces in an unusual manner, was examined and reported on 10th January, 1891. (*See Appendix No.* 7D).

An analysis was made of a sample of semi-bituminous coal from Tasmania at the request of the Naval Depôt, the analysis of the coal, ash, &c., being furnished on 23rd December, 1890. (*See Appendix No.* 7E).

In a sample of tailings and slimes obtained from the Orange district, a small quantity of platinum was detected, also in a sample marked "No. 1961," the metal being associated with irridium and other metals which usually accompany platinum.

The quantity of mineral received was too small to estimate the platinum, it all being used up to prove its presence in the mineral, which was ferruginous quartz.

The large rise in the price of platinum should cause prospectors to make a search for this metal, especially in working alluvial washes, as the metal is now worth as much as gold. I may point out that the presence of this metal in lode formation was pointed out by me in the Annual Report for 1889, it occuring in felspathic lode stuff in the Broken Hill district (and Royal Society New South Wales, 6th November, 1889). A peculiar resinous shale which is new to me, and that somewhat resembles tasmanite in appearance, was examined, and an analysis and report furnished on 15th December, 1890. (*See Appendix No.* 7F).

An organic substance was received for analysis and report, the sample stated to have been obtained from an antimony lode near the Nambucca River. (*See Appendix No.* 7G).

In a sample of limestone received from Peak Hill district, the assistant (Mr. H. P. White) found 2·24 per cent. of strontia. This is the highest percentage yet detected in the laboratory, although a large number of limestones and other minerals have been examined for its presence. At the beginning of the year, Mr. Price Williams, C.E., who was conducting a series of experiments on behalf of the Railway Department as to the value of the New South Wales coals for steaming purposes, applied to the Department for permission to use the laboratory in order that his assistants might carry out some chemical experiments. The necessary authority having been obtained, part of the laboratory was placed at the disposal of Messrs. Price Williams, jun., and Beresford, who kindly supplied me with a copy of their experiments, conducted on a Government engine, and also in the laboratory. As I venture to think these experiments and the information contained therein will prove useful and interesting, I give them on a separate form. (*See Appendix No.* 7H).

A large number of samples of fire-clay have at various times been examined in the laboratory, and the results obtained, shows that many of the samples are of excellent quality, and of a very refractory nature. Three analyses were made during the year.

In

In concluding this report, I have much pleasure in stating that the various appliances, apparatus, &c., in the laboratory are in good working order and condition; also that further additions have been made to the library in the shape of several new works of reference, which are of great value.

I have to express my appreciation of the able assistance rendered me by the Assistant Assayer and Analyst (Mr. H. P. White), whose time has been chiefly taken up in connection with the numerous analyses received during the year; also to the Assistant Assayer (Mr. Neilson), whose time, conjointly with C. Hildebrant, has been wholly taken up in the assaying of the various minerals which have increased in number during the year.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

The Geological Surveyor-in-charge.

APPENDIX No. 7A.

REPORT on the Cokes Manufactured in New South Wales, with analyses of their cokes and their ashes, by J. C. H. Mingaye, F.C.S., Analyst and Assayer.

Geological Survey Branch, Department of Mines, Sydney, 18 September, 1890.

IN submitting this interesting and valuable report on the composition of the cokes manufactured in New South Wales, and that of their ashes, I would venture to summarise the conclusions drawn by Mr. Mingaye, and to supplement these with a few remarks.

The results of these analyses shows probably fairly well the relative values of the cokes of the different districcs represented by the samples sent. While, however, the Newcastle series of the Northern Coal-field and the Southern Coal-field were tolerably well represented, only one sample was received from the Western Coal-field (and this too was very imperfectly purified), none were received from the Tomago, nor from the Greta series of the Northern Coal-field, and none from the Gunnedah Coal-field. The results of these analyses are not, therefore, indicative of the values of all the cokes that are or can be produced in New South Wales, though they may be taken to be representative of the most important coke-producing mines.

The coals of New South Wales belong, so far as at present known, to five distinct formations, which occur in the following order, the oldest and lowest in the series being placed first:—

(1.) *Rhacopteris Beds*, developed principally in the Stroud district.—Contain a few seams of dirty, unworkable coal, from a few inches up to 4 feet thick.
(2.) Greta Coal Measures.—Contain valuable coal-seams, which, however, do not form a good coke.
(3.) Tomago Coal Measures.—Contain productive coal-seams, some of which form a fair coke, and, in the case of the Rix's Creek measures (if they are to be referred to this series), a very good coke.
(4.) The Newcasle, Bulli, and Rix's Creek (?) Coal Measures.—Contain valuable productive coal-seams, which form a very good coke, except in the case of some of the seams of the Western Coal-field, which either do not coke, or lose their coking properties upon exposure.
(5.) Clarence Coal Measures.—Contain productive seams (from which a fair coke is manufactured) at Ipswich and Burrum, in Queensland, but hitherto no workable seams have been discovered in these measures in New South Wales.

Mr. Mingaye's report shows that the cokes manufactured from the Newcastle and Rix's Creek seams are probably superior for smelting purposes to the cokes of the southern and western coal-fields, at any rate so far as percentage of ash is concerned.

The coke made by the Purified Coal and Coke Company, Newcastle, heads the list in this respect, containing only 7·93 per cent. of ash, a return which compares favourably with the average amount of ash present in the cokes of Europe and America. Rix's Creek coke is not far behind, with 10·67 of ash.

The cokes made from the Bulli Seam, in the Southern Coal-field, are a trifle higher in ash than those of Newcastle and Rix's Creek; but it would perhaps be invidious to assume that they are therefore of less value for smelting purposes, taken as a whole, than the Newcastle and Rix's Creek cokes; for no doubt the exact state of the fixed carbon in a coal has much to do with the value of the coke produced from it, the fixed carbons in different cokes not necessarily having cent for cent a uniform value.

It is worthy of note that in one case here the coke made from the unwashed coal was proved to contain more ash than that made from coal stated to have been purified by washing. As, however, Mr. Mingaye points out, the washing in this case had been very imperfectly carried out, as evidenced by the presence of fragments of clay shale in the coke.

The sample of coke forwarded from the Western District exhibited similar evidence of having been imperfectly purified.

As regards their ashes, those of the New South Wales cokes are more siliceous, and consequently more refractory than those of the cokes of Europe and America, and contain less lime and iron; but on the other hand are more free from phosphorous and sulphur than either of the preceding.

Mr. Mingaye's general conclusion is that, with increased care in the manufacture, especially with regard to the washing appliances used in purifying the coal for making coke, cokes can be produced in New South Wales equal in every respect, probably, to those imported from Europe and America, except with regard to the more refractory nature of the ash in the first-named, a defect, however, which is partly compensated for by their greater freedom from such deleterious elements as sulphur and phosphorous. It is to be hoped that this systematic research into the suitability for smelting purposes of the cokes of New South Wales, instituted by the Honorable the Minister for Mines and Agriculture, will be the means, not only of calling attention to the value of the article now produced, but will also lead to improvements being made in its manufacture by calling attention to the present defects, and Mr. Mingaye appears to me to have rendered valuable service in preparing the accompanying elaborate report.

T.W.E.D.

Department

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Department of Mines, Geological Survey Branch, Laboratory,
Sydney, 10 September, 1890.

Sir,

I have the honor to furnish you with the attached report respecting the analyses of the various cokes made in New South Wales, also complete analyses of their ashes, they being submitted for analyses with a view of ascertaining if suitable for metallurgical purposes.

I may point out that the work has taken up a large amount of time on the part of the assistant and myself, the delay in furnishing it sooner being due to the difficulty experienced in obtaining the samples.

I have, &c,
JOHN C. H. MINGAYE, F.C.S,
Analyst and Assayer.

[*Enclosure.*]

Sir, Department of Mines, Geological Survey Branch, Laboratory, Sydney, 4 September, 1890.

As instructed by this Department, I have the honor to furnish you with the following report and information respecting the analyses of samples of coal and their cokes, manufactured from the various coke-producing coals in the Northern, Southern, and Western coal districts of New South Wales.

The Honorable S Smith, Minister for Mines and Agriculture, points out the enormous amount of coke consumed in smelting operations in the Broken Hill district, some 1,310 tons being used in one week, the bulk of which is imported from England.

The following figures are supplied by the Secretary of the Broken Hill Proprietary Company's Mine (Wm. Knox, Esq.) as to the quantity consumed per week for smelting operations —

	Present requirements	Estimated future requirements.
Broken Hill Proprietary Company	550 tons	800 tons
British Broken Hill Proprietary Company	350 ,,	450 ,,
Broken Hill Proprietary Block 14 Company	170 ,,	170 ,,
Broken Hill Junction Silver mining Company	80 ,,	160 ,,
Australian Smelting and Refining Company	160 ,,	160 ,,
	1,310 tons.	1,740 tons

The Broken Hill Proprietary Company also furnish the following figures as to the cost of the various descriptions of cokes delivered at Port Pirie —

	Average cost per ton
English coke, 18,144 tons	£3 7 8
German coke, 2,750 tons	2 19 6
New Zealand coke, 2,000 tons	2 17 6
New South Wales coke, 4,880 tons	2 13 6
British Broken Hill Proprietary Company—English coke, 10,581 tons	3 4 3

As information should prove useful concerning the composition of the coals of New South Wales, I venture to furnish the following analyses made by the Department during the last seven years —

Coal from Lake Macquarie—

	Per cent
Hygroscopic moisture	3 80
Volatile hydrocarbons	33 90
Fixed carbon	55 50
Ash	6 80
	100 00

Coal from the neighbourhood of Goulburn—

Hygroscopic moisture	2 18
Volatile hydrocarbons	30 98
Fixed carbon	58 04
Ash	8 80
	100 00

Sulphur in coal, 0 228 %
Specific gravity, 1·35

Coal from Grose Valley—

Hygroscopic moisture	3 60
Volatile hydrocarbons	29·70
Fixed carbon	59 74
Ash	6 96
	100 00

Coke, 66 7 %
Sulphur in coal, 0 05 %
Specific gravity, 1 34.

Coal from the head of Grose Valley—

Hygroscopic moisture	3 66
Volatile hydrocarbons	30 38
Fixed carbon	54 46
Ash	11 50
	100 00

Sulphur in coal, 0·62 %
Specific gravity, 1·38.
Coke, 65·96 %

Coal from bore on Sir Edward Strickland's property at Dora Creek, Lake Macquarie—

Hygroscopic moisture	3 04
Volatile hydrocarbons	17 76
Fixed carbon	62 10 }
Ash	17·10 } *
	100 00

Sulphur in coal, 0 142 %
Specific gravity, 1 44
*Coke, 79 2 %

Coal from bore on Sir Edward Strickland's property at Dora Creek Lake Macquarie (sample No 2)—

Hygroscopic moisture	2 52
Volatile hydrocarbons	31 43
Fixed carbon	33 36
Ash	13 64 *
	100 00

Sulphur in coal, 0·140 %
Coke, 67 0 %
Specific gravity, 1·43.

Coal from Wangenderry Creek, Berrima District—

Hygroscopic moisture	1 74
Volatile hydrocarbons	31 06
Fixed carbon	52 00
Ash	15 20 *
	100 00

Sulphur in coal, 0·30 %
Specific gravity, 1 38.
Coke
*Coke, 67·2 %

Coal from the neighbourhood of Grose River—

Hygroscopic moisture	1 30
Volatile hydrocarbons	12·70
Fixed carbon	29 98
Ash	56 02
	100 00

Coke, 86 %

Coal from Bowenfells—

Hygroscopic moisture	2 45
Volatile hydrocarbons	28 55
Fixed carbon	48 56
Ash	20 44 *
	100·00

*Coke, 69 %
Specific gravity, 1 33.

Coal from newly discovered seam near Berrima—

Hygroscopic moisture	1 14
Volatile hydrocarbons	17·76
Fixed carbon	43·84
Ash	37 26 *
	100·00

Coke, 81·10 %
Special gravity, 1 62.

Coal from Ulladulla—

Hygroscopic moisture	1 50
Volatile hydrocarbons, &c.	33 04
Fixed carbon	57 40
Ash	8 06
	100 00

Sulphur in coal, 1·11 %
Specific gravity, 1·306.
Coke, 65 46 %

Coal from Ulladulla—

Hygroscopic moisture	1 76
Volatile hydrocarbons, &c.	32·06
Fixed carbon	56 38
Ash	9 80
	100 00

Sulphur in coal, 1 24 %
Specific gravity, 1·351.
Coke, 66 18 %

Coal from Capertee—

Hygroscopic moisture	3 25
Volatile hydrocarbons, &c.	25 41
Fixed carbon	60 24
Ash	11·10
	100 00

Sulphur in coal, 0·39 %
Specific gravity, 1·39.
Coke, 71 34 %

Coal from unworked seam near Lawson—

Hygroscopic moisture	2 45
Volatile hydrocarbons	25 31
Fixed carbon	59 41
Ash	12 83
	100 00

Sulphur in coal, 0 74 %
Specific gravity, 1·44.
Coke, 72·24 %

Coal from unworked seam near Lawson—

Hygroscopic moisture	1 82
Volatile hydrocarbons	22 88
Fixed carbon	52 04
Ash	23 26
	100 00

Sulphur in coal, 0 48 %
Specific gravity, 1·48.
Coke, 75 30.

Locality	Description of Mineral.	Complete Analysis.		Coke %	Sulphur %	Specific Gravity
Berrima	Coal from Berrima coal-seam	Hygroscopic moisture	1 90	68 40	0 242	1·39
		Volatile hydrocarbons, &c.	29 70			
		Fixed carbon	50 82			
		Ash	17 58			
			100 00			
Do	Coal from the seam 75 feet lower	Hygroscopic moisture	2·29	74 75	0 44	1 47
		Volatile hydrocarbons, &c.	22 96			
		Fixed carbon	49 80			
		Ash	24 95			
			100 00			
Branxton	Bituminous coal from Wyndham's Tunnel	Hygroscopic moisture	1·80	58 91	2·35	1·277
		Volatile hydrocarbons, &c.	39 29			
		Fixed carbon	50 63			
		Ash	8 28			
			100 00			
Do	Cannel coal from Wyndham's Tunnel	Hygroscopic moisture	1·45	..	...	1 24
		Volatile hydrocarbons, &c.	50 91			
		Fixed carbon	38 58			
		Ash	9 06			
			100 00			
Bundanoon	Coal	Hygroscopic moisture	1 90	68·40	0 242	1 39
		Volatile hydrocarbons, &c.	29 70			
		Fixed carbon	50 82			
		Ash	17 58			
			100 00			
Do	Coal	Hygroscopic moisture	2 00	71·80	0 46	1 37
		Volatile hydrocarbons, &c,	26·20			
		Fixed carbon	56 92			
		Ash	14 88			
			100 00			
Burnett (Gwydir district)	Coal from Gragin Station	Hygroscopic moisture	3 35	45 0	0·50	1·23
		Volatile hydrocarbons, &c.	51 61			
		Fixed carbon	34 71			
		Ash	10 33			
			100 00			
Greta	Coal from Keenan's Seam, 3 miles north of Greta	Hygroscopic moisture	2·70	65·07	1 98	1·35
		Volatile hydrocarbons, &c.	32 23			
		Fixed carbon	52·57			
		Ash	12·50			
			100 00			
Heathcote	Coal from bore at Heathcote, taken from distance of 1 foot in the 12-ft seam discovered	Hygroscopic moisture	0·59	82·58	0·37	1·37
		Volatile hydrocarbons, &c.	16 83			
		Fixed carbon	69 34			
		Ash	13 24			
			100 00			
Katoomba	Coal	Hygroscopic moisture	3·02	67·14	0·61	1·32
		Volatile hydrocarbons, &c.	29 84			
		Fixed carbon	59·51			
		Ash	7·63			
			100 00			
Lake Macquarie (near)	Coal from top of seam near L T. Creek (obtained by diamond drill)	Hygroscopic moisture	3·68	67·90	0·54	1·436
		Volatile hydrocarbons, &c.	28·42			
		Fixed carbon	48 47			
		Ash	19 43			
			100 00			
Do	Coal from bottom of the same seam.	Hygroscopic moisture	3·64	79·83	0·66	1·49
		Volatile hydrocarbons, &c	26 52			
		Fixed carbon..	43 41			
		Ash	26 43			
			100 00			

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Locality.	Description of Mineral.	Complete Analysis.		Coke %	Sulphur %	Specific Gravity
Leconfield	Cannel Coal*	Hygroscopic moisture	1·60	...	...	...
		Volatile hydrocarbons, &c.	44·82			
		Fixed carbon	45·18			
		Ash	8·40			
			100·00			
Meryla.....	Coal.....	Hygroscopic moisture	1·77	74·12	0.357	1·42
		Volatile hydrocarbons, &c.	24·11			
		Fixed carbon	51·62			
		Ash	22·50			
			100·00			
Mudgee Railway Line	Coal about 7 miles from Carlo's Gap Coal M. Co.	Hygroscopic moisture	2·96	...	...	1·27
		Volatile hydrocarbons, &c.	53·70			
		Fixed carbon	25·04			
		Ash	18·30			
			100·00			
Narrabri	Coal.....	Hygroscopic moisture	4·56	46·30	0·55	1·252
		Volatile hydrocarbons, &c.	49·14			
		Fixed carbon	38·03			
		Ash	8·27			
			100·00			
Nattai River	Coal from Fitzroy.....	Hydroscopic moisture.....	1·25	...	0·60	1·42
		Volatile hydrocarbons, &c.	17·05			
		Fixed carbon	64·02			
		Ash	17·68			
			100·00			
Ringwood	Coal.....	Hygroscopic moisture.....	1·62	68·98	0·398	1·50
		Volatile hydrocarbons, &c.....	29·40			
		Fixed carbon	56·82			
		Ash	12·16			
			100·00			
Rylestone District	Coal from a new discoveyy	Hygroscopic moisture.....	0·13	...	...	1·32
		Volatile hydrocarbons, &c.....	36·14			
		Fixed carbon	36·13			
		Ash	27·60			
			100·00			
West Maitland	Splint Coal from Homeville Colliery	Hygroscopic moisture.....	2·27	62·34	0·63	1·3
		Volatile hydrocarbons, &c.....	35·39			
		Fixed carbon	53·91			
		Ash	8·43			
			100·00			

*Suitable for the enrichment or manufacture of coal gas—as the produced coke, although not good enough for sale—might be used partly as fuel in that manufacture. The sample is not so valuable for the manufacture of illuminating oils as the best kinds of kerosene shales, in consequence of the relative small quantity of volatile matter and large proportion of fixed carbon.

Locality.	Description of Mineral.	Analysis		Coke %	Sulphur %	Specific Gravity
Blackheath ...	Coal from a new seam at Blackheath	Hygroscopic moisture	2 30	77 53	0 439	1 40
		Volatile hydrocarbons, &c	20 17			
		Fixed carbon	60 76			
		Ash	16 77			
			100 00			
Do	Do from do	Hygroscopic moisture	2 75	70 10	0 70	1·32
		Volatile hydrocarbons, &c.	27 15			
		Fixed carbon	63 86			
		Ash	6 24			
			100 00			
Cockle Creek	Bituminous coal from surface seam, 6 feet 11 inches thick, Northumberland Coal Co's land	Hygroscopic moisture	2 12	..	...	...
		Volatile hydrocarbons, &c	31 24			
		Fixed carbon ..	55 13			
		Ash	11 51			
			100·00			
Do	Bituminous coal from No. 1 seam 5 feet 8 inches thick 310 feet deep, from do	Hygroscopic moisture	2 60	75 52	0·49	1 360
		Volatile hydrocarbons, &c	24 88			
		Fixed carbon .	55 84			
		Ash	16 68			
			100 00			
Do	Bituminous coal from No 2 seam, 8 feet thick, 684 feet deep, from do	Hygroscopic moisture .	1·89	..	0·42	1 358
		Volatile hydrocarbons, &c ..	30 52			
		Fixed carbon	52 31			
		Ash . .	15 28			
			100·00			
Clarence Siding	Bituminous coal from Clarence Siding, Great Western Railway Line	Hygroscopic moisture .	3 60	69 25	1 44	1 298
		Volatile hydrocarbons, &c.	27 15			
		Fixed carbon	61 00			
		Ash	8 25			
			100 00			
Lake Macquarie	Bituminous coal from the Great Northern Coal Co.'s Mine ...	Hygroscopic moisture	2 98	63 0	0·39	1 38
		Volatile hydrocarbons, &c	34 02			
		Fixed carbon	53 57			
		Ash	9 43			
			100 00			
Do	Coal from a new seam on the Quigley Estate, Lake Macquarie	Moisture	2 65	67 77	...	1 40
		Volatile hydrocarbons, &c. ..	29 38			
		Fixed carbon	50 67			
		Ash	17 10			
		Sulphur	0·20			
			100 00			
Do	Do from do .	Moisture	3 15	63 54	...	1 33
		Volatile hydrocarbons, &c.	33·05			
		Fixed carbon	55 11			
		Ash	8 43			
		Sulphur . . .	0 26			
			100 00			
Do . .	Do from do	Moisture	3 30	66 15	...	1 35
		Volatile hydrocarbons, &c	30 00			
		Fixed carbon	57 72			
		Ash	8 45			
		Sulphur .	0 55			
			100 00			
Mittagong	Bituminous coal, approaching anthracite from Mittagong ..	Hygroscopic moisture	4 14		0 24	1 52
		Volatile hydrocarbons, &c.	5 26			
		Fixed carbon	76 54			
		Ash	14 06			
			100·00			
Shoalhaven.....	Bituminous coal from head of Clyde River . .	Moisture	3 20	67 82	1 43	1 313
		Volatile hydrocarbons, &c. . .	28 98			
		Fixed carbons .	59 88			
		Ash ...	7 94			
			100 00			

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Locality.	Description of Mineral.	Analysis.		Coke %.	Sulphur %.	Specific Gravity.
Shoalhaven ...	Bituminous coal from head of Clyde River	Moisture	·85	67·0	1·63	1·302
		Volatile hydrocarbons, &c.	32·15			
		Fixed carbon	56·18			
		Ash	10·82			
			100·00			
Do	Do do	Moisture	·75	68·88	1·28	1·359
		Volatile hydrocarbons, &c.	30·37			
		Fixed carbon	45·64			
		Ash	23·24			
			100·00			
Do	Do do	Moisture	1·60	66·10	1·21	1·21
		Volatile hydrocarbons, &c.	32·30			
		Fixed carbon	59·22			
		Ash	6·88			
			100·00			
Walcha	Cannel coal from a seam 4 ft. thick, from between Tamworth and Bendemeer, Walcha District.	Hygroscopic moisture	1·55	...	...	1·325
		Volatile hydrocarbons, &c.	54·15			
		Fixed carbon	17·20			
		Ash	27·10			
			100·00			

ANNUAL REPORT, 1886.

During the year the Department caused the following analyses to be made:—

COAL.

Locality.	Description of Mineral.	Analysis.		Coke %.	Sulphur %.	Specific Gravity.
Conjola	Bituminous coal.....	Hygroscopic moisture	0·05	67·85	1·08	1·328
		Volatile hydrocarbons, &c.	32·10			
		Fixed carbon	52·40			
		Ash	15·45			
			100·00			
Catherine Hill Bay	Coal from a seam on the coast, 11 ft. 6 in. thick	Hygroscopic moisture	3·05	77·0	0·28	1·43
		Volatile hydrocarbons, &c.	19·95			
		Fixed carbon	59·10			
		Ash	17·90			
			100·00			
Dapto	Splint coal from West Dapto ...	Hygroscopic moisture	2·89	...	1·58	1·450
		Volatile hydrocarbons, &c.	16·60			
		Fixed carbon	58·20			
		Ash	22·31			
			100·00			
Gunnedah	Coal taken from upper part of James Pye's 6-ft. seam, and from 72-ft. 4 in. to 74-ft. 6 in. from surface, portion 53, parish Black Jack, county Pottinger	Hygroscopic moisture	3·00	67·5	0·61	1·291
		Volatile hydrocarbons, &c.	29·50			
		Fixed carbon	58·80			
		Ash	8·70			
			100·00			
Do	Coal from 2 ft. below the above do	Hygroscopic moisture	1·75	83·5	0·64	1 255
		Volatile hydrocarbons, &c.	14·75			
		Fixed carbon	76·76			
		Ash	6·74			
			100·00			
Do	Coal from lower half of seam from 75 ft. to 78 ft. from surface do do	Hygroscopic moisture	2·80	66·73	0·52	1·278
		Volatile hydrocarbons, &c.	30·47			
		Fixed carbon	56·83			
		Ash	9·90			
			100·00			
Do	Coal from 95 ft. deep, J. Darcy's well, in portion 16, parish Black Jack, county Pottinger	Hygroscopic moisture	3·10	57·3	0·78	1·281
		Volatile hydrocarbons, &c.	39·60			
		Fixed carbon	48·23			
		Ash	9.07			
			100·00			

ANNUAL REPORT, 1886—*continued.*

Locality.	Description of Mineral.	Analysis.		Coke %.	Sulphur %.	Specific Gravity.
Gunnedah	Bituminous coal from a seam between 6 and 7 ft. thick, 78 ft. from surface, Springfield, near Gunnedah—3½ miles from nearest point on G.N. Railway.....	Hygroscopic moisture	2·30	57·97	0·52	1·308
		Volatile hydrocarbons, &c.	39·73			
		Fixed carbon	52·47			
		Ash	5·50			
			100·00			
Heathcote	Splint coal from top of seam struck in Diamond Drill Bore at a depth of 1,513 ft., seam, 4 ft. 8 in. thick	Hygroscopic moisture	1·34	82 50	0·352	1·360
		Volatile hydrocarbons, &c.	16·16			
		Fixed carbon	70·87			
		Ash	11·63			
			100·00			
Do	Splint and bituminous coal from the middle of the above seam	Hygroscopic moisture	1·40	83·37	0·350	1·384
		Volatile hydrocarbons, &c.	15·23			
		Fixed carbon	68·64			
		Ash	14·73			
			100·00			
Do	Bituminous coal from the bottom of the above seam	Hygroscopic moisture	1·38	79·80	0·356	1·366
		Volatile hydrocarbons, &c.	18·82			
		Fixed carbon	64·47			
		Ash	15·33			
			100·00			
Lake Macquarie...	Coal from an unworked seam ...	Hygroscopic moisture	0·98	61·3	0·48	1·228
		Volatile hydrocarbons, &c.	37·72			
		Fixed carbon	55·14			
		Ash	6·16			
			100·00			
Do	Do	Hygroscopic moisture	0·88	67	0·49	1·285
		Volatile hydrocarbons, &c.	32·12			
		Fixed carbon	54·20			
		Ash	12·80			
			100·00			
Mount Westmacott.	Bituminious coal, being part of the core obtained from No. 2 seam in Diamond Drill Bore, at a depth of 1,584 ft.	Hygroscopic moisture	0·40	80·69	0·48	1·45
		Volatile hydrocarbons, &c.	18·91			
		Fixed carbon	66·99			
		Ash	13·70			
			100 00			
Maitland.....	Coal from Deep Creek, Bishop's Bridge	Hygroscopic moisture	2·35	56·86	0·839	1·243
		Volatile hydrocarbons, &c.	40 79			
		Fixed carbon	52·76			
		Ash	4·10			
			100·00			
West Maitland	Clippings of coal obtained by jumping-rods from coal seam 50 ft. below the Homeville seam	Hygroscopic moisture	2·21	61·34	0·68	1·318
		Volatile hydrocarbons, &c.	36·45			
		Fixed carbon	51·51			
		Ash	9·83			
			100·00			
Do	Bituminous coal from Homeville Colliery	Hygroscopic moisture	2·10	57·63	0·89	1·270
		Volatile hydrocarbons, &c.	40·27			
		Fixed carbon	51·80			
		Ash	5·83			
			100·00			
Western District.	Semi-bituminous coal	Hygroscopic moisture	3·40	66	0·76	1·316
		Volatile hydrocarbons, &c.	30·60			
		Fixed carbon	55·17			
		Ash	10·83			
			100·00			
Lake Macquarie.	Bright bituminous coal from block 16, held by Messrs. Parbury, Lamb, & Saddington, parish Wallarah, county Northumberland	Hygroscopic moisture	0·49	68·36	0·8	1·330
		Volatile hydrocarbons	31·15			
		Fixed carbon	59·46			
		Ash	8·90			
			100·00			
Do	Layers of splint and bituminous coal, with a little pyrites, from block 19, at do do.....	Hygroscopic moisture	0·50	68·49	0·88	1·340
		Volatile hydrocarbons, &c.	31·01			
		Carbon.....	59·47			
		Ash	9·02			
			100·00			

During the year the following analyses of Coal were made by the Department —

Locality.	Description of Mineral.	Analysis.		Coke %	Sulphur %	Specific Gravity.
Bundanoon Creek	Inferior splint coal	Hygroscopic moisture	1·02			
		Volatile hydrocarbons	14 96			
		Fixed carbon	38 38			
		Ash	45 64			
			100 00			
Bundanoon diamond-drill bore	Bituminous coal	Hygroscopic moisture	2 25			
		Volatile hydrocarbons	19·92			
		Fixed carbon	38 38			
		Ash	45 64			
			100 00			
Do	do	Hygroscopic moisture	1·55			
		Volatile hydrocarbons	23·77			
		Fixed carbon	47 33			
		Ash	27·35			
			100 00			
Casino	Inferior splint and bituminous coal	Hygroscopic moisture	4·40	65 38	0 59	1 440
		Volatile hydrocarbons	30 22			
		Fixed carbon	36 04			
		Ash	29 34			
			100 00			
Flaggy Creek.	Bright bituminous coal from new seam	Hygroscopic moisture	2 07	60 34	...	1·285
		Volatile hydrocarbons	37 07			
		Fixed carbon	55 92			
		Ash	4 42			
		Sulphur	·52			
			100 00			
Gladstone Colliery	Bright bituminous coal	Hygroscopic moisture	2 05	69 92	...	1·282
		Volatile hydrocarbons	27 62			
		Fixed carbon	57 25			
		Ash	12 67			
		Sulphur	·41			
			100 00			
Do	Bituminous coal	Hygroscopic moisture	1·77	69·32	...	1·362
		Volatile hydrocarbons	28·40			
		Fixed carbon	59 72			
		Ash	9 60			
		Sulphur	·51			
			100 00			
Holt-Sutherland Estate	Coal from diamond drill bore at Holt-Sutherland Estate, about 15 miles from Sydney, at a depth of 22 feet	Hygroscopic moisture	0·36	...	...	1·44
		Volatile hydrocarbons	13·52			
		Fixed carbon	70 96			
		Ash	14 72			
		Sulphur	·44			
			100 00			
Do	do	Hygroscopic moisture	0 24			·34
		Volatile hydrocarbons	14·03			
		Fixed carbon	73 96			
		Ash	14 16			
		Sulphur	·66			
			100 00			
Do	do	Hygroscopic moisture	0·68	...	...	1 48
		Valatile hydrocarbons	12 21			
		Fixed carbons	69 92			
		Ash	16 80			
		Sulphur	·39			
			100 00			
Do	Coal from diamond-drill bore at Holt-Sutherland Estate, about 15 miles from Sydney, at a depth of 2,227 feet, 4 feet 2 inches thick	Hygroscopic moisture	0 67	85·86	.	1·48
		Volatile hydrocarbons	13·06			
		Fixed carbon	70 70			
		Ash	15 16			
		Sulphur	·41			
			100·00			

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Locality.	Description of Mineral.	Analysis.		Coke. %	Sulphur %	Specific Gravity.
Holt-Sutherland Estate.	Coal from diamond-drill bore at Holt-Sutherland Estate, about 15 miles from Sydney, at a depth of 22 feet	Hygroscopic moisture	0·40	...	...	1·36
		Volatile hydrocarbons	12·63			
		Fixed carbon	74·04			
		Ash	12·52			
		Sulphur	·41			
			100·00			
Do	Coal dust brought up in water during boring the seam struck in the Holt-Sutherland diamond-drill bore, at a depth of 2,227 feet	Hygroscopic moisture	2·25	...	...	1·32
		Volatile hydrocarbons	33·90			
		Fixed carbon	52·01			
		Ash	11·84			
			100·00			
Homeville	Cannel coal, from Homeville, West Maitland.	Hygroscopic moisture	2·25	...	...	1·322
		Volatile hydrocarbons	33·90			
		Fixed carbon	52·01			
		Ash	11·84			
			100·00			
Mittagong	Three pieces of core from the top, middle, and bottom of seam (top, splint and bitiuminous coal; middle and bottom, bright bituminous coal) from diamond drill bore=4 feet 7 inches of core.	Hygroscopic moisture	1·35	72·31	...	1·347
		Volatile hydrocarbons	25·77			
		Fixed carbon	60·06			
		Ash	12·24			
		Sulphur	·56			
			99·98			
Do	Three pieces of coal from top, middle, and bottom (top and bottom, splint bituminous; and the middle, bright bituminous coal)=2 feet 10 inches core...	Hygroscopic moisture	1·40	73·30	...	1·376
		Volatile hydrocarbons	24·61			
		Fixed carbon	59·22			
		Ash	14·08			
		Sulphur	·69			
			100 00			
Do	Bituminous and splint coal=4 feet 7 inches core	Hygroscopic moisture	1·65	69·70	...	1·420
		Volatile hydrocarbons	27·87			
		Fixed carbon	52·30			
		Ash	17·40			
		Sulphur	·78			
			100·00			
Do	Splint coal with bituminous bands=3 feet 4 inches core..	Hygroscopic moisture	1·17	79·017	...	1·538
		Volatile hydrocarbons	19·25			
		Fixed carbon	47·59			
		Ash	31·42			
		Sulphur	·57			
			100·00			
Mudgee	Coal from 30 miles from Mudgee	Hygroscopic moisture	1·71	66·87		
		Volatile hydrocarbons	30·69			
		Fixed carbon	49·62			
		Ash	17·25			
		Sulphur	·73			
			100·00			
Do	Coal from Mudgee, seam 6 feet 6 inches thick	Hygroscopic moisture	1·00			
		Volatile hydrocarbons	23·17			
		Fixed carbon	57·86			
		Ash	17·36			
		Sulphur	·61			
			100·00			
Ocean Colliery..	Bituminous coal from Ocean Colliery, West Dapto, from top seam, 10 feet thick	Hygroscopic moisture	·84	73·83	...	1·338
		Volatile hydrocarbons	24·92			
		Fixed carbon	66·27			
		Ash	7·56			
		Sulphur	·41			
			100·00			
Parish of Joadja...	Splint coal...	Hygroscopic moisture	2·10	73·96		
		Volatile hydrocarbons	23·35			
		Fixed carbon	56·76			
		Ash	17·20			
		Sulphur	·59			
			100·00			

ANNUAL REPORT, 1887—*continued.*

Locality.	Description of Mineral.	Analysis.		Coke %	Sulphur %	Specific Gravity
Rylstone	Bright bituminous coal..... ...	Hygroscopic moisture..... ..	5·20	...	..	1·317
		Volatile hydrocarbons	30·40			
		Fixed carbon	54·53			
		Ash	9·35			
		Sulphur	·52			
			100·00			
Southern District	Bituminous coal	Hygroscopic moisture	1·67	66·33	0·69	1· 29
		Volatile hydrocarbons	32·00			
		Fixed carbon	53·02			
		Ash	13·31			
			100·00			
Warrumbungle R.	Tertiary coal	Hygroscopic moisture..... .	2·55	54·88	...	1·329
		Volatile hydrocarbons	42·02			
		Fixed carbon	34·44			
		Ash	20·44			
		Sulphur	·55			
			100·00			

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Locality.	Description of Mineral.	Analysis.		Coke %	Sulphur %	Specific Gravity	Remarks.
Wallerawang Cullen Bullen).	Splint coal ...	Hygroscopic moisture	5·22	Nil.	1·09	1·404	Ash grey.
		Volatile hydrocarbons	28·08				
		Fixed carbon	50·35				
		Ash	16·35				
			100·00				
Do	Splint coal with layers of bright bituminous coal	Hygroscopic moisture	2·58	61·43	1·072	1·29	do
		Volatile hydrocarbons	35·99				
		Fixed carbon	53·30				
		Ash	8·13				
			100·00				
Do	Bituminous coal	Hygroscopic moisture	1·99	59 65	·79	1·329	Ash, light, grey; coke, fairly swollen and firm.
		Volatile hydrocarbons	38·36				
		Fixed carbon... . ..	51·91				
		Ash	7·74				
			100·00				
Do	Splint coal with bright black bituminous bands	Hygroscopic moisture	1·14	69·23	1·1	1·45	.....
		Volatile hydrocarbons	29·63				
		Flxen carbon	50·53				
		Ash.....	18·70				
			100·00				
Branxton Leconfield)	Bituminous coal ...	Hygroscopic moisture	2·35	58·03	·817	1·271	Coke, hard, fairly lustrous, and slightly swollen; ash, buff colour, flocculent.
		Volatile hydrocarbons	39 62				
		Fixed carbon .	48 30				
		Ash	9·73				
			100·00				
Camberwell Rosedale Colliery). (Top Band).	Bright black bituminous coal	Hygroscopic moisture	2·71	61·2	·75	1·266	Ash, reddish; coke, firm and bright, but not much swollen.
		Volatile hydrocarbons	36·09				
		Fixed carbon	57·59				
		Ash	3·61				
			100·00				
Do (2nd band)	do	Hygroscopic moisture	1·96	60·3	·67	1·26	Ash, buff colour; coke, firm and bright, but not much swollen.
		Volatile hydrocarbons	37·74				
		Fixed carbon	55·17				
		Ash	5·13				
			100 00				
Do (3rd band) ..	do	Hygroscopic moisture	2·39	60 6	·73	1·272	Ash, reddish; coke, firm and bright, but not much swollen.
		Volatile hydrocarbons	37·01				
		Fixed carbon	54·80				
		Ash	5·80				
			100 00				

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Locality.	Description of Mineral.	Analysis.	Coke %	Sulphur %	Specific Gravity.	Remarks.
Camberwell (Rosedale Colliery). (4th band)	Bright, black bituminous coal.....	Hygroscopic moisture 2·55 Volatile carbon..... 35·65 Fixed carbon..... 54·43 Ash..... 7·37 100·00	61·8	·72	1·302	Ash, buff colour; coke, firm and bright, but not much swollen.
Deep Creek.....	.....	Hygroscopic moisture 1·52 Volatile hydrocarbons 46·38 Fixed carbon..... 40·15 Ash..... 11·95 100·00	52·10	8·82	1·298	Ash, strong, reddish tinge.
Dubbo (Spicer's Creek).....	.....	Hygroscopic moisture 3·60 Volatile hydrocarbons 23·05 Fixed carbon..... 54·65 Ash..... 18·70 100·00	Nil.	·576	1·479	Ash, almost white; no true coke formed, a black incoherent powder being left.
Grafton	Bituminous coal, with a band of carbonaceous clay	Hygroscopic moisture ·56 Volatile hydrocarbons 33·34 Fixed carbon..... 43·80 Ash..... 22·30 100·00	66·1	·37	1·308	Ash, light grey; coke, fairly bright, but not much swollen.
Gunnedah (Springfield)	Hard, splinty cannel coal	Hygroscopic moisture 1·58 Volatile hydrocarbons 19·00 Fixed carbon..... 39·70 Ash..... 39·72 100·00	Nil.	·068	1·666	Ash, almost white; no true coke formed, a dull, fritted mass only being left.
Gunnedah (Black Jack)	Bright bituminous coal...	Hygroscopic moisture 2·36 Volatile hydrocarbons 38·39 Fixed carbon..... 48·20 Ash..... 11·05 100·00	59·25	·79	1·298	Ash, white; coke, firm and bright.
Jamberoo ...	Bituminous, fairly bright, and somewhat brittle coal, from top, bottom, and middle of seam ..	Hygroscopic moisture 2·05 Volatile hydrocarbons 24·12 Fixed carbon..... 61·96 Ash..... 11·87 100·00	73·83	...	1·382	Ash, grey; coke, swollen but brittle, breaking readily on handling.
Joadja Creek ...	Bright bituminous coal...	Hygroscopic moisture 2·17 Volatile hydrocarbons 30·88 Fixed carbon..... 56·13 Ash..... 11·52 100·00	67·65	·66	1·355	Ash, grey; will yield a fair coke.
Lismore	.....	Hygroscopic moisture 1·01 Volatile hydrocarbons 13·50 Fixed carbon..... 71·84 Ash..... 13·65 100·00	85·49	...	...	Ash, loose, grey; coke, fairly hard, and swollen up with cauliflower-like excrescences.
Mittagong (6 miles from Hill Top Station) ...	Bituminous coal (*a*) from top (1′ 0″ of seam)	Hygroscopic moisture 1·56 Volatile hydrocarbons 27·47 Fixed carbon..... 47·75 Ash..... 23·32 100·00	70·97	·73	1·592	Ash, light, grey, coke, fairly firm.
Do ...	Bituminous coal (*b*) from 9-ft. coal below A	Hygroscopic moisture 1·18 Volatile hydrocarbons 26·20 Fixed carbon..... 45·29 Ash..... 27·33 100·00	72·62	·73	1·474	do
Do ...	Bituminous coal (*c*) from 1-ft. coal below white band	Hygroscopic moisture 1·03 Volatile hydrocarbons 24·52 Fixed carbon..... 38·50 Ash..... 35·95 100·00	74·45	·56	1·572	do
Do ...	Bituminous coal (*d*) from 1½-ft. coal below c.....	Hygroscopic moisture 1·66 Volatile hydrocarbons 28·14 Fixed carbon..... 54·80 Ash..... 15·40 100·00	70·20	·86	1·497	do

ANNUAL REPORT, 1888—*continued.*

Locality.	Description of Mineral.	Analysis.		Coke %	Sulphur %	Specific Gravity	Remarks
Mittagong (6 miles from Hill Top Station)	Bituminous coal *(e)* from 1½-ft coal below D	Hygroscopic moisture	1 51	72 75	5	1 408	Ash, dirty white; coke, fairly firm.
		Volatile hydrocarbons	25 74				
		Fixed carbon	50 75				
		Ash ..	22 00				
			100 00				
Do	Splint coal	Hygroscopic moisture	1 50	69·42	453	1 303	Ash, dark grey, coke, fairly bright, swollen, and firm.
		Volatile hydroarbons	29 08				
		Fixed carbon	58 80				
		Ash .	10 62				
			100 00				
Moss Vale	Splint coal, with small layers of bituminous coal	Hygroscopic moisture	3 38	Nil	704	1 45	Ash, light grey.
		Volatile hydrocarbons	19 84				
		Fixed carbon	57 76				
		Ash	19 02				
			100 00				
Do	do	Hygroscopic moisture	2 67	Nil.	693	1 44	Ash, nearly white.
		Volatile hydrocarbons	18 57				
		Fixed carbon	54 29				
		Ash	24 47				
			100 00				
Do	Bituminous coal .	Hygroscopic moisture	1 34	72 04			Ash grey; coke, firm and fairly swollen.
		Volatile hydrocarbons	26 62				
		Fixed carbon	49 91				
		Ash	22 13				
			100 00				
Wallerawang (Cullen Bullen)	Inferior splint coal	Hygroscopic moisture	4 52	Nil.	975	1·45	Ash, grey.
		Volatile hydrocarbons	24 88				
		Fixed carbon	50 45				
		Ash	20 15				
			100 00				
Do	Splint coal .	Hygroscopic moisture	2 96	66 75	·838	1 36	do
		Volatile hydrocarbons	30 29				
		Fixed carbon	52 15				
		Ash .	14 60				
			100 00				

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During the year the following analyses of coal were made in this Department —

Locality	Hygroscopic Moisture	Volatile Hydrocarbons	Fixed Carbon	Ash	Sulphur	Coke	Specific Gravity	Remarks
Ash Island (Rathluba Seam)	0 91	30 07	52 33	16 69	0 682	69 02	1 410	Coke, well swollen, fairly bright, hard Ash, light grey, flocculent
,, ,,	0 90	33 19	60 80	5 11	0 660	65 91	1 300	Coke much swollen up, fairly bright, and firm. Ash, very light red, flocculent
Berrima (6 miles from)	1 60	25 80	53 94	18 66	1 120	Nil	1 439	
,, ,,	2 21	32 31	56 02	9 46	0 570	65 48	1 260	Coke, well swollen, fairly lustrous, firm Ash, nearly white
Black Jack, County Pottinger	3 44	38 78	53 38	4 40	0 423	57 78	1 282	Coke, well swollen, bright, and firm Ash, white.
Bulli Colliery (Coke)	0 53		86 05	12 83	0 530		1 454	Ash, nearly white
Buttai Creek	3 08	34 47	54 25	8 20	0 768	62 45	1 330	Coke fairly swollen up, much cracked, and bright Ash, bright pink
Ben Bullen (between Capertee and)	4 05	27 38	42 63	25 44	0 441	68 07	1 472	Coke, firm, fairly bright and swollen
Clifton	0 77	19 13	62 35	17 75	0 343	80 10	1 502	Coke, well swollen, lustrous and firm
,,	0 83	17 47	70 10	11 60	0 562	81 70	1 402	Coke, not much swollen, dull, and firm
,,	1 02	16 63	72 95	9 40	0 505	82 35	1 372	Coke, not much swollen, dull, and firm Ash, light grey
,,	0 78	19 52	65 20	14 50	0 535	79 70	1 428	Coke, well swollen, very bright, and fairly firm Ash, light grey
Coaldale (Clarence District)	0 74	36 46	51 65	11 15	0 933	62 80	1 295	Coke, fairly swollen, firm, and hard Ash, light grey
	3 43	20 82	23 05	52 70	0 302		1 739	No true coke
,, ,,	1 82	32 23	43 40	22 55	0 892	65 95	1 326	Coke, well swollen, fairly bright, and firm Ash, light grey
Cook (County of)	2 65	34 45	52 35	10 55	0 604	62 90	1 358	Coke, well swollen, lustrous, and firm Ash, light grey
Copmanhurst	2 13	25 97	32 65	39 25	1 221	71 90	1 551	Coke, well swollen, bright, and firm Ash, light grey
Cullen Bullen Colliery	3 84	33 31	54 89	7 96	0 821	62 85	1 321	Coke, fairly bright, firm, and swollen. Ash, white.
,,	3 53	33 47	55 16	7 84	0 982	63 00	1 320	,, ,, ,,
,,	3 51	29 69	48 91	17 89	0 797	66 80	1 429	,, ,, ,,
,,	2 53	37 57	54 10	5 50	1 080	59 60	1 314	Coke, fairly bright, firm, and swollen Ash, light grey
Cullen Bullen	1 85	41 85	51 93	4 37	0 686	56 30	1 274	Coke, well swollen, fairly bright, and firm Ash, white
,,	1 90	32 35	41 85	23 90	0 411	65 75	1 417	Coke, well swollen, lustrous, and firm Ash, white
,,	2 69	36 71	49 85	10 75	0 686	60 60	1 321	Coke, fairly swollen, bright, and firm Ash, pink.
,,	2 04	37 36	51 05	9 55	0 782	60 60	1 312	Coke, fairly swollen, bright, and firm. Ash, white.

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Locality.	Hygroscopic Moisture.	Volatile Hydrocarbons	Fixed Carbon.	Ash.	Sulphur.	Coke.	Specific Gravity.	Remarks.
Curlewis	2·11	23·79	50 00	24·10	0 370	..	1 575	No coke proved. Ash, white.
,,	1 44	20 91	67·35	10 30	0 560	77·65	1 450	Coke, fairly well swollen, dull, and firm. Ash, grey.
Fassifern	2·39	33 72	56·29	7 60	0 630	63 89	1·330	Coke, well swollen, firm, hard, and bright. Ash, yellowish red tinge.
,,	2 97	28·43	50·39	18 21	0·437	68 60	1 380	Coke, well swollen, firm, and fairly bright. Ash, light-red colour, flocculent.
,,	3 64	28·65	48 81	18 90	0·432	67 71	1·400	,, ,, ,, ,,
Geurie Estate	7·68	36·82	45 20	10·30	2 930	Nil.	1·370	Ash, reddish, with white specks.
,,	6 24	20 16	51·15	22 45	0·315		1 560	Ash, white.
Gunnedah (near)	2 85	33·85	52·00	11·30	1·450	63·30	1·356	Coke, fairly well swollen up, lustrous, and firm. Ash, white.
,,	2·21	41·64	52 05	4·10	0 659	56·15	1·293	Coke, well swollen, firm, and lustrous. Ash, white.
,,	2·71	40 84	52·95	3 50	0 878	56·45	1·296	,, ,, ,,
,,	1·81	32 29	56 50	9·40	0·727	65 90	1 381	Coke, not much swollen, dull, and not very firm. Ash, white.
,,				31 33				Ash only estimated.
,,	2·41	31·84	48·30	17·45	0 796	65 75	1·417	Coke, not much swollen, fairly bright, and firm. Ash, light grey.
,,	2·29	38·86	47·60	11·25	1·386	58 85	1·327	Coke, well swollen, firm, and lustrous. Ash, grey.
,,	1 75	38·40	50 70	9·15	0·933	59 85	1·361	,, ,, ,, ,,
Hetton Colliery	2·26	35 89	57 50	4·35	0 782	61 85	1 266	Coke, very much swollen, firm, but dull in colour. Ash, light red.
Jervis Bay	0·77	35 23	56 17	7·83	2 010	64 00	1 280	Coke, well swollen, fairly lustrous, and firm Ash, white
oadja	2·25	24·22	53 05	20 48	0 850	73 53	1·476	Coke, very poor. Ash, grey.
Katoomba	2 30	33·10	57 15	7 45	0·878	64 60	1 326	Coke, well swollen, lustrous, and firm. Ash, light red.
,, (2½ miles from)	6 16	23 80	55·26	14·78	0 697	Nil	1·460	No true coke. Ash, white.
,,	3 24	24 22	49 95	22·59	6 799	72 54	1 536	Coke, fairly well swollen, firm, and bright. Ash-dark grey
Macquarie Valley (Head of)	3 82	26 08	59 25	10 85	0 768	Nil.	1·410	No true coke. Ash, light grey.
,, ,,	1 60	21 75	63 98	12 67	0 762	76 65	1·400	Coke, not much swollen up, dull Ash, white.
,, ,,	1 72	23 93	65 15	9·20	0 535	74·35	1·380	Coke, fairly well swollen up, bright. Ash, white
,, ,,	1 79	28 36	62 70	7·15	0 480	69 85	1·370	Coke, well swollen up, bright, and firm. Ash, red
Mittagong	2 15	23·55	52 60	21 70	0 727	Nil.	1 626	No coke formed. Ash, light yellow.
Mount Kembla (near)—Coke	0·52		84 60	14 36	0 530	..	1 503	Ash, grey
Murrurundi (10 miles from)	4·94	39 62	20 19	35 25	Nil.			No true coke. Ash, buff.
North Illawarra Coal-mine	0 68	19 72	70·15	9·45	0·370	79 60	1 364	Coke, flocculent, slightly swollen, dull, and firm. Ash, grey
Northumberland (County of, parish of Teralba)	2 96	30 74	52 15	14·15	0·562	66 30	1·240	Coke, slightly swollen, dull, and not very firm Ash, light grey
,, ,,	5·78	25·07	55 50	13 65	0 521	Nil.	1 470	No true coke. Ash, light grey.
Otford (near)	0·46	17 99	68 90	12 65	Trace.	81 55	1 439	Coke, not much swollen Ash, white.
,,	1 18	10 02	62 15	26 65	0·411	Nil.		No true coke. Ash, white.
,,	1·00	18 35	68·10	12 55	0 535	80 65	1·432	Coke, not much swollen, dull. Ash, light grey.
,,	0 95	19·20	69·35	10 50	0 178	79 85		,, ,, ,, ,,
Otford	0 97	7·59	25 60	66 45	0 411	Nil.		No true coke Ash, grey.
Singleton (Ellsmere)	2 32	36 93	52 20	8 55	0 645	60 75	1 290	Coke, fairly well swollen, firm, and lustrous Ash, light red.
,, (Dulwich)	2 07	36 48	46 85	14 60	0 782	61 45	1 300	Coke, fairly well swollen, bright Ash, reddish.
,, (New Park Colliery)	2 48	35·92	54·50	7 10	0 864	61 60	1 300	Coke, fairly well swollen, bright, and firm. Ash, reddish
South Redhead	2 62	34 41	54·18	8 79	0·395	62 97	1 339	Coke, well swollen, firm, hard. Ash, grey.
,,	2·62	37 01	44 07	16 30	0·362	60 37	1 429	Coke, fairly swollen, firm, and bright. Ash, grey.
,,	2·40	35 46	53·15	8 99	0 546	62 14	1·356	Coke, well swollen, bright, and firm. Ash, grey.
Spicer's Creek	5·65	36·60	45 35	12 40	0 727	Nil.	1 330	Ash, white.
,,	7 44	27·86	54 10	10 60	0·356	,,	1 422	,,
Tomago (Hunter River)	1·89	32 16	51 60	14 35	0 604	65 95	1 357	Coke, well swollen, bright, and firm. Ash, dark grey.
,, ,,	1 52	30·23	54 85	13 40	0 700	68 25	1·327	Coke, very much swollen, firm, and bright. Ash, dark grey.
,, ,,	1·42	31·48	47 35	19·75	0 727	67 10	1 434	Coke, well swollen, bright, and firm Ash, light grey
,, ,,	2·17	24 63	35·30	37 90	0 604	73 20	..	Coke, fairly swollen, bright, and firm, Ash, dark grey.
,, ,,	2·17	30 88	52·00	14·95	0 782	66 95	..	Coke, well swollen, bright, and firm. Ash, light grey.
Wallangra (Lignite)	..	..	..	58·49			..	Ash only determined.
Wellington	7·44	38 01	42 75	11 80	2 080	Nil	1 364	No true coke. Ash, grey.
Wentworth Falls	2 39	30 73	53 60	13 28	0·926	66 88	1·382	Coke, well swollen, firm, and fairly bright. Ash, grey.
	2 32	31·42	54·01	12 25	0·926	66 26	1 360	,, ,, ,, ,,
	2 44	27·71	58 72	11 13	1 180	69 85	1 357	,, ,, ,, ,,

It will be noticed on comparing the analyses that many of the samples yielded a high percentage of ash; this can be explained from the fact that most of the samples received in the laboratory were from localities which were being prospected, and in only a few cases represented a true average from a working colliery.

The following information is given as to the average composition of the coals of Great Britain as regards the amount of sulphur and ash present; also average of sulphur and ash present in foreign coals.

* AVERAGE composition of coals from Great Britain.

Locality.	Specific gravity of coal.	Sulphur.	Ash	Percentage coke left by each coal
36 samples from Wales	1 315	1·43	4·91	72·60
18 samples from Newcastle	1·256	1·24	3·77	60·67
8 samples from Scotland	1 259	1·11	4·03	54·22
7 samples from Derbyshire	1·292	1 01	2 65	59 32
28 samples from Lancashire	1.273	1·44	4·88	60·22

* FOREIGN COALS.

Locality.	Specific gravity of coal	Sulphur.	Ash.	Percentage coke left by each coal.
99 samples French coal			8 53	
37 samples Belgium coal	1·340		5 61	
141 samples American coal		1 17	7 17	
49 samples German coal	1 366		9 01	

* *Chemical Technology*, Vol I, Fuel. Edited by Messrs. Groves and Thorpe, 1889.

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New South Wales Coal.

Ash.

Prof. Liverside states in *The Minerals of New South Wales, &c*, as follows:—The northern coals yield from 2·7 per cent. to 11·51 per cent. of ash, with an average of 6·80 per cent.; the Western district coals range from 6·24 to 12 91 per cent., and average 9·73 per cent. The Southern district coals, omitting the samples which seem to be somewhat exceptional in character, yield from 4·41 per cent. to 18·52 per cent., and average 10·01 per cent of ash.

**Sulphur.*

	Number of specimens.	Average percentage of sulphur.
Northern coal-fields	42	·88
Western ,,	25	·73
Southern ,,	27	·76

**Minerals of New South Wales, &c.* Edited by Prof. Liversidge.

I found it almost impossible to strike an average of the amounts of ash in the coals, analyses of which were made in the laboratory, as in most cases the samples were taken by prospectors from exposed outcrops, and, therefore, did no represent a true average; and in few cases were samples received from working collieries. On comparing the average percentage of ash with the average of the English coals it will be noticed that it is much higher, although the New South Wales Northern coal compares favourably with the German, American, and French coal. As regards the presence of sulphur, the coals of New South Wales are exceptionally free from that element, and I think will, without doubt, compare in this respect with coal in any part of the world.

The following samples of coke obtained from the Southern, Western, and Northern districts were furnished for analysis with a view of ascertaining their suitability for metallurgical purposes.

Northern District.

Locality.	Specific gravity.	Moisture at 100° C.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.
1. Rix's Creek, Singleton	1·328	·63	·36	87·81	10·67	·54
2. Coke used in laboratory for fuel	1·313	1·24	3·31	85·68	12·35	·42
3. Made from unwashed coal, Thornley Colliery, East Maitland	1·267	·10	·30	88·70	9·83	1·07
4. Co-operative Colliery, Wallsend	1·308	·41	·21	87·36	11·50	·52
5. Purified Coal & Coke Co., Newcastle	1·339	·31	·46	90·88	7·93	·42
Average	1·311	·538	·328	88·086	10·456	·594

No. 1 (966).—This coke was "hard burnt," received in pieces measuring about 1 foot 8 inches long. Blackish-grey in colour, dense, and hard. Should be readily handled without breaking or crumbling, and bear a heavy burden. Through the coke were visible pieces of a hard shaly material, some of which had burnt white. In parts the coke was coated with thin layers of ferrosferric sulphides. Ash: Yellowish tinge, flocculent.

No. 2 (Average sample of the coke supplied to the Laboratory for fuel).—Blackish-grey in colour; in length, measuring over 1 foot. In most pieces large fissures were visible, running along the entire length of the pieces. Coated in thin layers with ferrosoferric sulphides, which exhibited the characteristic play of colours. Coke, dense, and fairly hard. This coke was not "hard burnt," and although it should bear handling without crumbling, is not so good a sample as the former one for smelting purposes. Ash: Reddish tinge, with white specks, flocculent, and fairly free from heavy grit. A trace of lead and copper was detected. An examination of a large quantity of the ash was made for gold and silver, with the result that neither of these metals were detected.

No. 3 (1548).—Made from unwashed coal, Thornley Colliery, East Maitland. Coke, firm and bright, with a silvery metallic lustre, in pieces measuring over 1 foot in length. This is a good description of coke, and should stand readily handling without breaking or crumbling, and bear the weight of a heavy burden. "Hard burnt." Ash: Buff-coloured, flocculent; contains a large proportion of a hard siliceous substance, the bulk of which could have most probably been removed by washing the coal before coking. A test for copper, lead, gold, and silver, gave negative results.

No. 4 (1815) (Co-operative Colliery, Wallsend).—Blackish grey, inclined to silvery, dense, and hard. In pieces measuring over 1 foot 6 inches in length; "hard burnt." Hair-like threads were observed in this coke, occurring in patches somewhat resembling fibre. This coke should readily stand handling without breaking or crumbling, and bear the weight of a heavy burden. Ash: Yellowish in colour, flocculent. The ashes containing a fair proportion of a hard gritty substance. A test for copper and lead gave negative results.

No. 5 (2057) (Purified Coal, Coke Company, Newcastle).—Coke, silvery and metallic in appearance, dense and compact. In pieces measuring over 1 foot in length, "hard burnt." This sample can be readily handled without breaking or crumbling, and should bear the weight of a heavy burden of flux and ore.

An excellent coke for metallurgical operations. Ash: Yellowish in colour, flocculent; contains many pieces of a hard gritty substance. An examination of a large quantity of the ash was made for the presence of gold and silver, with the result that neither of these metals were detected.

Western District.

Locality.	Specific gravity.	Moisture at 100° C.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.
Cullen Bullen Coal Co. Second experiment washed before coking	1·716	5·30	1·92	74·06	18·20	·52

Only one sample was received from the Western District.

No. 1 (1479).—Coke, dull in colour, honeycombed, and not extra firm; pieces not in very large lengths. A very poor quality of coke, the ashes containing a very large amount of silica. The moisture in this sample is exceptionally high, this may be probably due to water having been used to cool the coke after coking. Through the coke large pieces of a hard siliceous substance were visible showing that the washing operations had not been a success.

Ash: Almost white in colour, granular, dense. About one-third (⅓) of the ash consists of hard siliceous grit. A minute trace of copper was detected.

Southern District.

Locality.	Specific gravity.	Moisture at 100° C.	Volatile matter.	Fixed carbon	Ash.	Sulphur.
Bulli Coke Works. Stated to have been made from washed coal	1·469	1·53	·79	83·77	13·45	·46
Wollongong Coke Works	1·566	·26	·29	87 75	11·27	·43
Undanderra ,,	1·471	1·35	·73	83 92	13·41	·59
Coke from Moss Vale	1·400	.....	1·35	79·20	19·00	·45
Coke from Wollongong	1 503	·52	. .	84 60	14 36	·53
,, ,,	1·454	·53	.	86 05	12·83	·59
Average	1·477	·698	·525	84·21	14 05	·508

No.

No. 1 (892) Bulli Coke Works, stated to have been made from washed coal.—Coke, fairly bright, blackish-grey in colour, very dense and hard; should stand readily handling without breaking, and will bear the weight of a heavy burden. On examining the sample, pieces of a hard shaly substance were visible through the coke Ash · Light-grey in colour, dense A strong trace of lead and copper was detected. An examination of a large quantity of the ash for gold and silver failed to detect either of these metals

No 2 (893).—Coke prepared from unwashed coal. Wollongong Coke Works. The same remarks apply to this coke as to its physical appearance. The sample contains less ash than the former one. Ash : Buff-coloured, dense. A minute trace of lead and copper was detected.

No 3 (894) Coke from Undanderra Coke Works —Coke blackish-grey in colour, dense, and very compact. Through the coke many pieces of hard, shaly matter were visible. From its hardness, this coke can be readily handled without breaking, and should stand the weight of a heavy burden of ore and flux. Ash : Light grey in colour, contains a large proportion of a heavy grit. A trace of copper detected. An examination of a large quantity of ash for the presence of gold and silver gave negative results.

No. 4 (905) Coke from Moss Vale, made from unwashed coal.—Coke, fairly well swollen up, fine and lustrous. Ash : White in colour, granular. The coal from which this coke was made yielded, on analysis, as follows :—

	Proximate analysis.	
Hygroscopic moisture	2·28	
Volatile hydrocarbons	33·07	
Fixed carbon	52·22	} Coke, 64·65 %.
Ash	12 43	
	100 00	

Specific gravity, 1·362.
Sulphur in coal, ·590 %.

No 5 (Coke from Wollongong).—Mount Kembla Bright and firm, blackish grey in colour. Can be handled without readily breaking, and should stand the weight of a heavy burden of ore and flux. Ash : Light-grey in colour, contains a large proportion of grit, dense. A trace of copper detected.

No. 6 (Coke from Wollongong).—The same remarks apply to this sample.

* The following analyses are given of some of the cokes used in England :—

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Fixed Carbon	95·51	85 85	90 53	94·21	93·41	93·05	89·87	84 82	96·42	97·60	94·08	92 44	89·69	91·16	93 54	91·49	94·31
Ash	2 85	12·07	8·46	5·10	5 80	5 37	8·35	14·40	2·75	1·55	5·04	6·00	8·35	7·65	5·70	7 05	4·97
Sulphur	1·64	2·08	1 01	·69	·79	1·58	1·78	·78	·83	·85	·88	1·56	1 96	1·19	·76	1 46	·72

Ash in Coke—

No. of specimens.	Maximum.	Minimum.	Mean.
17	14·40	1·55	6·55

Sulphur in coke.

No. of specimens	Maximum.	Minimum.	Mean.
17	2 08	·69	1 20

* ANALYSES of some of the principal American Cokes .—

	1	2	3	4	5	—
Fixed Carbon	89 57	92·18	89·28	89 86	89·77	—
Moisture	·30	11		·54	·12	—
Ash	9·11	6 68	8·66	9·41	9·58	—
Sulphur	·82	·618	1·06		·93	—
Phosphorous	·014	·027	..		·033	—
Volatile matter	·460	·350	..	·667		—
Specific gravity	1·500	.....	1·342	1·560	1·493	—

* *Chemical Technology*, Vol. I , Fuel. Edited by Messrs. Groves and Thorpe, 1889.

Ash in coke—

No. of specimens.	Maximum.	Minimum.	Mean.
5	9·58	668	8·688

Sulphur in coke—

No. of specimens.	Maximum.	Minimum.	Mean
5	1·06	Nil.	·685

SUMMARY of analyses of New South Wales coke.

Locality.	Fixed Carbon.	Ash.	Sulphur.
New South Wales—			
Northern District	88·09	10·45	·594
Southern District	84·21	14·05	·508
English	91·56	6·55	1·26
American	90 13	8·68	·685

The following analyses are furnished, showing the composition of the ashes of the cokes —

NORTHERN DISTRICT.

No.	Locality.	Ash, per cent.	Silica	Alumina.	Sesquioxide of Iron.	Manganese (Mn. O.)	Lime	Magnesia.	Potash.	Soda.	Phosphoric Acid	Sulphuric Acid	Total.
1	Rix's Creek, Singleton	10·67	56 07	31·57	7 47	...	2·38	trace	·72	·96	·22	·23	99 62
2	Coke used in laboratory for fuel	12·35	56·26	28 33	11·52	·27	1 00	·16	1 27	·04	·67	·82	100·34
3	Made from unwashed Thornley Colliery, coal, West Maitland	9 83	57 66	30 33	9 06	strong trace.	·65	·23	1·50	trace.	·64	·19	100·25
4	Co-operative Coal Company	11·50	59·64	34 56	2 62	trace.	·75	1·13	1·26	·04	·30	12	100 42
5	Purified Coal and Coke Company	7 93	51·20	34 33	9 14	do.	2 63	55	·19	·54	1 80	nil.	100·38
	Average	10 456	56·16	31 82	7·962	·654	1 482	·414	·988	·316	·726	.272	...

WESTERN

WESTERN DISTRICT.

No.	Locality.	Ash per cent	Silica.	Alumina.	Oxide of iron.	Manganese (Mn. O.)	Lime.	Magnesia.	Potash.	Soda.	P_2O_5	SO_3	Total.
1	Cullen Bullen Coal Company*	18 20	80·20	17·25	trace.	trace.	1·68	·18	1·10	trace.	trace.	trace.	100 41

* II.—Experiment in washed coal.

SOUTHERN DISTRICT.

No.	Locality.	Ash per cent	Silica.	Alumina.	Sesquioxide of iron.	Manganese.	Lime.	Magnesia.	Potash.	Soda.	Phosphoric Acid.	Sulphuric Acid.	Total.
1	Bulli Coke Works	13·45	53·84	36·79	2 53	strong trace.	2·29	1·62	1 44	·02	·30	68	99·51
2	Wollongong Coke Works	11 27	55·24	39 67	1·75	do	1·28	trace.	·97	·38	·67	·29	100 25
3	Unandarra do	13·41	55·49	39 60	1·11	do	1·72	·15	1 09	·43	·51	·24	100·37
4	Coke from Moss Vale	19 00	69 75	23 83	3·17	trace.	1·00	·45	·33	·45	trace.	·31	99·29
	Average	14 282	58·58	34·97	2 14	...	1·572	·555	·957	327	·370	·380	...

PHOSPHORIC ACID.

The ashes of the coals of New South Wales yield much less phosphoric acid than the English, which is greatly in their favour when the coals or cokes are required to be used for iron-smelting purposes.

	No. of Samples	Maximum.	Minimum.	Mean.
New South Wales—				
Northern District	5	1·80	·22	·726
Southern District	4	·67	trace.	·376
*Western District	8	·64	trace.	·290
Great Britain	6	6 633	·74	1·843

* *Minerals of New South Wales, &c*, edited by Professor Liversidge.

For further information regarding the composition of the ashes of New South Wales coals, I refer you to the various analyses made by Professor Liversidge and W. A. Dixon, Esq, F.C.S., and published on pages 140 and 141 in *The Minerals of New South Wales, &c.*

ANALYSES of the Ashes of Bituminous Coals, by Mr. J. A. Phillips—(British Coals)

Name of Coal.	Silica.	Alumina and oxide of iron.	Lime.	Magnesia.	Sulphuric Acid.	Phosphoric Acid.	Total per-centage	Per-centage of ash in coal.	Per-centage of coke in coal.
Welsh—									
Pontypool	40·00	44·78	12·00	trace.	2·22	0·75	99·75	5·52	64·8
Bedwas	26 87	56·95	5·10	1·19	7 23	·74	98·08	6 91	71·7
Portmaur	34 21	52·00	6·19	·66	4 12	6·633	97·82	2·91	63 1
Ebbu Vale	53·00	35·01	3 94	2·20	4·89	88	99 92	14 72	77·5
Scotch—									
Fordell (splint)	37·60	52·00	3 73	1·10	4·14	0 88	99·45	1 50	52 03
Wallsend, Elgin	61·66	24·42	2·62	1 73	8 38	1·18	99·99	4·00	58·45

COMPOSITION of ashes of different varieties of coke; by Gaultier:—

Locality.	Sulphate of lime.	Silica	Alumina.	Carbonate of lime.	Carbonate of Magnesia.	Oxide of iron.	Oxide of Manganese
English—							
Iron bridge	12·55	42 10	34·40	4·80	·40	5·28	Trace.
Dudley	8·64	35·40	30·40	6·48		18·68	do.
Merthyr Tydvil	4 56	41·60	35·44	6·46	1·08	10·80	do.
St. Etienne, France—							
Puits St Henri	2·40	73 20	14·40	·80	·70	7·98	do.
Puits du Fils	2·40	54·90	37·00	3·20		2·30	do.
Puits de Carrode	4·90	56 50	23 00	·40	·76	14 38	do.
Puits de Robert Menu	5·60	44 50	34 34	7 00	·50	7 18	do.
Puits Dessus	2·20	50 00	32·00	1·44	·70	13 28	do.
Puits des Planches	3·60	43·50	36·20	6 20	·50	9·42	do.
Puits de la Grande Fendue	3·50	8 20	34 00	·30	·30	3·32	do.
Rive-de-Gier—							
Puits de la Grande Croix	3·20	55·04	19·80	8·80		13·00	do.
Puits des Eombes	8 70	36·30	11·00	24·20		19·06	do.
Puits de St. Mathieu	4·90	55·00	22·24	5 50	8·80	3·32	do.

On comparing the analyses of the New South Wales coal ashes with those yielded from the coals of Great Britain, it will be seen that the English coal ashes contain much more lime in their composition, varying from 2·62 per cent. to 12 per cent. In the *Northern coal ashes, New South Wales, varies from ·56 per cent. to 8 05 per cent.; in the Western, from traces up to 1·35 per cent.; Southern district, from traces up to 2 29 per cent. The amount of sulphuric acid is also higher in the English, while the ashes contain no alkali in their composition (?) Those from New South Wales contain from traces up to 1 or 2 per cent, the Southern and Western usually yielding less than the Northern.

* *Minerals of New South Wales, &c.*

A coke required for metallurgical purposes should exhibit the following physical appearance:—Blackish grey in colour, with a more or less fatty lustre, in that prepared from coals rich in oxygen, to a light iron-grey, with a fine silky or almost metallic lustre, the coke yielded by coking coal often resembling in structure a mass of melted slag or lava. A good description of coke should be uniform through, without any great admixture of fibre or shaly matter, also dense and compact. The coke should be "hard burnt" so as to exhibit the latter quality, and therefore be capable of resisting the action of the blast. Coke of this quality carries twice the burden of flux and ore.

The objection to the uses of the New South Wales cokes at Broken Hill seems to be the excessive amount of ash present in the samples over the cokes manufactured from the British coals and elsewhere, the ash being useless material, requiring to be handled on several occasions before reaching the mines, besides hindering the combustion of the coke. As an example, a coke yielding 10 per cent. of ash would represent 10 tons of useless material in every 100 tons of coke, which freight would have to be paid for.

The ash in the Northern cokes averages in five samples 10·45 per cent., one of the samples yielding only 7·93 per cent., which is little more than $1\frac{3}{4}$ per cent. higher than the average given of seventeen samples of English cokes. I refer to the coke manufactured by the Purified Coal and Coke Co., Newcastle, which, as regards its physical appearance and make, is an excellent description of coke. Nos. 1, 3, and 4 are good descriptions of coke, they being well made in long lengths, "hard burnt," and capable of standing the pressure of a heavy burden of ore and flux.

Professor Liversidge gives the mean of 42 analyses of the ash in the coals of the Northern District as 6·80 per cent. thirteen of the samples yielding under 5 per cent. of ash. I venture to think that the amount of ash present in the Northern coals could be greatly reduced, at a comparatively low cost, by a thorough system of grinding, screening, and washing the "slacks" before coking, especially in those coals yielding 4, 5, and 6 per cent. of ash.

The Western coals as a rule do not yield a good description of coke, the coals often only coking when freshly obtained from the pit. The amount of ash present is usually high compared with the ashes of the Northern District, though lower than the Southern. The samples received from the Southern District all yielded high results for ash. In one or two cases the samples furnished were stated to have been washed before coking. If this is the case, it is very evident that the washing machines, if properly worked, are not suitable for this class of coal. In most of the samples, many pieces of hard shaly matter were visible, and the ashes contained a large amount of heavy gritty substance. The cokes were well burnt, very dense and compact, and would be a good description of coke for metallurgical purposes, if containing less ash.

The whole question as to the uses of our cokes for metallurgical purposes at Broken Hill and elsewhere, hinges on the amount of ash present, and suggests a systematic and thorough method of sorting, screening, and washing the coals before coking, so as to obtain an article as free from ash as possible. From experiments made in the laboratory, on the small scale, it was found possible to greatly reduce the amount of shaly matter in the coal by screening and washing. As information should prove useful as to the cost of washing and coking, also the description of washing machines and ovens in use in Great Britain and the Continent, I venture to furnish the following, obtained from some of the best authorities on the subject. In France the cost is given as follows:—

	d.
Labour	5·1
Other charges	1·2
Loss	8·3
Total	14·6

Or about 1s. 2d. per ton of washed coal, while on a produce of 66 per cent. of coke would cost 1s. 10d. per ton of coke.

Michworth's Purifier.—These machines were started in Scotland, Cumberland, Derbyshire, Wales, to purify from 20 to 100 tons of coal per day, at a cost not exceeding 3d. per ton, and with a loss not exceeding 2·0 per cent. of coal.

The Bochum Mining and Smelting Co., in Westphalia, in order to obtain a pure coke for their blast-furnaces, established at their collieries a complete set of apparatus for working the coal on the Lürich system. It is stated by them, that 1,000 tons of coal can be washed in this machine. Before washing, the coal contained 8 per cent. of ash; after washing, 3·6 per cent. of ash. The cost of washing is given at less than ½d. per ton of coal. The coast of handling being less in Great Britain and the Continent, of course a liberal allowance will have to be added for treatment of the New South Wales coals. Many other descriptions of washing machines are used, those on the hopper-dredge system being largely in use, and are stated to perform excellent work.

In a pamphlet issued by Mr. Frederick J. Rowan, C.E., entitled "On the Principles of Coal Washing," the following is stated:—"It is not by any means a simple matter to select the best machinery for the treatment of a particular coal, because of the many varieties in the nature of coal, and in the minerals mixed or associated with it, the manner in which the coal breaks up, and all circumstances tending to produce varieties in the yield of ash in the large and small coal. Variations in washing machines, moreover, are needed according to the different sizes which it may be desired to treat in them; and the question of the amount of loss by the formation of mud or sludge has an important bearing on the means of treatment that are employed. These are all matters which demand experience in the treatment of different varieties of coal, in order to their being properly dealt with, so that the interest of neither coal-master or consumer shall be neglected, and it may be said that no general rule of treatment can be laid down, and no one form of arrangements can be prescribed as suitable for all classes.

"The process of coal-washing, whatever may be the special machine employed, depends upon simple but not very interesting principles, namely the conditions which accompany and regulate the fall of solid matter in deep or shallow water."

The coal is usually coked in ovens of the bee-hive pattern, there being a very great variety of ovens in use, each of which claim their respective qualities.

In America I find that cokes containing 7, 9, 10, and 11 per cent. of ash are used for smelting purposes. The coke made at the Broadford Works contains from 9 per cent. to nearly 12 per cent. of ash. At Rockwood, Roane Co., Tennessee, a coal is coked for use in the blast furnace containing 5 27 per cent. to 11·52 per cent. of ash. A coke made in Colorado, and used principally by the lead smelters in cupolas, &c., contains from 6·6 per cent. to 7·15 per cent. of ash.

In conclusion, I may point out that the coals of New South Wales, though higher in ash than the average of British coals, should be greatly improved in quality as regards the ash present, by a thorough systematic method of washing before coking, especially the northern coals, which form an excellent coke.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

The Geological Surveyor-in-Charge.

Submitted.—T.W.E.D., 18/9/90. The Under Secretary.

Appendix No. 7b.

Sir, Report and Analysis of New Caledonian Iron Ores.

I have the honour to furnish you with the analyses of nine samples of iron ore obtained from New Caledonia. The specimens may be described as excellent, the almost absence of phosphoric acid, and the small percentage of sulphuric acid present will greatly enhance their value for smelting.

On referring to the analyses, it will be noticed that all the samples contained a small percentage of chromic sesquioxide, existing in the ore as chrome iron ore. The amount present is, however, small, and will not interfere with the ore for smelting purposes.

Analyses.

	I. No 2,127.	II. No. 2,128	III. No. 2,129.	IV. No. 2,130.	V. No. 2,131.	VI. No. 2,132.	VII. No. 2,133.	VIII. No. 2,134,	IX. No. 2,135.
Moi-ture at 100° C	1·64	1·48	3 53	1·21	2·04	1·95	2 64	2 35	1·63
Combined water	11 39	12 14	12 09	9 58	13 01	11·60	12·13	12·24	11·06
Organic matter	..	...	trace					trace	. .
Iron peroxide	76 39	74·72	64·56	78 08	69 09	75·85	73 21	73·62	73 95
Iron protoxide	·45	68	2·44	1·56	4·05	1 30	1·04	1 26	2·03
Chromic sesquioxide	1·20	1·14	2·14	1 64	2 86	1·17	·75	1 38	1·77
Nickel protoxide	·25	·35	1·35	·30	·40	·35	·40	·29	·20
Cobalt do	trace	trace	nil	trace	trace	trace	trace	trace	trace
Manganese do	do	do	·14	do	do	do	do	do	do
Alumina	4 41	8·19	10·86	6·42	7·21	6·11	9·39	7 64	8·02
Silica	3 40	·90	2 08	1·00	·20	·60	·40	·35	·68
Lime	trace	trace	·12	·17	trace	trace	trace	·14	·12
Magnesia	·40	·25	·13	·05	·57	·15	·25	·08	trace
Phosphoric acid	nil	trace	trace	nil	trace	trace	trace	nil	trace
Sulphuric acid	·44	·39	·94	·29	·34	·45	·36	·25	·33
Total	99·97	100·24	100 38	100·25	99·77	99 53	100 57	99·60	99 79
Equal to Metallic Iron	53 82 %	52·82 %	47 08 %	55 86 %	51·51 %	54·10 %	52 05 %	52 51 %	53·33 %

A large assay of each of these samples was made for gold and silver, with the result that neither of these metals were detected.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.

The Geological Surveyor-in-charge. Analyst and Assayer.

Appendix No. 7c.

Report and Analysis of a Gold-bearing Stone from Adelong.

Sir,

I have the honor to furnish you with the following analysis and report respecting a sample of gold-bearing stone weighing about 10 lb., furnished with a view of ascertaining from what source the loss of gold occurs in the treatment of the stone.

An average of the stone yielded as follows:—

Analysis.

Silica	87 50
Alumina	1 96
Ferric oxide	1 92
Ferrous do	·75
Carbonate of lime	5·77
Carbonate of magnesia	2·43
Sulphuric anhydride (SO_3)	·06
Phosphoric do (P_2O_5)	trace
	100·39

Fine gold, at the rate of 5 oz 4 dwt 12 grs. per ton of stone.
„ silver „ „ 3 „ 6 „ „ „

This stone may be described as quartz, containing in some of the pieces thin flat layers of magnesian limestone, also a very small quantity of magnetic oxide of iron. The gold is in the free state, but in a very fine state of division, there being no refractory metals present which will interfere with the amalgamation of the crushed stone. The loss of gold is due to the fineness of the particles. This is partly proved by the assay of the tailings, which yielded 1 oz. 7 dwt. 5 grs. per ton, and I should expect the slimes to yield a portion of the metal; and also a further loss as float-gold, which would be carried off in suspension and not recovered. The whole of the ore was crushed and several assays made, it being found impossible to get any two assays to thoroughly agree, in consequence of the free gold present. Three large assays were made by amalgamating a weighed quantity of the ore, and the following result is the mean of the experiments:—

Fine gold, at the rate of 4 oz. 15 dwt. 9 grs. per ton.
„ silver „ 5 „ 10 „ „

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.,

The Geological Surveyor-in-Charge. Analyst and Assayer.

APPENDIX No. 7D.

Sir,

I have the honor to report as follows respecting a sample of Copper Ore received from you for analysis and report:—

ANALYSIS.

No. 3,264.

$Cu_2 S$	17·89
$Fe_2 S_3$	28·84
Pb S	2·76
Zn S	1·64
$Al_2 O_3$	4·28
Ca O	·60
Mg O	1·64
*Gangue	42·05
	99·70

* Gangue (insoluble in acids.)

Fine silver at the rate of 9 ozs. 3 dwts. 23 grs. per ton.

„ gold „ „ 0 „ 3 „ 6 „

If the above analysis represents anything like a fair average of the ore treated at the mine, it should be readily smelted if properly fluxed, there being nothing present in its composition to cause the action complained of, *i.e.*, "said to destroy the bottoms of furnaces in an unusual manner."

The action on the furnace bottoms is possibly due to an imperfect system of fluxing the ore before smelting.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.,

The Geological Surveyor-in-Charge. Analyst and Assayer.

APPENDIX No. 7E.

Sir,

I have the honor to report as follows respecting a sample of Semi-bituminous Coal from Tasmania, submitted to the Department by the Imperial naval authorities, with the view of ascertaining its value for steaming purposes:—

Proximate Analysis.	
Hygroscopic moisture	6·38
Volatile hydrocarbons	26·96
Fixed carbon	54·21
Ash	12·35
	100·00

Specific gravity of coal (in powder), 1·443.

Sulphur in coal, ·398 per cent.

From experiments made in a Thomson's calorimeter, it was found that 1 lb of this coal would convert 11·3 lb. of water into steam.

Coke—Coal slightly caked, leaving some dull black powder; no true coke formed.

Ash—Reddish colour, with a few white specks; floculent.

Analysis of Ash.

Ash %	$Si O_2$	$Al_2 O_3$	$Fe_2 O_3$	Mn O	Ca O	Mg O	$K_2 O$	$Na_2 O$	$P_2 O_5$	SO_3	Total.
12·35	58·70	28·38	10·12	Trace.	·53	·91	1·51	Trace.	Trace.	·08	100·23

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.,

The Geological Surveyor-in-Charge. Analyst and Assayer.

APPENDIX No. 7F.

Analysis and Report on sample of Shale resembling in appearance "Tasmanite."

Sir,

I have the honor to report as follows respecting a sample of Resiniferous Shale received from you for analysis and report, on the 22nd instant:—

Proximate Analysis.	
Moisture, at 100° C.	1·35
Volatile hydrocarbons	32·18
Fixed carbon	3·61
Ash	62·86
	100·00

Sulphur in shale, 1·208 per cent.

Specific gravity, 1·755.

Coke—No coke formed.

Ash—Reddish tinge in colour; dense.

On heating the mineral evolved suphurous acid, and on burning off in the open air gave a fetid smoky flame.

Acted upon by alcohol, ether, and bisulphide of carbon, the extract having a yellowish appearance. On distillation yielded a heavy oil, and solid product, having a very disagreeable odour.

Under the microscope the specimen had the appearance of containing a number of seed-spores; pieces of stone containing pyrites were also detected. This mineral has somewhat the appearance of Tasmanite; but its solubility in alcohol, ether, and carbon bisulphide do not class it as the resiniferous shale described by *Prof. Church, who states, "that it is not dissolved in the least degree by alcohol, ether, or benzine, &c." The large percentage of ash in this sample renders it of little value for the manufacture of oil.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.,

The Geological Surveyor-in-Charge. Analyst and Assayer.

* Phil. Mag. 54, 1804, xxviii, 465.

APPENDIX No. 7G

SIR,

I have the honor to report as follows, respecting a substance of an organic nature mixed mechanically with inorganic matter, the sample being furnished for analysis with a view of ascertaining its composition and, if possible, its origin :—

	Analysis.
Moisture at 100° C	1 58
Matters soluble in petrolium spirit	35 27
" " Ether	8 30
" " Water	*4 10
Matters insoluble in petrolium spirit, ether, and water	1 73
Silica	32 52
Alumina	10 33
Lime	trace
Magnesia	58
Oxide of iron	2 14
Oxide of manganese	trace
Phosphoric anhydride ($P_2 O_5$)	·39
Sulphuric do (SO_3)	nil.
Potash ($K_2 O$)	2 30
Soda ($Na_2 O$)	76
	100 00

* Contains 40 per cent of inorganic matter, consisting of—

Silica	·16
Oxide of iron and alumina	·17
Lime	·05
Magnesia	trace
	·38

This substance may be described as of a yellowish colour, light and brittle, readily burns when lit, emitting an aromatic odour somewhat resembling that given off when gum or gum leaves are burnt.

In patches in the centre of many of these pieces, was a soft black viscous substance, which hardened on exposure. The organic portion was readily soluble in petrolium spirit, alcohol, and ether, the extracts or evaporation yielding a reddish-coloured viscous substance. The extract soluble in water contained tannin, also some substance having a pungent aromatic odour somewhat resembling that yielded by many of the gums obtained from the eucalypti. A special examination was made for the presence of antimony, as it was stated that the sample furnished was obtained in the vicinity of an antimony lode near Bowra, in the Nambucca district, but no trace of that metal could be detected.

At present, this substance may be provisionally described as of an organic nature, mixed with a matrix consisting of quartz, with a small amount of clay, the organic portion being possibly gum-resin, or, perhaps, gum, which has undergone a great change through various causes; or, possibly, this substance may have been derived from the excrement of marsupials, but I think the former theory is the more feasible.

Professor Rennie, of the Adelaide University, to whom I showed a specimen, told me that a similar substance had been found in South Australia, and that its origin was probably due to bats' dung.

In the Mining Records of South Australia for 1890, mention is made of an organic substance to which the name of coorongite or Australian caoutchouc is given, but, from its description, I do not think this is a similar substance. Some scientific authorities describe coorongite as being of vegetable origin, and regard it as a gum exuding from a plant of lichen. Other persons assign to it a subterranean origin, but this view is not supported by ascertained facts

JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

The Geological Surveyor-in-Charge.

APPENDIX No 7H.

RESULTS of tests of Coal from various collieries, made on a N.S.W. Government Locomotive, No 104 Sydney to Kiama and back, 1890; and in the Laboratory, Department of Mines, by Price Williams, Esq., C.E.

Description of Coal, &c	Coal					Water at 212° F. converted into steam by 1 lb. of coal by calorimeter.	Water		Ash	Load	Load	Time			Speed	Pressure
	Date of trial	Specific gravity	Total amount burnt	lbs. burnt per square foot of grate per hour	lb. burnt per mile		Total amount evaporated	lb. evaporated per lb. of coal	Percentage of ash	Up journey	Down journey	Running	Shunting or standing	Total time on journey	Average speed while running	Average boiler pressure
			Tn. c. qrs. lb.	lbs.	lb.	lb.	lbs.	lb.	%	tns. cwt.	tns. ct.	h. m.	h. m.	h. m.	Miles per hr.	lb. per sq. inch
Great Northern Colliery Company	20/3/90	1 34	2 19 0 0	33 7	47 2	12 03	44 965	6 80	13 60	145 0	78 10	7 53	6 0	13 53	17 5	130
Metropolitan Coal Company	22/3/90	1 38	2 12 1 14	33 9	41 9	12 29	44 285	7 55	13 30	148 10	78 10	6 27	5 53	12 20	21 7	135
Northumberland Coal Company, Fassifern	31/3 90	1 42	3 3 2 3	32 6	50 9	11 40	45 092½	6 33	19 60	151 2	78 10	8 13	7 22	15 35	17 0	125
Waratah Colliery Company	2/4/90	1 30	2 13 2 15	32 4	42 9	13 92	44 555½	7 40	10 26	146 7	78 10	7 58	5 16	13 14	17 5	135
Wallarah Colliery Company	17/4/90	1 38	3 0 3 0	39 6	48 6	12 60	43 562½	6 40	13 17	147 18	78 10	7 42	4 34	12 16	18 2	135

APPENDIX No. 8.

Progress Report for 1890, by W. S. Leigh, Superintendent of Caves.

Sir, Department of Mines, Geological Survey Branch, January, 1891.

I have the honour to submit the following progress report on the caves for the year 1890:—

During the year I have visited the following caves on matters relating to their improvement and supervision, and also to report on new discoveries, viz.:—Jenolan (five visits), Wombeyan (three visits), Yarrangobilly (two visits), Kybean (two visits), Wellington, Bungonia, Bendithera, and Jerrara. The most extensive improvements have been carried out at the Jenolan Caves.

New caves have been discovered at the following places, viz.:—Bendithera, near Moruya (*see Appendix No.* 8A); Kybean, near Cooma (*see Appendix No.* 8B); and Jerrara, near Marulan (*see Appendix No.* 8C).

At each of these places certain areas embracing and surrounding the caves have been recommended for reservation.

The Bendithera Caves, on account of their extent and the perfect dripstone formation contained therein, have been placed in charge of a keeper. It was not thought advisable to appoint a permanent keeper to the Kybean Caves, they being small and difficult of access, and not being rich in stalactitic growths, it is unlikely that they will become a popular resort for sightseers; but the fact that they contain beds of bone breccia in their lower depths makes them both of interest and importance. The discoverer of the caves, Mr. S. G. Elphich, was in August employed temporarily to explore and open them up; and this work having been carried out satisfactorily, I, in company with Mr. Etheridge, Palæontologist, in October, further examined the caves, with a view to determining the extent of bone breccia, and Mr. Etheridge being favourably impressed with the fossils, we concluded that a good collection could be obtained for the Mining and Geological Museum, and accordingly recommended Elphich's further employment for three months for this purpose.

The Jerrara Cave, being only three miles distant from the Bungonia Caves, has been placed under the charge of the keeper of the latter.

The total number of visitors to the different caves during the year was 4,042.

Following are particulars showing number of visitors, improvements, &c., at the different caves for the year 1890, viz.:—

Jenolan Caves.

Number of visitors, 1,467. The erection of turbine for driving the electric light, referred to in my last progress report as being then in course of progress, was completed, and now drives, in place of the old steam-engine, the new dynamo, which is connected to the electric light wires of the Imperial Cave. The machinery was thoroughly tested in every respect, the dynamo being run up to the necessary speed, viz., 1,250 revolutions per minute, the turbine meanwhile passing less than half the available water, or exerting a force of about five-horse power, equal to lighting fifty lamps. Different circuits of lamps in the caves, with the light on, were then tested, and the lights were found to be far more brilliant and steady than had previously been the case. The turbine has now been in use for some time as the motive power for lighting the Imperial Cave. It was found by actual test that the turbine is capable of lighting over 100 lamps with the full supply of water turned on, although it is not intended to place over fifty, or, at the most, seventy-five lamps in one circuit, which arrangement will at all times ensure a brilliant light. In the Imperial Cave twenty-five lamps comprise a circuit.

During the year a new dam has been constructed across Camp Creek, with a storage capacity equal to three months' supply for the accommodation buildings. A three-inch main will be laid from the dam, with all the necessary connections for a proper water supply, and a hydrant fixed for use in case of fire.

The heavy rains in March last did considerable damage to the roads and creek embankments in the vicinity of the caves, most of which damage has been repaired, and the roads put in good order again.

The new stable, capable of accommodating twelve horses, has been completed, and tenders invited for another six-horse stable for the exclusive use of the line of coach horses.

Other general improvements have been carried out in and about the caves.

A new system has been introduced at these and the other caves in respect to the sale of magnesium wire which, it is thought, will prove more satisfactory to visitors.

Wombeyan Caves.

Number of visitors, 249. The road from Taralga has been completed, and visitors can now drive to the accommodation house. The proposed road from Bowral to the caves, which will shorten the distance from Sydney considerably, is now in course of survey. The accommodation recently provided is highly appreciated by the visitors. It is intended to call tenders, at an early date, for the necessary ironwork, &c., for further improving the newly-discovered caves.

Yarrangobilly Caves.

Number of visitors, 230. These caves are now connected with the nearest telegraph station (Kiandra) by telephone, which has proved of great service to intending visitors and the keeper. The accommodation now provided not being ample, tenders have been invited for the erection of another cottage for the use of visitors.

Wellington Caves.

Number of visitors, 1,498. Although the keeper has been kept busy with visitors, the number being very great compared with that of some of the other caves, he has succeeded in making a collection of a few cases of bones and other fossils for the Mining and Geological Museum.

Bungonia Caves.

Number of visitors, 259. A fair amount of exploration has been carried out at these caves, and several branches from the known caves have been discovered, which bear a striking resemblance to the whole. Two cases of Siluro-Devonian fossils have been received from the keeper.

Abercrombie

Abercrombie Caves.

Number of visitors, 161. Owing to heavy rains and consequent floods in Grove Creek, on which the caves are situated, the keeper reports that a large number of intending visitors were precluded from inspecting these caves during the year.

Bendithera Caves.

Number of visitors, 133. This return embraces only the latter part of the year.

Kybean Caves.

Number of visitors, 45 (three months). As before-mentioned it is not expected that these caves will be much visited; therefore it was not thought advisable to appoint a permanent keeper. A man is now temporarily employed in searching for fossil bones, a case of which has already been received by the Department.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

APPENDIX No. 8A.

Report on Bendithera Caves.

Sir, Geological Survey Branch, Department of Mines, Sydney, 29 April, 1890.

I have the honor to report, as requested, on the caves recently discovered at Bendithera, near Moruya, the discovery of which was reported to the Department by Mr. Warden Maunsell (*vide* 89-10,162). They are situated in the parish of Uranbene, county of Dampier, being about 25 miles due west of the township of Moruya, about 40 miles south of Braidwood, and the same distance N.E. of Cooma. The surrounding country is very rough and mountainous, and so far no roads have been made in the vicinity, the only means of access to the caves being by bridle tracks, that from Moruya, the eastern outlet, crossing some very high ranges, an altitude of over 2,400 feet being reached. On the western side the track connects with the Braidwood road at Krawaree, about 12 miles distant, and from information received I understand that it would be quite practicable, and not a very costly undertaking, to continue the road from this side down to the caves, and thus open up a growing pastoral and mining district.

The belt of limestone in which the caves occur runs north and south, and is identical with that of Wyanbene, about 8 miles south of Araluen, at which place a cave was discovered eighteen months ago, but on account of its flooded state it was not deemed advisable by the Department to take further action in regard to it for the time being.

The discovery under notice is of far more importance, three distinct caves having already been found, and considering the wide extent of limestone country here it is very probable that others, and perhaps better ones, will soon be brought to light. The principal cave is situated on the northern slope of the mountain, about 250 feet above the level of Cow Creek, which runs at its base, the waters of which rise principally from underground channels, bursting up through the limestone at two or three different places.

Passing through the entance, an opening about 10 ft. by 6 ft., you stand on the threshold of a large chamber, being about 50 feet in height by 50 feet in width, containing some massive stalactites of a curtain-like form hanging 20 feet below the roof. Beyond this chamber the cave takes two levels, or is divided into an upper storey, being on a level with the entrance. Descending by an opening to the left by an almost natural staircase leading to the lower levels, two immense columns are met with, one of which, about 20 feet in diameter and known as "The Pulpit," rises to a height of 60 or 70 feet, and seems designed to support the long stretch of roof beyond. Descending 25 feet more the lowest level is reached, the floor at this point forming a basin containing water, the depth of which averaged 3 feet, and 25 feet wide, being the drainage of the whole cave, caused principally by the late heavy rains. At this point the width of cave is about 60 feet, and the roof, only discernible with the aid of the magnesium light, must be close on 90 feet overhead. A wall of rock, forming an angle of about 60 degrees with the horizontal, is next ascended 45 feet, this being on a level with the upper storey of the cave before-mentioned. Glancing back from this point a splendid view of the entrance, 150 yards distant, is obtained, and viewing daylight so far back after traversing the lower levels, has a very novel and pleasing effect. Beyond this a gradual ascent is made for about 100 yards, when the end of the cave is reached. The floor at the extreme end is thickly covered with guano, bats being very numerous in this part of the cave.

The whole cave resembles an immense straight drive into the mountain and is about 250 yards in length by an average width and height of 40 ft. and 50 ft. respectively. Some very fine specimens of dripstone formation, mostly massive, are met with, amongst which may be mentioned a number of fine statue-like stalagmites standing out in bold relief against the sombre background, also some large natural niches in the walls with rounded canopy-like formations fringed with fine stalactites hanging gracefully above each niche, at the foot of each is a large basin projecting from the wall and enclosing the base, some of these canopies are 20 ft. in height. A large slab of calcite, over 20 ft. in height by 4 feet wide and 2 inches thick, in the form of a screen projecting from the wall, attracts general attention. This slab, I am sorry to say, has been much chalked over by visitors.

The formations, as a rule, in this caves are not pure white but of a brownish-yellow tint.

One of the other caves referred to and known as the "Gin Cave," is about 2 miles distant from the principal cave, and being rather inaccessible, has not yet been explored, but when better appliances for this purpose are procurable, an important discovery will most probably result. The other cave, about half a mile distant, is rather small and contains very little dripstone formation.

An area of land (1,180 acres) on which the caves are situated, was reserved from sale, for public recreation on the 22nd February last.

Mr. Warden Maunsell and Mr. Barlow, of Moruya, two gentlemen who have interested themselves in the preservation of the caves, accompanied me from Moruya and gave me valuable information as to the surrounding country, routes, &c.

Although one or two instances of disfigurement by chalking occur in the caves, on the whole they are in a good state of preservation, and in order that they may be preserved to the country in this state, and that intending visitors may rely on the services of a guide when inspecting the caves, I would suggest that a keeper be temporarily employed, and such improvements, including gate at entrance, carried out as deemed necessary.

Benjamin

Benjamin George, the discoverer of the caves, who lives within 2 miles of them, would, I think, be the most suitable man to employ, and as an incentive to properly exploring the present caves and their vicinity, he might perhaps, in the first case, be temporarily employed for, say two years at £50 per annum, his further employment to depend principally on the amount of exploration work carried out during that period.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

The Geological Surveyor-in-Charge.

APPENDIX No. 8B.

Report on New Caves near Cooma.

Sir, Department of Mines, Geological Survey Branch, 28 July, 1890.

I have the honor to report, as requested, on the new caves, recently discovered near Cooma. They are situated on Crown lands, 20 miles south-east of that town, in the parish of Throsby, county of Beresford, the best route from Cooma being via Dangelong station 12 miles, good road, and thence by bridle track across a rather hilly country to a place known as Mowitt's Swamp 8 miles, the latter portion of the track running through open swampy flats.

The caves occur in a spur of limestone, running north and south and of about 30 acres in extent, abutting on a mountain range of slate formation. Two distinct caves have been found, the entrances to which are on the eastern side of spur about a chain apart and 50 feet above the flat.

The larger cave is entered by descending through a chimney-like opening, just sufficiently large to squeeze oneself through, about 12 feet, when the floor of the first of the three chambers (it contains) is reached. As regards size and shape the chambers are very much alike, not one of which would average in size more than 15 ft. by 7 ft. by 6 ft. high. They are very rough and irregular in shape and the connecting passages very small, that between the first and second chambers being a horizontal fissure not more than 15 inches wide, which narrow opening has to be negotiated for a distance of 10 feet, after which the track becomes easier to travel, a gradual descent over broken rocks being made until the present known end of caves is reached, being about 35 feet below the level of entrance.

The cave, on the whole, contains a very fair collection of stalactites and stalagmites of various forms, some of which are pure white and almost transparent whilst others are of a light brown tint. The best of these dripstone formations in the first chamber have been removed, whilst those of the rest of the cave, on account of the difficulty of access, are almost intact.

With a view to the discovery of fossil bones I examined the cave very minutely during this inspection and was successful in finding, in its lower depths, a layer of bone braccia about 2 ft. 6 in. thick, exactly similar to that of the Wellington Caves. As the discovery may prove of importance I removed a few specimens for your examination.

The other cave referred to has an entrance somewhat similar to the one described, but so far only one chamber, about 15 feet square by 4 feet high, has been discovered and this, being bare of stalactitic growths and containing nothing but fallen boulders, needs no further description.

I do not think it would be advisable for the present to appoint a keeper permanently to the caves, but as there may be other caves in the limestone, of the existence of which there are good indications, and in order that provision may be made for the immediate protection of same if discovered, I would suggest the employment of a man for, say three months to thoroughly explore the limestone and present caves and work the seam of bone braccia, as it would be most advisable, in order that the fossils may be preserved intact, to have them removed in a systematic manner. Also, that an area of 150 acres, including this and a smaller patch of limestone in the vicinity, be reserved from sale, particulars of which are submitted elsewhere, also, as a caution to visitors not to damage the caves, printed notices might be posted up on the reserve.

On the event of the recommendations herein being approved of I would suggest Mr. S. J. Elphick of Mowitt's Swamp, who reported the existence of the caves to the Department, as a very suitable man for carrying out further exploration and for working the bone deposit and as he would require assistance the greater portion of the time, in opening up the passages and hauling the specimens to the surface, perhaps he might be employed for a period of 3 months at the rate of £8 per month.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

The Geological Surveyor-in-Charge.

REPORT ON NEW CAVE (THE JERRARA CAVE) NEAR MARULAN.

Sir, Geological Survey Branch, Department of Mines, 26 November, 1890.

I have the honor to inform you that I have, as instructed, inspected the newly-discovered cave in the vicinity of Marulan. It is situated on Crown lands, near the southern boundary of John Morrice's portion No. 81, 40 acres, in the parish of Marulan, county of Argyle, about 6 miles from the town of Marulan and 3 miles from the Bungonia Caves. The road to the cave branches off the Bungonia road at 2 miles from Marulan, and may be considered good up to within half a mile of the cave.

The mouth of the cave is at the foot of a series of limestone bluffs, running from this point easterly towards the Shoalhaven River, the general direction of strike being about east and west, and is 10 feet above the level of a watercourse, now known as Morrice Creek, a tributary of Barber's Creek, which flows into the river abovementioned.

The cave is really an immense narrow fissure or crack in the limestone hill, bearing generally in a northerly direction, and has to some extent been widened by the erosive action of water, although the passage in places is less than 2 feet wide, but at others it opens out into comparatively large chambers, formed by portions of the sides falling away, and the boulders becoming wedged in the narrow crevice below, have, in these instances, formed firm but rugged footholds

The mouth of the cave, or entrance, is a regular-shaped opening, 6 feet high by 5 feet in width, which narrows considerably a little distance inside. First, a descent of 40 feet is made at an angle of 30 degrees, when the first chamber, in size about 20 feet by 8 feet by 20 feet high, is gained. Still

 descending

descending spiral-like through a tortuous passage about 30 feet more, a lofty chamber about 25 feet by 15 feet in width, is reached, which is made up of immense jagged rocks wedged together above and below, and containing a few specimens of a discoloured drapery-like stalactite formation. From this chamber an ascent of 8 feet is made over a growth of stalagmite, resembling a canopy, when a passage, bearing north about 30 feet by 3 feet in width, is entered. The walls of this passage are buttress-shaped, crystallised, and covered with a pretty coral-like formation. Leaving this passage and comparatively good track, another section of the most general form of structure of the cave is traversed, necessitating the descent of the fissure being made at an angle, with little or no foothold, and which is accomplished by wedging oneself between the sides, thus bridging the crevice, and moving downwards by degrees, carefully, as a slip in such a place would mean a sudden plunge into the darkness below.

About 50 feet beyond this another long narrow chamber is reached, which contains a very fair collection of stalactites and stalagmites, and these being of a yellowish-brown tint, and much more pure than those met with before, make this, the terminal chamber, the most interesting in the cave. Although this is referred to as the terminal chamber, it is not really the end of the cave, for at this point an immense chasm, at least 90 feet deep, with a well of water at the bottom, stops further progress. Few people would care to risk a descent under present conditions, and the view obtained below would scarcely warrant the erection of proper appliances, which would be costly, in order to reach the bottom of this pit.

A couple of fossilised wallaby bones were found cemented in the stalagmite floor of one part of the cave, but the limestone on the surface appears to be totally barren of fossils.

The summit of a limestone bluff, easily ascended, about half a mile east of this, the Jerrara Cave, commands an extensive and splendid view of the Shoalhaven Valley and River, with mountain ranges in the background. The view is almost equal to that obtained from the "Look-Down" in the vicinity, and near the Bungonia Caves, a place well known and much resorted to by residents of the Goulburn and surrounding districts.

As it is quite probable visitors to the Bungonia Caves and others may wish to inspect this cave, and in view of the fact that most of the limestone in the vicinity is on Crown lands, in which other caves may be discovered, I would recommend that a certain area be reserved from sale for public recreation, as shown on plan, &c., elsewhere. Also that the Jerrara Cave and proposed reserve be brought under the charge of Mr. Louis Guymer, keeper of the Bungonia Caves, who would conduct visitors through when required.

Mr. James Malley, of Marulan, was the discoverer of the cave, and brought same under the notice of the Department.

I have, &c.,

W. S. LEIGH,

Superintendent of Caves.

The Geological Surveyor-in-Charge.

[Forty-two plans, &c.]

Sydney: George Stephen Chapman, Acting Government Printer—1891.

[5*s*.]

ANNUAL REPORT OF THE DEPARTMENT OF MINES AND AGRICULTURE FOR THE YEAR 1891.

ERRATA.

"Plan opposite page 284 refers to Mr. Geological Surveyor David's Report on the Discovery of Emeralds in the Vegetable Creek District, on page 229."

"Plan preceding page 289 refers to Mr. Geological Surveyor Anderson's Report on Water Supply for Broken Hill, on page 254."

4*f* 193—92

1891-2.

NEW SOUTH WALES.

ANNUAL REPORT

OF THE

DEPARTMENT OF MINES AND AGRICULTURE,

NEW SOUTH WALES,

FOR THE YEAR

1891.

Printed in accordance with Resolutions of both Houses of Parliament.

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ANNUAL REPORT.

To the Honorable Thomas M. Slattery, Esq., M.P., Minister for Mines and Agriculture, &c., &c.

Sir,

I have the honor to submit to you the following report upon the working of the Department under your control during the year 1891, having regard, however, chiefly to the progress of mining and the results obtained during the year.

Statement of the Number of Papers registered and Letters despatched by the several Branches of the Department of Mines and Agriculture.

	Papers Registered.		Letters Written.	
	1890.	1891.	1890.	1891.
Mines proper	*26,042	*25,727	20,918	19,392
Lease Branch, applications and plans registered	4,323	3,669	.....	.....
Account Branch	11,813	13,343	.....	.....
Agriculture	4,952	8,171	3,446	‖9,754
Stock Branch	†12,293	†12,914	5,832	5,192
Water Conservation	‡11,050	‡13,432	‡7,248	‡12,198
Prospecting Votes and Chief Inspector of Mines	3,049 563	4,542 1,045	2,013 207	2,618 257
Diamond Drills	3,548	3,427	1,451	1,175
Geological Branch	1,986	2,642	3,206	3,616
	79,619	88,912	§44,321	§54,202

*Exclusive of applications to lease. †Returns and circulars not registered this year. ‡Exclusive of caretaker's reports, gauge readings, and correspondence between Chief Engineer and his officers. §Exclusive of printed forms, circulars, and telegrams. ‖This number includes 2,000 partly printed advices and particulars of seeds and publications despatched.

The work done during the year shows an increase upon previous years. This is the first time I have had an opportunity of comparing the work of one year with another as regards papers and correspondence relating to Agriculture, as your predecessor was not appointed Minister for Agriculture till the 2nd February, 1890. It affords me very great pleasure to bear testimony to the zeal and ability with which the officers as a whole perform their duties. I avail myself of this opportunity to express my thanks to these gentlemen for their readiness to assist me when necessary by working after the ordinary office hours. To the Assistant Under Secretary and the heads of branches generally, I am much indebted for the valuable aid they at all times give me in the discharge of my duties.

At the end of this volume will be found a very valuable report by Mr. J. W. Boultbee, the officer in charge of the Water Conservation Branch, on the work done in search for artesian water, and another relating to the Tanks and Wells of the Colony.

With regard to acquisition of lands for mining purposes:—

The number of applications made to lease Crown lands for mining purposes during 1891, including applications for special gold-mining leases, was 2,210, being a decrease of 538 as compared with the number of such applications made in 1890.

Of the 2,210 applications so made, 1,021 were for auriferous land, comprising an area of 7,471 acres 1 rood 31 perches, and 1,189 were for mineral land, comprising an area of 51,227 acres 0 roods 5 perches.

The number of applications dealt with in 1891 was 3,029, which, compared with the number dealt with in 1890, shows an increase of 151. I am happy to say my persistent efforts to secure expedition in dealing with applications are beginning to bear fruit, and I have reason to believe that, without disregarding any safeguards against the creation of conflicting titles, applications are now being dealt with; with reasonable speed. There is, and, probably, always will be some applications which cannot be disposed

of speedily on account of disputes and conflicts of right, and these cases tend to increase the average time occupied in completing the action upon such applications. It is only fair to say this improvement may in some measure be due to alterations made during the year in the management of the Drafting Branch, and I gladly recognise the valuable assistance rendered me in this behalf by Mr. W. S. Campbell, the Chief Draftsman, and the staff under him.

Of the 3,029 applications dealt with in 1891, 1,396 were for gold-mining leases, comprising an area of 9,792 acres 3 roods 28 perches, and 1,633 were for mineral leases, embracing an area of 76,052 acres 3 roods 4 perches.

The area of auriferous land applied for under lease in 1891 was less by 2,782 acres 1 rood 9 perches than in 1890. The area of mineral lands applied for under lease in 1891 was less by 24,685 acres 3 roods 35 perches than in 1890.

LAND applied for to Lease during the year 1891, and the Minerals to be mined.

	a.	r.	p.
Gold	7,471	1	31
Antimony	889	0	0
Bismuth	148	0	0
Chrome Iron	20	0	0
Cinnabar	202	0	0
Coal	4,079	1	9
Coal and shale	2,766	2	36
Copper	360	0	0
Diamonds	140	0	0
Tripolite	18	0	0
Gems	80	0	0
Graphite	40	0	0
Hematite	200	0	0
Iron	60	0	0
Ironstone	40	0	0
Limestone	20	0	0
Manganese	130	0	0
Mineral pigments	200	0	0
Opal	380	0	0
Sharpening stone	60	0	0
Silver	8,668	1	5
Silver and lead	9,023	0	13
Silver, lead, and limestone	3,232	0	0
Silver, lead, and ironstone	4,714	3	35
Silver, lead, and copper	2,565	2	37
Silver, lead, platinum, and bismuth	80	0	0
Silver, lead, bismuth, and wolfram	40	0	0
Silver, lead, and bismuth	680	0	0
Silver, lead, asbestos, and wolfram	80	0	0
Silver, lead, asbestos, wolfram, and jasper	200	0	0
Silver, lead, and asbestos	455	3	18
Silver, lead, and platinum	760	0	0
Silver and tin	64	0	0
Silver, lead, copper, and ironstone	1,472	0	0
Silver, lead, and mica	20	0	0
Silver, platinum, bismuth, and cobalt	80	0	0
Silver, bismuth, copper, and wolfram	40	0	0
Silver, bismuth, and wolfram	40	0	0
Silver, lead, asbestos, and copper	80	0	0
Silver, lead, copper, platinum, and bismuth	120	0	0
Silver, lead, cobalt, and nickel	40	0	0
Silver, lead, nickel, cobalt, and bismuth	120	0	0
Silver, lead, ironstone, and bismuth	120	0	0
Silver, lead, sandstone, and dolomite	42	1	4
Silver, lead, copper, and platinum	80	0	0
Silver, copper, and platinum	120	0	0
Silver, lead, and tin	675	1	30
Silver, lead, ironstone, and marble	1,000	0	0
Silver and limestone	190	0	0
Silver, lead, ironstone, and limestone	840	0	0
Silver, nickel, and cobalt	40	0	0
Silver, lead, copper, marble, and nickel	40	0	0
Silver, copper, cobalt, and nickel	120	0	0
Silver, lead, limestone, and marble	120	0	0
Silver, lead, copper, and limestone	80	0	0
Silver, lead, copper, and spar	40	0	0
Silver, lead, and fluorspar	280	0	0
Silver, lead, ironstone, limestone, wolfram, asbestos, and bismuth	40	0	0
Silver, lead, copper, ironstone, and limestone	40	0	0
Silver, lead, and zinc	36	2	27
Silver, lead, ironstone, tin, and wolfram	166	0	32
Silver, lead, ironstone, bismuth, and platinum	80	0	0
Silver, lead, ironstone, bismuth, and limestone	80	0	0
Silver, lead, wolfram, copper, tin, and ironstone	137	2	23
Silver, copper, and ironstone	40	0	0
Silver, lead, copper, tin, and mica	40	0	0
Silver, limestone, and ironstone	120	0	0
Silver and manganese	120	0	0
Silver and copper	170	0	0
Silver and iron	100	0	0
Tin	3,259	3	16
Tin and diamonds	240	0	0
Tin and emeralds	60	0	0
Wolfram	180	0	0
Wolfram and mica	120	0	0
Total	58,698	1	36

The above table shows a considerable decrease in all the principal minerals except silver.

AREA held under Application to Lease on 31st December, 1891.

	a.	r.	p.
Gold	2,603	1	39
Antimony	629	0	0
Coal	419	1	9
Coal and shale	1,884	0	36
Copper	240	0	0
Cinnabar	162	0	0
Chrome iron	20	0	0
Diamonds	60	0	0
Emeralds	20	0	0
Gems	80	0	0
Graphite	60	0	0
Limestone	20	0	0
Manganese	100	0	0
Silver	3,117	2	27
Silver and lead	1,531	2	4
Silver, lead, and copper	572	3	29
Silver and Manganese	20	0	0
Silver and copper	182	0	0
Silver and iron	100	0	0
Silver and tin	24	0	0
Silver, lead, and limestone	722	0	0
Silver, lead, and bismuth	120	0	0
Silver, platinum, bismuth, and cobalt	80	0	0
Silver, bismuth, copper, and wolfram	40	0	0
Silver, lead, and platinum	40	0	0
Silver, lead, and ironstone	1,700	0	0
Silver, lead, copper, and ironstone	220	0	0
Silver, copper, and platinum	120	0	0
Silver, lead, ironstone, and limestone	20	0	0
Silver, lead, ironstone, and marble	40	0	0
Silver, lead, and asbestos	40	0	0
Silver, copper, and ironstone	40	0	0
Silver, limestone, and ironstone	120	0	0
Silver, lead, and fluorspar	80	0	0
Silver, lead, and tin	89	0	0
Sharpening stone	60	0	0
Tin	507	0	0
Tin and diamonds	40	0	0
Tripolite	18	0	0
Wolfram	40	0	0
Total	15,982	0	24

The area held under application to lease on the 31st December, 1891, shows a marked decrease as compared with the area so held at the end of 1890. This is due partly to the decrease in the number of applications to lease, and partly to the greater speed with which such applications are now being dealt with.

The

The following table shows the area of Crown lands held under lease, and the minerals to be mined :—

Minerals.	Mining Act 1874	Mining Act Further Amendment Act, 1884	Crown Lands Occupation Act, 1861.	Total.
	a. r. p	a r. p.	a. r. p.	a. r. p.
Gold	10,778 1 8¾	895 0 28¾		11,673 1 37½
Alum and alumstone	40 0 0			40 0 0
Antimony	1,686 0 0			1,686 0 0
Bismuth	180 0 0			180 0 0
Copper	871 0 0			871 0 0
Cobalt and nickel		36 0 0		36 0 0
Coal	2,200 0 0	35,458 0 0	2,324 0 0	39,982 0 0
Coal and shale	767 0 0	27,951 0 0		28,718 0 0
Coal, shale, and petroleum gas		532 0 0		532 0 0
Cinnabar	120 0 0			120 0 0
Diamonds	327 0 0			327 0 0
Diamonds and tin	416 0 0	162 0 0		578 0 0
Emeralds	40 0 0			40 0 0
Graphite	40 0 0			40 0 0
Hematite	40 0 0			40 0 0
Iron	60 0 0			60 0 0
Iron and copper	40 0 0			40 0 0
Limestone	141 0 0			141 0 0
Limestone and lead	20 0 0			20 0 0
Manganese	203 0 0			203 0 0
Manganese and iron	40 0 0			40 0 0
Marble	40 0 0			40 0 0
Mineral pigment	120 0 0			120 0 0
Not specified.			37 1 33	37 1 33
Ochre	360 0 0			360 0 0
Ochre and bismuth	40 0 0			40 0 0
Opal	565 0 0			565 0 0
Silver	11,571 0 0	200 0 0		11,771 0 0
Silver and antimony	74 0 0			74 0 0
Silver and asbestos	60 0 0			60 0 0
Silver and arsenic	120 0 0			120 0 0
Silver and bismuth	40 0 0			40 0 0
Silver and copper	320 0 0			320 0 0
Silver and manganese	85 0 0			85 0 0
Silver and lead	18,948 0 0	20 0 0		18,968 0 0
Silver, lead, and tin	1,268 0 0	80 0 0		1,348 0 0
Silver, lead, and copper	3,665 0 0			3,665 0 0
Silver, lead, and spar	40 0 0			40 0 0
Silver, lead, and asbestos	270 0 0			270 0 0
Silver, lead, and iron	1,345 0 0			1,345 0 0
Silver, lead, and limestone	2,151 0 0			2,151 0 0
Silver, lead, marble, and slate	760 0 0			760 0 0
Silver, lead, and antimony	48 0 0			48 0 0
Silver, lead, copper, and antimony	40 0 0			40 0 0
Silver, lead, marble, and iron	720 0 0			720 0 0
Silver, lead, copper, and ironstone	267 0 0			267 0 0
Silver, lead, iron, and limestone	566 0 0			566 0 0
Silver, lead, copper, and platinum	80 0 0			80 0 0
Silver, lead, asbestos, and wolfram	80 0 0			80 0 0
Silver, lead, asbestos, wolfram, and jasper	40 0 0			40 0 0
Silver, lead, and platinum	60 0 0			60 0 0
Silver, lead, wolfram, and bismuth	40 0 0			40 0 0
Silver, lead, and bismuth	80 0 0			80 0 0
Silver and limestone	189 0 0			189 0 0
Silver, limestone, and iron	25 0 0			25 0 0
Silver, nickel, and cobalt	40 0 0			40 0 0
Silver, nickel, cobalt, and copper	80 0 0			80 0 0
Silver, tin, and copper	40 0 0			40 0 0
Slate	70 0 0			70 0 0
Sulphate of alumina and potash	56 0 0			56 0 0
Tin	10,712 0 0	872 0 0		11,584 0 0
Tin, bismuth, and grit	50 0 0			50 0 0
Tin and precious stones	183 0 0			183 0 0
Tungsten	40 0 0			40 0 0
Amber	20 0 0			20 0 0
	73,377 1 8¾	66,206 0 28¾	2,361 1 33	141,944 3 30½

The above table shows a considerable decrease in the area of land held under mining lease at the end of 1891 as compared with 1890. This is due to the large number of leases cancelled during the year either for non-observance of the labour conditions or for non-payment of rent. The number so cancelled was 2,014, comprising an area of 60,398 acres, of these 844 were gold leases, covering an area of 4,400 acres, and 1,170 were mineral leases, embracing an area of 55,998 acres.

The number of applications for permits or authorities, under sections 27 or 28 of the Mining Act, to mine under reserves received during 1891 was 253, being a decrease of 37 compared with the number in 1890. The number dealt with in 1891 was 443, being an increase of 163 upon the number dealt with in 1890. The area of land comprised in the permits or authorities granted in 1891 exceeds the area so granted in 1890 by 43,256 acres.

Table

Table showing area of reserved lands comprised in permits or authorities granted during 1891, and minerals to be mined thereunder —

	a	r	p
Coal	22,024	0	10½
Coal and shale	50,352	0	3½
Coal and iron	200	0	0
Shale	319	3	30½
Corundum	20	0	0
Silver	20	0	0
Silver and lead	4	2	0
Silver and tin	4	0	17
Tin	61	2	0
Gold	241	1	29
	73,247	2	10½

In many cases the permits had not actually been issued prior to 31st December, 1890

Table showing area of reserved lands comprised in authorities (sec. 27 and 28) issued prior to 1891, and minerals to be mined --

	a	r	p
Coal	23,995	3	7
Coal and shale	5,778	1	26
Coal, iron, and shale	18	2	16
Shale	8	2	32
Limestone	10	0	0
Tin	131	3	6
Copper	125	3	22
Marble	5	0	0
Bismuth	4	1	7
Antimony	57	1	15
Gold	7	1	37½
	30,143	1	8½

Table showing areas comprised in authorities (sec 27 and 28) issued, which were in force 31st December, 1891 —

	a	r	p
Coal	30,533	3	10½
Coal and shale	13,240	0	18
Coal, iron, and shale	18	0	16
Shale	8	2	32
Limestone	10	0	0
Tin	142	1	32
Copper	125	3	22
Silver and tin	4	0	17
Bismuth	4	1	7
Marble	5	0	0
Antimony	57	1	15
Gold	141	2	14½
	44,291	1	24

The foregoing tables comprise all lands occupied for mining purposes other than freehold lands and Crown lands held in virtue of miners' rights and mineral licenses. The area comprised in these exceptions represents a considerable area

The following information has reference to the search for, or removal of, minerals in alienated lands —

The number of permits to dig and search for gold, under the Crown Lands Act of 1884, during 1891 was 264, being a decrease, as compared with 1890, of 63. The number dealt with in 1891 was 241, being a decrease of 5 as compared with 1890 Of the 241 dealt with, 113 were granted and 129 were refused The number of such permits in force on the 31st December last was 310 The number in force at the end of 1890 was 283.

The number of applications for authorities under the Mining Act of 1889 to dig and search for gold or other minerals received during 1891 was 472, being an increase upon the number in 1890 of 300. The number dealt with in 1891 was 469, of which 201 were granted and 268 were refused. The number in force on the 31st December last was 99.

The number of applications for permits, under Section 7 of the Crown Lands Act of 1884, to win and remove minerals reserved under the Crown grants of private lands received during 1891 was 116, being 24 in excess of the number in 1890. The number of such applications dealt with in 1891 was 87, of which 49 were granted and 38 were refused The number of such permits in force on the 31st December last was 182

The amount received as royalty on reserved minerals during the year 1891 was £4,909 19s. 4d.

During the year the returns of gold and mineral leases and of permits, under Sections 27 and 28, have been published with commendable punctuality, and if the information supplied by these returns were availed of by the miners, the complaints respecting large areas of land being locked up without being worked would be less frequent

Prospecting Board.

During the year 1891 the Prospecting Board visited the following, amongst other, places, viz.:—

Alectown	Deepwater	Nana Creek
Armidale	Drake	Nelligen
Ashford	Dubbo	Nerriga
Barmedman	Eden	Newbridge
Barraba	Elsmore	Nimitybelle
Bega	Emmaville	Nowra
Bell's Creek	Essington	Nundle
Bendemeer	Forest Reefs	Nyngan
Bexhill	Gilgai	Oberon
Binalong	Glanmire	O'Connell
Bingara	Glen Innes	Ophir
Black Mountain	Glen Elgin	Orange
Black Springs	Grafton	Pambula
Blayney	Grenfell	Parkes
Bookham	Hanging Rock	Peak Hill
Boonoo Boonoo	Hillgrove	Peel
Boro	Hoskins Town	Pretty Gully
Bowling Alley Point	Inverell	Rockley
Bowning	Jembaicumbene	Stannifer
Braidwood	Kangaroo Valley	Sunny Corner
Brimbramalla	Kempsey	Swallows Nest
Bundarra	Kiandra	Tamworth
Bungonia	Kookabookra	Tarago
Burnt Yards	Lewis Ponds	Tarana
Cadia	Limekilns	Temora
Carcoar	Lionsville	Tenterfield
Casino	Lismore	Tingha
Clear Creek	Lucknow	Tomingley
Coolamon	Mandurama	Tooloom
Coolongolook	Marulan	Trunkey Creek
Cooma	Milburn Creek	Uralla
Coraki, Richmond River	Milton	Walcha
Corowa	Mogo	Wallah Wallah
Cow Flat	Moruya	Wiseman's Creek
Cowra	Mount McDonald	Wood's Reef
Dalmorton	Mullion Creek	Yalwal
Deep Creek		

Aid granted in	312	cases.
Aid refused in	206	„
Applications not yet dealt with	296	„
	814	„

These results on the whole are satisfactory, or would be if they were followed up by the holders of surrounding claims, but too often the adjacent land is taken up by persons who, lacking the means or the energy to develop the deposits, simply hold upon the chance of selling, and thus to a great extent the value of the find is nullified.

Mr. David M'Culloch, as Secretary to the Board, has performed his duties satisfactorily.

The following extracts are taken from Reports by officers instructed to measure up the work of parties aided from the Prospecting Vote:—

McRae and Hudson, about 2 miles in an easterly direction from Peak Hill, struck a reef which is now known as the Maid of Waratah. It assays from 2 dwts. to 2 ozs. per ton, and averages 8 feet thick.

Wm. Brankin was aided to sink a shaft to the north of Mount McDonald, and was successful in striking a reef about 12 inches thick, which is estimated to go 5 ozs. to the ton. This discovery is in entirely new ground, and has caused quite a stir in that direction.

James Long, the Caledonian line of reef, Mount McDonald.—There is a great improvement in this mine, the reef getting larger, and gold showing freely.

The Mookerawa Syndicate were aided to drive a 600-foot tunnel into the Bald Hill, near Ironbarks, and at about 460 feet a rise was put up from the top of the tunnel, when wash was struck from which good prospects were obtained.

Michael Watson and Party, Flannagan's Gully, near Blayney, put down a shaft 10 feet south of their old workings and came across a rubble-vein of quartz, from which they obtained in two days by washing 2 lb. weight of gold.

Patrick Fitzgibbon, Gold Lease 273, Mount McDonald, at the 52-foot level, struck a payable quartz-vein 3 inches wide in very hard country, which is believed, as depth is gained, will lead on to a payable reef.

Henry Walker, Linburn, near Gulgong, struck a reef in his eastern drive giving about 5 dwts. per ton, and from the nature of the country at present there is a good reef further on.

C. A. Lindberg and Party, prospecting on Geo. Madden's conditional lease, situated about 3 miles in a northerly direction from Peak Hill, struck payable gold by means of the aid granted them at a depth of 106 feet. The yield of gold is not high, but is in sufficient quantities to pay miners' wages from £2 to £3 per week.

C. H. Vickery and Party, at Roper's Gully, Boonoo Boonoo, at 60 feet from the surface, struck a reef about 18 inches wide, which is expected to yield 3 ozs. of gold per ton.

Thomas Ellis and Party, Green Valley, near Hill End, at from 30 to 45 feet struck payable stone, which will yield from 5 to 6 ozs. per ton.

Robert Stevenson, Specimen Gully Claim, near Boonoo Boonoo, at about 40 feet from the surface struck a very rich deposit of gold, and a crushing of a parcel of 2 tons 11¼ cwts. yielded 106¼ ozs. of retorted gold. On my last visit to the mine I was shown a parcel of specimens in all about 50 or 60 lb., which, if crushed, would yield nearly an ounce of gold to the pound of stone. The reef at the present level looks very rich, and is about 2 feet wide, well defined, and gives promise of being permanent.

William Clark and Party, at Dark Corner, near Mitchell, struck a reef 14 inches wide, and on 5 tons being crushed it yielded 1 oz. 4 dwts. of free gold per ton.

Goodwin, Freebody, and Party, Fiery Creek, near Cooma, struck a reef which yielded 27 ozs. 14 dwts. 12 grs. from 15 tons of stone, taken from the 30-foot level.

Melbourne and Adams, the Jubilee Claim, 5 miles from Windeyer were aided to put in a tunnel 200 feet, and at 185 feet struck very rich veins of considerable width. The excitement is great, and in consequence the adjacent country is being pegged out in all directions. This is one of the advantages of the aid, but for that this gold would not have been found.

Twenty-four parcels of ore varying from 10 tons to 15 cwt. were treated under the supervision of Mr. Joseph E. Carne, a member of the Board, in some cases with very favourable results. The parcels came principally from the following places, the railway freight and cost of treatment being defrayed from the Vote when the returns from the treatment would not cover such:—Bendithera, Cobargo, Captain's Flat, Yalwal, Kangaroo Valley, Windellama, Moruya, Oberon, Burnt Yards, Glen Innes, Inverell, Lismore, and Broken Hill (platinum ore).

A party of men working under the Vote on wages in the neighbourhood of Narrabri were successful in finding traces of diamonds; the stones, however, were very small.

Geological Survey.

It is my painful duty to refer to the great loss sustained by this Department in the death which occurred in August last of Mr. Charles S. Wilkinson, the Government Geologist. As head of this important branch of the Department Mr. Wilkinson had rendered services of exceptional value to the Colony, and had endeared himself not only to the officers of the Department, but also in a marked degree to a very large number of miners and others engaged in mining ventures. The loss of such a man cannot but be deeply regretted by all who had the privilege of knowing him, and were in a position to recognise his great abilities and sterling worth.

Earlier in the year Mr. T. W. E. David, B.A., F.G.S., who had with such marked ability filled the position of first Geological Surveyor under Mr. Wilkinson, resigned his position in the Department, having been appointed Professor of Geology and Physical Geography in the Sydney University. Mr. David had during his connection with this Department given special attention to the coal measures of this Colony, and had at the date of his resignation nearly completed an exhaustive examination of them, a work which I had for years been anxious to see undertaken. Mr. David, with that devotion to his work which has characterised his career, has undertaken notwithstanding his resignation to complete this important investigation, and to furnish a report thereon as soon as his other duties will permit. This report will, I feel sure, form an important and interesting addition to the geological work of the Department.

The position of Government Geologist rendered vacant by the much lamented death of Mr. C. S. Wilkinson, was filled by the appointment of Mr. E. F. Pittman, who had, prior to Mr. David, filled the post of first Geological Surveyor, but who had more recently occupied the position of Chief Mining Surveyor. Mr. Pittman's successful career in the School of Mines, London, and his large experience as Geological Surveyor in this Colony under the late Mr. Wilkinson, eminently fit him for the appointment.

The following is a summary of the work done by the Geological Staff during the year. As members of the Prospecting Board the Geological Surveyors rendered very valuable services, and were no doubt, during their travels, enabled to glean a vast amount of information concerning the geological formation of the localities visited:—

Report by the late Mr. C. S. Wilkinson, on Mount Morgan Mine, Queensland, with results of Microscopical Examination of the rocks by Messrs. T. W. E. David and Wm. Anderson, Geological Surveyors. Mr. Wilkinson considers the auriferous deposit to be due to the action of thermal solutions, the gold having been thereby accumulated in fissures and cavities.

Report by Mr. C. S. Wilkinson, dated 30/1/91, deals with the iron ore deposits of N.S.W. and the coal, limestone, manganese, wolfram, and chromite, available for working in connection with them. Mr. Wilkinson reports that there are in this Colony important deposits of rich iron ores together with unlimited supplies of coal and limestone, and abundance of manganese, chrome and tungsten for the manufacture of hard steel. Three localities are favourably situated for smelting works, viz.—(1) near Mittagong or Picton (2) near Wallerawang or Lithgow, and (3) near Rylstone. The quantity of iron ore available for smelting in the Mittagong or Picton districts is estimated at 8,234,000 tons, containing 3,684,000 tons of metallic iron; in the Wallerawang district 2,484,000 tons of ore containing 1,212,000 tons of iron; and in the Rylstone district 2,226,000 tons of ore, containing 957,180 tons of iron. According to the statistics of the importation of iron, the quantity of ore available in N.S.W. would be sufficient to meet the requirements of the Colony for over 35 years,

Mr. Wilkinson also furnished reports on the Castelnau Concentrator for the treatment of metalliferous ores, and Sanderson's process for separating gold from antimony by electrolysis.

From the 20th April to the 27th May, 1891, Mr. Wilkinson was engaged in investigating applications for aid from the prospecting vote in the Glen Innes, Deepwater, Dalmorton, Tenterfield and Rivertree districts.

Mr.

Mr. T. W. E. David, B.A., F.G.S., during the early part of the year, was engaged in reporting on applications for aid from the prospecting vote, and on new discoveries of various minerals in the New England district. He reported on the Cinnabar deposit near Solferino, the Chromite deposit near Gordonbrook, the coal workings at Rocky Mouth, Clarence River, and in conjunction with Mr. Geological-Surveyor Stonier he inspected and reported upon the newly discovered coal seams near Coraki. Messrs. David and Stonier then dealt with a number of applications for aid at Drake, Lunatic, and Pretty Gully, and Mr. David reported upon the Emerald Mines at Glen Creek in the Emmaville district. They dealt with applications for aid in this and the Inverell, Tingha, Bingara, and Barraba districts. Mr. David also reported on the Cinnabar deposit at Bingara.

Mr. Wm. Anderson, Geological Surveyor, dealt with applications for aid at Orange, Ophir, Mullion Creek, Kerr's Creek, Cadia, Kiandra, Coolamon, Fiery Creek, Michelago, Bungendore, Boro, Braidwood, Little River, Moruya, Bendithera, the Gulf, Wandellon, Coolagolite, Burraga, Grenfell, Bowning, Binalong, Burrowa, Jembaicumbene, Mogo, Yalwal, Brimbermalla, &c.

In conjunction with Mr. W. S. Leigh, Superintendent, of Caves, he visited and reported upon the newly discovered caves at Yarrangobilly. He also spent ten days in mapping, with the assistance of Mr. Hammond, a small portion of the Dubbo Coal Measures 10 miles from Wellington. He also inspected and reported upon the Wallah Wallah Silver Mines, and made a report upon the probability of obtaining artesian water in the Broken Hill district.

Mr. G. A. Stonier, F.G.S., Geological Surveyor, was during part of January, 1891, engaged in tracing out the relation of the Jervis Bay beds to those proved in the diamond drill bore at Wandrawandian. He also assisted Mr. Wilkinson in the preparation of his report on the iron ores of New South Wales. He visited and reported on the Tia and Glen Morison gold-fields, as also the then recently discovered gold-fields at Swamp Oak and Niangala. He accompanied and assisted Mr. David in reporting upon a number of applications for aid as well as several newly discovered mineral deposits. He then accompanied Mr. Wilkinson to the Tenterfield, Rivertree, and Dalmorton districts in connection with the prospecting vote. He furnished a report on the Borah Creek silver-field. From June 5 to June 25 he was engaged in a general geological examination of the Trunkey district. The remainder of the year was employed in making geological inspections and reporting on applications for aid out of the prospecting vote.

Mr. J. B. Jaquet, F.G.S., Assoc. Royal School of Mines, was on the 20th July, 1891, appointed Field Assistant, and was at first employed in classifying specimens of rocks and minerals. He then assisted Mr. Geological-Surveyor Anderson in dealing with applications for aid at Bookham, Binalong, Burrowa, and Rye Park, and he then spent about a fortnight in mapping out the geology of the country in the vicinity of the Wallah Wallah Mines. On the 5th of October he proceeded to Broken Hill to commence a geological survey of that district. On the 1st December Mr. Jaquet was appointed Geological Surveyor to fill the vacancy caused by the promotion of Mr. Stonier.

Mr. P. T. Hammond, Field Assistant, in addition to assisting the Geological Surveyors furnished reports (1) upon the core obtained by the diamond drill bore at Cessnock, and (2) upon the best sites for diamond drill bores for the Greta seam, near Belford. Mr. Hammond's skill as an artist was also of considerable use in the Geological Branch.

Mr. Robt. Etheridge, junior, F.G.S., has performed a considerable amount of palæontological work during the year.

Part I of Memoir No. 5.—A monograph of the Carboniferous and Permo-carboniferous Invertebrata of New South Wales, has been published.

Part II of this Memoir has been completed and is ready for printing.

Part II of "Contributions towards a Catalogue of Works, Papers, and Reports on the Anthropology, Ethnology, and Geological History of the Australian Aborigines," has been completed and published.

Part 3, Vol. II of the Records of the Geological Survey of New South Wales has been published, and Part 4 is in the hands of the printer. They contain three papers by Mr. Etheridge, who is also the editor of them.

Palæontological determinations were also made for the Technological Museum, and for the Government Geologist of South Australia.

Mr. J. E. Carne, F.G.S., Curator of the Geological Museum has, in addition to his ordinary duties, supervised twenty-five bulk tests (at the Clyde and Mort's Dock Works) of ores forwarded for treatment in connection with applications for aid out of the prospecting vote. He was appointed a member of the Prospecting Board in September, 1891, and subsequently reported upon a number of applications for aid at Bungonia, Murulan, Parkes, and Forbes. A collection of minerals was sent to the Launceston Exhibition in charge of Mr. Thomas Ford.

The demand by the public for assays has been more than maintained during the past year, and Mr. J. C. H. Mingaye, F.C.S., M.A.I., M.E., and his assistants have been kept very busy. No less than 4,082 samples were received for assay and analysis as against 3,323 during the previous year. The number of samples received during 1891 was greater than that of any previous year with the exception of 1888 when the mining boom was at its height.

A consiserable amount of useful work has been performed during the year by Mr. W. S. Leigh, Superintendent of Caves, and reports have been furnished by him (1) on a new cave at Bungonia, and (2) in conjunction with Mr. Geological-Surveyor Anderson, on the newly discovered caves at Yarrangobilly Creek.

During the year the contents of the Library have been classified and arranged by the Librarian, Mr. Etheridge, and his Assistant, Mr. Dun, and 197 volumes have been added to it. The library is now in correspondence with 133 institutions, with 118 of which exchanges have been made. Great credit is due to Mr. Etheridge for the energy displayed by him in connection with this work.

Mining Surveys, &c.

The total number of mining surveys made during the year 1891 was 1,459, comprising 634 gold leases, 718 mineral leases, 48 mining tenements, and 59 mining permits. This is the smallest number of mining surveys made in any one year since 1887, when the number was 1,418. 31 surveyors were employed, of whom 8 received salary and fees, the remainder being paid by fees only. Of the 1,459 surveys made during the year, 1,231 were made by the eight salaried surveyors. On the 31st December, 1891, the number of lease applications awaiting survey was 119. The surveys in all the districts, with the exception of Silverton and Broken Hill, were very scattered, and involved a considerable amount of travelling.

Since the promotion of Mr. Pittman to the position of Government Geologist, Mr. H. B. Sullivan, the senior salaried surveyor, has been promoted to the position of Chief Mining Surveyor, but, in order that he may have more time to devote to the supervision of the surveyors in the field, and to making of surveys in the Metropolitan District, the Chief Mining Surveyor has been relieved of the duty of supervising the Drafting or Charting Branch.

Charting Branch.

The Chief Draftsman has now been made responsible for the work of this branch, and examiners are employed to assist him; in fact, to relieve him of the duty of examining, which occupied so much of his time as to interfere seriously with the work of supervision. I am happy to say the new arrangement appears to work very satisfactorily.

During the year 1891 the number of applications received in the Charting Branch was 2,363, of which 1,100 were for gold leases, and 1,263 for mineral leases. The total number dealt with during the year was 2,826. The number of applications under the 28th section received in the branch was 214, and the total number dealt with was 404.

At the end of the year all arrears in the Charting Branch consequent on the rush of applications during previous years were completely cleared off, and the work was well up to date. The output of lease work has increased 30 per cent. per man, and the 28th section work 75 per cent. The compiling work has progressed very satisfactory, and has been well done. The following tables show the work performed during the year, and a complete list of the maps compiled :—

Return of Compiling Work for 1891.—New Maps compiled and published.

Parish.	County.	Parish.	County.
Bomgadah	Mootwingee.	Romney	Clive.
Caloola	,,	Reid	Buller.
Gairdner's Creek	,,	Strathspey	,,
Coonbaralba	Farnell.	Ainsley	Parry.
Dering	,,	Loftus	,,
Lewis (3rd edition)	Yancowinna.	Chalmers	Durham.
Worara	Yungnulgra.	Moonam	,,
Wertigo	,,	Oldcastle	,,
Mingelo (2nd edition)	Narromine.	Prospero	,,
Clarence	Buller.	Enmore	Sandon.
Cataract	,,	Merrigalah	,,
Church Hill	Drake.	Nundle (2nd edition)	Parry.
Yowaka	Auckland.		

Compilations

Compilations (made in the Lands Department) revised and adopted as mining maps:—

Parish.	County.
Canowindra	Bathurst.
Awaba	Northumberland.
Cessnock	,,
Kahiba	,,
Olney	,,
Stockrington	,,
Teralba	,,
Currumbene	St. Vincent.
Heathcote	Cumberland.
Southend	,,
Kembla	Camden.
Megalong	Cook.
Tumbarumba	Selwyn.

Parish.	County.
Booloombayt	Gloucester.
Coolongolook	,,
Telerarce	,,
Bundawarrah	Bland.
Martin	Ashburnham.
Parkes	,,
Trigalong	Bland.
Boyd	Gough.
Rusden	,,
Narrangarril	Argyle.
Coolamon	Wellington.
South Gundagai	Wynyard.
Curreeki	Gloucester.

The local offices (warden's clerks, &c.) have been supplied during the year with 644 copies of maps periodically charted up to date.

The work of systematically noting the original plans for refusal, cancellation, surrender or expiration of lease or authority to mine (on the occurrence of same) was commenced in October. This system, when the plans have also been noted for previous refusals, cancellations, &c., will greatly facilitate and expedite the compilation of maps, &c.

During the year the work of charting mining tenements has been continued as opportunity offered.

The following is a complete list in alphabetical order of all mining maps compiled to date:—

No.	Folio.	Parish or part of.	County.	Mining District.	Gold field.
...		Adelong	Wynyard	Tumut and Adelong	Adelong and other Gold-fields.
11	D*	Albury	Goulburn	do	Black Range (partly).
1	B	Albert (2nd edition)	Yancowinna	Albert	Albert.
7	C	Alma (2nd edition)	do	do	do
7	B	Alberta	Farnell	do	do
20	A*	Arvid (2nd edition)	Gough	New England	Emmaville.
30	A	Annandale (3rd edition)	Clive	do	do (partly).
10	D	Antimony	Buller	do	Boorook and Lunatic.
16	B	Aston	Hardinge	Peel and Uralla	Tingha.
...	*	Anderson	Gough	do	do
23	D*	Awaba	Northumberland	Hunter and Macleay	
32	C	Ainsley	Parry	Peel and Uralla	Swamp Oak and Niangala.
...	...	Bundar	Gough	New England	
6	C	Bookookoorara (2nd edn.)	Buller	do	Boorook and Lunatic (partly).
13	A	Bates	Clive	do	Emmaville.
21	A	Blain	do	do	do
21	A	Bowman	do	do	do
14	A	Binghi	do	do	do
23	A	Boorook	Buller	do	Boorook and Lunatic.
3	A	Boonoo Boonoo	do	do	do
12	C	Bomangaldy (2nd edition)	Yancowinna	Albert	Albert.
5	B	Bray (3rd edition)	do	do	do
22	A	Bolaira (3rd edition)	do	do	do
		Bligh	Farnell	do	do
13	B	Badjerrigarn	do	do	do
7	A	Byjerkerno (2nd edition)	do	do	do
...		Bindera (3rd edition)	Gloucester	Hunter and Macleay	Barrington and Gloucester.
7	D	Bangheet	Murchison	Peel and Uralla	Bingara (partly).
7	D	Bingara	do	do	Bingara.
24	D*	Boyd	Gough	do	
26	A*	Bloxsome	do	do	
14	C*	Bald-nob	do	do	
3	C	Bolton	Westmoreland	Bathurst	Oberon (partly).
8	C	Baring	do	do	Oberon.
9	D	Bullongong (2nd edition)	Murray	Tumut and Adelong	Molonglo (partly).
9	D	Ballallaba (2nd edition)	do	do	do
2	C	Bundawarrah	Bland	Lachlan	Temora. (partly).
29	D	Bomgadah	Mootwingee	Albert	Albert.
26	C*	Booloombayt	Gloucester	Hunter and Macleay	
29	D	Caloola	Mootwingie	Albert	Albert.
26	D	Church Hill	Drake	New England	Solferino.
39	A*	Cessnock	Northumberland	Hunter and Macleay	
...		Calafat	Wynyard	Tumut and Adelong	Adelong Creek.
	...	Clive (2nd edition)	Gough	Peel and Uralla	Tingha.
9	B	Clare (2nd edition)	Hardinge	do	do
18	B	Cope's Creek (2nd edition)	do	do	do (partly).
24	A	Coventry	Clarke	do	Kookarabooka.
5	D	Cooney (2nd edition)	Sandon	do	Gyra River.

* Copies for sale at the Land Department

No.	Folio.	Parish or part of.	County.	Mining District.	Gold-field.
6	C	Corry (2nd edition)	Buller	New England	Boorook and Lunatic.
6	C	Cullendore (2nd edition)	do	do	
21	A	Cranbrook	Clive	do	Emmaville.
29	B	Callanyn	Buller	do	Boorook and Lunatic.
.	...	Craven (3rd edition)	Gloucester	Hunter and Macleay	Barrington and Gloucester.
4	B	Corona	Farnell	Albert	Albert.
10	A	Castleton	Roxburgh	Bathurst	Turon River and Kirkconnel.
10	C	Coolamigal (2nd edition)	do	do	Turon River.
25	A	Clinton	Bathurst	do	Ophir.
1	A	Carroll (2nd edition)	Wellington	Tambaroora and Turon	Wellington.
1	A	Cummings (2nd edition)	do	do	do
9	C	Coally	Evelyn	Albert	Albert (partly).
37	A	Cullen Bullen	Roxburgh	Bathurst	Turon River.
4	D	Currajong (2nd edition)	Ashburnham	Lachlan	Billabong.
32	A	Cargo	do	do	Cargo.
26	D	Cobar	Robinson	Cobar	Bogan.
21	C*	Coolamin	Wellington	Tambaroora and Turon	Macquarie River, Stoney Creek, and Ironbarks.
24	C*	Canowindra	Bathurst	Bathurst	Canowindra.
27	C*	Currecki	Gloucester	Hunter and Macleay	Gloucester.
20	D	Cataract	Buller	New England	
20	D	Clarence	do	do	Tooloom Creek.
18	D	Chalmers	Durham	Peel and Uralla	Upper Hunter.
22	D*	Currumbene	St. Vincent	Southern	Cooloomgatta.
39	B	Coonbaralba	Farnell	Albert	Albert.
25	B	Darby (2nd edition)	Hardinge	Peel and Uralla	Tingha.
5	A	Dungowan	Parry	do	Peel River.
3	D	Dinoga	Murchison	do	Bingara.
7	D	Derra Derra	do	do	do (partly).
.		Dumaresq	Gough	New England	Emmaville.
34	B	Dunleary	Bathurst	Bathurst	Milburn Creek.
35	B	Dangera	St. Vincent	Southern	Yalwal.
33	A	Dhoon	Yancowinna	Albert	Albert.
40	B	Dering	Farnell	do	do
...	...	Ellerslie	Wynyard	Tumut and Adelong	Mount Adra (partly).
...	..	Euadera	do	do	Adelong Creek.
2	B	Edgar (3rd edition)	Yancowinna	Albert	Albert.
29	A	Enmore	do	do	do
27	D	do	Sandon	Peel and Uralla	Gyra River.
8	A	Eskdale	Roxburgh	Bathurst	Clear Creek and Kirkconnell (partly).
35	B	Ettrema	St. Vincent	Southern	Yalwal.
18	C*	Eumur	Darling	Peel and Uralla	Ironbarks and Tea-Tree.
...	..	Frazer	Gough	New England	Emmaville.
...	...	Flagstone	do	do	do
...	...	Falnash	Roxburgh	Bathurst	Turon River.
1	C	Fowler's Gap	Farnell	Albert	Albert.
. .	...	Gulgong	Phillip	Mudgee	Gulgong.
...	...	Gadara	Wynyard	Tumut and Adelong	Adelong (partly).
8	D	Guntawang	Phillip	Mudgee	Gulgong.
1	C	Giles	Farnell	Albert	Albert.
3	D	Gouron	Murchison	Peel and Uralla	Bingara.
15	A	Gillindich	Georgiana	Bathurst	Junction Point, Tuena Creek, and Markdale.
28	C*	Coolongolook	Gloucester	Hunter and Macleay	Gloucester.
28	D	Gairdner's Creek	Mootwingee	Albert	Albert.
27	B	Highland Home (2nd edn.)	Gough	New England	Emmaville.
..	...	Hamilton (2nd edition)	do	do	do (partly).
...	..	Haystack	do	do	do
23	B	Herbert (2nd edition)	do	Peel and Uralla	Tingha.
6	B	Hanning	Inglis	do	
6	A	Hall	Clarke	do	Oban.
8	B	Hall	Darling	do	Ironbark and Tea-tree.
3	D	Hall	Murchison	do	Bingara.
12	A	Hargraves	Wellington	Mudgee	Wellington (partly).
20	C*	Heathcote	Cumberland	Southern	
3	C	Jocelyn	Westmoreland	Bathurst	Oberon.
16	C*	Jamieson	Cook	do	
17	D*	Kahiba	Northumberland	Hunter and Macleay	
41	A*	Kembla	Camden	Southern	
5	C	Lewis (3rd edition)	Yancowinna	Albert	Albert.
...	...	Lands End	Gough	New England	Emmaville.
3	C	Langdale	Westmoreland	Bathurst	Oberon (partly).
2	D	Lennox	Bathurst	do	Ophir do
2	D	Lewis	do	do	do do
...	...	Loftus	Parry	Peel and Uralla	Swamp Oak and Niangala.
11	C	Mingelo (2nd edition)	Narromine	Mudgee	Tomingley.
...	. .	Muir	Gough	New England	Emmaville.
6	C	Maryland (2nd edition)	Buller	do	
6	C	Marsh (2nd edition)	do	do	
17	A	Mayo (2nd edition)	Hardinge	Peel and Uralla	Tingha.
...	*	Mitchell	Gough	do	
12	D	Mitchell	Clarke	do	Kookarabooka and Orara.
3	D	Macintyre	Murchison	do	Bingara.
5	D	Metz (2nd edition)	Sandon	do	Gyra River.
15	B	Mount Gipps (3rd edition)	Yancowinna	Albert	Albert.
16	A	Moorkaie	do	do	do
9	C	Milring	Evelyn	do	do

* Copies for sale at the Lands Department.

No	Folio.	Parish or part of.	County.	Mining District.	Gold field
36	B	Moquilamba	Robinson	Cobar	Bogan.
30	B	Mulgunnia	Georgiana	Bathurst	Mulgunnia.
38	B*	Muckerwa	Wellington	Tambaroora and Turon	Macquarie River and other Gold-fields.
14	D	Mungabarina	Goulburn	Tumut and Adelong	Black Range.
15	D*	Megalong	Cook	Bathurst	
18	D	Moonam	Durham	Peel and Uralla	Upper Hunter.
38	A*	Martin	Ashburnham	Lachlan	Billabong.
27	D	Merrigalah	Sandon	Peel and Uralla	Gyra River
12	B	Naradin (3rd edition)	Yancowinna	Albert	Albert.
37	B	Nadbuck	do	do	do
9	A	Nerrimunga	Argyle	Southern	Nerrimunga and Shoalhaven.
24	B*	Nullama	Gresham	Clarence and Richmond	Boyd or Little River (partly).
4	A	Nundle (2nd edition)	Parry	Peel and Uralla	Peel River (partly).
30	C*	Narrangarril	Argyle	Southern	Argyle, Camden, and King.
9	C	Orr	Evelyn	Albert	Albert.
34	A	Ophara	Yancowinna	do	do
18	A	Oberon	Westmoreland	Bathurst	Oberon
18	D	Oldcastle	Durham	Peel and Uralla	Upper Hunter.
42	A*	Olney	Northumberland	Hunter and Macleay	
...	...	Paradise North	Gough	New England	Emmaville
21	A	Purvis	Clive	do	do
3	B	Purnamoota	Yancowinna	Albert	Albert.
19	A	Picton (3rd edition)	do	do	do
4	D*	Parkes (2nd edition)	Ashburnham	Lachlan	Billabong.
18	D	Prospero	Durham	Peel and Uralla	Upper Hunter.
6	C	Ruby (2nd edition)	Buller	New England	Boorook and Lunatic (partly).
13	A	Rockvale	Clive	do	Emmaville.
13	A	Rock Glen	do	do	do
4	C	Robe (2nd edition)	Yancowinna	Albert	Albert.
23	C	Romney	Clive	New England	Deepwater.
20	D	Reid	Buller	do	Boorook and Lunatic.
31	C*	Rusden (2nd edition)	Gough	Peel and Uralla	
35	A	Somers	Bathurst	Bathurst	Gally Swamp and Black Hills (partly)
11	B	Stephen (4th edition)	Yancowinna	Albert	Albert.
14	B	Soudan (2nd edition)	do	do	do
32	B	Sebastopol (2nd edition)	do	do	do
31	A	Sentinel	do	do	do
28	B	Swinton (2nd edition)	Hardinge	Peel and Uralla	Tingha.
..	..	Severn	Gough	do	
.	..	Scott	do	do	
6	A*	Sara	Gresham	do	Oban.
12	D	Seeley	Clarke	do	Kookarabooka.
12	D*	Sara	Gresham	do	Oban.
...	..	Strathbogie North (2nd edition).	Gough	New England	Emmaville (partly).
20	B	Strachan	do	do	do (partly).
14	A	Silent Grove	Clive	do	do
19	B	Strathbogie (2nd edition)	Gough	New England and Peel and Uralla.	do
..	..	Scone (2nd edition)	do	do do	do (partly).
15	C*	Stowell	Gloucester	Hunter and Macleay	
19	C*	Southend	Cumberland	Southern	
20	D	Strathspey	Buller	New England	Boorook and Lunatic.
41	B*	South Gundagai	Wynyard	Tumut and Adelong	Adelong Creek and Gundagai.
...	..*	Stockrington	Northumberland.	Hunter and Macleay	
22	B	Tent Hill (2nd edition)	Gough	New England	Emmaville (partly).
21	B	Tienga	Hardinge	Peel and Uralla	
27	A	Tara (2nd edition)	Yancowinna	Albert	Albert.
2	A	Tuena (2nd edition)	Georgiana	Bathurst	Abercrombie.
1	A	Tambaroora (2nd edition)	Wellington	Tambaroora and Turon	Wellington.
36	A*	Toogong	Ashburnham	Lachlan	Cargo and Canowindra.
22	C*	Tumberumba	Selwyn	Tumut and Adelong	Tumberumba, Ouramee, and Burra Creek.
25	C*	Tolcraree	Gloucester	Hunter and Macleay	Gloucester.
21	D*	Teralba	Northumberland	do	
40	A*	Trigalong	Bland	Lachlan	Temora.
6	C	Undercliff (2nd edition)	Buller	New England	
...		Umberumberka	Yancowinna	Albert	Albert.
28	A	Wellington Vale (3rd edn.)	Gough	New England	Emmaville (partly).
6	C	Wylie (2nd edition)	Buller	do	
1	D	West Fairfield (2nd edn)	Drake	do	Timbarra.
...		Wellington North	Gough	do	Emmaville.
6	A	Worra	Gresham	Peel and Uralla	
17	B	Wood's Reef	Darling	do	Ironbarks and Tea-tree
.		Wondalga	Wynyard	Tumut and Adelong	Adelong.
11	A	Wyaldra	Phillip	Mudgee	Gulgong.
31	B	Worcester	Bathurst	Bathurst	Ophir.
33	B	Waukeroo	Yancowinna	Albert	Albert.
87	Pressl	Warratta	Evelyn	do	do
29	C	Woraro	Yungnulgra	do	do
29	C	Wertago	do	do	do
25	D*	Willyama, Village of	Yancowinna	do	do
10	B	Yancowinna	do	do	do
6	D	Young	Monteagle	Lachlan	Burrangong.
17	C*	Yowaka	Auckland	Southern	Panbula.
13	D	do (part of)	do	do	do

* Copies for sale at the Lands Department

Inspection of Mines other than Coal and Shale-mines.

The Chief Inspector of Mines (Mr. Slee, F.G.S.), reports 20 fatal and 32 non-fatal accidents in metallic mines during 1891, an increase as compared with 16 fatal and 21 non-fatal in 1890, unfortunately the percentage in regard to fatal accidents is higher than in 1890, being ·93 as compared with ·072 in 1890. In 1891, there was 1 fatal accident for every 1,071 miners employed. The percentage of non-fatal accidents in 1891 was higher than in 1890, being 1·49 as compared with ·094. In 1891, there was 1 non-fatal accident for every 669 miners employed. Of the fatal accidents in 1891, 4 were caused by falling down shaft, 1 by fall of rock drill down shaft, 8 by fall of earth, 2 injury by railway trucks, 1 by explosion of shot, 3 by poisonous fumes, and 1 by fall of timber on surface.

Of the non-fatal accidents in 1891, 5 were caused by falling down shaft, 1 by falling down winze, 11 by fall of earth, 1 by fall of cage, 1 crushed by railway trucks, 12 by explosion of shot, 1 by fall in smelter.

During the year the following localities were inspected :—

By the Chief Inspector.

Cobar, Nyngan, Peak Hill, and Alicktown.

Owing to the Chief Inspector being stationed the greater part of the year at Peak Hill, as Warden, accounts for the few places visited.

Inspector Rue.

I regret to say that during the month of October last, the Department lost by the death of Mr. Rue, the services of a thoroughly competent and highly trustworthy officer. Mr. James Hebbard has since been appointed to the position rendered vacant by the death of Mr. Inspector Rue, and he has been stationed in the Broken Hill district.

By Inspector Milne.

North—Armidale, Hillgrove, Woollomumbi, Tingha, Inverell, Borah Creek, Glen Innes, Kookabookra, Bear Hill, Deepwater, Nine Mile, Emmaville, Tenterfield, Boonoo Boonoo, Drake, Rivertree, and Copeland. South—Adelong, Gundagai, Muttama, Cooma, Kiandra, Cowra Creek, Bredbo, Buckley's Crossing, Bombala, Craigie, Colinton, and Michelago. West—Mount M'Donald, Woodstock, Cowra, Broula, Carcoar, Mandurama, Galley Swamp, Burnt Yards, Blayney, Brown's Creek, King's Plains, Newbridge, Trunkey, Tuena, Costigan, Peelwood, Binda, Parkes, Peak Hill, Rockley, Wiseman's Creek, Back Creek, Burraga, Sunny Corner, Hill End, Gulgong, Home Rule, Mudgee, and Denison Town.

North-west—Broken Hill, Silverton, Pinnacles, Mount Gipps, Balaclava, Rockwell, and Purnamoota, between the date of the death of Mr. Inspector Rue, and the appointment of Mr. Hebbard.

The report of the Chief Inspector appended hereto contains matter of great interest, and is well worthy of perusal.

Diamond Drills and Water Augers.

Under the supervision of Mr. W. H. J. Slee, F.G.S., the working of the diamond drills during the year was carried on satisfactorily, considering all the circumstances. The aggregate depth bored during the year was 7,797 feet 9 inches, being 59 feet 7 inches less than the depth in 1890. The average cost per foot in 1891 was 14s. 11¼d., as compared with 14s. 5$\frac{13}{16}$d. per foot in 1890. The cost of diamonds used in 1891 was equal to 1s. 9$\frac{5}{12}$d. per foot bored as compared with 7¾d. in 1890. But for the increase in the cost of diamonds used the rate per foot of boring would have been less in 1891 than in 1890. The increase in this item may be accounted for (1) by reason of the hard basalt bored through at Gulgong, and at Anna Bay, and the very deep bore at Cremorne. (2) By the fact that the best quality of diamonds could not be obtained in the market, and good carbons had risen in value fully 30 per cent during the year. The earnings of the diamond drills during the year amounted to £7,268 5s. 6d The amount paid into the Treasury during the year was £7,214. The result of the year's work is a debit balance of £33 10s 9d., this is caused by having to purchase during the year a stock of diamonds and new rods. The aim being to work these drills in such a manner that the persons who employ them shall have their work done at cost price, it is the duty of the Superintendent to estimate the cost of each bore at such a rate as will just cover the cost. As showing the accuracy of the Superintendent's estimates, the work of 1890 resulted in a credit balance of £83 1s. 11d., and of 1891 in a debit balance of £33 10s. 9d., leaving a credit balance on the two years' work of £49 11s. 2d.

The use of water augers has at length been abandoned, these machines having been superseded by the Canadian well-borer. Henceforth the work of boring for water will be performed under contract, this having proved to be the cheaper and more expeditious mode. The two last bores put down by the water augers were the 106 and 121-mile bores on the road from Milparinka to Wanaaring. The former to a depth of 1,296 feet, the latter to a depth of 1,303 feet.

Mineral Products.

The aggregate value of the mineral products of this Colony to the end of 1891 amounted to £93,536,963 13s. 9d. The value of such products for 1891 was £6,655,010 being an increase of £1,371,169 upon the value of minerals raised in 1890. This result must be regarded as in every sense highly satisfactory, the increase for the year 1891 is more than half as much as the value of the total output of minerals in 1875, and the value of the output for 1891 exceeds the average output for the past ten years by £2,809,045, that is to say, by considerably more than the total output for 1875. When account is taken of the number of mines standing idle because we do not know how to treat the ore and the value of metals that are wasted in the treatment of ores through absence of the knowledge of the methods by which such metals could be profitably saved, some idea might be formed of the amount which our output of minerals might, under favourable circumstances, be reasonably expected to reach. There can, I venture to think, be little doubt that we stand in need of instruction in regard to the treatment of some of our ores, but there is much difference of opinion as to how that instruction is to be secured, if it can be secured at all. In view, however, of the great interests involved it does, if I may be permitted to say so, appear to be the duty of this Department to make an effort in that direction, notwithstanding that such effort may, at the outset, result in failure. The following table shows very gratifying increases on most of our principal minerals, the most serious decreases occurring in shale and tin. The decrease in coke must, I think, be due to want of skill in making an article that can compete successfully with English coke, the demand for an article suitable for smelting-works being very large. The decrease in opal is probably due in part to the difficulty of finding a market, and in part to the drought which has prevailed for some time in that part of the Colony where the mines are situated.

The following table shows the aggregate value of minerals, the produce of New South Wales for the years 1890 and 1891 respectively compared :—

Minerals.	Quantity.	Value.	Quantity.	Value.	Increase in Value.	Decrease in Value.
	1890.	£ s. d.	1891.	£ s. d.	£ s. d.	£ s. d.
Gold	127,760·64 oz.	460,284 16 2	153,335·62 oz.	558,305 12 3	98,020 16 1	
Silver*	496,552·20 ,,	95,410 0 0	729,590·05 ,,	134,850 0 0	39,440 0 0	
Coal	3,060,876·48 tons	1,279,088 19 5	4,037,929·30 tons	1,742,795 12 6	463,706 13 1	
Shale	56,010·00 ,,	104,103 7 6	40,349·00 ,,	78,160 0 0		25,943 7 6
Coke	31,097· ,,	41,147 3 7	30,310·35 ,,	34,473 5 10		6,673 17 9
Tin	3,668·75 ,,	329,841 0 0	3,144·52 ,,	271,412 0 0		58,429 0 0
Copper	3,745·90 ,,	173,311 0 0	4,525·55 ,,	205,093 0 0	31,782 0 0	
Iron†	3,413·44 ,,	39,948 12 2	4,125·81 ,,	36,101 0 3		3,847 11 11
Antimony	1,026·00 ,,	20,240 8 6	914·85 ,,	22,057 0 0	1,816 11 6	
Bismuth	2·10 ,,	306 0 0	·40 ,,	500 0 0	194 0 0	
Silver-lead and Ores.	131,039·65 ,,	2,667,144 0 0	147,779·70 ,,	3,484,739 0 0	817,595 0 0	
Manganese	100·00 ,,	325 0 0	138·20 ,,	340 0 0	15 0 0	
Oxide of Iron and Pig-iron.	455·30 ,,	884 0 0	228·75 ,,	434 0 0		450 0 0
Zinc Spelter	210·45 ,,	2,378 0 0	218·60 ,,	2,622 0 0	244 0 0	
Lead (Pig)	126·00 ,,	1,587 0 0	190·65 ,,	2,025 0 0	438 0 0	
Limestone (Flux)	41,436·80 ,,	41,989 5 9	74,057·00 ,,	65,357 6 2	23,368 0 5	
Alumite	220·00 ,,	3,000 0 0	704·00 ,,	1,888 0 0		1,112 0 0
The Noble Opal	195 lb.	15,600 0 0				15,600 0 0
Cobalt			1·15 tons	470 0 0	470 0 0	
Fireclay			16·80 ,,	55 0 0	55 0 0	
Lime			410·00 ,,	958 0 0	958 0 0	
Marble			635 pkg.	2,577 0 0	2,577 0 0	
Stone (Building)			4,735 No.	5,205 0 0	5,205 0 0	
,, (Ballast)			619 tons	713 0 0	713 0 0	
Grindstones			471 No.	311 0 0	311 0 0	
Slates			31,234 ,,	351 0 0	351 0 0	
Sundry Minerals.	973·00 tons	7,252 0 0	788·95 tons	3,217 0 0		4,035 0 0
		5,283,840 13 1		6,655,009 17 0	1,487,260 1 1	116,090 17 2
					Net increase ...	1,371,169 3 11
						1,487,260 1 1

* The greater part of the silver produced is exported in the shape of silver lead. † Not manufactured from the ore, but old iron.
24,000 carats of emeralds were got at Emmaville, but the value is not known.

The following Return shows the Quantity and Value of Gold, Coal, Shale, Copper, Tin, Silver, Silver-lead Ore, and the several other Metals and Minerals produced in the Colony of New South Wales during the last ten years:—

	1882.		1883.		1884.		1885.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		£		£		£		£
Gold	140,469 oz.	526,521	123,806 oz.	45,509	107,199 oz.	395,292	103,736 oz.	378,665
Coal	2,109,288 tons	948,965	2,521,457 tons	1,201,942	2,749,109 tons	1,303,077	2,878,863 tons	1,340,213
Shale	48,065 ,,	84,114	49,250 ,,	90,861	31,618 ,,	72,176	27,462 ,,	67,239
Copper and Regulus	4,958 ,,	324,727	8,957 7 ,,	577,201	7,305·4 ,,	416,179	5,746 ,,	264,920
Tin and Tin Ore	8,670 ,,	833,461	9,125·5 ,,	824,552	6,665·9 ,,	521,587	5,193 ,,	415,626
Silver	38,618 oz.	9,024	77,065·9 oz.	16,488	93,660·25 oz.	19,780	794,174 oz	159,187
Silver-lead and Ore	11 95 tons	360	136·20 tons	2,075	9,167·55 tons	241,940	2,286 tons	107,626
Iron	7,476·00 ,,	37,224	3,434·15 ,,	26,908	3,759 10 ,,	24,572	4,176 ,,	25,793
Antimony and Ore	1,068·90 ,,	16,732	375·55 ,,	5,555	433 60 ,,	6,458	293 ,,	4,296
Asbestos	7·50 ,,	75					6 ,,	90
Bismuth	2·70 ,,	162	3 70 tons	650	14 37 tons	2,770	14 ,,	3,700
Oxide of Iron								
Zinc Spelter								
Lead (Pig)								
Limestone Flux								
Opal								
Manganese								
Cobalt								
Coke								
Alumite								
Fireclay								
Lime								
Marble								
Stone (Building)								
,, (Ballast)								
Grindstones								
Slates								
Sundry Minerals	7 tons	979	31 tons	160			457 tons	7,820
		2,782,331		3,204,901		3,003,831		2,775,175

	1886.		1887.		1888.		1889.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		£		£		£		£
Gold	101,417 oz.	366,294	110,288 oz.	394,579	87,503 oz	317,100	119,759 oz.	434,070
Coal	2,830,175 tons	1,303,164	2,922,497 tons	1,346,163	3,203,443 tons	1,455,198	3,655,632 tons	1,633,848
Shale	43,563 ,,	99,976	40,010 ,,	87,761	34,869 ,,	73,612	40,561 ,,	77,666
Copper and Regulus	4,027 ,,	167,665	4,763 ,,	199,102	3,899 ,,	275,034	4,182 ,,	206,641
Tin and Tin Ore	4,968 ,,	467,653	4,961 ,,	525,420	4,809 ,,	582,496	4,650 ,,	415,171
Silver	1,015,433 50 oz.	197,544	177,307·75 oz.	32,458	375,064 oz.	66,668	416,895·35 oz	72,001
Silver-lead and Ore	4,802 10 tons	294,485	12,530·15 tons	541,952	29,841 60 tons	1,075,737	81,545 30 tons	1,809,197
Iron	3,685·85 ,,	19,068	2,707·40 ,,	14,543	3,747·00 ,,	23,721	2,136·90 ,,	18,330
Antimony and Ore	273·15 ,,	3,381	168·35 ,,	1,641	190 35 ,,	2,918	221·40 ,,	3,344
Asbestos								
Bismuth	20·90 tons	3,870	36·55 tons	6,695	18 07 tons	3,911	42·50 tons	11,349
Oxide of Iron							489·05 ,,	1,329
Zinc Spelter							96·85 ,,	988
Lead (Pig)							522·30 ,,	6,711
Limestone Flux								
Opal								
Manganese								
Cobalt								
Coke								
Alumite								
Fireclay								
Lime								
Marble								
Stone (Building)								
,, (Ballast)								
Grindstones								
Slates								
Sundry Minerals	69 tons	5,327	1,431 tons	15,624	119 tons	3,438	95 75 tons	719
		2,928,427		3,165,938		3,879,833		4,780,364

	1890.		1891.		Total.			
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		
		£		£		£		
Gold	127,760 oz.	460,284	153,336 oz.	558,306	1,175,273 oz.	4,289,620		
Coal	3,060,876 tons	1,279,088	4,037,929 tons	1,742,796	29,969,263 tons	13,553,454		
Shale	56,010 ,,	104,103	40,349 ,,	78,160	411,757 ,,	835,668		
Copper and Regulus	3,745 90 ,,	173,311	4,525·55 ,,	205,093	52,109 55 ,,	2,809,873		
Tin and Tin Ore	3,668·75 ,,	329,841	3,144·52 ,,	271,412	55,955 67 ,,	5,187,199		
Silver	496,552 20 oz.	95,410	729,590·05 oz.	134,850	4,214,361·00 ,,	803,410		
Silver-lead and Ore	131,039 65 tons	2,667,144	147,779·70 tons	3,484,739	419,040·20 ,,	10,315,265		
Iron	3,413·40 ,,	39,948	4,125·80 ,,	36,101	38,751·60 ,,	266,208		
Antimony and Ore	1,026 00 ,,	20,240	914·85 ,,	22,057	4,965·15 ,,	86,622		
Asbestos					13 50 ,,	165		
Bismuth	2·10 tons	306	·40 tons	500	155·30 ,,	33,913		
Oxide of Iron	450·30 ,,	884	228 75 ,,	434	1,168·10 ,,	2,647		
Zinc Spelter	210·45 ,,	2,378	218·60 ,,	2,622	525 90 ,,	5,988		
Lead (Pig)	126 00 ,,	1,587	190·65 ,,	2,025	838·05 ,,	10,323		
Limestone Flux	41,436 80 ,,	41,989	74,057·00 ,,	65,357	115,493 80 ,,	107,346		
Opal	195 lb.	15,600			195 lb.	15,600		
Manganese	100 tons	325	138 00 tons	340	238 00 tons	665		
Cobalt			1·15 ,,	470	1·15 ,,	470		
Coke	31,097 tons	41,147	30,310·35 ,,	34,473	61,407·35 ,,	75,620		
Alumite	220 ,,	3,000	704 00 ,,	1,888	924·00 ,,	4,888		
Fireclay			16·80 ,,	55	16 80 ,,	55		
Lime			410 00 ,,	958	410·00 ,,	958		
Marble			635 pkg	2,577	635 pkg.	2,577		
Stone (Building)			4,735 No.	5,205	4,735 No	5,205		
,, (Ballast)			619 tons	713	619 tons	713		
Grindstones			471 No	311	471 No.	311		
Slates			31,234 ,,	351	31,234 ,,	351		
Sundry Minerals	973·75 tons	7,252	788·95 tons	3,217	3,972·25 tons	44,536		
		5,283,840		6,655,010		38,459,650		

Gold.

The output of gold from the opening of our gold-fields to the end of 1891 amounts to 10,373,452 oz., valued at £38,633,477 17s. 10d. The output for 1891 was 153,336 oz., valued at £558,305 12s. 3d., being, as to quantity, the largest since 1876, and as to value since 1881. From this it would appear that the average value of the gold won in 1881 was greater than in 1891. The value of the output in 1891 exceeds that of 1890 by £98,020 16s. 1d., and exceeds the decennial average by £129,344. I regret to say no effective and economical method of treating our pyritous gold ores has yet been brought into general use, nor have we yet brought water to bear on any extensive scale upon the large auriferous deposits found to exist along some of our river banks. I trust the tests made under the supervision of Mr. Cosmo Newbery in the treatment of tailings sent from Victoria to Europe, may lead to the profitable working of the large heaps of tailings found on some of our older gold-fields. I may be unduly sanguine, but I cannot help thinking that if we were in a position to treat our auriferous deposits by the best methods, our present output of gold should largely exceed the yields of the early years of our gold-fields, and that gold-mining, if so conducted as to avoid the waste which occurs under our present mode of working, would become so profitable as to attract all the capital necessary for development.

Table showing the Quantity and Value of Gold won in the Colony of New South Wales from 1851 to 1891.

Year.	Quantity in oz.	Value.	Year.	Quantity in oz.	Value.
		£ s. d.			£ s. d.
1851 ...	144,120	468,336 0 0	1873 ...	361,784	1,395,175 8 7
1852 ...	818,751	2,660,946 0 0	1874 ..	270,823	1,040,328 13 6
1853 ...	548,052	1,781,172 0 0	1875 ...	230,882	877,693 18 0
1854 ...	237,910	773,209 0 0	1876 ...	167,411	613,190 7 9
1855 ...	171,367	654,594 0 0	1877 ...	124,110	471,418 4 4
1856 ...	184,600	689,174 0 0	1878 ...	119,665	430,033 2 7
1857 ...	175,949	674,477 0 0	1879 ...	109,649	407,218 13 5
1858 ...	286,798	1,104,174 12 2	1880 ...	118,600	441,543 7 7
1859 ...	329,363	1,259,127 7 10	1881 ...	149,627	566,513 0 0
1860 ...	384,053	1,465,372 19 9	1882 ...	140,459	526,521 12 5
1861 ...	465,685	1,806,171 10 8	1883 ...	123,805	458,508 16 0
1862 ...	640,622	2,467,779 16 1	1884 ..	107,198	395,291 12 5
1863 ...	466,111	1,796,170 4 0	1885 ...	103,736	378,665 0 3
1864 ...	340,267	1,304,926 7 11	1886 ...	101,416	366,294 7 7
1865 ...	320,316	1,231,242 17 7	1887 ...	110,288	394,578 16 3
1866 ...	290,014	1,116,403 14 5	1888 ...	87,503	317,099 12 0
1867 ...	271,886	1,053,578 2 11	1889 ...	119,759	434,070 8 4
1868 ...	255,662	994,665 0 5	1890 ...	127,760	460,284 16 2
1869 ...	251,491	974,148 13 4	1891 ...	153,336	558,305 12 3
1870 ...	240,858	931,016 8 6			
1871 ...	323,609	1,250,484 15 11		10,373,452	38,633,477 17 10
1872 ...	425,129	1,643,581 16 11			

The following extracts from the reports furnished by the Wardens and Mining Registrars indicate the condition during the year of mining in the several mining districts and divisions:—

Bathurst District:—The value of gold won is given as £34,194 16s. 5d. On the whole, mining has been dull during the year, though the wet season has been favourable for sluicing. From the Paddy Luckey Claim, Dark Corner, 720 tons of stone crushed gave 936 oz. of gold. The St. George mine crushed 70 tons for 132 oz of gold. At Mount M'Donald the yield of gold for the year was 1,030 oz. 12 dwts. 12 grs.; of this, 928 oz. was obtained from 1,246 tons crushed. Mathison and party have struck a reef 4½ feet wide, from which 120 tons yielded 60 oz. of gold. G. Elliott has struck a reef 1 foot wide at a depth of 5 feet, carrying rich gold. This is between Oliver's Battery and the Woman's Lease. At Trunkey, M'Vicar and party have had considerable success in their alluvial claim. At Tuena, 1,100 oz. of alluvial gold was obtained, and 400 tons of quartz yielded 340 oz. of gold. Several new reefs were found towards the end of the year. At Rockley of the 134 oz. of gold from alluvium, 80 was obtained by ground-sluicing at Back Creek. At Galley Swamp the Queen of Galley Swamp has, with aid from the Prospecting Vote, struck a reef 1 ft. wide, from which 30 tons of gold-bearing stone has been raised. At Tenandra, M'Innes Bros. are said to have won £1,300 worth of gold from private land.

In the Mudgee District good prospects have been obtained by boring in the Log Paddock, near Mudgee; and at Limestone the Mount Margaret Company have struck good stone. Payable quartz has been struck near the Standard Lead (Gulgong). The stone is estimated at from 1 to 2 oz. per ton. The recent washings of Hutton and party on the Old Standard Lead have been satisfactory. Some first-class specimens have been obtained from Buckley's Reef at the 155-ft. level. At the Canadian Lead a few parties are making good wages. A shaft is being sunk on the Black Lead (formerly No. 44) by an English syndicate; present depth, 65 ft., in hard basalt, the object being to prove the continuation

of

of the Black Lead and Tributaries. In the Lagoon Paddock (Rouse's) eight bores have been bottomed; average depth, 160 ft.; three on wash-dirt containing payable gold; thickness of wash from 2 ft. to 3 ft. 8 in.; the distance between the bores on wash is 1½ miles. A working shaft is now being sunk through basalt which averages 110 ft. in thickness. The success of the works in this paddock and on the Black Lead will do much to revive the prosperity of the Gulgong field. The Gulgong Company have sunk a shaft on 500 acres of land, leased from Mr. R. Rouse, of Guntawang to a depth of 128 ft., and a drive is now being put in to reach a run of payable wash which has been traced from shallow ground to a depth of about 110 ft., still dipping. The drive shows wash, carrying gold, coming in. The last wash raised from this run, which was narrow, gave 28 dwts. per load. To Mr. Frame Fletcher is due the credit of starting the three last-mentioned enterprises. Some Sydney capitalists have taken up leases on Adams' Lead, and are erecting machinery to work the same. At Hargraves, though the Hargraves G. M. Company have met with several veins containing gold, they have not been successful in striking a payable reef. Much interest is felt in the progress of this company on account of the depth at which they are working. At the 240-foot level they have a western drive 250 feet long and an eastern one 640 feet long. At Windeyer, Melbourne and party have cut several veins, bearing gold, in their tunnel, which is in 180 ft. At Mitchell's Creek (Wellington) the Freehold Company obtained over 4,187 oz. of gold, 1,191 oz. from concentrated pyrites. At Peak Hill so far the attempts to find alluvial leads have been unsuccessful. Some five companies are working the lodes, the yields from which vary from ½ to 1 oz. per ton. The lodes in the Proprietary and the Great Eastern Mines being the largest and best defined; these vary from 2 to 20 ft. in width by from 50 to 200 ft. in length. The Great Eastern Company's shaft is 129 ft. deep. From this mine 1,500 tons of lode stuff crushed averaged 1 oz. per ton. From the Crown of Peak Hill Mine 400 tons gave nearly ½ oz. per ton. The Proprietary Company have crushed about 3,000 tons for a yield of ½ oz. per ton. During the year a lode was discovered in the Great Western Mine, from which 133 tons were crushed, yielding over 78 oz. of gold. Two other lodes containing gold have been discovered, but it is not yet known whether they will prove payable; one of these is about 2 miles easterly from Peak Hill. A quartz leader has been discovered about 3 miles southerly from Peak Hill, a trial crushing from which gave ½ oz. per ton. Two miles south of Ten-mile Ridges are two reefs; from one, the "Who'd have thought it," 34 tons crushed gave 2 oz. per ton. At Tomingley No. 1 Myall produced during the year 1,020 tons of quartz which yielded 1,013 oz. of gold. The two alluvial claims, Golden Hole and Maloney's, produced over half the alluvial gold won during the year.

In the Tambaroora and Turon District:—At Hill End work is being continued on the whole line of reef from the Dirt Holes on the north to Root Hog on the Macquarie River south, a distance of 10 miles. On the Golden Gully line of reef, Lonsdale and party and Eldridge and party are working on a new vein with highly satisfactory results. Deikmann and party struck payable gold on the same line in December, and crushed 47 tons for 35 oz. 7 dwts. Early in the year Emmett and party won some 2,000 oz. of gold from their claim, and have now sunk a new main shaft and are raising very rich stone. Suttor and party adjoining are now on gold. From Clemen's claim payable crushings have been obtained, but in this and the adjoining rich claim of Riley's the water is very troublesome, a tunnel is therefore being put in to drain the ground. A tunnel, 798 feet, driven in the Great Amalgamated Mine, has cut two veins, estimated to yield over 2 oz. per ton. The discovery of these two veins, some 1,200 feet below the top of the hill (Hawkin's Hill), has enhanced the value of the surrounding claims. The Cornelian Company has employed 25 men raising stone, which has been crushed at the company's mill, but the results are not made public. From 1,730 tons crushed at Hill End 2,500 oz. of gold have been won. At Tambaroora about 600 oz. have been sluiced out of old ground. At Nuggetty Gully a number of men are getting payable gold. A number of miners have been employed during the wet season sluicing old ground, from which 2,156 oz. of gold have been won. At Jew's Creek (Sofala), two or three parties have done well, the gold being patchy, but coarse nuggets up to 2 oz. weight being sometimes found, and during the wet season several parties did well sluicing old ground. No new reefs have been found, but some of the old reefs have been worked with fair results. A party of tributors in the Oakey Creek Mine struck payable stone to N.E. of the company's workings; the reef varies from 1 to 6 feet in width; 40 tons of stone yielded 27 oz. of gold. Some tributors in the Big Oakey Mine have taken out some payable crushings from the old tunnel vein. Webb and Co., adjoining the Oakey Creek Company, have had some good crushings; reef 18 inches wide and steadily improving. The quantity of gold won in the Sofala division was over 3,753 oz. At Ironbarks a tunnel put in 460 feet to cut the old river bed under basalt, has touched the wash, from which samples of shotty gold have been washed. The Golden Gully Company has been engaged the greater part of the year in sinking a perpendicular shaft to cut the reef at a depth of 270 feet; when the reef was reached it showed gold; a crushing of 445 tons of quartz taken from that level yielded nearly 2 oz. per ton; this is the only reef on the field tested to that depth.

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In the Lachlan Mining District:—At Forbes the Pinnacle Company have crushed about 600 tons for 177½ oz. of gold. At Parkes the Hazlehurst Proprietary Company are working, at a depth of 360 feet, a reef which varies from 1 foot to 4 feet wide. Since the present Company started, about a year since, they have crushed 1,489 tons of stone for 1,807 oz. 5 dwt. of gold. The Kohinoor Company (Old Caledonian Reef) has worked the reef to a depth of 160 feet; width of reef, about 3 feet. This Company was registered in July last; up to that date they had crushed 978 tons of stone for 641½ oz. of gold. Since July they have crushed 1,306 tons for 733 oz. The Golden Crown Company's crushings averaged 1 oz. 18 dwt. 9 gr. per ton. Some twelve mines may be considered payable. Total quartz crushed, 5,429 tons; average 16¼ dwt. per ton; 964 loads of alluvium washed yielded 70½ oz. Total gold, 8,485 oz. 6 dwt. 9 gr. At Alectown 12,552 loads of wash have been puddled, of which 6,351 loads averaged 7 dwt. per load, and 6,201 averaged 13 dwt. per load; total, 6,253 oz. 10 dwt. gold. From the Prospector's claim, since date of discovery, 963 loads washed have yielded 878 oz. 15 dwt. 8 gr. Twelve reefs have been worked during the year, eight are still being worked. The Pride of Alectown Reef is well defined, about 3 feet thick, country soft; 20 tons of stone crushed gave 8 dwt. per ton. The Bird's Nest Reef, well defined, 9 to 21 inches, wide country; 20 tons treated gave 19 dwt. per ton. From a reef near Live Bird Lead 11 tons treated yielded 11 oz. 3 dwt. 6 gr.; some very rich specimens have been found in this reef. The other five reefs which are being worked vary in width from 6 inches to 4 feet; all show gold. The Old Stockman Reef, about 4 feet wide, is showing splendid stone. On most of the claims stone is being stacked, as the distance to battery is 10 miles. It is expected that a battery will be erected shortly. On what is known as the Reserve, 4 miles north of Alectown, a reef has been found, average about 3 feet wide; 20 tons crushed at Parkes gave 11 dwt. At Cargo, from the Dalcoath Mine, 123 tons of stone crushed gave 1 oz. 7 dwt. per ton. Some rich stone was struck in Tinnock's lease, 9 tons of which yielded 54 oz. of gold. At Canowindra—The Blue Jacket Company's shaft, 300 feet deep, reef 10 inches to 3½ feet wide, their last crushing of 489 tons yielded 606 oz. At Cudal—The shaft on the London claim is 260 feet deep; average width of reef, 8 inches; 176 tons crushed for 616 oz. of gold. Small parcels of stone have been crushed from other claims, which have averaged from 1 to 7 oz. per ton. At Gumble (Molong) 800 tons from Delaney's Dyke yielded 210 oz. of gold. At Temora 1,277 loads of wash puddled gave 163 oz. 11 dwt. From the Prospecting Claim at Gundibindyal 45 tons of stone crushed gave 88 oz. of gold. At Barmedman 45 tons from Jackson's Reef gave 39 oz., and 13 tons from the Fiery-cross Reef gave 15¼ oz. At Young the South Burrangong Company raised gold to the value of £14,158 12s. 11d. At Grenfell a new reef was discovered at Milkman's Gully, from which a trial crushing of 16 tons gave 28 oz. 16 dwt. of gold. Mr. Campbell has come upon a new make in the Homeward-bound Reef, at a depth of 440 feet, which, from appearance, is likely to give a good return.

In the Tumut and Adelong District:—At Albury—Day and party, on the Nine-mile Reserve, had a parcel of 2 tons of stone from the 50-feet level tested at the Clyde Works, which yielded 9 oz. 2 dwt. 20 gr. of free gold. The pyrites, at the rate of 28 oz. per ton; a trial of 3 tons from the 103 feet level gave 3 oz. 16 dwt. of free gold, and the pyrites yielded 28 oz. per ton—width of reef, 18 to 20 inches; and a recent crushing of 10 tons produced 56 oz. At Eurongilly, from the Enterprise claim, 20 tons gave 31 oz. 15 dwt., 9 tons gave 7 oz. 15 dwt., and 30 tons gave 15 oz. 15 dwt. From the Pioneer claim 13 tons gave 19 oz. 10 dwt. From the Welcome claim 30 tons gave 110 oz. 10 dwt. At Adelong, 1,087 tons 13 cwt. of quartz yielded 1,294 oz. 19 dwt. 12 gr. From the Gibraltar Hill Mine 50 tons crushed gave 112 oz.; vein, 12 to 18 inches wide. From alluvium 2,911 oz. 2 dwt. 23 gr. have been washed. At Colinton 290 tons of stone from Quigg and party's claim gave 180 oz. of gold. At Fiery Creek 267 tons of stone crushed yielded 342 oz. of gold.

In the Southern Mining District:—At Nelbothery (Bombala) extensive and costly preparations are being made for working the shallow deposit of alluvium by means of hydraulic sluicing. This deposit has been tested at various points and proved payable from surface to bottom. At Brimbermala and Bullock Creek, Wray, the discoverer, crushed 72 tons for 154 oz. of gold. The "Joe Thorpe" Mine crushed 15 tons for 23 dwt. per ton, and 40 tons from the Gem Mine yielded over 1 oz. per ton. At Nerrigundah the Wandella Co. had three trial crushings which gave 3 oz. 14 dwt., 3 oz. 18 dwt., and 4 oz. per ton respectively. At Pambula the Mt. Gahan Co. obtained 1,600 oz. of gold from 1,100 tons of ore. Faulkner's Co. obtained 1,890 oz. of gold from 120 tons of ore. The Consolation Co. at Brimbermala crushed 103 tons of stone for 2 oz. per ton. At Major's Creek 4,874 tons of wash puddled gave 418 oz. 12 dwt., the total quantity from alluvium was 1,261 oz. 17 dwt. 8 gr. At Araluen the quantity of gold won was 2,200 oz. 6 dwt., the heavy floods having stopped work for a time. At Little River the Day Dawn Co. crushed 348 tons of stone for 742 oz. 14 dwt. 10 gr. At Nerriga the Horse-shoe Bend Co. who have cut a tunnel through a neck of land and are now erecting a dam to divert the Shoalhaven River through the tunnel so that they may work the bed of the river. The late floods

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did a great deal of damage, and delayed operations. Several companies have expended large sums of money in endeavouring to bring water to bear for the purpose of sluicing some promising areas of alluvium on the banks of the Shoalhaven, but the difficulties to be overcome are very great, and they have not yet succeeded. The following report has been furnished by the Chief Engineer, Mr. H. G. M'Kinney:—

WATER SUPPLY FOR MINING PURPOSES IN SHOALHAVEN VALLEY.

I have the honor to report that, in accordance with instructions, I have inquired into the question of the practicability of conducting supplies of water through the parts of the Shoalhaven District in which large areas of auriferous drift are known to exist. As two main sources of supply have at various times been suggested, namely, the Shoalhaven River and Lake Bathurst, I deemed it necessary to inquire into the merits of both. In the course of my inspection of Lake Bathurst, I made a general examination of the catchment area on which the lake depends for its supply. In doing so, I found evidence tending strongly to show that a connection at one time existed between the lake and Crisp's Creek, which is a sub-tributary of the Wollondilly River, so that the lake naturally belongs to the basin of the Hawkesbury. On the other hand, there is a well defined ridge, which divides the catchment area of Lake Bathurst from that of the Shoalhaven River. The mean of two sets of barometer readings gave 80 feet as the height of the lowest part of this ridge above the level of the water in the lake. On the east and north-east of Lake Bathurst, there are two large morasses connected with each other and with the lake. The area of that directly connected with the lake is about 886 acres, and that of the other about 410 acres, whilst the area of the lake itself is 3,768 acres. The least expensive course for a channel to tap the lake would be through these morasses, which would, therefore, require to be drained in the first instance. The total length of conduit from Lake Bathurst to the eastern side of the dividing ridge would be about 5 miles, of which about a mile and a-half would be cutting of a moderate depth, while the remaining 3½ miles would be partly deep cutting and partly tunnel. The length of tunnel would probably be over a mile, and possibly as much as a mile and a-half.

The construction of an outlet channel from Lake Bathurst to the Shoalhaven Valley would thus be a very expensive matter. The water would be delivered at the head of Budjong Creek, and would have to be taken across the Wadjigomar Creek before it could be brought on the auriferous deposits in the parishes of Jerralong and Nerrimunga.

The difficulties mentioned are the most important in the way of drawing a supply of water from Lake Bathurst, but in addition to this there is the question of insuring the permanence of the supply in the lake. It is necessary to state at the outset, in regard to this point, that it is useless to go into the question of drawing a supply of water from Lake Bathurst, without, at the same time, dealing with the question as to how that supply is to be kept up. Under existing circumstances, as in the case of Lake George, the supply of water to Lake Bathurst is fairly balanced by the evaporation. Hence, if a supply is to be drawn from the Lake, that supply will have to be balanced by increasing the quantity delivered into it. The only supply of any importance which can be diverted into Lake Bathurst is that carried by Crisp's Creek, and, even in this case, I believe, it would be necessary to provide a channel which would carry the greater part of the flood-waters of this Creek. The catchment area of Lake Bathurst is 25,700 acres, while that of Crisp's Creek to the gorge above Tarago, where its waters would have to be diverted, is about 17,100 acres. If the whole of the waters of Crisp's Creek were diverted into Lake Bathurst the total catchment area would thus be 42,500 acres. The draining of the morasses would increase the available supply, as these, being shallow and less sheltered than the lake, are little less than great natural evaporating pans. Assuming, however, that only the catchment area of Crisp's Creek could be depended upon for the requisite supply of water, and that 5 inches out of the total rainfall could be depended on for diversion, the supply available would be equivalent to a constant flow of nearly 10 cubic feet per second. This supply would not provide for hydraulic sluicing on such a scale as would be expected from a scheme taken up by the Government, and, though a somewhat larger supply might possibly be made available, I do not think it could safely be reckoned on.

The question of hydraulic sluicing in the Shoalhaven Valley with water from Lake Bathurst may be summed up in the statement that a comprehensive scheme, such as the Government would be justified in taking up, could not be provided with water from this source, and that, even in utilising the limited supply which can be made available, works of a heavy and expensive character would be required. The second, and by far the more important source of supply for hydraulic sluicing in the Shoalhaven District, is the river Shoalhaven, of which the tributaries are to be included as secondary sources. The information given to me by different authorities or reputed authorities proved very contradictory, but, by making a careful examination of the district with the aid of county and parish maps, and inspecting works which are, or have been in operation, I was able to arrive at definite conclusions. Although some of the information supplied to me proved inaccurate; in other cases it was valuable. Under the latter I may mention that I was supplied with much useful information by Mr. J. G. Fraser, who has lately carried out extensive works for the Golden Terraces Hydraulic Sluicing Company, and Mr. R. Tilden Smith, agent for the Yellow Springs Gold Mining Company.

Commencing my investigations at Braidwood I found that it is desirable, if not necessary, to draw the supply of water from some point above Braidwood, because, in the first place, there are large deposits of auriferous drifts above that place; and secondly, because there is a rapid fall in the Shoalhaven River between the Warrai Bridge and the confluence of the Jembaicumbene Creek. Following the river up between these places, I found that there are large deposits of drift on both sides of the river, and that these deposits have been worked on an extensive scale. Several parties of miners are still at work, and the fact that they have carried on a considerable portion of the sluicing with the aid of surface water, stored from time to time on the high ground above the river, tends to show that the working of the drift could be carried on at a profit under disadvantageous circumstances. Although I had been assured in the most positive terms by a gentleman who claimed to have had large experience and to have actually settled the question by levelling, that it was impossible to draw a supply of water from the Shoalhaven River for hydraulic sluicing purposes, I found in actual operation a small race drawing its supply from that river. This race has a mean water section of about 4 feet by 10 inches, and the discharge at the time of my inspection was about 2 cubic feet per second. At the Queanbeyan Road this race is from 100 to 120 feet above the river level, and is near a line which was surveyed some time ago by Mr. Simmes. I trace this line of Mr. Simmes' up to the Jembaicumbene Creek, a fair source for a moderate supply, but one greatly inferior to the Shoalhaven River. The race which is in operation has its head on the Shoalhaven River at about a mile and a half above the Sandholes Crossing.

An important object kept in view in my inspection of this part of the river was to find a place at which a good, steady supply could be diverted into a race by the aid of a low weir of masonry or concrete. I found two places of this description between the Sandholes Crossing and the Jinglemoney Crossing; the first being at a distance of about a mile from the former place, and the second about half a mile higher up the river. At each of these places a granite dyke runs across the channel. At the lower dyke the direction of the river is almost north and south, while the granite runs across obliquely from north-west to south-east. The granite is to be seen on both sides of the river, so that there is first-class foundation throughout, and as the land is very rough and there is practically no settlement, no damage of any consequence would ensue from a slight rise in the flood-level. The second bar runs less obliquely than the first. At this dyke the surface of the granite is very rugged, and advantage has been taken of this to form a rude dam of logs and boulders, which are held in position by the projecting masses of rock in the dyke. This rough attempt at dam construction was made for the benefit of the race already mentioned; but it is worthy of note that the remains of a race still exist on the left side of the river, also at the same place.

Following the course of the Shoalhaven to the confluence of the Jembaicumbene Creek I found the remains of two races leading from the latter. At this place there is a large alluvial deposit on the left side of the Shoalhaven River, and from examination of the locality I concluded that it is unsuitable for the diversion of a large supply of water on either side. This place, which is known as the Jinglemoney Crossing, is the furthest point up the river, from which there is a likelihood of drawing off a supply of water for hydraulic sluicing on a large scale with advantage.

The conclusions thus arrived at were that (1) the practicability of drawing a supply of water from the Shoalhaven River for hydraulic sluicing is an established fact: and (2) that there are two suitable places above the Warrai Bridge, in the parish of Boyle and county of St. Vincent, from which such a supply can be obtained. The auriferous deposits are situated on both sides of the river, and so far as I could learn the richest of these deposits are in the parishes of Oallen, Jerralong, and Nerrimunga, in the county of Argyle; the parish of Larbert, in the county of Murray, and the parishes of Tamboye, Jerricknorra, and Meanfora in the county of St. Vincent; but gold-bearing deposits exist and have been successfully

successfully worked at intervals on both sides of the river from Jembaicumbene Creek downwards. The distance from the proposed offtake to the most northern part of the rich auriferous deposits is about 50 miles in a direct line. The most economical line for a conduit would be at least double this length, and possibly two and a-half times. Until a survey is made it will not be possible to state whether it would be best to start with one channel, subsequently carrying portion of the supply across the Shoalhaven River, or to take off two independent canals, one on each side of the river. The latter would in all probability be the more expensive course, but would probably be the better one to meet requirements. Gaugings of the river will have to be taken carefully, but from observations made during my inspection I believe it will be found that the circumstances will warrant the construction of works which will carry a total supply of about 20 cubic feet per second. Two channels each carrying 60 cubic feet per second, should under fairly favourable circumstances not cost more than £1,000 per mile, or £125,000 each for a total length of 125 miles, including leadworks and a low weir of concrete or boulder masonry, so that the total outlay may be estimated at £250,000.

The return to be expected from this outlay may be estimated as follows:—I was repeatedly informed that over large areas working miners could pay £4 per week for a box sluice of water, and this assumes that the water would not be delivered or used under pressure. I have obtained the opinion of Mr. Slee, Chief Mining Inspector, as to whether this statement can be relied on, and found that he is of opinion that it can. The water from the Government scheme would be delivered, as a rule, at such elevation that great sluicing power would be available, so that it seems reasonable to assume this rate throughout. If the large allowance of 20 cubic feet per second be made for loss and waste, we have for actual use 100 cubic feet per second. As the box sluice is generally measured, this quantity would be equal to 160 box sluices. The value of the water would thus be £640 per week, or £33,280 per annum; this would be equal to about 7 per cent on £475,000, or to nearly 13½ per cent. on the estimated outlay. By the construction of dams in suitable places to store the water which would go to waste when not in use, the return could probably be largely increased,

The figures here given are necessarily approximate, but they have been arrived at after making large allowances for possible contingencies, and I see no reason to doubt that they fairly indicate the expenditure and the returns. Gaugings will show the quantity of water available, but as the catchment area on which that supply depends amounts to over 273,000 acres, or over 427 square miles, chiefly of mountainous country, with an average rainfall of about 27 inches, there is every reason to anticipate that the estimated supply is within the mark. With regard to the returns, the extent of auriferous deposits is so great, that so far as I could judge the demand for water will greatly exceed the supply. This is a matter which can best be judged by the officers dealing with mining. The period which must elapse before the auriferous deposits become materially diminished in area will be so great, that it is really not necessary to refer to it; but it may be pointed out that the proposed canals would be available for irrigation when not required for gold sluicing. I beg to recommend that a preliminary trial line for a canal be run along each side of the river from the site I selected, and the necessary gaugings of the river be taken. The most experienced and reliable officer I have for such work is Mr. Wade, Assistant Engineer, and on account of the importance of the work, I propose sending him, with full instructions, if the survey be sanctioned. I believe that two such lines can be run within six months at a cost of £600, and the work thus done will determine whether there are any obstacles of a serious nature to be overcome, and will indicate fairly the nature, position, and cost of the proposed works.

At Montenay, O'Neill and party crushed 40 tons of stone from the Welcome Reef for 40 oz. of gold. At Yalwal the Pioneer Co. crushed 1,090 tons of stone which gave 378 oz. of gold; the Homeward-bound Co. crushed about 10,000 tons of stone for 2,879 oz.

In the Hunter and Macleay District:—At Copeland J. Warren won 38 oz. of gold from red clay leaders near the Morning Star line of reef. At Coolongolook 53 tons of stone from the Coraki lease yielded 102 oz. 9 dwt. of gold. At Deep Creek the Nambucca Heads Co. have been engaged in opening up their mine, thus proving the existence of hundreds of thousands of tons of stone, assays of which have been regularly made, giving from 4 to 22 oz. per ton, and they have now nearly completed the erection of chlorination works to treat the stone.

In the Peel and Uralla District:—At Stewart's Brook the United Bluey Co. crushed 1,500 tons for 550 oz. of gold; width of vein, 18 inches; the Ethel May Co. raised 880 tons of stone for 350 oz. of gold; the Pride of the Brook Co. crushed 55 tons of stone for 54 oz. of gold. At Moonan the Newcastle Co. crushed 800 tons of stone for 660 oz. of gold; total for the Scone division 3,050 tons crushed yielding 1,850 oz. of gold. At Nundle 32 tons of stone from Isaacson and Thompson's Mine yielded 304 oz. of gold. At Swamp Oak the veins vary from 6 inches to 4 feet, and the stone yields from ½ to 7 oz. per ton. The veins appear to improve in depth. The Rising Moon Co.; from a vein 1½ to 3 feet wide several hundred tons have been crushed, yielding 2 oz. per ton. From the Highland Mary Co., 24½ tons of stone crushed yielded 3 oz. 14 dwt. per ton, reef 20 inches wide. Sixty tons of stone from the Surprise lease yielded 264 oz. of gold. Eighty-seven tons of stone from the Storm King gave 128 oz. of gold. Fifteen tons from the Victory yielded 5½ oz. per ton. The Rainbow Co. have several reefs, varying from 6 inches to 3 feet, trial crushings from which vary from 11 oz. to 18 dwt. per ton. From the Lady Sophia lease 44 tons of stone crushed yielded 1 oz. 14 dwt. per ton, from a vein 1½ to 2 feet wide. At Niangala the Bungendore Co. crushed 60 tons for 1 oz. per ton. The Jersey Co. crushed 46½ tons for 149 oz. 19 dwt. 11 gr. The Starlight Co. crushed 80 tons of stone from a reef 9 inches wide for 130 oz. of gold. The Golden Spur Co. crushed 50 tons for 50 oz. of gold. At Paradise Creek, five distinct lines of reef showing gold have been discovered. The quantity of gold won in the Armidale division was 30,366 oz. 19 dwt. 9 gr. Of this 18,078 oz. was won by the Baker's Creek Co.; 6,184 oz. 3 dwt. 12 gr. by the Sunlight Co.; 1,961 oz. by the Earl of Hopetoun Co.; 1,298 oz. 12 dwt. by the Eleanora Co.; 749 oz. by the Garibaldi Co.; 49 oz. by the New Baker's Creek Co. At Uralla about 550 oz. of gold was obtained from alluvium. 1,989 oz. of gold was obtained in the Glen Innes division, chiefly from the reefs at Bear Hill; Bear Hill Co., 756 oz., from 766 tons of stone; Butcher's Co., 707 oz., from 900 tons of stone; Starlight Co., 75 oz. At Glen Elgin the English Syndicate has three reefs; several tunnels have been put in; the width of No. 1 reef varies from 12 to 30 inches, and bulk trial crushings yielded from 1 to 2¼ oz. per ton. Bertram's reef varies from 12 to 24 inches in width, trial crushings from which gave from 1 to 2¼ oz. per ton.

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In the New England District:—At Boonoo Boonoo Stevenson and party obtained 496 oz. of gold from 7½ tons of stone. At Long Gully 2,036 oz. of gold was obtained from the Lady Jersey Mine. The Mt. Carrington Mine was at work during the last six months; at 100-feet level is a body of gold-bearing matter which varies from 4 to 6 feet in width, from which 400 oz. of gold was obtained; the gold is very fine, and difficult to save. From Barker's claim 73 tons of ore have been raised, which yielded 240 oz. of gold.

In the Clarence and Richmond District:—The Mt. Pool Marvel Co. (near Dalmorton) has a reef 4 feet 4 inches wide; from a trial crushing tested in Sydney, of 4¼ tons; 12 oz. 11 dwt. of gold was obtained; 36 cwt. of rubble gave 7½ oz. of gold, and a parcel of 5 tons 18 cwt., tested at Dalmorton, gave 10¼ oz. of gold. A later crushing yielded 6 oz. per ton. Other leases have proved to contain payable reefs. At Dalmorton the Golden Hill Co. crushed 20 tons for 33 oz. of gold. The Working Miners', 11 tons for 37 oz. 9 dwt. The Magpie has averaged about 3 oz. per ton. The Carbine, 1½ oz. per ton. The War Cry crushed 18 tons for 24 oz. The Lady Jersey, from a reef said to be 20 feet wide in places, from 4 tons 17 cwt. got 1 oz. 1 dwt. 10 gr. per ton. The Sir Walter Scott Co., Cangai, crushed 1,428½ tons for 1,286 oz. 1 dwt. of gold, besides silver. At Nana Creek 248 tons 13 cwt., crushed from sundry mines, gave 217 oz. 4 dwt. 21 gr. At Ballina about 274 oz. of gold has been won from the beach sand.

In the Cobar Mining District:—The Occidental Co. (near Cobar) crushed 2,534 tons of stone for 1,555 oz. of gold. The Jubilee Co. crushed 140 tons, and the Fort Bourke Co. 600 tons; average yield from both parcels, 5 dwt. per ton. The Mt. Allen Co., in the Hillston division, sent 10 tons of stone to the Clyde Works, which yielded about 2¼ oz. of gold, and from about ½ to 1½ oz. of silver.

In the Albert Mining District:—At Broken Hill Proprietary Mine 5,277 oz. of gold, valued at £19,788 5s., was obtained from silver-lead bullion. At Milparinka the drought has retarded mining operations, the quantity of gold raised in the division being 2,500 oz. One claim of 4 men at Stringer's Hill yielded in eight months 250 oz. of gold. At Tibooburra over 1,200 oz. of gold was won.

The following information has been kindly furnished by R. Hunt, Esq., C.M.G., F.G.S., the Deputy-Master of the Royal Mint:—

QUANTITIES of Gold, the produce of New South Wales, received into the Royal Mint, Sydney, during 1890 and 1891 compared.

District.	Division.	1890.	1891.	Increase.	Decrease.
		oz.	oz.	oz.	oz.
Bathurst	Bathurst	1,269·29	3,370·97	2,101·63	.....
	Carcoar	1,480·97	2,044·20	563 23	.....
	Orange	1,502·06	1,678·60	176·54	.....
	Trunkey Creek	462·40	49·85	.....	412·55
	Tuena	1,176·96	479·14	.....	697·82
	Mount M'Donald	601·92	610·24	8·32	.....
Tambaroora and Turon	Hill End	1,753·65	1,160·12	.....	593·53
	Tambaroora	519·95	389·46	.....	130·49
	Sofala	372·26	91·51	.....	280·75
	Stony Creek	340·78	28·21	.....	312·57
Mudgee	Mudgee	2,023·08	2,045·71	22·63	.....
	Gulgong	879·77	1,389 09	509·32	.....
	Hargraves	.....	.....	.....	.....
	Wellington	687·81	526·28	.....	161·53
Lachlan	Parkes	4,068·82	9,661·48	5,592·66	.....
	Forbes	7,478·63	33·15	.....	7,445·48
	Grenfell	381·37	470·76	89·39	.....
	Young	1,377·98	601·65	.....	776·33
	Temora	619·68	349·35	.....	270·33
Albert	Wilcannia	2,235·33	1,513·79	.....	721·54
Southern	Goulburn	144·49	115·10	.....	29·39
	Braidwood	2,216·56	3,017·80	801·24	.....
	Bermagui	.....	80·55	80·55	.....
	Araluen	24·35	.....	.....	24·35
	Shoalhaven	1,288·47	2,982·92	1,694·45	.....
	Nerrigundah	475·62	486·26	10·64	.....
Tumut and Adelong	Adelong	4,565·58	4,478·01	.....	87·57
	Tumut	20·99	141·69	120·70	.....
	Cootamundra	336·34	46·92	.....	289·42
	Tumbarumba	1,150·86	1,197·96	47·10	.....
	Gundagai	251·22	501·98	250·76	.....
	Cooma	276·01	518·70	242·69	.....
	Kiandra	309·92	188·39	.....	121·53
	Wagga Wagga	5·63	.....	.....	5·63
Peel and Uralla	Armidale	16,000·35	27,893·49	11,893·14	.....
	Rocky River	418·42	455·78	37·36	.....
	Nundle	1,156·03	1,023·85	.....	132·18
	Tamworth	295·93	1,088·28	792·35	.....
	Bingera	1,053·90	479·59	.....	574·31
Hunter and Macleay	Copeland	71·31	39·57	.....	31·74
Clarence and Richmond	Grafton	363·23	691·01	327·78	.....
New England	Tenterfield	768·52	1,326·87	558 35	.....
Mixed	Western, Northern, and Southern	20,740·04	27,468·87	6,728·83	.....
Localities unknown	.....	38,397·42	41,753·08	3,355·66	.....
	Total	119,563·90	142,470·23	36,005·37	13,099·04

SUMMARY.

District.	1890.	1891.
	oz.	oz.
Bathurst	6,493·60	8,233·00
Tambaroora and Turon	2,986·64	1,669·30
Mudgee	3,590·66	3,961·08
Lachlan	13,926·48	11,116·39
Albert	2,235·33	1,513·79
Southern	4,149·49	6,682·63
Tumut and Adelong	6,916·55	7,073·65
Peel and Uralla	18,924·63	30,940·99
Hunter and Macleay	71·31	39·57
Clarence and Richmond	363·23	691·01
New England	768·52	1,326·87
Mixed—Western, Northern, and Southern	20,740·04	27,468·87
Localities unknown	38,397·42	41,753·08
	119,563·90	142,470·23

From the above table it will be seen that the quantity of gold sent to the Mint in 1891 exceeds that sent in 1890 by 22,906·33 oz. The increases are chiefly from Bathurst, Parkes, Shoalhaven, Armidale, "mixed Western, Southern, and Northern," and localities unknown; the largest decreases, from Forbes, Young, Wilcannia, Trunkey, Tuena, Hill End, and Bingera. The increase on the aggregate returns is the most satisfactory we have seen for some time.

The following table is compiled from information kindly furnished by the Collector of Customs:—

EXPORT OF GOLD, 1891.

Gold.		Quartz Tailings and Pyrites.		Total.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
oz.	£		£	oz.	£
31,682	124,964	Quartz, 5,866 packages ..... Pyrites, 15 cwt.	7,709	33,657	132,673

The quantity of gold sent to the Mint, plus the quantity exported, equals 176,127·33 oz., but of the 33,657 oz. exported, we are informed, 22,925 oz. 12 dwt. 11 gr. passed through the Mint, and is included in the return supplied by the Deputy Master. The output of gold for 1891 may therefore be set down at 153,335·62 oz., which, as compared with the output for 1890, shows an increase equal to 25,574·72 oz. The fact that 5,277 oz. of gold was taken from the Proprietary Company's mine at Broken Hill last year, and that no return of gold is made from any other mine in that locality, nor from other mines where gold is known to be associated with metalliferous ores, indicates that large quantities of gold may pass out of the Colony without notice either in ore, matte, or bullion.

The returns furnished by the Mining Registrars of the gold won in their respective divisions exceeds the quantity passed through the Mint by 7,575 oz., but is less than the quantity won during the year, as shown by the net returns of the Mint and Customs.

RETURNS of Gold for 1891 from Mint and Mining Registrars compared.

District.	Mint.	Mining Registrars.	Excess.	Deficiency.
	oz.	oz.	oz.	oz.
Bathurst	8,233	17,923	.....	9,690
Tambaroora and Turon	1,669	10,337	.....	8,668
Mudgee	3,961	16,003	.....	12,042
Lachlan	11,116	22,494	.....	11,378
Albert	1,514	8,979	.....	7,465
Southern	6,683	14,152	.....	7,469
Tumut and Adelong	7,074	9,640	.....	2,566
Peel and Uralla	30,941	39,970	.....	9,029
Hunter and Macleay	40	203	.....	163
Clarence and Richmond	691	3,221	.....	2,530
New England	1,327	4,488	.....	3,161
Cobar	.....	2,636	.....	2,636
Mixed—North, South, and West	27,469	.....	27,469	.....
Localities Unknown	41,753	.....	41,753	.....
	142,471	150,046	69,222	76,797
				69,222
The Returns from Mining Registrars exceed Returns from Mint by				7,575 oz.

The Mining Registrar's returns show an increase of 32,386 oz. in 1891 as compared with 1890:—

MINING Registrars Returns of Gold for 1890 and 1891 compared.

District.	1890.	1891.	Increase.	Decrease.
	oz.	oz.	oz.	oz.
Bathurst	10,353	17,923	7,570	.....
Tambaroora and Turon	10,900	10,337	.....	563
Mudgee	12,154	16,003	3,849	.....
Lachlan	28,999	22,494	.....	6,505
Albert	2,210	8,979	6,769	.....
Southern	9,853	14,152	4,299	.....
Tumut and Adelong	11,205	9,640	.....	1,565
Peel and Uralla	24,058	39,970	15,912	.....
Hunter and Macleay	472	203	.....	269
Clarence and Richmond	2,251	3,221	970	.....
New England	3,453	4,488	1,035	.....
Cobar	1,752	2,636	884	.....
	117,660	150,046	41,288	8,902
Less Decrease	.....	.....	8,902	
Increase in yield for 1891			32,386	

The following statement shows the results obtained from the treatment of parcels of alluvium in 1891. The average yield so far as shown is very little less than in 1890, but until we can secure more complete returns they are of very little use for purposes of comparison:—

COMPARATIVE Statement of Average Yields from Alluvial Mines for 1890–91.

1890.				1891.			
District.	Quantity.	Average per ton.	Yield of Gold.	District.	Quantity.	Average per ton.	Yield of Gold.
	Loads.	oz. dwt. gr.	oz. dwt. gr.		Loads.	oz. dwt. gr.	oz. dwt. gr.
Lachlan	11,761	0 9 11	5,717 10 0	Mudgee	6,570	0 8 17	2,860 0 0
				Lachlan	18,066	0 12 16	11,465 0 0
				Southern	7,075	0 1 17	613 0 0
	11,761	0 9 11	5,717 10 0		31,711	0 9 10	14,938 0 0

NOTE.—Unfortunately this table cannot be given more fully, as the Mining Registrars are rarely able to give the number of loads washed.

The following statement showing the average yields from quartz-mines, though very far from complete, is an improvement on previous years. An average of 18 dwt. 13 gr. per ton from 65,759 tons of stone is very satisfactory:—

COMPARATIVE Statement of Average Yields from Quartz-mines for 1890–91.

1890.				1891.			
District.	Quantity.	Average per ton.	Yield of Gold.	District.	Quantity.	Average per ton.	Yield of Gold.
	Tons. cwt. qr.	oz. dwt. gr.	oz. dwt. gr.		Tons. cwt. qr.	oz. dwt. gr.	oz. dwt. gr.
Bathurst	8,428 0 0	0 6 18	2,855 6 11	Bathurst	10,433 0 0	0 11 21	6,221 0 0
Tambaroora and Turon	2,502 0 0	0 10 9	1,298 5 0	Tambaroora and Turon	6,683 0 0	0 16 8	5,461 0 0
Lachlan	3,768 0 0	0 18 15	3,579 0 0	Lachlan	3,296 0 0	0 8 0	1,320 0 0
Southern	1,730 11 0	0 17 16	1,538 0 18	Southern	1,255 0 0	0 19 4	1,204 0 0
Tumut and Adelong	12,321 0 0	0 8 12	5,253 12 14	Tumut and Adelong	1,521 0 0	1 5 23	1,975 0 0
Peel and Uralla	13,810 0 0	1 6 2	18,150 14 0	Peel and Uralla	29,148 0 0	1 4 3	35,170 0 0
Hunter and Macleay	415 0 0	1 1 13	447 4 0	Hunter and Macleay	53 0 0	1 18 11	102 0 0
Clarence and Richmond	282 10 0	1 7 17	380 13 9	Clarence and Richmond	2,069 0 0	1 1 4	2,190 0 0
New England	.....	.....	.....	New England	110 0 0	2 10 13	278 0 0
Mudgee	2,522 0 0	0 13 12	1,704 2 9	Mudgee	8,657 0 0	0 12 19	5,537 0 0
Cobar	1,023 0 0	0 13 19	704 10 0	Cobar	2,534 0 0	0 12 6	1,555 0 0
	46,802 1 0	0 15 8	35,911 8 13		65,759 0 0	0 18 13	61,013 0 0

Dividing the quantity of gold won by the number of miners employed gives as the result 13·73 oz. per man. So that each may be said to have earned during the year £51 9s. 9d., being £14 18s. 6d. in excess of the average per man in 1890. It is evident that this is a very rough mode of computing the earnings, because there are so many matters that ought to be taken into account but which cannot be for lack of more complete information.

During

During the year 3,694 assays for gold were made in the Laboratory of this Department.

2,346 yielded nil.
1,024 yielded under 10 dwt. per ton.
324 yielded as follows :—

Locality.	Description of Ore.	Per ton. Gold.	Per ton. Silver.
		oz. dwt. gr.	oz. dwt. gr.
Adelong	Quartz sand, conglomerate, magnetic iron, and a little pyrites	0 10 21	0 8 16
Albury	Tailings	25 18 20	1 15 22
,,	Quartz with sulphides of lead, copper, and iron	1 17 0	12 6 0
,,	Quartz and felspathic gangue with iron and a little copper pyrites	1 19 4	8 5 11
,,	Quartz with felspathic rock	0 11 20	0 3 6
Albury District	Quartz with mispickel	26 18 23	0 18 8
Alicktown	Ferruginous quartz with chlorite	0 17 9	0 4 8
,,	Pyritous quartz	0 15 2	0 5 10
Armidale District	Ferruginous quartz	1 14 20	0 3 14
,, ,,	Sulphide and oxide of antimony	4 1 15	0 18 8
Bongongolong Creek	Quartz and felspathic veinstone with pyrites	0 19 12	0 17 9
Barrington District	Blue quartz with a little free gold	2 7 20	0 13 0
Bathurst (near)	Quartz vein showing free gold in felsite	3 9 16	1 12 6
,, ,,	Ferruginous quartz	2 7 21	13 18 16
,, ,,	Laminated quartz with mispickel, galena, and blende	1 19 4	2 7 21
Bellinger River	Quartz with a little slate, and pyrites	5 0 4	0 19 13
Bermagui	Slightly ferruginous quartz	0 10 21	0 5 10
,,	Quartz with arsenical and iron pyrites	132 12 12	8 18 12
Bermagui District	Ferruginous quartz and felspathic rubble	11 19 12	5 15 9
Bimbimbie Creek, Mogo	Quartz	4 10 18	0 5 6
,, ,,	Tailings	1 6 4	0 2 22
,, ,,	Slimes	0 17 8	0 2 7
,, ,,	Water escaping from slime pit	1 6 2	0 9 18
Bingera	Serpentinous rock	2 14 10	0 6 12
,,	Quartz with free gold, a little copper pyrites, and crystals of mispickel in clay, in joints.	37 6 23	3 7 12
Bingera (6 miles from)	Quartz	1 0 13	0 5 10
Binalong District	Crushed sample	3 5 8	0 4 8
Black Range	Pyrites in talc schist	0 10 21	19 3 6
Boonoo Boonoo	Pyritous quartz	0 17 9	123 0 20
,,	Pyritous concentrates	1 3 22	24 0 4
Blaxland, County of	Ferruginous gossan	0 12 22	0 6 12
Bland, County of	Quartz, blende, and a few specks of free gold	22 9 16	1 1 19
,,	Ferruginous porous quartz	5 2 8	0 13 0
Blayney (1½ miles from)	Ferruginous crushed sample	3 11 20	0 19 12
Braidwood (12 miles from)	Massive galena, blende, and pyrites	1 1 18	8 1 3
Braidwood	Quartz with sulphides of lead, copper, and iron	1 8 7	50 6 2
Brindabella	Quartz with epidote rock	10 4 16	0 8 12
,,	Quartz and felspathic veinstone with a few specks of bismuth sulphide	1 1 18	0 5 10
Brimbrimalla	Ferruginous quartz	1 12 16	0 8 17
,,	Quartz with a little pyrites	2 7 21	0 18 8
Burrowa (9 miles north)	Brown iron ore with a little quartz	0 15 5	0 13 0
,, (2 miles east)	Quartz with specular iron	31 7 3	10 17 18
,, ,,	,, ,,	6 10 16	3 9 16
,, ,,	,, ,,	2 16 4	3 14 0
Burra Burra	Quartz showing a little free gold	0 15 2	0 4 8
Capertee	Quartz with stibnite	11 2 2	0 6 12
Cargo (½ mile south)	Brown iron ore	1 12 16	1 9 9
,, ,,	Ironstone	0 17 10	0 8 17
,, ,,	,,	0 17 10	0 4 8
Carcoar	Mispickel in quartz	0 10 21	0 5 10
Casino	Quartz	0 12 22	5 13 5
Clarence District	Quartz with a little sulphide of copper	12 16 22	2 3 13
Clyde District	Quartz with a little pyrites	0 12 22	0 4 8
Clyde River	Pyritous quartz	1 3 22	1 3 22
Cobar (near)	Siliceous sandstone	10 6 21	1 1 18
Canoblas, near Orange	Ferruginous felspathic rock	0 12 22	2 1 9
,, ,,	Ferruginous quartz with a little pyrites	1 12 16	0 15 2
Cangi, near Grafton	White quartz with pyrites and specks of galena and blende	74 13 22	14 11 19
,, district	Quartz with iron and arsenical pyrites	0 19 11	0 8 17
Condobolin	Ferruginous quartz with fragments of slate, and showing cavities after the decomposition of pyrites.	1 9 8	1 8 6
Cooma	Gossan	0 12 22	0 4 8
Coolongolook	Quartz with pyrites	2 4 15	0 9 19
Copeland	White quartz with carbonaceous veins containing pyrites	5 8 21	1 8 6
,, 16 miles from	Quartz rubble	1 7 9	0 5 10
Cookbundoon	Decomposing friable ferruginous felspathic rock	0 13 0	3 14 0
Cowra District	Ferruginous porous quartz	1 12 16	0 12 22
,,	,, ,,	1 8 6	0 10 21
,,	,, ,,	1 6 2	0 10 21
,,	Quartz with a little pyrites	0 18 8	0 3 6
,,	Ferruginous quartz	7 5 21	0 5 10
,,	Ferruginous quartz with stains of copper carbonate	6 14 23	3 0 22
,,	Concentrates from 1 ton 8 cwt. of stone, consisting of quartz with a considerable admixture of soft clay.	0 13 1	3 12 4
,,	Mispickel with quartz	5 19 15	0 4 8
,,	Slightly ferruginous quartz showing free gold	2 7 16	0 11 2
,,	Ferruginous quartz	0 17 9	0 6 12
,,	Slightly ferruginous quartz showing free gold	21 7 21	0 18 11

Locality.	Description.	Per ton. Gold.	Per ton. Silver.
		oz. dwt. gr.	oz. dwt. gr.
Cudal	Crushed sample	4 15 2	0 17 10
„	Pyritous sand	1 19 4	0 11 23
Dalmorton	Altered rock with quartz veins	0 16 6	0 5 10
„	Quartz	1 7 4	0 5 10
„	Tailings	1 15 22	0 10 21
„	„	0 18 12	0 8 16
Dalmorton (near)	Slightly ferruginous quartz	1 19 4	0 4 8
„	Ferruginous quartz and felspathic veinstone, with a little mispickel	4 2 18	0 9 19
„	„ „ „	7 16 8	0 10 21
„	„ with mispickel	1 6 2	0 6 12
„	„ „	5 13 5	0 19 14
„ (3 miles S.W.)	Pyritous quartz and ferruginous quartzite	1 3 22	0 7 10
„ „	Quartz (concentrates)	1 1 11	0 6 12
Deep Creek (Nambucca District).	Massive (pyrites-arsenical)	15 4 20	2 18 18
„ „	Crystalline mispickel with felspathic material	1 12 16	0 8 17
„ „	Massive pyrites	11 4 6	1 17 0
„ „	Mispickel	22 2 1	2 1 9
„ „	„ in siliceous gangue	0 16 6	0 7 14
„ „	Massive mispickel	4 2 17	0 15 2
„ „	„ „	20 9 10	3 3 3
„ „	„ pyrites	58 16 0	6 15 0
„ „	Mispickel	13 14 8	1 19 4
Drake	Cavernous ferruginous quartz	0 17 9	5 2 8
„	Ferruginous quartz, and felspathic gangue, carrying a little copper pyrites.	2 4 10	0 17 9
„	Crushed sample	0 10 21	0 7 0
„	„	1 6 2	1 8 7
„	Quartz with sulphides of iron and copper	3 3 3	3 7 12
Dungog	Quartz	8 1 3	1 3 22
Eden District	Ferruginous quartz showing free gold	5 19 18	1 6 2
Euavelong	„	3 18 9	1 1 18
Eurongilly	„	0 10 21	2 19 20
Forest Reef (Carcoar District).	Crushed sample	0 11 23	0 17 10
Flyer's Creek (Carcoar District).	Calcareous veinstone with a little pyrites, galena, and blende	160 16 13	23 16 20
Glen Innes District	Quartz with mispickel	5 0 4	0 19 4
„ „	„ „	4 19 2	0 18 10
„ „	„ and felspathic veinstone, with arseniate and arsenide of iron	0 10 21	1 1 18
„ „	Felspathic veinstone with arseniate of iron	0 16 6	0 5 10
„ „	Quartz, with mispickel	0 15 4	11 10 20
„ „	Mispickel	0 16 4	1 7 4
„ „	Arsenide of iron with quartz	9 15 23	0 4 8
„ „	Brown iron ore	0 19 11	0 2 4
„ „	Siliceous mispickel	0 12 22	1 10 11
„ „	Quartz showing free gold	23 19 2	2 3 13
„ „	Ferruginous cavernous quartz	40 10 20	6 1 20
„ „	„ quartz and clay rubble	0 12 22	0 4 8
„ „	Massive pyrites with quartz	4 0 13	4 11 10
„ (53 miles east)	Ferruginous quartz	2 18 18	0 8 17
Glen Elgin (nr. Glen Innes)	„	2 16 14	0 16 6
„ „	Slightly ferruginous quartz	3 11 20	0 19 12
„ „	Siliceous felspathic, ferruginous, and talcose, rock	0 19 12	0 17 9
„ „	Pyritous ferruginous quartz	0 10 21	0 10 21
„ „	Ferruginous porous quartz	8 5 12	2 1 8
„ „	„ pyritous quartz	1 12 16	0 16 8
Greenmantle	Ferruginous pyritous granular quartz with quartz veins	1 2 20	0 5 10
„	„ „ „ „	1 2 20	0 5 10
„	White pyritous granular quartz	1 1 18	0 5 10
Gulgong (near)	Quartz with a little malachite	2 1 9	2 1 9
„ „	Slightly ferruginous quartz	1 7 4	0 7 14
„ „	Quartz	0 12 22	0 6 12
„ „	Ferruginous quartz	0 19 12	0 6 12
Gundagai District	Quartz with pyrites	0 13 0	0 4 8
Grafton (20 miles from)	Ferruginous quartz showing free gold	4 11 11	0 17 10
Hastings River	„ and felspathic material	0 10 21	0 4 8
Hunter and Macleay District	Concentrated pyrites with a little quartz	0 11 23	0 3 6
Hillgrove	Decomposing granitic rock with thin crystalline quartz veins	13 6 16	0 16 8
„	Quartz sand, a portion sharply angular showing free gold	2 7 20	0 10 21
Hillgrove District	Washed quartz-sand with a little carbonate of bismuth and tin oxide.	0 10 21	11 6 11
Hill End	Vitreous quartz with a little pyrites	0 13 0	0 2 4
Inverell District	Mispickel in siliceous felspathic gangue	0 15 2	198 3 13
Jerralong	Concentrates	2 2 11	2 10 2
Kiandra	Ferruginous, porous, pyritous quartz	0 15 2	0 4 8
Lucknow (near)	Broken pyrites, galena, blende, and calcite	2 9 0	0 16 8
Mann River	Quartz with arsenical pyrites and galena	26 17 21	47 7 8
„	„ „ „	9 11 14	19 5 10
„	Ferruginous cavernous quartz	1 1 16	3 7 13
„	Quartz with a few specks of pyrites and galena	3 0 22	7 1 13
„	„ with pyrites and galena	4 10 9	9 17 2
„	„ with a few specks of pyrites	4 11 10	9 5 2
„	Concentrates	8 3 8	3 5 8
Moruya District	Quartz with iron and arsenical pyrites	0 12 22	24 3 10
„	Crushed quartz, with a little pyrites	1 1 18	7 1 13

Locality	Description.	Per Ton. Gold.	Per Ton. Silver.
		oz. dwt. gr.	oz. dwt. gr.
Moruya District	Concentrated pyrites, with quartz	2 17 16	12 4 22
„	Ferruginous quartz vein, in claystone	2 17 16	1 11 13
„ (8 miles from)	„ „ with a few specks of pyrites	0 10 21	9 7 6
„ (7 miles north)	„ „	6 6 6	0 15 4
„ District	Quartz, with iron pyrites and a trace of galena	1 1 18	1 17 0
„ „	Pyritous quartz	0 15 2	0 18 16
„ „	Talcose slate and clay iron ore, with small quartz-veins	0 19 12	0 6 12
Moonee Moonee	Ferruginous quartz and felspathic veinstone	1 5 0	0 7 14
Mudgee District	Earthly green and blue carbonates of copper	4 0 13	0 6 12
Mount Hope (near Cobar)	Magnetite, with a little felspathic material	4 7 2	0 4 8
„ „	Ferruginous clay slate, with free gold	1 12 16	0 8 17
„ „	Magnetite, in felspathic gangue	10 6 21	0 10 21
„ „	„ with clay slate	1 8 6	12 10 10
Micalong	Crushed quartz, showing free gold	8 14 5	0 9 6
„	Pyritous quartz	1 3 22	0 5 10
Mount M'Donald	„	0 10 21	0 4 8
Millthrope District	Concentrated pyrites	1 8 7	0 5 10
Moonbi, near Tamworth	Very thin quartz veins, from less than $\frac{1}{8}$ inch thick up to $\frac{1}{4}$ inch; very rich in coarse gold.	5,431 9 7	.....
Mount Browne (near)	Brown iron ore and quartz	24 18 16	0 6 12
„ Dromedary	Pyritous quartz and granitic rock stained yellow by iron oxide	1 2 20	0 4 21
Monaro	Gossan	0 11 20	0 3 6
„	Ferruginous quartz, with specks of pyrites	0 10 21	0 3 6
Newton Boyd	„ porous quartz	1 6 2	5 13 5
„	„ quartz, with a little felspathic material	5 0 4	0 12 22
„	Quartz, showing free gold	2 3 18	0 4 13
Niangala	„ sand with a little pyrites	2 6 19	0 16 8
„	Grey quartz, showing free gold	9 18 3	1 19 4
„	Quartz, showing fine free gold, sample stained yellow by arseniate of iron.	6 0 7	6 5 1
Nelson	Very pyritous quartz	1 12 16	0 10 21
Orange	Quartz and ironstone	4 3 21	0 5 10
„ (near)	Ferruginous porous quartz	29 11 5	0 6 12
„ „	„ quartz with micaceous schist	8 2 5	0 3 6
„ District	„ quartz	6 4 2	2 3 13
Parkes District	Small fragments of ferruginous quartz conglomerate with coarse free gold	20 13 18	1 9 6
Peak Hill	Slimes	6 15 0	0 9 19
„	Ferruginous quartz veins in talcose schist	1 19 4	0 4 8
„	Tailing	0 13 2	0 6 21
„ 8 miles from	Quartz, with a little felspathic material and pyrolusite	1 9 18	1 9 6
Parkison Siding	„ and felspathic veinstone, with free gold and a little pyrites	16 13 4	2 12 6
Port Macquarie	Pyritous quartz	1 13 18	0 4 8
Rywing	Dark blue quartz, free gold visible	9 16 0	1 12 16
„	„ „	34 3 19	5 0 4
Rylstone	Crushed sample	16 13 16	1 13 5
Rye Park (4 miles from)	Ferruginous quartz with stains of copper carbonate	0 10 21	0 13 0
Swamp Oak, near Tamworth	Greyish quartz	5 8 21	0 17 6
„ „	Blue quartz	10 17 18	1 12 16
„ „	„ „	7 5 21	0 10 21
„ „	„ „	2 5 17	0 8 17
„ „	„ „	4 9 6	0 15 5
„ „	„ „ with a little pyrites	2 16 4	0 13 1
„ „	„ „ with a little mispickel	12 3 21	2 3 12
„ „	„ „ „	11 15 4	2 1 8
„ „	Pyritous blanketings	2 10 2	0 9 18
Stewart Town	Quartz with little copper, iron, and arsenical pyrites	1 6 2	0 10 21
„	Concentrated pyrites	19 1 2	1 13 5
Sunny Corner	Ferruginous quartz	5 7 14	0 8 16
„ (9 miles from)	Quartz and felspathic veinstone	0 15 5	0 6 12
„ (near)	Concentrates	1 10 11	1 13 5
Stanthorpe	Quartz	0 10 21	0 4 8
„	Broken quartz	1 13 8	0 7 14
Stroud	Ferruginous quartz, one piece showing free gold; pyrites also present	3 16 5	0 10 21
Turlinjah, near Moruya	„ porous quartz	3 7 12	43 3 8
„ „	„ pyritous quartz	0 10 21	5 13 5
„ „	„ quartz	17 1 21	15 15 18
„ „	„ „ with massive arsenical and iron pyrites	1 1 18	13 14 8
Tumut	Quartz and felspathic veinstone with pyrites and little free gold	2 1 8	0 8 16
Towamba	Ferruginous quartz showing a little free gold	6 4 2	8 19 14
Tenterfield	„ „	2 18 18	13 14 8
„ District	Quartz with greenish felspathic material	2 7 21	2 3 13
Trunkey	Porous ferruginous quartz showing free gold	6 4 2	8 19 14
„	Ferruginous clay and quartz fragments	2 10 23	0 5 5
„	„ pyritous quartz and quartzite	1 7 5	0 2 4
„	„ „ „	2 2 10	0 4 8
„	„ quartz and quartzite	1 18 2	0 4 8
„	„ „ rubble	0 14 22	0 2 10
Tuena	„ „	7 18 22	0 4 8
„	„ „	14 3 2	0 5 10
Temora District	Brown iron ore	0 11 20	0 3 6
Tallewang (Gulgong Dis.)	Ferruginous quartz	3 4 5	0 15 2
Ulamalla	Quartz with a little pyrites	1 12 16	0 7 14
Wellington (5 miles N E)	Ferruginous vitreous quartz, with stains of copper carbonate	0 10 21	5 8 21
„ (17 miles from)	„ gossany quartz	0 12 22	0 10 21
„ „	Quartz with arseniate of iron	0 17 9	0 12 22

Locality.	Description.	Per ton	
		Gold.	Silver
		oz. dwt. gr	oz. dwt. gr.
Wellington (17 miles from)	Ferruginous quartz	18 3 16	5 2 8
Wollomombi (near Armidale)	Grey quartz	1 8 6	1 10 10
Woodstock (6 miles from)	Ferruginous quartz, showing free gold	27 6 14	3 7 12
Whipstick (near Pambula)	Quartz, with a little felspathic material	1 1 18	0 15 5
,, ,,	Concentrates	1 2 22	0 5 11
,, ,,	Tailings	0 18 12	0 3 6
,, ,,	Powdered mineral carrying sulphide, oxide, and little carbonate of bismuth	1 12 16	1,486 6 16
	Tailings	0 18 8	0 2 14
,, ,,	,,	3 6 15	0 9 3
,, ,,	,,	1 0 21	0 6 12
,, ,,	,,	1 3 12	0 4 5
,, ,,	,,	3 4 5	1 9 9
,, ,,	Quartz, with pyrites	5 8 21	2 10 1
,, ,,	Pyritous quartz, with specks of galena	19 15 14	7 8 19
,, ,,	Concentrated pyrites	0 19 11	0 4 8
Wiseman's Creek	Siliceous lodestuff, with magnetite	2 6 19	0 11 21
Walcha (30 miles from)	Bluish quartz, showing a little free gold	12 1 16	0 15 2
,, District	Quartz rubble	2 3 13	0 8 17
Woolgoolga	,,	1 2 20	0 9 19
,,	,, with copper pyrites and specks of galena	2 5 17	0 6 12
Wandella	Concentrates	0 11 20	0 2 4
,,	Tailings	2 3 13	0 12 22
,,	Concentrates	2 6 9	0 7 4
,,	,,	0 17 9	0 4 8
Wyndham	Granitic lodestuff, stained with manganese oxide	1 3 22	0 4 8
,,	Decomposing granitic lodestuff, stained with manganese oxide, and containing little sulphide and oxide of bismuth.	0 16 4	0 3 6
Warne	Vitreous quartz	2 18 6	0 7 1
Yowaka, near Pambula	Pyritous concentrates	0 11 20	0 5 10
,, ,,	Schistose and felspathic rock	4 18 0	0 19 14
,, ,,	,, ,,	3 2 14	0 7 1
,, ,,	Tailings	1 4 12	0 7 1
,, ,,	,,	0 10 21	0 3 6
,, ,,	,,	3 16 5	21 4 16
,, ,,	Concentrates	0 19 12	0 4 6
,, ,,	Siliceous schistose rock	128 11 2	18 18 22
,, ,,	,, felspathic rock	65 16 8	8 9 20
,, ,,	Ferruginous quartzite in schistose felspathic rock	0 12 12	0 1 5
,, ,,	Siliceous felspathic material, showing little gold	5 2 8	0 6 12
,, ,,	Ferruginous conglomerate, showing little free gold	1 10 10	0 8 17
,, ,,	Laminated felspathic rock	0 10 21	0 5 10
,, ,,	Tailings	1 6 3	0 6 12
,, ,,	Quartz and felspathic material	0 16 8	0 5 10
,, ,,	Laminated felspathic rock	1 8 7	0 4 21
,, ,,	Tailings	2 10 2	0 7 14
,, ,,	,,	1 1 18	0 4 8
,, ,,	,,	1 2 20	0 5 10
,, ,,	,,	0 10 21	0 6 12
,, ,,	,,	0 18 10	0 4 8
,, ,,	,,	13 17 18	2 7 12
,, ,,	Schistose felspathic material	5 16 21	0 16 8
,, ,,	,, ,,	3 16 5	21 4 16
,, ,,	Concentrates	1 12 16	1 1 18
Yalwal	Ferruginous quartz	3 6 10	0 11 20
,,	,, quartzite	0 10 21	0 3 6
,,	,, felspathic rock	0 11 20	0 3 6
,,	,, ,,	3 9 16	1 0 6
,,	,, quartz	0 13 0	0 7 14
,,	Tailings	1 19 4	0 10 21
,,	Ferruginous quartz and felspathic lodestuff	1 10 11	1 3 22
Yass District	Crushed quartz	12 11 6	1 6 0
Yabsby (near)	,, sample		

Coal.

The output of coal for 1891 exceeds that of 1890 by 977,053 tons in quantity and £463,706 13s. 1d. in value. During the year our exports to intercolonial and foreign ports and our home consumption all show a satisfactory increase. Our exports to intercolonial ports and our home consumption were in 1891 larger than in any previous year. And, though our export to foreign ports in 1891 exceeds very largely that of 1890, we have not yet recovered our lost ground, being less in 1891 than in 1888 by 36,635 tons, and than in 1889 by 230,001 tons, this fact indicates how difficult it is to recover foreign trade once diverted from our ports. As regards the price of coal, the average price of coal sent to intercolonial ports was less in 1891 by 6·66d. per ton than in 1890, while the price of coal shipped to foreign ports was less in 1891 than in 1890 by 4·88d. per ton. On the total output, however, the average price shows an increase of 3·29d. per ton in 1891 over 1890. It would therefore appear that a better price was realised in our own market.

Quantity

QUANTITY and Value of Coal raised from the opening of the Coal-seams to 1857, inclusive :—

Year.	Quantity.	Average per ton.	Value.	Year.	Quantity.	Average per ton.	Value.
		£ s. d.	£			£ s. d.	£
Prior to 1829	50,000	0 10 0	25,000	1844	23,118	0 10 8·34	12,363
1829	780	0 10 1·23	394	1845	22,324	0 7 10·27	8,769
1830	4,000	0 9 0·00	1,800	1846	38,965	0 7 0·46	13,714
1831	5,000	0 8 0·00	2,000	1847	40,732	0 6 9·01	13,750
1832	7,143	0 7 0·00	2,502	1848	45,447	0 6 3·38	14,275
1833	6,812	0 7 6·73	2,575	1849	48,516	0 6 0·45	14,647
1834	8,490	0 8 10·00	3,750	1850	71,216	0 6 6·77	23,375
1835	12,392	0 8 10·19	5,483	1851	67,610	0 7 6·51	25,546
1836	12,646	0 9 1·06	5,747	1852	67,404	0 10 11·33	36,885
1837	16,083	0 9 8·81	5,828	1853	96,809	0 16 1·51	78,059
1838	17,220	0 9 9·05	8,399	1854	116,642	1 0 5·63	119,380
1839	21,283	0 9 9·73	10,441	1855	137,076	0 12 11·96	89,082
1840	30,256	0 10 10·86	16,498	1856	189,960	0 12 4·06	117,906
1841	34,841	0 12 0·00	20,905	1857	210,434	0 14 0·97	148,158
1842	39,900	0 12 0·00	23,940				
1843	25,862	0 12 6·54	16,222		1,468,961	0 11 10·72	869,391

TABLE showing the Quantities and Average Value per ton of Coal exported to Intercolonial and Foreign Ports respectively, the Quantity of Coal consumed in this Colony, and the Average Price per ton of the total output of the Collieries, from 1858 to 1891 inclusive.

Year.	Exports to Intercolonial Ports.			Exports to Foreign Ports.			Total Exports.			Home consumption.	Total Output and Value		
	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.		Quantity.	Average per ton.	Value.
	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.	Tons.	£ s. d.	£ s. d.
1858	101,488	0 15 1·67	76,824	12,039	1 0 1·85	12,132	113,527	0 15 8·05	88,956	102,870	216,397	0 14 11·84	162,162 0 0
1859	129,586	0 14 6·67	94,312	44,349	0 17 5·27	38,672	173,935	0 15 3·49	132,984	134,278	308,213	0 13 3·14	204,371 0 0
1860	140,183	0 14 10·85	104,471	93,694	0 16 11·10	79,290	233,877	0 15 8·57	183,761	134,985	368,862	0 12 3·36	226,493 0 0
1861	157,278	0 15 2 25	119,433	50,502	0 16 5·37	41,532	207,780	0 15 5·92	160,965	134,287	342,067	0 12 9·52	218,820 0 0
1862	195,427	0 15 0·55	147,019	113,355	0 17 4·34	98,403	308,782	0 15 10·75	245,422	167,740	476,522	0 12 9·73	305,234 0 0
1863	213,909	0 13 8·40	146,532	84,129	0 17 6·10	73,649	298,038	0 14 9·30	220,181	135,851	433,889	0 10 10·66	236,230 0 0
1864	283,539	0 10 3·74	146,199	88,927	0 14 10·90	66,289	372,466	0 11 4·91	212,488	176,546	549,012	0 9 10·10	270,171 0 0
1865	292,664	0 9 11·83	146,129	90,304½	0 15 0·79	68,029	382,968½	0 11 2·20	214,158	202,556½	585,525	0 9 4·43	274,303 0 0
1866	344,194	0 9 2·98	159,175	196,711	0 14 4·53	141,413	540,905	0 11 1·37	300,588	233,333	774,238	0 8 4·44	324,049 0 0
1867	312,101	0 9 4·35	146,111	161,256	0 13 3·47	107,148	473,357	0 10 8·40	253,259	296,655	770,012	0 8 10·79	342,655 0 0
1868	329,052	0 9 5·76	155,975	218,984	0 12 5·29	136,226	548,036	0 10 7·96	292,201	406,195	954,231	0 8 9·08	417,809 0 0
1869	340,466	0 8 9·07	149,059	255,087	0 11 8·31	149,136	595,553	0 10 0·16	298,195	324,221	919,774	0 7 6·32	346,146 0 0
1870	335,564	0 8 6·02	142,656	242,825	0 10 3·57	125,025	578,389	0 9 3·07	267,681	290,175	868,564	0 7 3·54	316,836 0 0
1871	378,891	0 8 6·91	162,470	186,538	0 10 1·22	94,220	565,429	0 9 0·95	256,690	333,355	898,784	0 7 0·47	316,340 0 0
1872	394,052	0 8 8·11	170,947	275,058	0 9 11·46	136,914	669,110	0 9 2·42	307,861	343,316	1,012,426	0 7 9·92	396,198 0 0
1873	425,937	0 12 9·32	272,110	347,142	0 14 7·59	253,979	773,079	0 13 7·32	526,089	419,783	1,192,862	0 11 1·94	665,747 0 0
1874	467,583	0 13 8·30	320,119	405,442	0 15 4·76	312,128	873,025	0 14 5·81	632,247	431,587	1,304,612	0 12 1·37	790,224 0 0
1875	518,853	0 13 7·77	354,074	408,154	0 15 6·64	317,409	927,007	0 14 5·84	671,483	402,722	1,329,729	0 12 3·89	819,429 17 2
1876	542,952	0 13 8·45	372,045	325,865	0 15 6·45	253,166	868,817	0 14 4·70	625,211	451,101	1,319,918	0 12 2·06	803,300 5 6
1877	563,757	0 13 8·64	386,740	351,970	0 14 10·81	262,237	915,727	0 14 2·08	648,977	528,544	1,444,271	0 11 10·74	853,998 8 2
1878	623,323	0 13 8·77	427,954	383,097	0 14 7·69	280,452	1,006,420	0 14 0·93	708,406	569,077	1,575,497	0 11 8·28	920,936 7 4
1879	621,087	0 13 6·75	421,198	376,962	0 14 6·13	273,509	998,049	0 13 11·05	694,707	585,332	1,583,381	0 12 0·12	950,878 18 3
1880	550,672	0 11 2·67	309,004	202,684	0 11 5·70	116,295	753,356	0 11 3·48	425,299	712,824	1,466,180	0 8 6·36	615,336 11 7
1881	657,135	0 7 9·34	255,572	372,709	0 8 8·29	161,958	1,029,844	0 8 1·30	417,530	739,753	1,769,597	0 6 9·55	603,248 5 8
1882	760,226	0 9 9·54	372,334	501,319	0 10 11·50	274,699	1,261,545	0 10 3·09	647,033	847,737	2,109,282	0 8 11·97	943,965 0 0
1883	855,704	0 10 5·75	448,356	656,741	0 11 7·34	381,306	1,512,445	0 10 11·65	829,662	1,009,012	2,521,457	0 9 6·40	1,201,941 12 11
1884	994,087	0 10 8·66	532,938	696,676	0 11 5·14	398,107	1,690,763	0 11 0·15	931,045	1,058,346	2,749,109	0 9 5·71	1,303,076 19 11
1885	991,924	0 10 7·13	525,443	764,432	0 11 6·52	441,220	1,756,356	0 11 0·09	966,663	1,122,507	2,878,863	0 9 3·72	1,340,212 13 7
1886	1,027,775	0 10 7·22	544,824	708,090	0 11 4·31	402,178	1,735,865	0 10 10·93	947,002	1,094,310	2,830,175	0 9 2·53	1,303,164 4 1
1887	1,077,270	0 10 5·89	565,084	713,172	0 11 1·08	395,455	1,790,442	0 10 8·75	960,539	1,132,055	2,922,497	0 9 2·57	1,346,440 2 7
1888	1,039,764	0 10 10·25	564,293	884,108	0 11 3·77	500,179	1,923,872	0 11 0·78	1,064,472	1,279,572	3,203,444	0 9 1·02	1,455,198 4 1
1889	1,310,223	0 10 4·24	678,200	1,077,474	0 11 1·88	601,071	2,387,702	0 10 8·58	1,279,271	1,267,930	3,655,632	0 8 11·20	1,632,848 15 6
1890	1,149,544	0 10 6·96	608,108	672,330	0 11 3·31	379,065	1,821,874	0 10 10·04	987,173	1,239,002	3,060,876	0 8 4·29	1,279,088 19 5
1891	1,397,256	0 10 0·30	700,380	847,473	0 10 10·43	460,595	2,244,729	0 10 4·12	1,160,965	1,793,200	4,037,929	0 8 7·58	1,742,795 12 6
	19,523,471	0 10 11·85	10,726,088	12,809,598½	0 12 2·76	7,833,086	32,333,069½	0 11 5·75	18,559,164	20,100,757½	52,433,817	0 9 6·15	24,939,648 18 3

The aggregate thickness of coal bored through by the Government diamond drills in 1891 was 113 ft. 9½ in., of which 20 ft. 0½ in. was coal and bands. The following are the details:—Waratah, 10 ft. 10½ in.; Cessnock, 22 ft. 10½ in.; Nobby's, 18 ft. 9 in.; Greta, 22 ft. 1 in.; Cremorne, 12 ft. 0½ in.; Wyee, 3 ft. 3½ in.; Bulli, 3 ft. 10 in.

The number of collieries under inspection in 1891 was 73 in the Northern district, 14 coal and 3 shale in the Western district, and 15 coal and 1 shale in the Southern district; total 106, as compared with 99 in 1890.

The number of mines opened out or in course of opening out in 1891 was 16, and 3 were abandoned, as compared with 30 opened and 5 abandoned in 1890.

During the year a fair amount of prospecting for coal and shale has been carried on. At the Maryvale Colliery (Wellington), 78 tons of coal were raised. At Gunnedah, 12,505 tons of coal were raised. At Aberdare, near Lismore, a seam of coal 6 feet thick has been opened, from which about 150 tons of good looking coal have been raised. At Robinson's Hill a similar seam been opened.

The following statement shows that the output of the Northern collieries in 1891, exceeds in quantity 733,205 tons, and in value £358,097, the output of 1890. The output of the Western collieries in 1891 exceeds in quantity 3,572 tons, and in value £8,109, the output of 1890. The output of the Southern collieries in 1891 exceeds in quantity 240,275 tons, and in value £97,499, the output of 1890.

COMPARATIVE Statement of Output of Coal in the Northern, Western, and Southern Districts.

	1884.		1885.		1886.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		£ s. d.		£ s. d.		£ s. d.
Output, Northern District	2,055,342 10 3	1,011,933 13 7	2,113,372 13 0	1,032,904 13 4	2,178,116 0 0	1,084,554 17 1
Increase as compared with previous year	155,722 14 3	83,907 0 2	58,030 2 1	20,970 19 9	64,743 7 0	51,650 3 9
Decrease do do	.....	.....	.....	.....	.....	.....
Output, Western District	273,823 14 0	74,161 9 7	311,762 16 0	76,836 13 3	281,229 0 0	68,615 15 0
Increase as compared with previous year	41,405 11 0	.....	37,939 2 0	2,675 3 8	.....	.....
Decrease do do	.....	3,619 8 11	.....	.....	30,533 16 0	8,220 18 3
Output, Southern District	419,942 9 0	216,981 16 9	453,727 15 3	230,471 7 0	370,830 0 0	149,993 12 0
Increase as compared with previous year	30,523 7 0	20,847 15 9	33,785 6 3	13,489 10 3	.....	.....
Decrease do do	.....	.....	.....	.....	82,897 15 3	80,477 15 0

	1837.		1888.		1859.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		£ s. d.		£ s. d.		£ s. d.
Output, Northern District	2,243,792 0 0	1,096,720 0 7	2,067,042 4 3	1,022,022 8 10	2,624,347 3 0	1,261,224 16 5
Increase as compared with previous year	65,676 0 0	12,165 3 6	.....	.....	557,304 18 1	239,202 7 7
Decrease do do	.....	.....	176,749 15 1	74,697 11 9	.....	.....
Output, Western District	302,137 0 0	79,036 0 2	339,594 9 0	95,136 3 0	329,713 3 0	81,459 1 1
Increase as compared with previous year	20,908 0 0	10,420 5 2	37,457 9 0	16,100 2 10	.....	.....
Decrease do do	.....	.....	.....	.....	9,881 6 0	13,677 1 11
Output, Southern District	376,568 0 0	170,684 1 10	796,806 10 0	338,039 12 3	701,572 0 0	290,164 18 0
Increase as compared with previous year	5,738 0 0	20,690 9 10	420,238 10 0	167,355 10 5	.....	.....
Decrease do do	.....	.....	.....	.....	95,234 10 0	47,874 14 3

	1890.		1891.	
	Tons.	Value.	Tons.	Value.
		£ s. d.		£ s. d.
Output, Northern District	2,120,046 6 1	995,931 2 6	2,853,251 13 1	1,354,028 12 8
Increase as compared with previous year	.....	.....	733,205 7 0	358,097 10 2
Decrease do do	504,300 16 3	265,293 13 11	.....	.....
Output, Western District	343,232 3 2	65,995 3 0	346,804 13 0	74,104 17 10
Increase as compared with previous year	13,519 0 2	.....	3,572 9 2	8,109 14 10
Decrease do do	.....	15,463 18 1	.....	.....
Output, Southern and South-western Districts	597,598 0 0	217,162 13 11	837,873 0 0	314,662 2 0
Increase as compared with previous year	.....	.....	240,275 0 0	97,499 8 1
Decrease do do	103,974 0 0	73,002 4 1	.....	.....

The average price of Coal in the several districts was as follows :—

1890.	s.	d.		s.	d.	1891.	s.	d.	
Northern	9	4·74		9	5·89	an increase of	0	1·15	per ton.
Western	3	10 14		4	3 28	,,	0	5·14	,,
Southern and South-western	7	3·21		7	4 70	,,	0	1 49	,,

TABLE compiled from Reports furnished by Owners of Collieries, showing the quantity and value of Coal and Shale won during the year 1891, and the number of men employed in the Collieries.

Company.	Locality.	Men employed.			Quantity.			Value.		
		Above ground.	Under ground	Total.						
		Northern District.								
COAL.					Tons	cwt.	qr	£	s.	d.
Australian Agricultural Company	Newcastle	163	609	772	306,786	0	0	142,376	7	6
Burwood	Burwood	52	297	349	93,240	0	0	51,282	0	0
,, Extended	Redhead	18	20	38	4,650	0	0	2,325	0	0
Brown's	Minmi	70	310	380	157,339	0	0	75,362	7	6
Bloomfield	Four-mile Creek, East Maitland.	3	9	12	3,886	0	0	1,554	0	0
Co-operative	Plattsburg	54	355	409	130,737	5	0	62,673	1	8
Centenary	Curlewis	8	32	40	6,000	0	0	2,800	0	0
Duckenfield	Minmi	60	285	345	130,535	0	0	62,169	5	0
Dulwich	Singleton	1	5	6	2,510	0	0	1,141	0	0
Durham	Redhead	20	12	32	500	0	0	250	0	0
Dudley		35	140	175	24,237	0	0	11,821	8	6
Denton Park	West Maitland	4	3	7	2,940	0	0	1,617	0	0
East Lambton	New Lambton	7	40	47	21,862	0	0	9,804	0	0
Ebbw Vale	Adamstown	5	25	30	16,436	0	0	6,962	16	0
East Greta	West Maitland	6	8	14	2,465	0	0	1,015	10	0
Elliott's	Rix's Creek	3	6	9	2,000	0	0	875	0	0
Ellesmere	Singleton	8	31	39	12,776	0	0	5,544	0	0
Ellmore Vale	Wallsend	2	9	11	9,722	10	0	2,942	0	8
Ferndale	Wickham	16	82	98	23,226	0	0	11,364	0	0
Fern Valley	Adamstown	3	7	10	1,150	0	0	287	10	0
Greta	Greta	160	266	426	116,220	0	0	58,947	1	6
Gartlee	Teralba	2	6	8	3,834	0	0	1,616	10	0
Hetton	Carrington	46	384	430	175,007	0	0	83,627	0	0
Hill End	Waratah	1	2	3	300	0	0	105	0	0
Homeville, Greta	Farley	3	20	23	3,553	0	0	1,546	10	0
Hillside	Burwood, Merewether.	1	3	4	1,200	0	0	340	0	0
Killingworth	Cockle Creek	4	6	10	65	0	0	32	10	0
Lambton	Lambton	67	413	480	189,382	0	0	94,024	8	6
Marshall's	Four-mile Creek	1	2	3	152	0	0	38	0	0
Morley	Gunnedah	1	1	2	75	4	0	40	19	3
Monkwearmouth	Minmi	24	125	149	14 200	0	0	7,205	0	0
Maitland	West Maitland	13	59	72	7,943	0	0	3,928	13	0
Morrisett	Swansea	1	2	3	971	0	0	436	0	0
Northern	Teralba	25	192	217	62,754	0	0	38,195	17	0
Newcastle-Wallsend	Wallsend	151	835	986	396,991	0	0	200,491	15	6
Newcastle A and B Pits	Newcastle	102	426	528	224,346	0	0	97,404	0	0
New Lambton C Pit	Adamstown	30	100	130	37,500	0	0	18,279	7	0
Northumberland	Fassifern	2	13	15	745	4	1	281	1	7
North Stockton	Hexham	5	8	13	994	0	0	347	18	0
New Anvil Creek	Greta		14	14	2,872	0	0	1,393	13	0
,, Park	Singleton	7	16	23	7,949	0	0	3,402	1	6
North Borehole	East Maitland	2	2	4	70	0	0	17	10	0
Rotunda	Waratah	1	2	3	10,002	0	0	3,040	0	0
Richmond Vale	Near Maitland	24	30	54	2,500	0	0	1,275	0	0
Rosedale	Singleton	4	13	17	5,733	0	0	2,637	0	0
Stockton	Stockton	75	260	335	96,622	0	0	53,142	0	0
South Waratah	Charlestown	66	246	312	95,615	0	0	45,967	1	6
,, Stockton	Stockton	5	8	13	700	0	0	350	0	0
,, Wallsend	Cardiff	33	116	149	40,284	10	0	14,854	16	6
Summerhill	Plattsburg	9	13	22	13,648	0	0	5,745	0	0
Sunderland	East Maitland	3	4	7	1,577	0	0	364	5	0
Swansea	Swansea	1	1	2	15	0	0	7	10	0
Seven-mile Creek	Stroud Road	6	6	12						
Stamford-Greta	East Maitland		4	4	30	0	0	12	0	0
Thornley	,,	15	20	35	21,270	0	0	5,153	5	0
Toronto	Lake Macquarie	2	4	6	150	0	0	50	0	0
Teralba	Teralba	1		1						
Wickham and Bullock Island	Carrington	44	366	410	175 384	0	0	7,153	12	0
West Burwood	Merewether	2	26	28	9,800	0	0	4,410	0	0
,, Wallsend	West Wallsend	34	230	264	87,000	0	0	42,900	0	0
Wallarah	Catherine Hill Bay	36	83	119	54,800	0	0	19,600	0	0
Young Wallsend	Teralba	30	120	150	38,000	0	0	18,500	0	0
		1,577	6,732	8,309	2,853,251	13	1	1,354,028	12	8

Company.	Locality.	Men employed. Above ground.	Under ground.	Total.	Quantity.	Value.
		Southern District.				
					Tons cwt. qr.	£ s. d.
Metropolitan	Hellensburg	51	138	189	76,511 0 0	28,116 0 0
Coal Cliff	Clifton	19	51	70	19,746 0 0	9,009 0 0
North Illawarra	North Bulli	16	68	84	24,207 0 0	13,500 0 0
Bulli	Bulli	50	140	190	76,741 0 0	22,039 0 0
Bellambi	„	35	146	181	98,000 0 0	49,000 0 0
South Bulli	South Bulli	50	185	235	132,140 0 0	35,430 10 0
Corrimal	Wollongong	15	90	105	60,845 0 0	18,253 10 0
Mount Pleasant	„	.....	5	5	184 0 0	73 12 0
„ New Pit	„	70	171	241	68,199 0 0	27,279 12 0
Osborn Wallsend	„	60	200	260	87,136 0 0	24,317 18 0
Mount Kembla	„	35	240	275	165,081 0 0	78,161 10 0
South Clifton	„	50	100	150	20,143 0 0	4,841 0 0
		451	1,534	1,985	828,933 0 0	310,421 12 0
		South-Western District.				
Great Southern	Moss Vale	2	4	6	2,238 0 0	994 10 0
Box Vale	Mittagong	2	2	4	640 0 0	215 0 0
Australian Kerosene Company	Joadja Creek	2	10	12	6,062 0 0	3,031 0 0
		6	16	22	8,940 0 0	4,240 10 0
		Western District.				
Rawdon	Rylestone	2	10	12	5,472 0 0	1,580 10 0
Cullen Bullen	Wallerawang	5	15	20	3,741 0 0	850 0 0
Lithgow Valley	Lithgow	5	66	71	61,266 10 0	12,427 3 6
Hermitage	„	4	50	54	45,032 10 0	8,957 9 1
Eskbank	„	8	46	54	50,442 0 0	9,947 0 0
Eskbank Old Tunnel	„	1	7	8	5,812 0 0	1,307 4 0
Vale of Clwydd	„	6	40	46	28,067 8 0	60,880 0 0
Vale	„	12	90	102	62,230 0 0	11,880 6 0
Zig Zag	„	3	30	33	19,447 5 0	4,770 0 0
Oakey Park	„	4	38	42	33,000 0 0	7,425 0 0
Cooerwull	„	.....	1	1	128 0 0	32 0 0
Australian Kerosene Company	Katoomba	18	30	48	27,034 0 0	7,278 9 3
New South Wales Shale Company	Hartley	.....	13	13	5,132 0 0	769 16 0
		68	436	504	346,804 13 0	74,104 17 10
		SHALE.				
New South Wales Shale and Oil Company.	Hartley	23	102	125	15,098 0 0	33,970 0 0
Australian Kerosene Oil and Mineral Company.	Katoomba	5	28	33	4,493 0 0	7,864 0 0
Australian Kerosene Oil and Mineral Company.	Joadja Creek	16	86	102	20,758 0 0	36,326 0 0
		44	216	260	40,349 0 0	78,160 0 0

The number of men employed in and about the Coal and Shale mines in 1891 was 11,080. The total number of fatal accidents in 1891 was 21, as compared with 13 in 1890. The total number of non-fatal accidents in 1891 was 54, as compared with 36 in 1890. Of these—16 fatal and 33 non-fatal occurred in the Northern district. No fatal and no non-fatal occurred in the Western district, and 5 fatal, and 21 non-fatal, occurred in the Southern district.

SUMMARY of persons employed, number of fatal accidents (deaths), and ratios of the number of persons employed, and the number of fatal accidents in and about the "United Kingdom" and "New South Wales" Coal Mines, since 1874:—

	United Kingdom.				New South Wales.			
Year.	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death rate from accidents per 1,000 persons employed.	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death rate from accidents per 1,000 persons employed.
1874	538,829	1,056	510	1·959	.....	5	.....	.....
1875	535,845	1,244	430	2·321	3,308	8	413	2·418
1876	514,532	933	551	1·813	4,084	4	1,021	0·979
1877	494,391	1,208	409	2·443	4,657	7	665	1·503
1878	475,329	1,413	336	2·972	4,792	8	599	1·669
1879	476,810	973	490	2·040	5,035	5	1,007	0·993
1880	484,933	1,318	368	2·718	4,676	8	584	1·710
1881	495,477	954	519	1·925	4,098	2	2,049	0·488
1882	503,987	1,126	447	2·234	4,487	12	373	2·674
1883	514,933	1,054	488	2·046	5,481	15	365	2·736
1884	520,376	942	552	1·810	6,227	14	444	2·248
1885	520,632	1,150	453	2·207	7,097	11	645	1·549
1886	519,970	953	545	1·833	7,847	29	270	3·694*
1887	526,277	995	529	1·890	7,998	94	85	11·752†
1888	534,945	888	601	1·666	9,301	15	620	1·612
1889	563,735	1,064	530	1·887	10,277	41	250	3·989‡
1890	613,233	1,160	529	1·891	10,315	13	793	1·260

* Excessive number of falls of coal and Lithgow disaster caused this high death rate.
† Bulli catastrophe and excessive falls of coal caused this high death rate.
‡ Hamilton pit crush, excessive falls of coal, and over-winding of four men at South Burwood sinking pit, caused this high death rate.

During the year the following analyses have been made of coal :—

LOCALITY—BURRAGORANG.

Coal.

Hygroscopic moisture	3·58
Volatile hydrocarbons	28·34
Fixed carbon	57·66
Ash	10·42
	100·00

Coke, 68·08 per cent.
Sulphur, ·5358 per cent.
Specific gravity, 1·380.

One pound or this coal will convert 11·48 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, firm and fairly lustrous.
Ash—Grey flocculent.

LOCALITY—BUNGAWALBYN.

Hygroscopic moisture	·86
Volatile hydrocarbons	13·33
Fixed carbon	45·87
Ash	39·94
	100·00

Sulphur, 0·315 per cent.
Specific gravity, 1·657.
Coke, 85·81 per cent.

One pound of this coal will convert 10·60 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, fairly firm and bright.
Ash—White in colour, dense.

LOCALITY—BUNGAWALBYN.

Coal.

Hygroscopic moisture	1·03
Volatile hydrocarbons	14·44
Fixed carbon	62·00
Ash	22·53
	100·00

Sulphur, 0·315 per cent.
Specific gravity, 1·592.
Coke, 86·53 per cent.

One pound of coal will convert 10·69 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, fairly firm and bright.
Ash—White in colour, dense.

LOCALITY—BUNGAWALBYN.

Bright and very brittle bituminous coal.

Hygroscopic moisture	·75
Volatile hydrocarbons	14·00
Fixed carbon	65·95
Ash	19·30
	100·00

Coke, 85·25 per cent.
Ash—White, flocculent.
Coke—Well swollen, with cauliflower-like excrescences, firm and fairly lustrous.

LOCALITY—SOUTH BURWOOD COLLIERY—NEWCASTLE.

Bright bituminous coal.

Hygroscopic moisture	2·21
Volatile hydrocarbons	36·36
Fixed Carbon	56·35
Ash	5·08
	100·00

Coke, 61·43 per cent.
Specific gravity, 1·304.
Sulphur, ·343 per cent.
Coke—Well swollen, with cauliflower-like excrescences, firm and lustrous.
Ash—Reddish tinge, flocculent.
One pound of this coal will convert 13·8 lb. of water into steam.

LOCALITY—CESSNOCK.

Bright and dull bituminous coal, with semi-conchoidal fracture.

Hygroscopic moisture	1·47
Volatile hydrocarbons	43·48
Fixed carbon	46·53
Ash	8 52
	100·00

Coke, 55·05 per cent.
Specific gravity, 1·290.
Sulphur in coal, 3·74 per cent.
Coke—Fairly swollen, firm and lustrous.
Ash—Reddish tinge.
One pound of this coal will convert 13·1 lb. of water into steam.

LOCALITY—

LOCALITY—CORAKI.

Hygroscopic moisture	1 02
Volatile hydrocarbons	13·77
Fixed carbon	56·38
Ash	28·83
	100 00

Sulphur, ·315 per cent.
Specific gravity, 1 657.
Coke, 85 31 per cent.

One pound of this coal will convert 9 90 lbs. of water into steam.
Coke—Well swollen with cauliflower like excrescences, fairly firm and bright.
Ash—White, dense.

LOCALITY—CORAKI.

Hygroscopic moisture	·88
Volatile hydrocarbons	14·32
Fixed carbon	65·14
Ash	19 66
	100·00

Sulphur, ·315 per cent.
Specific gravity, 1·657.
Coke, 84·80 per cent.

One pound of this coal will convert 10 69 lb. of water into steam.
Coke—well swollen, with cauliflower-like excrescences, fairly firm, and bright.
Ash—White in colour, dense.

LOCALITY—CORAKI.

Hygroscopic moisture	·95
Volatile hydrocarbons	14 08
Fixed carbon	54 89
Ash	30 08
	100 00

Sulphur, ·315 per cent.
Specific gravity, 1·657.
Coke, 84·97 per cent.

One pound of this coal will convert 9·90 lbs. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, fairly firm and bright.
Ash—White in colour, dense.

LOCALITY—CAPERTEE.

Hydroscopic moisture	2 65
Volatile hydrocarbons	42 56
Fixed carbon	38 57
Ash	16 22
	100·00

Specific gravity, 1·308.
Sulphur, ·74 per cent.
Ash—Grey.

Coke—No true coke formed.
The coal slightly caked on heating in a closed vessel.
One pound of this coal will convert 10·6 lb. of water into steam.

LOCALITY—CUDGEGONG.

Coal, with pyrites.

Hygroscopic moisture	2·55
Volatile hydrocarbons	27·75
Fixed carbon	59·00
Ash	10·70
	100·00

Coke, 69·70 per cent.
Specific gravity, 1 364.
Sulphur, ·851 per cent.

Coke—Firm, fairly lustreless.
Ash—Reddish tinge.
One pound of this coal will convert 13·3 lb. of water into steam.

LOCALITY, CREMORNE BORE—NEAR SYDNEY.

Burnt coal with calcite—depth 2,803 feet.

Hygroscopic moisture	1·40
Volatile hydrocarbons	5 35
Fixed carbon	59 75
Ash	33·50
	100·00

Sulphur, ·287 per cent.
Specific gravity 1·773.
Coke—No true coke formed, a loose powder formed being on ignition in a covered crucible.
Ash—Reddish tinge, loose.

Analysis of Ash.

Silica ($Si O_2$)	41·55
Alumina (Al_2O_3)	19·46
Iron oxide (Fe_2O_3)	5·40
Manganese oxide	·36
Lime (CaO)	24·38
Magnesia (Mg O)	1·84
Potash (K_2O)	2·84
Soda (Na_2O)	·05
Sulphuric acid ($S O_3$)	1·42
Carbonic acid ($C O_2$)	.....
Phosphoric acid (P_2O_5)	2·84
Titanic acid ($Ti O_2$)	trace.
	100·14

The ash obtained by burning of the coal at a red heat until free from carbon was 28·8 per cent. The figures given in the analysis represent the lime in the ash converted into carbonate of lime, thus giving a true percentage of the fixed carbon, and the mineral matter present in the coal. No carbonic acid was detected in the ash, the whole being driven off on burning at a red heat for some time.

LOCALITY—CREMORNE BORE, NEAR SYDNEY.

Coal, depth 2,920 feet.

Hygroscopic moisture	1·55
Volatile hydrocarbons	12·50
Fixed carbon	43·05
Ash	42·90
	100·00

No true coke formed, only a loose coherent cake being left.
Ash—Light grey.

LOCALITY—DUBBO.

Laminated earthy coal.
Ash, 31·04 per cent.

LOCALITY—GUNNEDAH.

Bituminous coal.

Hygroscopic moisture	3 14
Volatile hydrocarbons	37·75
Fixed carbon	51·80
Ash	7·31
	100·00

Coke, 59·11 per cent.
Sulphur in coal ·590 per cent.
Specific gravity 1·316.

One pound of this coal will convert 12·67 lb. of water into steam.
Coke—Well swollen with cauliflower-like excrescences, firm, and lustrous.
Ash—Slightly pink in colour.

LOCALITY—ILLAWARRA.

Splint coal.

Hygroscopic moisture	1·225
Volatile hydrocarbons	14·375
Fixed carbon	61·550
Ash	22·850
	100·000

Specific gravity 1·559.
Sulphur ·53 per cent.

No true coke formed.
Ash—Grey in colour, granular.
One pound of the coal will convert 11·7 lb. of water into steam.

LOCALITY—LIVERPOOL BORE, MOOREBANK ESTATE.

Bituminous coal, depth 2,583 feet.

Hygroscopic moisture	·85
Volatile hydrocarbons	19·40
Fixed carbon	67·40
Ash	12·35
	100·00

Coke, 79·75 per cent.

Coke—Lustrous, well swollen, and firm.
Ash—Grey in colour.
Sulphur in coal—·44 per cent.
Specific gravity—·410.
One pound of this coal will convert 11·26 pounds of water into steam.

LOCALITY—MARYVALE, NEAR WELLINGTON.

Bituminous coal, with thin layers of calcite.

Hygroscopic moisture	8·20
Volatile hydrocarbons	38·60
Fixed carbon	37·80
Ash	15·40
	100·00

Sulphur, ·99.
Specific gravity, 1·355.

Coke—No true coke formed.
Ash—Dark-grey in colour; contains a minute trace of copper.
One pound of this coal will convert 10·6 pounds of water into steam.

LOCALITY—

LOCALITY—MITTAGONG.

Bituminous coal.

Hygroscopic moisture	2·36
Volatile hydrocarbons	37·97
Fixed carbon	55·69
Ash	3·98
	100·00

Coke, 59·67.
Sulphur, ·058.
Specific gravity, 1·277.

Coke—Well swollen, with cauliflower-like excrescences, firm, and lustrous.
Ash—Reddish tinge, granular.
One pound of this coal will convert 13·9 lb. of water into steam.

LOCALITY—MOONANBAR, NEAR CORAKI.

Hygroscopic moisture	·50
Volatile hydrocarbons	15·28
Fixed carbon	64·87
Ash	19·35
	100·00

Sulphur, 0·508 per cent.
Specific gravity, 1·592.
Coke, 84·22 per cent.

One pound of this coal will convert 10·69 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences.
Ash—White in colour, dense.

LOCALITY—MOONANBAR, NEAR CORAKI.

Hygroscopic moisture	·87
Volatile hydrocarbons	13·75
Fixed carbon	47·84
Ash	37·54
	100·00

Sulphur, 0·315 per cent.
Specific gravity, 1·592.
Coke, 85·38 per cent.

One pound of this coal will convert 10·69 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, fairly firm, and bright.
Ash—White in colour, dense.

LOCALITY—MOONANBAR, NEAR CORAKI.

Hygroscopic moisture	·69
Volatile hydrocarbons	14·03
Fixed carbon	69·69
Ash	15·59
	100·00

Sulphur, 0·315 per cent.
Specific gravity, 1·592.
Coke, 85·28 per cent.

One pound of this coal will convert 10·69 lb. of water into steam.
Coke—Well swollen, with cauliflower-like excrescences, fairly firm, and bright
Ash—White in colour, dense.

LOCALITY—MOUNT PLEASANT.

Bituminous coal.

Hygroscopic moisture	·60
Volatile hydrocarbons	18·15
Fixed carbon	53·60
Ash	27·65
	100·00

Coke, 81·25 per cent.
Specific gravity, 1·507.
Sulphur, ·525 per cent.

Coke—Well swollen, firm and lustrous.
Ash—Reddish tinge, flocculent.

LOCALITY—MOUNT PLEASANT.

Dull bituminous coal with pyrites.

Hygroscopic moisture	·48
Volatile hydrocarbons	13·27
Fixed carbon	37·94
Ash	48·31
	100·00

Coke, 86·25 per cent.
Sulphur, ·795 per cent.

Coke—Well swollen, firm and fairly lustrous.
Ash—Reddish tinge, dense.

LOCALITY—

LOCALITY—NORTH STOCKTON.

Bituminous coal, with thin films of carbonate of lime on joint faces.

Hygroscopic moisture	2·20
Volatile hydrocarbons	31·65
Fixed carbon	51·40
Ash	14·75
	100·00

Coke, 66·15 per cent.
Specific gravity, 1·379.
Sulphur, 0·631 per cent.

Coke—Fairly well swollen, firm, and fairly lustrous.
Ash—Grey.

One pound of this coal will convert 12·7 lb. of water into steam.

LOCALITY—NORTHUMBERLAND DISTRICT.

Bright bituminous coal.

Hygroscopic moisture	2·81
Volatile hydrocarbons	34·65
Fixed carbon	54·22
Ash	8·32
	100·00

Coke, 62·54 per cent.
Specific gravity, 1·304.
Sulphur in coke, ·398 per cent.

One pound of this coal will convert 12·7 lb. of water into steam.
Coke—Coke well swollen, fairly firm, lustrous.
Ash—Grey, flocculent.

LOCALITY—NEWCASTLE.

Hygroscopic moisture	2·38
Volatile hydrocarbons	37·49
Fixed carbon	52·61
Ash	7·52
	100·00

Coke, 60·13 per cent.
Sulphur, 0·466 per cent.
Specific gravity, 1·291.

Coke—Well swollen, with cauliflower-like excrescences, lustrous, and firm.
Ash—Reddish tinge.
One pound of this coal will convert 13·1 lb. of water into steam.

LOCALITY—PICTON.

Hygroscopic moisture	4·84
Volatile hydrocarbons	19·71
Fixed carbon	52·00
Ash	23·45
	100·00

Coke, nil.
Specific gravity, 1·550.
Sulphur, ·631 per cent.

One pound of this coal will convert 9·3 lb. of water into steam.
Coke—No coke formed, a loose dull-coloured powder left on ignition of the coal in a covered crucible.
Ash—White, dense.

LOCALITY—PICTON.

Hygroscopic moisture	5·86
Volatile hydrocarbons	23·61
Fixed carbon	53·26
Ash	17·27
	100·00

Coke, nil.

Ash—White, dense.
Coke—No coke formed, a loose dull-coloured powder left on ignition of the coal in a covered crucible.

LOCALITY—ROCKYMOUTH, CLARENCE RIVER DISTRICT.

Bright bituminous coal, with dull-black ashy partings.

Hygroscopic moisture	1·20
Volatile hydrocarbons	11·10
Fixed carbon	63·25
Ash	24·45
	100·00

Coke, 87·70 per cent.
Specific gravity, 1·581.

One pound of this coal will convert 9·9 lb. of water into steam.
Coke—Only slightly swollen, dull in colour, fairly firm.
Ash—Light grey.

Experiments were conducted with a view of ascertaining if it were possible to reduce the percentage of ash by washing the coal. Part of the coal was coarsely crushed till the pieces were about $\frac{1}{8}$ of an inch in diameter. Twelve hundred grains of the crushed coal were washed in a tall beaker, and all the coal remaining in suspension for about ten seconds after rapid stirring separated off. The residue left weighed 860 grains, and the separated coal 330 grains. A proximate analysis was made of each.

Residue

Residue left after washing—	
Hygroscopic moisture, Volatile hydrocarbons	12·85
Fixed carbon	63·60
Ash	23·55
	100·00
Washed coal—	
Hygroscopic moisture, Volatile hydrocarbons	12·45
Fixed carbon	73·35
Ash	14·20
	100·00

Some of the coal was finely crushed and washed, and gave a residue which contained 40·6 per cent. of ash.
Experiments conducted in the Laboratory on a small scale are of little value, as on a large scale the coal is washed under other conditions, but the experiments made prove that by washing the coal can be freed of a large amount of the impurities.

LOCALITY—12 MILES NORTH OF RIVERTREE.

Bright bituminous coal with some thin dark earthy layers, and two bands, one 3 inches, the other 1½ inches thick, An average sample of this coal was taken excluding bands.

Hygroscopic moisture	4·30
Volatile hydrocarbons	33·75
Fixed carbon	32·30
Ash	29·65
	100·00

Coke, 61·95 per cent.
Sulphur, ·754 per cent.
Specific gravity, 1·514.

Coke—Slightly swollen, dull in colour.
Ash—White, dense.

LOCALITY—NEAR RYLESTONE.

Hygroscopic moisture	3·22
Volatile hydrocarbons	25·02
Fixed carbon	54·01
Ash	17·75
	100·00

Coke, 71·76 per cent.
Specific gravity, 1·462.
Sulphur, ·562 per cent.

One pound of this coal will convert 10·7 lb. of water into steam.
Coke—Coal caked on heating, not swollen, dull in colour.
Ash—White, flocculent.

LOCALITY—RYLESTONE.

Semi-bituminous and splint coal.

Hygroscopic moisture	3·22
Volatile hydrocarbons	31·54
Fixed carbon	57·19
Ash	8·05
	100·00

Coke. 65·24 per cent.
Specific gravity, 1·360.
Sulphur, ·603 per cent.

One pound of this coal will convert 12·2 lb. of water into steam.
Coke—Slightly swollen with cauliflower-like excrescences.
Ash—Grey, flocculent.

LOCALITY—RYLESTONE.

Splint coal.

Hygroscopic moisture	2·97
Volatile hydrocarbons	27·31
Fixed carbon	52·10
Ash	17·62
	100·00

Coke, 69·72 per cent.
Specific gravity, 1·436.
Sulphur, ·535 per cent.

One pound of this coal will convert 11·1 lb. of water into steam.
Coke—Fritted together, forming a cake not firm, not swollen, dull.
Ash—Grey, flocculent.

LOCALITY—RYLESTONE.

Splint coal.

Hygroscopic moisture	4·01
Volatile hydrocarbons	31·06
Fixed carbon	51·46
Ash	13·47
	100·0

Coke, 64·93 per cent.
Specific gravity, 1·385.
Sulphur, ·713 per cent.

One pound of this coal will convert 11·2 lb. of water into steam.
Coke—Slightly swollen with cauliflower-like excrescences.
Ash—Grey, flocculent.

LOCALITY—

LOCALITY—RYLESTONE.

Splint coal.

Hygroscopic moisture	2·93
Volatile hydrocarbons	26·19
Fixed carbon	53·37
Ash	17·51
	100·00

Coke, 70·88 per cent.
Specific gravity, 1·402.
Sulphur, ·450 per cent.

One pound of this coal will convert 8·1 lb. of water into steam.
Coke—Fritted together, forming a cake not very firm, not swollen, dull in colour.
Ash—Grey, flocculent.

LOCALITY—RYLESTONE, NEAR.

Hygroscopic moisture	2·41
Volatile hydrocarbons	33·44
Fixed carbon	53·14
Ash	11·01
	100·00

Coke, 64·15 per cent.
Specific gravity, 1·360.
Sulphur, ·617 per cent.

One pound of this coal will convert 11·6 lb. of water into steam.
Coke—Fairly well swollen, firm, and fairly bright.
Ash—Grey, flocculent.

LOCALITY—RYLSTONE, NEAR.

Splint coal.

Hygroscopic moisture	2·61
Volatile hydrocarbons	30·02
Fixed carbon	56·91
Ash	10·46
	100·00

Coke, 67·38 per cent.
Specific gravity, 1·35.
Sulphur ·453 per cent.

One pound of this coal will convert 11·8 lb. of water into steam.
Coke—Fritted together, forming a cake, not very firm, not swollen, dull in colour.
Ash—Grey, flocculent.

LOCALITY—RYLESTONE, NEAR.

Splint and semi-bituminous coal.

Hygroscopic moisture	2·62
Volatile hydrocarbons	31·60
Fixed carbon	56·76
Ash	9·02
	100·00

Coke, 65·78 per cent.
Specific gravity, 1·368.
Sulphur, ·650 per cent.

One pound of this coal will convert 11·8 lb. of water into steam.
Coke—Fairly well swollen, firm, and fairly bright.
Ash—Grey, flocculent.

LOCALITY—SWAN BAY.

Dull coal, with layers of bright bituminous coal, with calcite in joints.

Hygroscopic moisture	1·95
Volatile hydrocarbons	12·00
Fixed carbon	39·60
Ash	46·45
	100·00

No true coke formed.
Ash—Gray, granular.
Inferior coal, of little value.

LOCALITY—TERALBA.

Semi-bituminous coal.

Hygroscopic moisture	2·00
Volatile hydrocarbons	31·45
Fixed carbon	55·95
Ash	10·60
	100·00

Coke, 66·55 per cent.
Specific gravity, 1·372.
Sulphur, ·38 per cent.

Ash—Light grey.
Coke—Only slightly swollen, lustrous in patches, firm.
One pound of this coal will convert 11·08 lb. of water into steam.

LOCALITY—TERALBA.

Semi-bituminous coal.

Hygroscopic moisture	1·60
Volatile hydrocarbons	35.90
Fixed carbon	49·10
Ash	13·40
	100·00

Coke, 62·50 per cent.
Specific gravity, 1·379.
Sulphur, ·33 per cent.

Ash—Light grey in colour.
Coke—Well swollen up, lustrous and firm.
One pound of this coal will convert 11·48 lb. of water into steam.

LOCALITY—

LOCALITY—TERALBA.

Semi-bituminous coal.

Hygroscopic moisture	2·55
Volatile hydrocarbons	28·65
Fixed carbon	55·80
Ash	13·20
	100·00

Coke, 69·00 per cent.
Specific gravity, 1·412.
Sulphur, ·32 per cent.

Ash—Light grey.
Coke—Only slightly swollen, dull with bright patches, firm.
One pound of this coal will convert 11·68 lb. of water into steam.

LOCALITY—TWEED RIVER.

Dirty bituminous coal.

Hygroscopic moisture	3·00
Volatile hydrocarbons	49·35
Fixed carbon	49·65
Ash	19·00
	100·00

Sulphur in coal, ·60 per cent.
Specific gravity, 1·358.
Coke, 68·65 per cent.

Ash—Reddish tinge.
Coke—Not much swollen up, dull, with bright particles, firm.
One pound of this coal will convert 9·90 lb. of water into steam.

LOCALITY—TWEED RIVER.

Coal—

Hygroscopic moisture	1·65
Volatile hydrocarbons	31·35
Fixed carbon	51·05
Ash	15·95
	100·00

Sulphur in coal, ·52 per cent.
Specific gravity, 1·333.
Coke, 67·00 per cent.

Ash—Reddish tinge.
One pound of this coal will convert 11·88 lb. of water into steam.
Coke—Well swol'en up, bright and firm.

LOCALITY—WALLSEND (SUMMER HILL COLLIERY).

Coal—

Hygroscopic moisture	2·15
Volatile hydrocarbons	37·05
Fixed carbon	56·55
Ash	4·25
	100·00

Coke, 60·80 per cent.
Specific gravity, 1·288.
Sulphur, ·44. per cent.

Coke—Fairly well swollen up, bright and firm.
Ash—Reddish.
One pound of this coal will convert 12·47 lb. of water into steam.

LOCALITY—WEST MAITLAND.

Coal—

Hygroscopic moisture	3·17
Volatile hydrocarbons	37·63
Fixed carbon	52·90
Ash	6·30
	100·00

Coke, 59·20 per cent.
Sulphur, 1·62 per cent.
Specific gravity, 1·290.

Coke—Not much swollen up, lustrous and very porous.
Ash—Yellowish in colour.

COKE.

TABLE showing the quantity and value of Coke made in the Colony of New South Wales.

Year.	Quantity.		Total Value.
	Northern District.	Southern District.	
	tons cwt.	tons cwt.	£ s. d.
1890	15,886 2	15,211 0	41,147 3 7
1891	9,474 2	20,836 5	34,473 5 10
Totals.....	25,360 4	36,047 5	75,620 9 5

NOTE.—The Purified Coal and Coke Company, Wallsend, washed 5,700 tons of nut coal, valued at £2,280.

DURING the year the following analyses were made of Coke:—

Locality.	Description.	Proximate analysis.	%	Sulphur in coke. %	Specific gravity.	Remarks.
Bulli	Natural coke. (Coal altered by intrusion of igneous rock.)	Hygroscopic moisture	1·27	·74	1·523	Ash—grey in colour, flocculent. Iron pyrites (or brasses) were visible through the various pieces furnished for analysis. As regards its physical appearance, the sample is dull in colour, not swollen, fairly firm, and has the original look of coal before ignition had taken place. The percentage of ash, though high, is not excessive compared with that yielded by the cokes manufactured from Southern coals, analysis of five samples made in the laboratory giving an average of 14·05 per cent. of ash. If this sample represents a true average it should be of commercial value, and perhaps might be utilised for smelting purposes if that industry is started in the Southern District.
		Volatile hydrocarbons	5·37			
		Fixed carbon	79·71			
		Ash	13·65			
			100·00			
Lithgow	.....	Hygroscopic moisture	·36	...	1·278	Ash—nearly white in colour, flocculent; a minute trace of lead detected. The physical properties of this coke are as follows:—Blackish grey in colour, firm, lustrous, and fairly porous; will readily stand handling without breaking or crumbling, and should bear a heavy burden of flux, &c., if used for metallurgical purposes.
		Volatile hydrocarbons	·13			
		Fixed carbon	83·30			
		Ash	15·65			
		Sulphur	·56			
			100·00			
		ANALYSIS OF ASH.				
		Silica ($Si. O_2$)	58·06			
		Alumina ($Al._2O_3$)	33·28			
		Iron oxide ($Fe._2O_3$)	4·53			
		Oxide of manganese (Mn. O)	·20			
		Lime (Ca. O)	·56			
		Magnesia (Mg. O)	trace			
		Potash (K_2O).....	2·78			
		Soda ($Na._2O$)	·28			
		Phosphoric acid (P_2O_5).....	·40			
		Carbonic acid (CO_2).....	·29			
		Titanic acid ($Ti. O_2$).....	trace			
			100·38			
Mount Pleasant, Wollongong.	Coke	Moisture at 100° C ...	·20	·25	1·565	Ash—white in colour. Coke—Blackish-grey in colour, very dense and compact, well made in fairly long lengths. From its hardness, this coke can be readily handled without breaking, and should stand the weight of a heavy burden of ore and fluxing material. A minute trace of copper detected in the ash.
		Volatile matter.....	·50			
		Fixed carbon	85·85			
		Ash	13·45			
			100·00			
		ANALYSIS OF ASH.				
		Silica ($Si. O_2$)	51·10			
		Alumina ($Al._2O_3$)	40·20			
		Ferric oxide (Fe_2O_3).....	2·80			
		Manganese protoxide (Mn. O)	....			
		Lime (Ca. O).....	3·19			
		Magnesia (Mg. O)	·64			
		Potash (K_2O)	1·76			
		Soda ($Na._2O$)	....			
		Phosphoric acid (CO_2)	....			
		Sulphuric „ (SO_3).....	·85			
			100·54			

SHALE.

The output of boghead mineral, or petroleum oil, cannel coal, commonly called shale, in 1891, was less in quantity by 15,661 tons, and in value £25,943, than in 1890, but the average price per ton in 1891 was 1s. 6·7d. higher than in 1890.

The following table shows the quantity and value of Kerosene Shale produced during the years 1865 to 1891:—

Year.	Quantity.	Average price per ton.	Total value.	Year.	Quantity.	Average price per ton.	Total value.
	Tons.	£ s. d.	£ s. d.		Tons.	£ s. d.	£ s. d.
1865	570	4 2 5·47	2,350 0 0	1880	19,201	2 6 7·03	44,724 15 0
1866	2,770	2 18 10·48	8,150 0 0	1881	27,894	1 9 2·59	40,748 0 0
1867	4,079	3 14 9·21	15,249 0 0	1882	48,065	1 15 0·00	84,114 0 0
1868	16,952	2 17 7·11	48,816 0 0	1883	49,250	1 16 10·77	90,861 10 0
1869	7,500	2 10 0·00	18,750 0 0	1884	31,618	2 5 7·86	72,176 0 0
1870	8,580	3 4 3·18	27,570 0 0	1885	27,462	2 8 11·62	67,239 0 0
1871	14,700	2 6 3·91	34,050 0 0	1886	43,563	2 5 10·79	99,976 0 0
1872	11,040	2 11 11·91	28,700 0 0	1887	40,010	2 3 10·43	87,761 0 0
1873	17,850	2 16 6·55	50,475 0 0	1888	34,869	2 2 2·66	73,612 0 0
1874	12,100	2 5 1·48	27,300 0 0	1889	40,561	1 18 3·55	77,666 15 0
1875	6,197	2 10 2·22	15,500 0 0	1890	56,010	1 17 2·07	104,103 7 6
1876	15,998	3 0 0·00	47,994 0 0	1891	40,349	1 18 8·77	78,160 0 0
1877	18,963	2 9 0·81	46,524 0 0				
1878	24,371	2 6 11·40	57,211 0 0		653,041	2 3 4·65	1,416,711 17 6
1879	32,519	2 1 1·96	66,930 10 0				

Kerosene Shale.

During the year the following analysis of Kerosene Shale were made in this Department:—

Locality.	Description of Mineral.	Analysis in 100·00 parts.				Sulphur.	Specific Gravity.	Remarks.
		Hygroscopic Moisture.	Volatile Hydrocarbons.	Fixed Carbone.	Ash.			
Capertee, 6 miles from	Kerosene shale	·40	61·98	11·85	25·77	·33	1·213	Ash, grey in colour, granular.
„ near	„	·40	7·35	17·35	11·90	·79	1·133	Ash, light grey. No coke formed, only a loose porous cake left after ignition.
„ „	„	·85	64·70	20·95	13·50	·80	1·169	„ „ „
„ 9 miles from	„	2·54	52·59	19·35	25·54	·672	1·342	Ash, grey, granular.
Doughboy Hollow	Inferior shale	Not determined.	34·30	5·66	60·04	Not determined.	Not determined.	A loose black powder left on ignition of shale in covered crucible. Ash, white in colour, flocculent.
„	„	„	32·00	5·40	62·60	„	„	„ „ „
„	„	„	26·25	5·65	68·10	„	„	„ „ „
„	„	„	26·35	5·80	67·85	„	„	„ „ „
„	Fair shale	2·24	58·54	7·05	32·17	·46	1·306	Slightly caked on heating in covered crucible. Ash, grey, granular.
„	„	Not determined.	37·40	4·78	57·82	Not determined.	Not determined.	A loose powder left on heating in covered crucible. Ash, grey, granular.
„	Inferior shale	„	42·00	4·90	53·10	„	„	„ „ „
„	Kerosene shale	1·28	73·21	8·09	17·42	·81	1·134	Slightly caked on heating in closed crucible. Ash, white, granular.
„	„	Not determined.	47·90	11·28	40·82	Not determined.	Not determined.	A loose black powder left on heating in covered crucible. Ash, white, granular.
„	Inferior shale	„	36·28	9·48	54·24	„	„	„ „ „
„	Fair shale	3·12	48·50	7·57	40·81	„	„	„ „ „
„	Kerosene shale	1·66	62·02	7·07	29·25	·809	..	Ash, grey, granular.
Deepwater	„	2·75	45·50	27·10	24·65	..	..	„ „
Katoomba	„	1·33	67·39	12·99	18·29	·603	1·192	Ash, white, granular.
Mudgee District	„	1·00	59·75	24·30	14·95	·41	1·182	No coke formed, a loose dark coherent cake being left after ignition. Ash, light grey, granular.
„	„	1·35	63·45	22·35	13·85	·61	1·180	„ „ „
Mount Canoblas	„	·53	67·99	10·15	21·33	·631	1·223	Ash, grey, granular.
Mudgee District	Inferior kerosene shale	..	..	.	49·20	..	..	
„	„ „	..	..	..	65·00	..	..	
Milparinka, near	Bituminous shale	4·725	30·575	20·200	44·500	..	..	Ash, reddish tinge, granular.
Nundle	Kerosene shale	·58	75·75	7·86	15·81	·795	1·125	„ „
Rylstone	„	1·11	57·63	20·02	21·24	·754	1·270	Ash, grey, granular.
Richmond and Wallerawang, between.	„	·68	62·25	13·17	23·90	·603	1·187	Ash, grey in colour, granular.

Silver and Lead.

Although so many of our silver mines are idle, owing to the difficulty of treating the ore, the value of the export of silver and lead for the year 1891, exceeds that of any previous year, and exceeds that of 1890, by £857,035. With a full knowledge of the treatment of every variety of argentiferous ore, there can be no doubt that the output from our silver-mines might be greatly augmented.

Quantity and Value of Silver, and Silver-lead, and Ore exported.

Year.	Silver.		Silver, Lead, and Ore.						Total Value.
	Quantity.	Value.	Quantity.					Value.	
			Ore.				Metal.		
Up to 1881	oz. 726,779·14	£ s. d. 178,405 0 0	Tons cwt. qr. lb. 191 13 0 0				Tons cwt.	£ s. d. 5,025 0 0	£ 183,430
1882	38,618	9,024 0 0	11 19 0 0				.....	360 0 0	9,384
1883	77,065·18	16,488 0 0	136 4 0 0				... .	2,075 0 0	18,563
1884	93,660·25	19,780 0 0	9,167 11 1 7				.....	241,940 0 0	261,720
1885	794,173·80	159,187 0 0	2,095 16 0 0				190 8	107,626 0 0	266,813
1886	1,015,433·10	197,544 0 0	4,802 2 0 0				.....	294,485 0 0	492,029
1887	177,307·75	32,458 0 0	12,529 3 2 0				.....	541,952 0 0	574,410
1888	375,063·70	66,668 0 0	11,739 7 0 0				18,102 5	1,075,737 0 0	1,142,405*
1889	416,895·35	72,001 0 0	46,965 9 0 0				34,579 17	1,899,197 0 0	1,971,198
1890	496,552·80	95,410 0 0	89,719 15 0 0				41,319 18	2,667,144 0 0	2,762,554
1891	729,590·05	134,850 0 0	92,383 11 0 0				55,396 3	3,484,739 0 0	3,619,589
	4,940,139·12	981,815 0 0	269,472 10 3 7				149,588 11	10,320,280 0 0	11,302,095

Note.—In the Annual Report for 1888, 11,739 tons 7 cwt. of silver ore valued at £164,620 was omitted from the table.

The bulk of the silver is exported as silver-lead or in the ore. During

During the year 3,698 assays of silver ore were made in the Laboratory of this Department.

1,767 yielded nil.

1,709 yielded under 20 oz. per ton.

222 yielded as follows:—

Locality.	Description of Ore.	Per ton	
		Silver.	Gold.
		oz. dwt. gr.	oz. dwt. gr.
Ashford	Greenish felspathic rock, with pyrites	39 14 21	Trace.
„	„ „ mispickel	42 2 18	Nil.
„	Quartz and felspathic gangue, with mispickel and iron arseniate	207 19 13	Trace.
„	„ „ „ „	609 15 12	Nil.
„	Felspathic material, with mispickel	30 14 2	Trace.
„	„ „ „	39 14 21	0 4 8
„	Quartz and felspathic veinstone, with mispickel	30 14 2	0 2 4
„	„ „ „ „	28 1 16	0 2 4
„	„ „ „ „	72 4 22	0 3 6
„	„ „ „ „	25 5 5	Nil.
„	Mispickel, with a little quartz and felspathic veinstone	130 6 18	Trace.
„	„ „ „ „	21 15 13	„
„	„ „ „ „	132 6 0	„
„	Quartz, with iron arseniate	21 6 20	Nil.
„	Copper pyrites	337 11 2	Trace.
„	Calcined felspathic rock	34 16 21	Nil.
„ 5 miles from	Ferruginous quartz, with galena	20 7 5	Trace.
„ District	Quartz, with specks of mispickel, copper pyrites, and blende	29 5 19	„
„ „	Siliceous felspathic rock, stained with iron arseniated	39 4 0	„
Boonoo Boonoo	Ferruginous pyritous quartz	139 18 10	„
„ „	„ quartz	53 10 8	0 7 14
„ „	Pyritous concentrates	24 0 4	1 3 22
„ „	„ quartz	123 0 20	0 17 9
„ „	Quartz, with pyrites and a little galena	38 2 5	Nil.
„ „	Pyritous quartz, with a little blende and galena	21 4 16	Trace.
„ „	Ferruginous porous quartz	682 3 18	„
Boonoo Boonoo	Ferruginous pyrites quartz	49 0 0	Trace.
„ „	„ quartz with crystals of chloride of silver	1,096 9 3	0 3 6
„ „	„ „ „ „	420 4 0	0 2 4
„ „	„ veinstone with very little pyrites	344 14 20	Trace.
„ „	„ „ „ pyrites	40 16 15	„
Boro	„ quartz vein with kaolin carrying carbonates of lead and copper, and grey sulphide of copper.	76 17 4	„
„	Ferruginous carbonate of lead with felspathic material	25 0 21	Nil.
„ District	„ „ „ and little chlorite	32 2 10	„
„ „	„ lodestuff with carbonate of lead	42 9 7	„
Black Range (Albury)	„ rubbly lodestuff with carbonate of lead	21 15 13	„
Bingera	Felspathic rock with little quartz and sulphides of zinc, lead, and iron	29 18 21	„
Braidwood	Zinc blende	21 15 13	„
„	Quartz with sulphides of lead, copper and iron	50 6 2	1 8 7
„ District	Carbonate of lead with little quartz	26 2 16	Nil.
Burraga	Laminated galena	26 2 15	„
„	Ferruginous gossan with cerussite	22 6 7	Trace.
Broken Hill District	Gossan with cerussite	39 12 16	„
Bundundah (Yalwal District)	Galena	60 8 16	Nil.
„ „	Ferruginous cavernous quartz with mispickel	46 5 12	Strong trace.
	„ „ „ „ „	44 12 20	„
Cookbundoon	„ cerussite with a little ochreous material	25 18 16	Nil.
„	„ quartz veins in soft claystone	33 15 2	„
„	„ cavernous quartz	21 9 0	„
„	„ quartz and felspathic rock	22 17 7	„
CellsCreek (Port Macquarie)	Slightly ferruginous quartz	3 18 10	0 15 5
Casino	Ferruginous quartz	46 9 20	Nil.
Cowra (8 miles from)	Heavy spar with a little galena	20 2 20	Trace.
„ (18 miles east)	Ferruginous quartz with cerussite, galena and a little carbonate of copper.	47 11 5	Nil.
Cangi (near) Grafton	White quartz with pyrites and specks of galena and blende	14 11 19	74 13 22
„ „	„ „ „ „	20 2 21	11 8 16
Deepwater (30 miles north)	Ferruginous quartz, with iron pyrites and blende	294 0 0	Trace.
„ „	„ „ „ „	23 1 16	„
Denison Town	Pyritous brecciated lodestuff	78 1 10	„
„	Siliceous brown iron ore, with chloride of silver	30 11 22	„
Drake	Pyritous quartz	24 3 10	„
Emmaville (near)	Massive mispickel and galena, with a little felspathic material	21 1 6	„
„ „	Galena and mispickel, with quartz and felspathic material	59 17 18	Nil.
„ „	Concentrated galena and mispickel	23 13 16	Trace.
„ „	Galena, with a little copper pyrites	31 15 20	Nil.
„ „	„ „ „	54 0 4	„
„ „	„ „ „ and mispickel	49 0 0	„
„ „	„ „ very little copper pyrites	36 13 21	„
„ „	„ „ „ and mispickel	45 5 21	„
Elsmore Ph. (Co. Gough)	„ „ mispickel	40 13 18	Trace.

Locality.	Description of Ore.	Per ton. Silver.	Per ton. Gold.
		oz. dwt. gr.	oz. dwt. gr.
Elsmore (near)	Quartz veins, with mispickel	29 3 14	Nil.
*Emmaville District	Crushed sample of lodestuff carrying mispickel and little copper pyrites.	34 1 2	Trace.
,, ,,	Crushed sample carrying mispickel and galena	28 19 20	,,
Eden Ph. (Co. Gough)	Quartz and felspathic veinstone, with galena and copper pyrites	28 10 12	,,
Forbes District	Siliceous copper gossan	69 11 13	,,
Fish River Creek	Galena, with crystalline quartz	139 6 10	,,
Flyer's Creek Carcoar Dist.	Calcareous veinstone, with a little pyrites, galena and blende	23 16 20	160 16 13
Gulgong (near)	Quartz, with traces of native copper, carbonate and oxide of copper and iron pyrites.	20 13 18	Nil.
,, ,,	Porous quartz, with galena and cerussite	55 14 23	Trace.
Glen Innes District	Ferruginous quartz, and quartz with pyrites	21 4 16	,,
Hardinge County	,, ,, felspathic veinstone	30 9 18	Nil.
,, ,,	Broken galena	125 15 4	,,
Inverell District	Arsenical pyrites in siliceous felspathic gangue	198 3 13	0 15 2
,, ,,	Quartz veinstone, with galena, copper and iron pyrites	46 12 0	Trace.
,, ,,	Quartz and felspathic veinstone with mispickel	72 11 11	Nil.
,, (near)	Copper pyrites	362 18 12	,,
,, ,,	Ferruginous felspathic veinstone	111 7 19	,,
,, ,,	Mispickel and copper pyrites	152 0 4	0 8 16
,, ,,	Felspathic veinstone with mispickel	413 15 13	Trace.
,, ,,	Concentrated galena and copper pyrites	61 12 14	,,
,, ,,	Crushed mispickel	35 15 18	Nil.
,, ,,	Galena and carbonates of lead and copper in siliceous felspathic gangue.	54 19 18	Trace.
,, ,,	Quartz and felspathic gangue with arsenical and a little iron pyrites and galena.	201 19 16	Nil.
,, ,,	Galena with chlorite	84 18 15	,,
,, ,,	Chlorite with carbonate of lead and trace of carbonate of copper	26 11 8	,,
,, ,,	Cerussite and galena in chloritic gangue	21 4 15	,,
,, ,,	Pyritous quartz vein with galena and blende	43 11 2	,,
,,	Felspathic rock with iron and arsenical pyrites, and stained green by iron arseniate.	144 16 10	Trace.
,,	Quartz, with galena and little sulphide and carbonate of copper; also mispickel.	80 0 16	Nil.
,,	Quartz, with galena and pyrites	45 3 18	,,
,,	Quartz, with red oxide and a little blue and green carbonate of copper and cerussite.	41 8 10	,,
,,	Galena	196 0 0	,,
,, (18 miles from)	Quartz, with arsenical pyrites, galena, and blende	35 7 18	Trace.
,, ,,	Crystalline quartz veinstone, with galena and pyrites	37 0 10	Nil.
,, ,,	Soft ferruginous rubble	54 8 21	Trace.
,, ,,	Crushed average sample of galena, blende, and iron and copper pyrites in quartz.	109 8 16	,,
,, ,,	Felspathic veinstone, with mispickel	302 16 9	Nil.
,, ,,	,, ,, ,,	231 15 7	,,
,,	Quartz with mispickel	31 0 15	,,
,, District	Copper pyrites with mispickel in felspathic gangue	154 12 9	Trace.
,,	Concentrated mispickel, galena and pyrites	43 7 7	0 8 4
Inverell	Concentrated pyrites with mispickel in felspathic gangue	27 18 14	Trace.
,,	,, galena	34 7 12	,,
Kempsey District	Porous yellow quartz	36 9 13	Nil.
,, ,,	Quartz with a large percentage of iron pyrites	29 2 12	0 3 6
,, ,,	Gossanny quartz veins one	32 17 16	0 4 8
Kullatine (Co. Dudley)	Porous and yellow siliceous gossan	38 2 5	Trace.
,, ,,	Ferruginous siliceous gossan	39 19 10	0 3 0
,, ,,	,, rock	24 18 16	Trace.
,, ,,	Massive iron and arsenical pyrites in quartz	22 4 6	,,
Mann River	Quartz with a little arsenical pyrites and galena	47 7 8	26 17 21
Moonabah (Macleay River)	Porous quartz	29 18 21	Nil.
,, ,,	,,	54 13 5	,,
,, ,,	Arsenical and iron pyrites in quartz gangue	22 19 11	Strong Trace.
,, ,,	,, ,, ,, ,,	34 10 8	,,
,, ,,	Siliceous gossan	38 2 5	,,
,, ,,	,,	40 19 20	,,
,, ,,	Porous gossan	26 17 21	Nil.
,, ,,	Ferruginous siliceous gossan	36 6 6	0 3 6
,, ,,	Siliceous felspathic material with galena	20 2 21	Trace.
,, ,,	Arsenical and iron pyrites	37 0 10	,,
,, ,,	Mispickel and pyrites with quartz	31 0 15	Nil.
,, ,,	Pyrites and mispickel with quartz	32 14 10	,,
Macleay River	Yellow gossan	87 13 2	,,
Mudgee (7 miles from)	Ferruginous carbonate and sulphide of lead in quartz	22 6 7	,,
Mundi Mundi Parish	Crushed ferruginous sample showing a little galena	21 12 9	,,
,, ,,	,, ,, ,, ,,	22 12 9	,,
Mayo Parish (Co. Hardinge)	Quartz with galena	155 11 23	,,
,, ,,	Ferruginous quartz	20 0 17	,,
,, ,,	Quartz with sulphide and oxide of lead	42 9 7	,,
,, ,,	,, ,, mispickel	25 13 22	,,

Locality.	Description of Ore.	Per ton. Silver.	Gold.
		oz dwt. gr.	oz. dwt. gr.
Mayo Parish (Co. Hardinge)	Siliceous gossan stained by lead oxide	32 17 6	Nil.
,, ,,	Chloritic rock, with galena and a little quartz	20 2 21	,,
,, ,,	Galena, copper, and iron pyrites in quartz	24 9 23	,,
,, ,,	Ferruginous quartz, crystalline in cavities	30 9 18	,,
Moruya District	Quartz with iron and arsenical pyrites	24 3 10	0 12 22
Mount Galena, Emmaville.	Massive galena, with a little mispickel and yellow felspathic material	54 6 4	Trace.
,, ,,	Galena rubble, with a little mispickel	53 1 16	,,
Mount Tinda, nr. Condobolin	Galena	34 12 12	Nil.
Murrumburrah, Young	Galena and a little quartz	180 7 11	,,
Oberon (6 miles from)	Quartz, with mispickel and galena	28 14 21	Trace.
,, District	Crushed sample	35 7 18	0 6 12
Purnamoota	Rubble, with iron oxide containing blende and galena.	136 2 4	Nil.
Pyes Creek, Emmaville	Galena and blende	20 2 21	,,
Parkes	Quartz, with mispickel, copper, pyrites, and galena	30 16 6	Trace.
Pambula	Ferruginous quartz, with felspathic material	27 4 10	,,
Queanbeyan	,, ,, and felspathic lodestuff	28 12 16	,,
Rye Park (15 miles from)	Gossan, with cerussite	59 17 18	Nil.
,, ,,	Ferruginous felspathic lodestuff, with quartz, carbonate of lime, and galena.	112 18 7	,,
Rivertree	Galena in quartz and calcite	111 5 16	Trace.
,,	Galena, pyrites, and quartz	26 13 13	,,
,,	Ferruginous quartz lodestuff in altered state	305 19 13	0 6 12
Rockley (8 miles from)	Quartz veins in talc slate	56 1 12	Nil.
,, (near)	Fragments of cerrussite and galena	34 6 0	0 4 8
Solferino	Grey and yellow sulphides of copper and traces of chessylite	73 10 0	Trace.
,,	Ferruginous quartz veinstone, with carbonates and grey and yellow sulphides of copper	51 1 9	,,
Sunny Corner	Ferruginous gossan	75 0 10	,,
Shoalhaven River	Galena, blende, and copper pyrites	25 5 5	,,
Swanbrook Ph (Co. Gough)	Felspathic veinstone, with veins of iron pyrites	105 3 17	,,
Swanbrook	Felspathic veinstone, with specks of arsenical iron pyrites; also copper pyrites, galena, and blende	58 1 18	Nil.
Spring Creek Bongonia	Quartz, galena, blende, and copper pyrites	30 4 8	Trace.
Sherwood, Macleay River	Iron pyrites and quartz	27 4 10	,,
Turlingah, near Moruya	Ferruginous porous quartz	46 3 8	3 7 12
Tambar Springs	Pyritous quartz	44 1 20	0 4 8
The Peakes, Melrose District	Ferruginous quartz, with galena, a little malachite, and cerussite	29 2 12	Nil.
Wallangra (6 miles from)	Felspathic rock	37 0 0	Trace.
,, 5 ,,	Ferruginous rock	66 19 7	,,
,, 5 ,,	,,	96 18 4	,,
,, 7 ,,	Mispickel	54 8 21	Nil.
,, 7 ,,	Felspathic veinstone, with iron arseniate	24 9 23	Trace.
,,	Felspathic material, with iron and arsenical pyrites	20 9 9	Nil.
,,	Mispickel	25 5 5	,,
,,	Felspathic material with mispickel	38 13 0	,,
,,	Felspathic rock with mispickel	84 5 14	Trace.
,, (6 miles from)	Siliceous felspathic rock, with stains of iron arseniate	97 9 4	,,
Whipstick, near Pambula	Felspar, with a little sulphide and oxide of bismuth	53 7 2	Nil.
,, ,,	Decomposed micaceous felspar veinstone, with decomposing bismuth sulphide rich in silver.	433 12 22	Trace.
,, ,,	Powdered mineral, carrying sulphide, oxide, and little carbonate of bismuth and silver chloride.	1,486 6 16	1 12 6
,, ,,	Granitic lodestuff	54 2 8	Trace.
Wollomombi	Ferruginous quartz, with antimonial silver sulphide	174 4 10	Nil.
,,	,, ,, ,,	57 7 15	,,
,,	,, ,, ,,	132 1 13	,,
,,	,, ,, ,,	82 15 1	,,
,,	,, ,, ,,	675 15 5	,,
,,	Granular quartz, ,, ,,	145 7 8	Trace.
,,	Ferruginous felspathic quartz, ,,	97 0 9	Nil.
,,	Quartz, with antimonial silver sulphide	981 10 11	Trace.
Wollomombi, near Armidale	,, ,,	450 10 11	,,
,, ,,	,, ,,	580 16 4	,,
,, ,,	,, ,,	55 10 15	Nil.
,, ,,	,, ,,	307 1 18	Trace.
,, ,,	Quartz and felspathic rock stained with arseniate of iron	32 13 8	Nil.
,, ,,	Ferruginous quartz and felspathic lodestuff, with antimonial silver sulphide.	359 6 16	,,
,, ,,	Ferruginous quartz, with antimonial silver sulphide	201 8 21	,,
,, ,,	,, ,, ,,	134 11 17	,,
,, ,,	,, ,, ,,	298 7 0	,,
Wyndham	Granite, with stains of manganese and molybdic oxides, also a little sulphide of bismuth and molybdenite.	22 2 1	0 2 4
Wilcannia (70 miles N.W.)	Ironstone, with carbonates of lime and iron, and rich in chloride of silver.	185 2 4	Nil.
Wagga Wagga (40 miles from)	Quartz, with iron arseniate	51 3 13	,,
Yowaka	Concentrates	21 4 16	3 16 5

Lead.

During the year sixty-two assays were made for lead in the Laboratory of this Department, the following yielding over 10 per cent. :—

Locality.	Description of Ore.	Per cent. of Lead Metallic.	Per ton. Gold.	Per ton. Silver.
			oz. dwt. gr.	oz. dwt. gr.
Albury	Felspathic rock with a little quartz and sulphides of zinc, copper, lead, and iron.	18 5	Nil.	29 18 21
Boro (near)	Ferruginous cerussite with schist	50·5	,,	13 1 8
Bungonia	Galena, blende, and copper pyrites	48·78	,,	25 5 5
Borah Creek, Inverell	Crushed sample of galena, zinc blende, and iron and copper pyrites.	35·45	Strong Trace	109 8 16
,, ,,	Galena with cerussite and copper carbonate in siliceous gangue	17·45	Trace.	54 19 18
,, ,,	Galena and chlorite	40·92	Nil.	26 11 8
,, ,,	,, ,, and cerussite in felspathic gangue	18 20	,,	7 1 18
Burraga	Ferruginous quartz with cerussite	13·00	Trace.	4 18 0
Bathurst District	Quartz with cerussite	18·00	Nil.	16 6 16
Broken Hill	Cerussite and felspathic material	44 27	,,	1 1 18
,,	Galena	75·49	,,	60 8 16
Captain's Flat	Crushed sample	10 45	,,	4 16 10
Cooma	Siliceous calcareous veinstone with galena and calamine	24 5	Trace.	2 3 13
,,	Galena, blende, and pyrites, in felspathic gangue	18·54	Nil.	1 1 18
Emmaville	Galena with a little mispickel and felspathic material	45·5	Trace.	18 5 20
,,	Massive galena and blende	49·97	nil.	20 2 21
,,	Galena and mispickel with quartz and felspathic material	40·37	,,	59 17 18
,,	,, ,, in felspathic veinstone	29·00	,,	16 6 16
,,	Concentrated galena with mispickel	41·8	Trace.	23 13 10
,,	Crushed quartz, galena, and mispickel	23 29	Nil.	10 13 10
,,	Galena and copper pyrites	54·81	,,	31 15 20
,,	,, ,,	53 18	,,	54 0 4
,,	,, and a little copper and arsenical pyrites	54 48	,,	49 0 0
,,	,, ,, ,, pyrites	71·46	,,	36 13 21
,,	,, ,, ,, and arsenical pyrites	59 16	,,	45 5 22
,,	Cerussite	45·00	,,	34 1 12
,, (near)	Crushed sample of lodestuff carrying mispickel, galena, and chalcopyrites.	46 19	Trace.	34 1 12
,,	Crushed sample carrying mispickel and galena	41 26	,,	23 19 20
,,	Massive galena with a little mispickel	64·45	,,	54 6 4
,,	Galena (rubble) with a little mispickel	61·50	,,	53 1 16
Gordon (Glen Innes District.)	,, and mispickel in felspathic veinstone	19 06	,,	6 3 23
Inverell	Quartz with galena, and little sulphide, and carbonate of copper, also mispickel.	47·55	Nil.	80 0 16
,,	Quartz with galena and pyrites	20 56	,,	45 3 18
,,	,, cuprite, malachite, chessylite, and cerussite	23·87	,,	41 18 10
,,	Galena	77 06	,,	196 0 0
Macleay District	Siliceous felspathic material with galena	11 95	Trace.	20 2 21
Mayo Parish	Galena, copper, and iron, pyrites, in quartz	39·21	Nil.	24 9 23
Rye Park	Gossan with cerussite	49·42	,,	59 17 18
Rivertree	Galena with quartz and calcite	43·00	Trace.	111 5 16
Rockley	Fragments of cerussite with galena; some loose gold was shaken out of crevices	68·8	0 4 8	4 6 0
Spring Creek, Bungonia	Galena blende and copper pyrites with quartz	66 71	Trace.	30 4 8
Tenterfield District	,,	76 5	Nil.	18 10 5
Tarana	Sulphides of lead, zinc, and iron in quartz	21·28	,,	19 5 10
Yass	Quartz with calcite	32 89	,,	2 18 18
Yalwal	Galena and traces of copper pyrites in quartz and felspathic gangue.	24·00	Trace.	1 12 16

The following report by Mr. Cosmo Newbury, of Victoria, shows what may be done by concentration in the treatment of such of our poorer ores as are capable of concentration.

Report on the Treatment of the "White Rock" Ore by the Luhrig System, for The Agent-General of New South Wales.

The ore which I was requested to have tested by the Luhrig Concentrating System, on behalf of the Government of New South Wales, was stacked in the ore stores of the "washer" of the Gute Gottes Mine, at Scharfenberg, on the Elbe, near Meissen, Germany.

It was contained in 202 bags, marked W.R., in all about 10¾ tons. In character it was a mixture of light grey and nearly white siliceous and felspathic rock, containing more or less fine-grained pyrites and galena; the lighter portions appeared to be almost barren of ore, so much so as to cause the skilled working ore-dressers of the place to consider that portion worthless, and to suggest hand-picking to sort out the mineralised pieces. The whole bulk of the stuff, without any picking, was sent to the machinery for treatment.

A few pieces taken indiscriminately from the bags in London, before they were sent to Germany, gave by assay :—

Lead.	Silver.	Gold.
1 37 %	43 oz. 5 dwt.	2 dwt. to the ton.

A sample carefully taken at Scharfenberg from the whole bulk, gave by assay :—

Lead.	Silver.	Gold.
1·50 %	39 oz. 4 dwt.	Traces to the ton.

The plant at Scharfenberg, one of Luhrig's most simple systems, was designed for and is treating a poor siliceous ore, containing fine-grained galena blende and pyrites. On this "washer" the White Rock ore was easily treated, and gave most excellent results.

The

The concentrates produced gave by assay :—

	Lead.	Silver.	Gold.
Jigger concentrates ...	57 %	0·74 % = 241 oz.	0·0002 % to the ton.
Vanner ,, ...	55 %	0·73 % = 238 oz.	0·00025 % ,, ,,

The assays were made by the Government officials at Freiberg. The results from the final tailings showed only traces of metals.

To obtain these results the material was worked with a view to the avoidance of loss.

Herewith I attach a copy of Herr Lührig's report. It will seem that he bases his estimates on a plant capable of putting through 1,200 tons of ore in a day of three eight-hour shifts. He also provides for sending the concentrates to Europe. Not knowing any of the local circumstances, mining expenses are excluded from the account. He makes the following statement :—

"Seven and a half tons of ore similar to the sample will yield 1 ton of concentrates, containing 228 oz. of silver ; the latter being the important metal of the ore, gold and lead contents are not taken into consideration.

"Although the London assay showed 2 dwt. to the ton, none of the Freiberg determinations gave anything more than traces."

It can be seen by comparison between the assay returns of the products and Herr Lührig's statement, that he has allowed the very large margin of about 22 per cent. for contingencies, his reasons being :—When putting through large bodies of this class of ore, to make a comparatively high loss is often the more profitable procedure, owing to the cost of working being thereby cheapened, and the amount of machinery considerably lessened. Also with similar ores he has found that variations of the mineral contents are often met with, and in making his statement he has allowed a heavy margin for contingencies.

The result of this practical test has satisfied me that the Lührig system of concentrating is admirably adapted for the treatment of these ores.

Mr. Florence O'Driscoll was present with me at Scharfenberg, jointly making other tests. He also observed the working of the White Rock ores, and fully concurs with me in my conclusions.

COSMO NEWBURY.

THE following information is extracted from the reports of Wardens and Mining Registrars :—

During the year the Sunny Corner Company raised 35,287 tons of ore, smelted 39,046 tons—which produced 404,006 oz. of silver, 4,048 oz. of gold, 344 tons of copper, and 25 tons of lead—total value, £104,565 5s. 9d., leaving 10,847 tons of calcined ore at grass valued at £7,300. At the old Nevada Mine 1,700 tons of ore was raised, of which 1,020 tons were sent to Lithgow for treatment and 680 tons was smelted at the mine, producing 110 tons of copper matte valued at £3,080. The ore from the Back Creek Silver Mine is still being shipped to England for treatment. At Burraga, Messrs. Parsons and Sinclair are sinking on a lode 25 feet wide ; the deepest shaft is 75 feet. At Denison Town, the eastern lode in the Mount Stewart Mine has been opened up and proved to be of great value ; the smelting plant is nearly complete. The work done by this Company has led to the settlement of the town of Leadville. Work has been commenced on several other leases on the same and parallel lodes. The field is over 10 miles in width, and length undefined ; wood, water, iron, and limestone all plentiful. At Captain's Flat, the Commodore Vanderbilt Company raised 5,657 tons of ore, from which 745 tons of matte was obtained, which contained 63,750 oz. silver, 802 oz. of gold, and 86 tons of lead. From 86 tons 8 cwt., 2 grs. of silver lead, 23,096 oz. of silver, and 1,275 oz. of gold was obtained. The New Kohinoor Company was idle during the greater part of the year, but between the 9th and 25th December last one furnace was run treating 260 tons of ore and matte obtained to the value of £720,000.

The Moruya Gold and Silver Mining Company have sent 400 tons of ore to London and Sydney for treatment. The average price got for the ore in Sydney is £9 per ton. Silver ore has been found in several localities in the Inverell Division, but the lodes, though apparently rich, contain refractory ores costly to treat, and the owners lack the means to develop them. Webb's company (Glen Innes Division), from ore raised, obtained 354 tons of concentrates, assaying 85 oz. of silver per ton. The Mount Galena Company sent away 190 tons of picked ore for reduction ; 45 tons 9 cwt. was sent away by rail from other mines. There are numerous veins of sulphide ore in the Glen Innes Division which are not being worked, owing to the difficulty of treatment. At the Castle Rag Mine, a drive put in at 180 feet level disclosed a fair body of ore, assaying from 20 to 60 oz. of silver and 40 per cent. of lead. At Rivertree, great difficulty is experienced in regard to the treatment of the ore. The Sir Walter Scott Company, Cangai, obtained 409 oz. fine silver. In the Cobar District Marcus and party report having struck a wide lode carrying silver and lead ore, about 4 miles south-east of Billagoe, and at Mount Dijoe, north-west of Bald Hills. Green and party have found a rich silver lode. At Broken Hill much attention is being given to the treatment of sulphide ores. With this end in view, the associated mines have secured the services of Professor Schnabel, an eminent German metallurgist, to experiment upon these ores. If a cheap and efficient mode of treatment be found, several of the mines, which are not now paying dividends, would be able to return handsome profits. The quantity of ore raised in the Broken Hill and Silverton District during the year was 471,101 tons, valued at £3,960,676 11s. 7d. The export of metals, &c., was:—silver-lead bullion, 54,722 tons, valued at £2,539,685 ; silver-lead ore, 93,942 tons, valued at £985,403 ; copper ore, 203 tons, valued at £3,955—total value, £3,529,043. At Nuntherungie 5 tons of ore from the Proprietary Mine have been treated, realising £70. From the Nil Desperandum 8 tons of ore treated, which averaged 45 oz. of silver per ton. From the Central 50 tons of ore treated gave 65 oz. silver per ton, and 40 per cent. of lead.

Tin.

In the Kempsey Division both ruby and block tin ore have been found, some samples assaying as much as 50 per cent. The prospectors have 10 or 12 tons of ore stacked ready for crushing. The Giant's Den Mine, Bendemeer, has turned out 17 tons of tin, valued at £935. In the Tingha Division 997 tons of tin ore averaged £52 per ton. At Tent Hill 1,747 tons of 4·3 per cent. tin stone was raised from the Ottery Mine, yielding 75½ tons of block tin. Three hundred and eighty-five tons of refined tin, in ingots, was put out at the Glen Smelting Works. The total output of tin ore was 1,070 tons 10 cwt., but the average price on the ground had fallen to £50 per ton. At Pearcy's Hill, Deepwater, a considerable deposit of tin-bearing gravel has been disclosed; tunnels have been put in and shafts sunk, in each of which payable tin has been found. At the Castle Wellington Mine 223 tons of ore from the lode have been put through the mill; and about 100 tons of ore have been put through the battery at Torrington from the lodes in that locality. Two hundred and forty tons of tin ore was won in the Wilson's Downfall Division.

Table showing the quantity and value of Tin exported from, and the product of, the Colony of New South Wales, since the opening of the Tin-fields in 1872.

Year.	Ingots.						Ore.						Total.					
	Quantity.			Value.			Quantity.			Value.			Quantity.			Value.		
	tons	cwt.		£	s.	d.	tons	cwt.		£	s.	d.	tons	cwt.		£	s.	d.
1872	47	0		6,482	0	0	849	0		41,337	0	0	896	0		47,819	0	0
1873	911	0		107,795	0	0	3,660	0		226,641	0	0	4,571	0		334,436	0	0
1874	4,101	0		366,189	0	0	2,118	0		118,133	0	0	6,219	0		484,322	0	0
1875	6,058	0		475,168	0	0	2,022	0		86,143	0	0	8,080	0		561,311	0	0
1876	5,449	0		379,318	0	0	1,509	0		60,320	0	0	6,958	0		439,638	0	0
1877	7,230	0		477,952	0	0	824	0		30,588	0	0	8,054	0		508,540	0	0
1878	6,085	0		362,072	0	0	1,125	0		33,750	0	0	7,210	0		395,822	0	0
1879	5,107	2		343,075	0	0	813	15		29,274	0	0	5,920	17		372,349	0	0
1880	5,476	6		440,615	0	0	682	6		30,722	9	0	6,158	12		471,337	9	0
1881	7,590	17½		686,511	0	0	609	6		37,492	0	0	8,200	3½		724,003	0	0
1882	8,059	0		800,571	0	0	611	0		32,890	0	0	8,670	0		833,461	0	0
1883	8,680	1		802,867	0	0	445	4		21,685	0	0	9,125	5		824,552	0	0
1884	6,315	16		506,726	0	0	349	13		14,861	0	0	6,665	9		521,587	0	0
1885	4,657	18		390,458	0	0	534	18		25,168	0	0	5,192	16		415,626	0	0
1886	4,640	18		449,303	0	0	326	18		18,350	0	0	4,967	16		467,653	0	0
1887	4,669	8		509,009	0	0	291	13		16,411	0	0	4,961	1		525,420	0	0
1888	4,562	2		569,182	0	0	247	8		13,314	0	0	4,809	10		582,496	0	0
1889	4,408	13		403,111	0	0	241	15		12,060	0	0	4,650	8		415,171	0	0
1890	3,409	11		317,117	0	0	259	4		12,724	0	0	3,668	15		329,841	0	0
1891	2,941	5½		261,769	0	0	203	5		9,643	0	0	3,441	10½		271,412	0	0
	100,399	18		8,655,290	0	0	17,723	5		871,506	9	0	118,420	3		9,526,796	9	0

From the above table it will be seen that the output of tin in 1891 was smaller both in quantity and value than in any year since 1872. The decrease, as compared with 1890, is, in quantity, 227 tons 4½ cwt., and in value, £58,429. The older fields are, no doubt, so far as regards the alluvial deposits, to a very large extent exhausted. There are, however, some new fields which will probably be tested in the near future.

During the year fifty assays were made for Tin in the Laboratory of the Department, the following giving the best results.

Locality.	Description of Ore.	Per cent. Metallic Tin.
Broadmeadow (25 miles from Glen Innes).	Tin ore	40·54
Brill Brill Creek (near Kempsey)	Felspar gangue, with ruby tin ore	50·48
,, ,,	,, with tin oxide	44·75
,, ,,	Decomposed felspar, with tin oxide	40·60
Drake	Tin ore, with galena	59·77
Grafton District	Tin-stone, zircons, and quartz sand	34·08
Glen Innes (6 miles north)	Pleonaste, tin-stone, zircons, and magnetic iron-sand	9·80
Guy Fawkes	Stream tin	64·5
Hillgrove	,,	62·34
Hastings	Quartz, with cassiterite	14·04
Kempsey District	Felspar, with tin oxide	30·13
Pierce's Hill	Stream tin ore	65·02
,,	,,	64·94
Richmond	Quartz, ilmenite, and zircon sand, containing cassiterite, platinum, gold, and a little mercury.	13·58
Whitton District	Stream tin ore	69·9

COPPER.

Three hundred and forty-four tons of copper was extracted from the silver ore at Sunny Corner Mine. One hundred and ten tons of copper matte was obtained from 680 tons of ore smelted at the old Nevada Mine. The Burraga Copper Mine has been closed owing to the low price of copper, but the furnaces are still at work upon 2,000 tons of ore at grass. A remarkably rich copper lode has been found on the Wangoola Estate, 4 miles from Woodstock Railway Station. The Annandale Copper Mine has been shut down, owing to the low price of copper and the poorness of the ore. From Reeckman and party's mine at Lob's Hole 14 tons of ore has been sent to Melbourne for treatment. Only about 100 tons of ore were raised at the Frogmore Mine during the year. From the Nymagee Copper Mine 9,355 tons of ore raised, gave 901 tons of copper smelted. From the New Mount Hope Copper Mine 1,094 of ore raised gave 280 tons of copper.

TABLE showing the quantity and value of Copper, the produce of the Colony, exported from the Colony of New South Wales, from 1858 to 1891.

Year.	Ingots.		Ore and Regulus.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons cwt.	£	Tons cwt.	£	Tons cwt.	£
1858	... .	.....	58 0	1,400	58 0	1,400
1859	30 0	578	.....	.....	30 0	578
1860	.....	.....	43 0	1,535	43 0	1,535
1861	.....	.....	144 0	3,390	144 0	3,390
1862	.....	.....	213 0	5,742	213 0	5,742
1863	23 0	1,680	114 0	420	137 0	2,100
1864	54 0	5,230	.....	.....	54 0	5,230
1865	247 0	15,820	22 0	545	269 0	16,365
1866	255 0	18,905	23 0	1,885	278 0	20,790
1867	393 0	30,189	0 2	5	393 0	30,194
1868	644 0	23,297	172 0	4,000	816 0	27,297
1869	1,980 0	74,605	104 0	2,070	2,084 0	76,675
1870	994 0	65,671	6 0	60	1,000 0	65,731
1871	1,350 0	87,579	94 0	1,297	1,444 0	88,876
1872	1,035 0	92,736	417 0	13,152	1,452 0	105,888
1873	2,795 0	237,412	51 0	1,690	2,846 0	239,102
1874	3,638 0	311,519	522 0	13,621	4,160 0	325,140
1875	3,520 0	297,334	157 0	4,356	3,677 0	301,690
1876	3,106 0	243,142	169 0	6,836	3,275 0	249,978
1877	4,153 0	307,181	360 0	17,045	4,513 0	324,226
1878	4,983 0	337,409	236 0	7,749	5,219 0	345,158
1879	4,106 15	256,437	36 7	915	4,143 2	257,352
1880	5,262 10	359,260	131 18½	4,799	5,394 8½	364,059
1881	5,361 0	350,087	132 16	4,975	5,493 16	355,062
1882	4,865 3	321,887	93 1	2,840	4,958 4	324,727
1883	8,872 17	574,497	84 10	2,704	8,957 7	577,201
1884	7,286 6	415,601	18 18	578	7,305 4	416,179
1885	5,745 5	264,905	0 15	15	5,746 0	264,920
1886	3,968 18	166,429	57 18	1,236	4,026 8	167,665
1887	4,463 19	195,752	299 8	3,350	4,763 7	199,102
1888	3,786 1	272,110	113 6	2,924	3,899 7	275,034
1889	3,983 16	203,319	198 4	3,322	4,182 0	206,641
1890	3,165 9	163,537	580 9	9,774	3,755 18	173,311
1891	3,860 3	191,878	665 8	13,215	4,525 11	205,093
	93,928 2	5,885,986	5,318 0	137,445	99,255 12	6,023,431

The export of copper ore and regulus in 1891 is as to quantity the largest since 1887 and as to value since 1889. The difficulty of ascertaining, with any approach to accuracy, the output of copper from our copper mines has led me to adopt the export, the whole of which is either raised or smelted in this Colony.

During

During the year sixty-two assays were made for Copper in the Laboratory of this Department, the following yielding over 10 per cent. :—

Locality.	Description.	Per cent. Metallic Copper.	Per ton.	
			Gold.	Silver
			oz dwt. gr	oz. dwt gr.
Ashford	Malachite, grey sulphide and red oxide of copper	24 19	Trace.	Trace.
Broken Hill	,, and cuprite in ironstone and quartz	10·57	,,	,,
,,	Chalcopyrites	21 80	Nil.	Nil.
Boonoo Boonoo	Earthy malachite in quartz	11· 5	Trace.	Trace.
Blayney	Crushed carbonate of copper and sulphide of copper and zinc blende	30·52	,,	1 9
,,	Rich yellow sulphide of copper	31·71	,,	1 10 10
Burraga	Felspathic material with a little carbonate and black oxide of copper	13·40	,,	7 3 17
Bathurst District	Copper ond iron pyrites	10· 2	,,	1 12 16
Burley Jackey, Blayney District.	Copper pyrites	31 62	Nil.	Nil.
,, ,,	Bornite, one piece of chalcopyrites, and one piece of chalcopyrites with bornite.	20 05	,,	,,
Captain's Flat	Quartz containing carbonate and sulphide of copper	31 19	,,	0 10 21
,,	Crushed sample	13·40	,,	4 3 7
,,	,,	12·45	,,	4 16 10
Cobar (New Burra Burra Mine).	Sulphide and oxide of copper with chlorite slate	39 69	,,	1 1 18
,, ,,	Copper oxide	41·20	,,	0 10 21
,, ,,	Quartz and felspathic veinstone with chlorite and native copper	20 07	,,	Trace
Cooma (near)	Brown iron ore with quartz, yellow sulphide, and little carbonate of copper.	27 45	Nil.	Nil.
,,	Quartz with copper and a little iron pyrites	12 75	Trace.	Trace.
,,	,, ,, pyrites	17 30	Nil.	Nil.
Carcoar	Ferruginous quartz with stains of chessylite and malachite	11 10	0 2 4	1 10 11
,,	Quartz and claystone with chessylite	25 35	Trace.	4 7 2
Cow Flat, 3 miles from	Malachite with oxides of iron and copper	28 05	,,	1 12 16
Eurow	Felspathic material with blue and green carbonates of copper	25 76	Trace.	7 12 10
Forbes District	Siliceous copper gossan	28 87	,,	69 11 13
Frogmore (near)	Brown iron with malachite and chalcopyrites; also, two small pieces of grey sulphide of copper.	31 55	,,	0 10 21
Gulgong	Malachite, with grey sulphide of copper, in felspathic ferruginous gangue.	33 85	,,	1 1 18
Inverell	Quartz with cuprite and a little malachite and cerrussite	15 75	,,	41 18 10
Jenolan Caves (near)	Bornite in hornblende rock	51· 6	0 6 12	6 4 2
Kiandra, 12 miles from	Copper pyrites	27·44	Trace.	0 17 6
Myalla	Oxide, sulphide, and carbonate of copper	17 18	Nil.	6 10 15
Mudgee District	Earthy malachite and chessylite	31 65	4 0 13	0 6 12
Nelson's Bay	Chessylite and yellow sulphide of copper in quartz and felspathic gangue	31·21	Trace.	10 17 18
Newbridge	Ferruginous quartz with chessylite and malachite	16 65	,,	2 3 13
Trunkey	Sulphide and carbonate of copper with quartz and schist	25·65	Nil.	5 8 21
Tuglow	Malachite and cuprite in ferruginous gangue	36 04	Trace.	Trace.
Rockley District	Malachite in ferruginous felspathic gangue	25·80	,,	,,
Walcha	Siliceous iron ore with malachite and chessylite	14·56	,,	0 1 18

Iron.

The efforts to establish iron making in this Colony have so far not been successful, though it is still thought the Colony possesses all the requisites to ensure success, so far as deposits, iron, fuel, and flax, are concerned. Iron made in the Colony at present is not from ore, but from scrap. The quantity being 4,125 tons 16 cwt. 1 qr. 24 lb., valued at £36,101 0s. 3d. During

During the year the following assays and analyses were made in the Laboratory of this Department:—

Locality.	Description of Ore.	Analysis.		Iron %.	Specific gravity.	Remarks.
Albury, near	Brown argillaceous hematite.	Moisture at 100° C.	1·45 %			
		Combined water	11·64 „			
		Ferric oxide	48·50 „	33·95		
		Ferrous oxide	nil.			
		Manganese oxide ($Mn O_2$)	5·90 %			
		Silica	13·75 „			
		Alumina	17·65 „			
		Lime	trace.			
		Magnesia	·28 %			
		Phosphoric anhydride	nil.			
		Sulphuric „	trace.			
		Carbonic acid	„			
		Titanic „	nil.			
Albury District	Brown iron ore	Gangue	2·42 %	53·54		
		Manganese protoxide	3·43 „			
		Equal to metallic manganese	2·64 „			
Austinmere	Limonite, with fossil wood.	Silica	15·30 „	46·52		
		Phosphoric anhydride	·268 „			
„	„ „	Silica	23·20 „	41·47		
		Phosphoric anhydride	·230 „			
„	Siliceous ironstone conglomerate, with fossil wood.	Silica	25·20 „	40·51		
		Phosphoric anhydride	·191 „			
		Silica	34·60 „	35·78		
		Phosphoric anhydride	·351 „			
„	Limonite, with quartz grains.	Silica	12·60 „	50·31		
		Phosphoric anhydride	·857 „			
„	Limonite, with fossil wood.	Silica	7·40 „	51·94		
		Phosphoric anhydride	3·070 „			
„	„ „	Silica	3·50 „	54·72		
		Phosphoric anhydride	2·782 „			
Blayney	Magnetite schist	Silica	9·80 „	48·47		
		Titanic acid	8·80 „			
Burra Burra	Limonite	Silica	3·44 „	56·54		
„	Slightly magnetic hematite.	„	4·04 „	56·99		
Bungawalbyn	Brown iron ore, with barytes.			49·92		Gold, nil; silver, nil.
Clarence Town	Granular siliceous magnetite.	Silica	14·45 %	38·40		
		Titanic acid	12 55 „			
Cowra, near	Magnetic iron ore	Gangue	6·45 „	62·49		
		Silica	4·70 „			
Camden (14 miles from)	Earthy iron oxide	Ferric oxide	42·88 „			
„ „	„ „	„	65·54 „			
„ „	„ „	„	35·23 „			
„ „	Brown iron ore	„	65·70 „			
Goulburn	Magnetite			62·42		
„ (4 miles from)	Limonite	Silica	5·32 %	55·58		
		Phosphoric anhydride	1·79 „			
Lakesland	Concretionary red and brown hematite.	Moisture at 100° C.	·99 „			
		Combined water	10·00 „			
		Ferric oxide	73·78 „	51·64		
		Ferrous oxide	trace.			
		Manganese oxide	1·49 %			
		Silica	6·75 „			
		Alumina	4·02 „			
		Lime	·37 „			
		Magnesia	1·00 „			
		Phosphoric anhydride	·89 „			
		Sulphuric „	·27 „			
		Carbonic acid	trace.			
		Titanic „	„			
		Organic matter	„			
Marulan (Shelly Flat)	Brown iron ore with fragments of slate.			56·77		Gold, nil; silver, nil.
„ „	Porous ironstone			49·03		
Moonbi (near Tamworth)	Oxides of manganese and iron.	Manganese binoxide	74·56 %	11·49		
		Metallic manganese	47·13 „			
Minto	Magnetite iron ore			61·44		
Mittagang	Earthy iron ore	Ferric oxide	28·7 %			
„	Brown iron ore			49·19		
Mount Pleasant	Thin band of brown iron ore.			48·86		
„	Indurated shale with iron oxide.			43·46		
Marulan	Hematite	Silica	3·50 %	65·11		
		Phosphoric anhydride	·142 „			
		Sulphur	·012 „			
„	Limonite	Silica	19·20 „			
		Phosphoric anhydride	·376 „			
		Sulphur	·040 „			
„	Hematite	Silica	16·52 „	46·52		
		Phosphoric anhydride	·198 „			
		Sulphur	·053 „			
„	„	Silica	4·00 „	65·23		
		Phosphoric anhydride	·313 „			
		Sulphur	·004 „			

Locality.	Description of Ore.	Analysis.		Iron %.	Specific gravity.	Remarks.
Marulan	Hematite	Silica	27·40 %			
		Phosphoric anhydride	·626 „			
		Sulphur	·074 „			
Mount Vincent	Brown iron ore			49·19		
Nana Creek District	Laminated red hematite	Silica	9·25 %	59·60		
Port Stephens	Sandstone with magnetite	„	9·36 „	51·98		
Picton	Brown hematite	Titanic acid	23·80 „			
		Gangue	28·95 „	37·56		
		Silica	23·80 „			
„	„ „	Gangue	64·05 „	13·21		
		Silica	57·10 „			
„	„ „			39·63		
„	„ „	Moisture at 100° C.	1·77 %			
		Combined water	11·88 „			
		Ferric oxide	71·55 „	50·09	3·817	
		Ferrous oxide	trace.			
		Manganese oxide	„			
		Alumina	10·35 %			
		Silica	4·10 „			
		Lime	nil.			
		Magnesia	·25 %			
		Sulphuric anhydride	trace.			
		Phosphoric „	„			
Ryl:tone	„ „	Gangue	24·44 %	42·74		
		Silica	19·55 „			
„	„ „	Gangue	25·94 „	41·18		
		Silica	19·55 „			
„	„ „	Gangue	25·60 „	43·19		
		Silica	19·10 „			
„	„ „	Gangue	29·54 „	38·85		
		Silica	23·25 „			
„	„ „	Gangue	5·01 „	55·43		
		Silica	3·97 „			
„	„ „	Moisture at 100° C.	·95 „			
		Combined with water, including organic matter	8·97 „			
		Iron peroxide	66·79 „	46·75		
		„ protoxide	nil.			
		Manganese oxide	trace.			
		Silica	14·41 %			
		Alumina	8·23 „			
		Lime	trace.			
		Magnesia	„			
		Phosphoric anhydride	·49 %			
		Sulphur trioxide	·48 „			
Rockwell Paddock, Barrier Range.	Hematite schist	Silica	26·80 „	48·83		
Tabulam and Drake, between	Iron ore	Gangue	18·80 „	48·46		
		Silica	18·10 „			
„ „	„	Gangue	13·25 „	57·60		
		Silica	12·90 „			
„ „	„	Gangue	27·30 „	49·70		
		Silica	25·15 „			
Wollongong (Mount Pleasant).	Ferruginous shale	Gangue	28·70 „	33·39		
„	*Brown iron ore	Moisture at 100° C.	1·99 „			
		Combined water	9·87 „			
		Ferric oxide	64·56 „	45·19		
		Ferrous „	trace.			
		Manganese oxide	„			
		Silica	16·08 „			
		Alumina	5·33 „			
		Magnesia	.....			
		Lime	.....			
		Phosphoric acid	2·02 %			
		Sulphur	trace.			
„ „	*Brown hematite	Moisture at 100° C.	2·51 %			*The percentage of phosphoric acid present in these minerals is rather high.
		Combined water	11·28 „			
		Ferric oxide	77·54 „	54·28		
		Ferrous „	nil.			
		Manganese	trace.			
		Silica	1·30 %			
		Alumina	2·84 „			
		Lime	0·61 „			
		Magnesia	1·04 „			
		Phosphoric anhydride	2·52 „			
		Sulphuric „	trace.			
Wingello	Porous limonite			46·19		
„	„ „			43·74		
„	„ „			44·21		

Antimony.

In the Kempsey Division some antimony lodes have been found. In some cases there is a large body of ore. About 100 tons have been shipped. In the Armidale Division 1,580 tons of antimony were won. Mr. T. H. Smith (Gordon Brook) shipped a few tons, but owing to the low price in the market, the result was not satisfactory.

During the year forty-five assays were made for Antimony in the Laboratory of this Department, the following giving the best results:—

Locality.	Description.	Per cent. Antimony.	Per ton.	
			Gold.	Silver.
			oz. dwt. gr.	oz. dwt. gr.
Armidale, 30 miles north-east	Stibnite, with a little quartz	58·30	nil.	nil.
,, ,,	Quartz, with stibnite, and a little cervantite	36·47	strong trace	strong trace.
,, ,,	Stibnite and cervantite	54·55	4 1 15	0 18 8
Ashford	Sulphide and oxide of antimony in quartz	42·03	nil.	nil.
,,	Stibnite with quartz	48·46	,,	,,
,,	Stibnite	50·72	,,	,,
,,	Quartz with stibnite	31·93	trace.	trace.
Bellinger Heads, 3 miles from	Massive stibnite	68·62	,,	,,
,, River	Stibnite with quartz	46·71	,,	,,
Bingera	Quartz with stibnite and cervantite	45·78	,,	,,
,, 14 miles from	Stibnite	67·72	nil.	nil.
Bukkulla, near Ashford	Stibnite in quartz	47·32	trace.	trace.
Bonshaw, near	Stibnite with quartz	45·50	nil.	nil.
Clarence District	Stibnite	46·37	,,	,,
Drake	Stibnite with a little quartz	60·63	,,	,,
Dungog Creek	Stibnite with quartz	50·80	,,	,,
Grafton District	Quartz with oxide and sulphide of antimony	26·86	,,	0 10 21
Hillgrove	Sulphide with a little oxide of antimony	70·82	,,	nil.
Nambucca	Stibnite	60·72	,,	,,
,,	,,	39·19	,,	,,
Nundle	Stibnite with felsitic gangue	60·57	,,	,,
,,	Fine grained stibnite	58·84	,,	,,
,,	Stibnite	55·79	,,	,,
,,	,,	63·31	,,	,,
Nambucca	Quartz with stibnite	57·14	trace.	0 5 10
Paterson	Stibnite in quartz	32·44	nil.	nil.
Tamworth District	,, ,,	48·39	,,	,,

Bismuth.

During the year twenty-eight assays were made for bismuth, the following giving the most favourable results:—

Locality.	Description.	Per cent. Metallic Bismuth.	Per ton.	
			Gold.	Silver.
			oz. dwt. gr.	oz. dwt. gr.
Hillgrove	Quartz, with a little carbonate of bismuth	12·11	0 4 8	3 18 16
,,	,, ,, ,,	3·37	trace	1 12 16
,,	Washed quartz sand, with little carbonate of bismuth and cassiterite.	24·42	0 10 21	11 6 11
Pambula	Powdered mineral, carrying sulphide, oxide, and a little carbonate of bismuth.	15·37	nil	nil
,,	Siliceous carbonate of bismuth	25·00	,,	,,
Oban	Quartz and felspathic gangue, with molybdenite	1·45	0 4 8	0 2 4
Wyndham	Rotten felspathic rock, with carbonate of bismuth	9·73	trace	8 14 5

Mercury.

Six assays were made for Mercury during the year, three yielding nil and three as follows:—

Locality.	Description of Mineral.	Mercury, per cent.
Bingera	Decomposed serpentinous rocks, with cinnabar	0·01
Cooma	Carbonate of lime, with cinnabar	22·40
Solferino	Felsitic rock, with quartz, calcite, and cinnabar; also pyrites	11·77

Wolfram.

Seven tons won in the Emmaville Division.

During the year fifteen assays were made, seven yielding nil and eight as follows :—

Locality.	Description of Mineral.	Tungstic Acid, per cent. (WO_3)
Berridale, near Cooma	Wolfram, with a little quartz	69·19
Burrowa	Scheelite	31·65
Bundarra	Quartz, with wolfram, arseniate and arsenide of iron	44·94
Cooma (3 miles from)	Wolfram	54·95
Frogmore	Wolfram, in quartz and mica gangue	45·44
New England	Wolfram, with a little mispickel	64·00
The Gulf, New England	Wolfram, in quartz	51·21
Mount Hope, near Cobar	„ „	62·57

Zinc.

During the year twelve assays were made for Zinc in the Laboratory of the Department, the following giving the best results :—

Locality.	Description of Ore.	Per cent. metallic Zinc.	Per ton.	
			Gold.	Silver.
			oz. dwt. gr.	oz. dwt. gr.
Bungonia	Galena, zinc blende and copper pyrites	9·71	nil	25 5 5
Borah Creek, Inverell	Crushed sample of galena, zinc blende, iron, and copper pyrites	2·71	„	80 0 16
Emmaville	Massive galena and blende	17·62	„	20 2 21

Platinum.

The Warden is informed that considerable quantities of this metal are in the hands of miners at Evans' Head, there being no purchasers in the locality. This metal is found in payable quantities in the beach sand, but there is great difficulty in separating it. Since the publication of a letter by this Department on the subject, one party in a few days obtained 15 cwt. of sand containing platinum, which they sent to Messrs. Johnson, Mathey, & Co. for treatment, but the return has not yet been received. About 10 miles from Broken Hill platinum has been found in a lode formation associated with silver, copper, and other minerals. Several samples of the ore have been sent to England with a view of ascertaining its value, and the best and cheapest mode of treating it.

Fourteen assays were made for platinum, ten yielding nil and four as follows :—

Locality.	Description of Mineral.	Platinum, per ton.
Broken Hill	Platinum concentrates	9 dwt. 18 gr.
„	Clear blebs of quartz in felspathic base with garnets	1 „ 15 „
„	Platinum concentrates	16 „ 7 „
Richmond District (Concentrated beach sand)	Quartz ilmenite and zircon sand, containing cassiterite, platinum, gold, and a little mercury.	4·3 per cent. platinum ; 13·58 per cent. of tin.

Pigment.

At Larras Lake a company is working a deposit of pigment, said to be 5 feet wide and quite free from grit. Some 70 tons have been raised ready to send to the company's works in Sydney, and it is expected the mills will be in full work shortly. In the Dubbo district there are four leases being worked for ochre.

Cobalt.

Forty tons of ore have been sent to Europe in order that a thorough test may be made of the lodes which are on private land close to the town of Carcoar.

Manganese, Cobalt, and Nickel.

Locality.	Description of Mineral.	Analysis.	Per cent.
Armidale	Oxide of manganese	Metallic manganese	55·28
		Equal to Binoxide of manganese	87·44
Bendemeer	Manganese oxide, with ochreous iron oxide.	Metallic manganese	39·13
		Equal to Binoxide of manganese	61·91
		Silica	23·95
Bathurst	Oxide of manganese	Metallic manganese	39·38
		Equal to Binoxide of manganese	62·30
Cootamundra	Oxide of manganese, with fragments of micaceous slate and a little quartz	Metallic manganese	51·83
Cooyal	Oxide of manganese	Metallic manganese	38·50
		Equal to Binoxide of manganese	60·90
Cowra	,, ,,	Metallic manganese	50·75
		Equal to Binoxide of manganese	80·29
,,	Oxide of manganese, with a little iron oxide.	Metallic manganese	38·50
		Equal to Binoxide of manganese	78·8
Gundagai	Oxide of manganese	Metallic manganese	49·34
		Equal to Binoxide of manganese	78·05
Gulgong	Ferruginous manganese oxide, containing a large amount of iron oxide, and insoluble matter.	Metallic manganese	29·25
		Equal to Binoxide of manganese	46·28
Moonbi (near Tamworth)	Oxide of manganese, with a little silicate of manganese.	Metallic manganese	60·69
,, ,,	Oxide of manganese	,, ,,	45·66
		Equal to Binoxide of manganese	60·69
,, ,,	Oxides of manganese and iron.	Metallic manganese	47·13
		Equal to Binoxide of manganese	74·56
Orange (14 miles S.W.)	Oxide of manganese	Metallic manganese	54·05
Port Stephens	,, ,,	,, ,,	47·79
Rockley	,, ,,	,, ,,	58·92
		Equal to Binoxide of manganese	93·21
		Insoluble in acid	2·40
		Phosphoric anhydride (P_2O_5)	·19
,,	,, ,,	Metallic manganese	34·20
,,	,, ,,	,, ,,	50·57
		Silica (Si. O_2)	trace.
		Phosphorous	trace.
Taree	Cobalt-bearing manganese oxide.	Sesquioxide of cobalt (Co_2O_3)	2·41
		Oxide of nickel (Ni. O)	1·19

Alum.

At Bulladelah the Australian Alum Co. have raised about 3,000 tons of alumite, 1,500 tons of which have been shipped to England where the company have erected extensive works for the treatment of their raw material, and a considerable quantity of manufactured alum has been forwarded to Sydney.

Diamonds.

At Tingha and Inverell some 1,200 carats of diamonds have been won.

Emeralds.

The Emerald Proprietary Company have sunk two shafts, 100 feet and 50 ft. deep, respectively The lode is 2 feet wide, in hard slate, and occurs in bunches. About 25,000 carats raised during the year.

Opal.

The Opal Mines at White Cliff (Wilcannia division) have made little progress during the year chiefly owing to the scarcity of water.

Limestone, &c.

From the Tarrawingee quarries 74,057 tons were sold for £35,357, or nearly 18s. per ton for flux

During the year the following analyses were made of limestone:—

Locality—Albury.

Description of mineral—Crystalline white marble.

Analysis—

	Per cent.
Moisture at 130° C.	·05
Lime (Ca O)	55·77
Carbonic acid ($C O_2$)	43·88
Ferric oxide ($Fe_2 O_3$) } Alumina ($Al_2 O_3$) }	·26
Insoluble in acid	trace.
Silica ($Si O_2$)	,,
Sulphuric acid ($S O_3$)	,,
Strontia	,,
Magnesia (Mg O)	,,
Phosphoric anhydride	nil.
	99·96

Locality—Broken Hill (Acacia Dam).

Description of mineral—Calcite with a little iron oxide.

Analysis—

	Per cent.
Moisture	·25
Lime (Ca O)	52·72
Magnesia (Mg O)	·56
Strontia (Sr O)	·44
Oxide of iron and alumina	·80
Silica	5·16
Carbonic acid ($C O_2$)	40·00
Sulphuric acid ($S O_3$)	·04
Phosphoric acid ($P_2 O_5$)	trace.
	99·97

Locality—Carwell.

Description of mineral—Argillaceous limestone.

Analysis—

	Per cent.
Moisture	·25
Organic matter	1·02
Lime (Ca O)	32·59
Magnesia (Mg O)	3·18
Oxide of iron	·19
Alumina	2·86
*Insoluble matter	33·84
Carbonic acid ($C O_2$)	25·60
Phosphoric acid ($P_2 O_5$)	nil.
Sulphuric acid ($S O_3$)	trace.
	99·53

Remarks.—The carbonic acid found was only sufficient to combine with the quantity of lime found; the magnesia is calculated as magnesia (Mg O). The limestone in its present state has no hydraulic properties, but if mixed with the right proportion of lime, and otherwise manipulated, would probably form a cement.

*Clay and fine sand.

Locality—Caloola.

Description of mineral—Dolomitic limestone.

Analysis—

	Per cent.
Carbonate of magnesia	42·64

Locality—Cootaminaby.

Description of mineral—Limestone.

Analysis—

	Per cent.
Lime (Ca O)	46·59

Locality—Mount Kembla.

Description of mineral—Limestone.

Analysis—

	Per cent.
Moisture at 100° C.	1·17
Lime	24·64
Magnesia	1·62
Oxide of iron	3·50
Alumina	5·55
Silica	43·75
Carbonic acid	19·36
Sulphuric acid	trace.
Phosphoric acid	nil.
	99·59

Locality—

LOCALITY—MITTAGONG.

Description of mineral—Calcareous sinter.

Analysis—	Per cent.
Moisture at 100° C.	·76
Combined water	1·42
Carbonate of lime	86·63
Carbonate of magnesia	1·16
Sulphate of lime	1·19
Magnesia (Mg O)	2·24
Silica	3·24
Oxide of iron and alumina	3·22
Strontia	trace.
Phosphoric anhydride ($P_2 O_5$)	nil.
	99·86

LOCALITY—MARULAN.

Description of mineral—Grey limestone.

Analysis—	Per cent.
Hygroscopic moisture	·65
Ferric oxide	·75
Alumina	3·44
Carbonate of lime	78·60
Magnesia	·14
Phosphoric oxide	·10
Sulphuric „	nil.
Silica	14·84
Organic matter	1·18
	99·70

This limestone contains a small quantity of clay, and some of the silica is present as coarse sand.

LOCALITY—MURRUMBIDGEE, NEAR HAY.

Description of mineral—Limestone.

Analysis—	Per cent.
Carbonate of lime	59·50
Sulphuric anhydride ($S O_3$)	·085
Silica	22·30
Alumina	5·75
Oxide of iron	2·30 *
Sulphuric anhydride ($S O_3$)	nil.
Magnesia	·90

*Insoluble in acid, 31·25 per cent.

LOCALITY—NORTHERN TERRITORY, QUEENSLAND.

Description of mineral—Calcareous rock from depth of 152 feet.

	Per cent.
Carbonate of lime	52·60
„ magnesia	40·41
„ iron	·80
Magnesia	·56
Oxide of iron and alumina	1·24
*Gangue	4·56
Sulphuric anhydride ($S O_3$)	nil.
Phosphoric „ (P_2O_5)	trace
	100 17

* Consists mainly of silica.

LOCALITY—NARRABRI.

Description of mineral—Earthy limestone.

Analysis—	Per cent.
Moisture at 100° C.	1·15
Combined water	2·49
Ferric oxide	3·80
Alumina	1·00
Lime (Ca. O)	7·50
Magnesia	·77
Phosphoric oxide (P_2O_5)	·23
Carbonic acid ($C O_2$)	5·19
Insoluble in acid	77·90
	100·03

The matter insoluble in acid consisted almost entirely of coarse sand, thus rendering the sample unfit for the manufacture of cement.

LOCALITY—TARRAWINGEE, BROKEN HILL DISTRICT.

Description of mineral—Grey limestone, with quartz.

	Per cent.
Hygroscopic moisture	·15
Ferric oxide	1·02
Alumina	·58
Calcium carbonate	85·90
Magnesium carbonate	1·18
Magnesia (Mg. O)	·48
Phosphoric oxide	trace.
Sulphuric „	·24
Organic matter	·15
*Gangue	10 40
	100·10

* This gangue is silica, with a very small quantity of clay.

This limestone contains traces of ferrous sulphide.

Water.

Locality—Byerock.

Analysis :—

Appearance in 2-foot tube, reddish-brown colour. Odour when heated to 100° F., nil.

	Grains per gallon.	Per 100,000 parts.
Phosphoric acid as phosphates	Heavy trace.	Heavy trace.
Nitric acid as nitrates	trace.	trace.
Nitrous acid as nitrites	„	„
Free ammonia	·001	·002
Organic or albuminoid ammonia	·001	·016
Oxygen absorbed in 15 minutes	·023	·036
„ „ 4 hours	·081	·116
Poisonous metals	nil.	nil.
Total solid residue	13·104	18·720
Loss on ignition	2·128	3·04
Chlorine as chlorides	·900	1·28

Remarks :—The water was of a yellowish-brown colour, due to fine clay held in suspension. The residue slightly darkened on ignition, thus showing the presence of organic matter The largest proportion of the total solids consists of fine red clay, the soluble portion being chloride of sodium with traces of sulphates, &c.

The water has greatly improved in quality as regards the organic impurities present since the previous analysis was made, but still the amount of albuminoid ammonia is over the limit, and the water may be regarded with suspicion.

Locality—Barragan, near Mudgee.

Analysis :—

	Grains per gallon.	In 1,000 parts.
Silica	5·572	·0796
Carbonate of lime	15·060	·2152
Alumina	trace.	trace.
Carbonate of magnesia	3·783	·0540
Chloride of sodium	11·128	·1589
„ potash	6·395	·0913
Carbonate of soda	13·337	·1905
Nitrate „	·1740	·0248
Sulphate of potash	·3001	·0428
	60 016	·8571

Free ammonia ·018 parts per 100,000 parts. Organic or albuminoid ammonia ·026 per 100,000 parts.

Water when viewed through the standard 2-foot tube was of a pale green colour, contains a small amount of suspended matter which was found to consist of particles of vegetable matter. The water had a slight saline taste and gave an alkaline reaction to litmus. On ignition the residue slightly darkened, thus showing the presence of organic matter. The analysis was conducted on the filtered water. A minute trace of iodine and strontia was detected. No poisonous metals detected. An examination of some of the solids was made for bromine, fluorine, lithia, and phosphoric acid with the result that none of these substances were detected. Iodine in extremely small quantities is detected in nearly all fresh water plants, but not in land plants, and it is stated by several authorities that all natural waters contain iodine and very often bromine. On several occasions iodine has been detected in minute quantities in New South Wales waters, and in one case bromine. The free albuminoid ammonia present in this water is excessive, and the water would be condemned for drinking purposes by English analysts, the standard of Prof. Wanklin being that over ·015 parts per 100,000 of albuminoid ammonia ought to condemn a water absolutely for human consumption.

Locality—Jenolan Caves.

	Grains per gallon.
Total solid matter	7·308
Chlorine	·7
	Parts per 100,000.
Free ammonia	·004
Organic or albuminoid ammonia	·0052
Oxygen absorbed in 15 minutes	·0008
„ 4 hours	·0018

Remarks :—Water clear, free from odour and matter in suspension. The total solids consist chiefly of carbonate of lime with lesser quantities of carbonate of magnesia, silica, chloride of sodium, and traces of organic matter, nitrates, alkaline carbonates, &c. An excellent sample of spring water suitable for domestic uses.

Locality—Mossgiel.

The water yielded a total solid residue of 1186·64 grains per gallon.

	Grains per gallon.
Soluble solids	1149·96
Insoluble solids	36·68
	1186·64

The soluble solids were found to consist largely of magnesia, lime, soda, and potash, combined with chlorine, sulphuric acid, and carbonic acid.

The insoluble of carbonates of lime and magnesia, with lesser quantities of silica, alumina, and a small amount of sulphur, &c.

Total chlorine as chloride, 507·59 grains per gallon.

Total sulphuric acid as sulphates, 160·30 grains per gallon.

Remarks :—The water had a strong saline taste, and gave an alkaline reaction to litmus paper. On opening, the bottle gave off a strong odour of sulphuretted hydrogen. The water was of a yellow colour, the colour being due to a small amount of an alkaline sulphide formed, and at the bottom of both the bottles was a quantity of a black sediment, found to consist largely of sulphide of iron, with a lesser quantity of alumina, and a minute trace of copper.

Owing to the large amount of mineral matter present in the water, it is a very unsuitable one for watering stock with.

Locality—Mudgee District.

Total fixed matter	6·608 grains per gallon.
Chlorine in combination	2·50 „
Free ammonia	trace per 100,000 parts.
Organic, or albuminoid ammonia	·010 per 100,000 parts.

Remarks :—The total solids consist mainly of chlorides of magnesium and sodium, sulphate of lime, and organic matter, with traces of oxide of iron, silica, and alkaline carbonates.

The water, when viewed through a two-foot standard tube, was found to be of a light green colour. No smell observed on heating. A small quantity of suspended matter present, which was found to be small particles of vegetable matter. No poisonous metals detected.

An ordinary spring water, possessing no medicinal properties, useful for domestic uses, also an excellent water for watering stock and irrigation purposes.

Locality

LOCALITY—MITTAGONG.

	Grains per gallon.
Magnesium chloride	1·296
Potassium „	2·042
Sodium „	2 158
Calcium bicarbonate	2·041
Magnesium „	2·243
Iron „	5·985
	15·765

Free ammonia, nil per 100,000 parts; organic or albuminoid ammonia, nil per 100,000 parts; nitrogen as nitrates, nil per 100,000 parts; nitrogen as nitrites, nil per 100,000 parts. Colour in 2-foot standard tube, light-brown; reaction to litmus (acid) due to carbonic acid; taste, inky; odour, earthy.

Remarks.—This water may be classed as a chalybeate water, and possesses medicinal qualities. Should be useful as a general stimulant and tonic.

* LOCALITY—NATIVE DOG BORE, BOURKE DISTRICT.

	Grains per gallon.	Part per 1·000.
Total solid residue	45·108	0·6444
Soluble saline matter	44·044	·6292
Insoluble mineral matter	1·064	·0152
Chlorine	4·500	·0642
Equal to chloride of sodium	7·415	·1059

Remarks:—The water was clear and colourless and free from odour. On evaporation gave a strong alkaline reaction. Before evaporation, a slight alkaline reaction.

The soluble saline matter consists chiefly of alkaline carbonates, chloride of sodium (common salt), silica, and strong traces of lime, magnesia, and sulphuric acid.

* The quantities of both samples received were rather small for analysis. The alkaline carbonates, when present in a large quantity, are known to exert a strong corrosive action upon the young roots of plants. This action, to a great extent, may be remedied by the addition of gypsum to the soil. The amount present in these waters, however, is small, and they may be classed as of a good description for irrigation purposes, and suitable for all domestic uses.

LOCALITY—PICTON.

Total solid matter dried at 220° F. = 197·480 grains per Imperial gallon.

Chloride of sodium (Na Cl)	100·620
„ magnesium ($Mg Cl_2$)	26·211
Bicarbonate of calcium ($Ca H_2 C_2 O_6$)	19·340
„ magnesium ($Mg H_2 C_2 O_6$)	50·390
Sulphate of potash ($K_2 So_4$)	12·172
„ lime ($Ca SO_4$)	1·985
Silica and silicates ($Si O_2$)	·812
Alumina ($Al_2 O_3$)	trace.
Oxide of iron (Fe O)	„
Organic matter	„
	211·212

Oxygen absorbed in quarter hour at 20° C, ·0196 parts per 100,000 parts; oxygen absorbed in four hours at 20° C, ·064 parts per 100,000 parts. Nitrogen—As nitrates, trace per 100,000 parts; as nitrites, trace per 100,000 parts; as free amomonia, trace per 100,000 parts; as albuminoid ammonia, ·012 per 100,000 parts. Reaction, upon litmus paper, alkaline; taste, saline. Colour in 2-foot standard tube, pale green; poisonous metals, nil.

Remarks:—The water was clear and almost free from matter in suspension. The chlorine and total solids were estimated in second sample sent and found to closely agree, and consequently it was not thought necessary to furnish a second analysis of the water. This water may be classed as a mineral water. The albuminoid ammonia is rather high for this class of water, and I am inclined to think that it owes its origin in the water to the bottles not being thoroughly cleaned out before taking the sample for analysis. The quantity present is not serious, and will not condemn the water for drinking purposes.

J. C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

LOCALITY—YOUNGARRINA BORE.

Depth, 168 ft.; temperature of water, 82° F.

	Grains per gallon.	Parts per 1,000.
Total solid residue	32·984	0·4712
Soluble saline matter	31·892	·4556
Insoluble mineral matter	1·092	·0156
Chlorine	5·100	·728
Equal to chloride of sodium	8·494	·1200

Remarks:—The water was clear and colourless, free from odour, and matter in suspension. On evaporation gave a strong alkaline reaction. Before evaporation a slightly alkaline reaction. The soluble saline matter consists largely of alkaline carbonates, chloride of sodium (common salt), silica, and strong trace of lime, magnesia, sulphuric acid, &c. The insoluble matter consists almost entirely of silica, with trace of carbonates of lime and magnesia.

MISCELLANEOUS.

The following are the most important of the miscellaneous analyses made in the Laboratory of the Department during the year:—

LOCALITY.—BATHURST.

Description of mineral—Hornblende, biotite granite.

	Per cent.
Silica	66·69
Alumina	17·03
Ferric oxide	3·15
Ferrous oxide	·69
Manganous oxide	trace.
Lime (Ca O)	1·82
Magnesia (Mg O)	2·50
Potash ($K_2 O$)	6·26
Soda ($Na_2 O$)	1·21
Phosphoric acid	trace.
Sulphuric anhydride	„
Titanic acid	„
Moisture	·48
	99·83

LOCALITY—

LOCALITY—BALD HILL, BATHURST.

Description of mineral—Olivine basalt.	Per cent.
Silica	44·67
Alumina	21·38
Ferric oxide	2·82
Ferrous oxide	5·99
Manganous oxide	.....
Lime (Ca O)	10·24
Magnesia (Mg O)	9·58
Potash (K_2 O)	1·03
Soda (Na_2 O)	2·70
Phosphoric anhydride	·22
Sulphuric „	trace.
Titanic acid	„
Moisture	·79
	99·42

LOCALITY—BARRINGAN.

Description of mineral—White clay, decomposed bed-rock.	Per cent.
Moisture	6 07
Oxide of iron	·05
Silica	77·11
Alumina	14 26
Lime	·25
Magnesia	·71
Potash Soda	1·55
Titanic acid	strong trace.
	100 00

The sample of clay was furnished with a view of ascertaining its suitability for the manufacture of fire-bricks. Experiments were conducted by finely grinding the clay, and moulding some into fire-bricks with sharp edges, these being carefully dried and submitted to the highest heat obtainable in the coke assay furnaces, the bricks being protected from the action of the fuel by placing them in a covered crucible The appearance of each brick after the experiments were conducted was noted, and the following results obtained. On treatment by the above method this clay formed a porcelain of a milk-white colour. This sample may be described as a very good description of porcelain clay, and could no doubt be utilised for the manufacture of cups and saucers, ornaments, &c. Of no value for the manufacture of fire-bricks.

LOCALITY—BALRANALD.

Description of mineral—Gypsum, with clay.	Per cent.
Moisture	20·12
Lime (Ca O)	31·24
Magnesia (Mg O)	strong trace
Oxide of iron	·48
Insoluble matter (clay and sand)	3·96
Sulphuric anhydride (S O_3)	44·57
	100·37

On burning, left a powder having a yellowish colour, due to the small amount of ferric oxide present in the sample. The powder when treated with water and fashioned into a model readily set.

LOCALITY—BALRANALD.

Description of mineral—Gypsum, with clay.	Per cent.
Moisture	20·13
Lime	30·46
Magnesia	trace
Oxide of iron and trace of alumina	·70
Silica	5·10
Sulphuric anhydride (S O_3)	43·50
	99·89

Some of each of these samples was reduced to fine powder, and burnt at a temperature of 100° C, and the colour and setting properties carefully noted. Powder nearly white in colour, and readily set on treating with the right proportion of water. This mineral is of value for modelling purposes, and for the manufacture of various kinds of cements. Gypsum is also largely used as a manure, and when judiciously applied is of value.

LOCALITY—CARCOAR.

Description of mineral—Magnetite.

This mineral may be described as consisting chiefly of magnetite, with a small amount of titanic acid, also containing a small percentage of silica, alumina, lime, and magnesia. A small quantity of a rare metal is present, which is probably vanadium.

LOCALITY—DUBBO.

Description of mineral—Yellow ochre.	Per cent.
Moisture 100° C	1·64
Combined water	8·99
Ferric oxide (Fe_2 O_3)	34·81
Ferrous oxide (Fe O)	trace
Manganous oxide (Mn O)	„
Silica	43 38
Alumina	11·05
Lime (Ca O)	trace
Magnesia (Mg O)	„
Phosphoric anhydride (P_2 O_5)	·21
Sulphuric „ (S O_3)	·12
	100·20

LOCALITY—

LOCALITY—NEAR GRANVILLE.

Description of mineral—Calcareous sandstone.	Per cent.
Moisture at 100° C.	1·23
Carbonate of lime	37·31
Lime (Ca O)	5·43
Magnesia (Mg O)	1·36
Silica	41·15
Oxide of iron	3·25
Alumina	10·45
Phosphoric anhydride ($P_2 O_5$)	trace
Sulphuric „ ($S O_3$)	„
	100·18

LOCALITY—LAKE MENINDIE.

Description of mineral—Black and pink sand.

The larger proportion of the black sand consists of titaniferous iron ore. The pink sand consists of a number of very small stones, which are probably cinnamon stones. The sand was examined qualitatively for gold, silver, platinum, and tin, with the result that none of these metals were detected.

LOCALITY—LORD HOWE ISLAND.

Description of mineral—Carbonate of lime.	Per cent.
Phosphoric anhydride ($P_2 O_5$)	3·96
Moisture and organic matter	6·49
Insoluble in acids (sand)	2·16

The bulk of this sample consists of carbonate of lime and a small percentage of carbonate of magnesia.

LOCALITY—LORD HOWE ISLAND.

Description of mineral—Carbonate of lime.	Per cent.
Moisture and organic matter	7·15
Insoluble in acids (sand)	7·15
Oxide of iron and alumina	3·35
Carbonate of lime	79·20
„ magnesia	2·59
Phosphoric anhydride ($P_2 O_5$)	·24
	99·68

LOCALITY—MANN RIVER DISTRICT.

Description of mineral—Slightly ferruginous quartz, with a little galena and pyrites, rich in gold and silver, neither metals being visible in the rawstone, but coming out in globules when roasted.

Qualitative Analysis.—A large amount of insoluble matter was left on the treatment of the stone with acids; the soluble portion consisting largely of iron, with lesser quantities of copper, lead, arsenic, zinc, silver, gold, lime, magnesia, and a trace of manganese. On concentrating some of the crushed stone by washing, the various minerals existing as sulphides (pyrites) were left, also some free gold, which, on examination under the microscope, had the appearance of being coated in places by iron oxide and pyrites. It is stated that "no gold or silver is visible in the raw stone, but, on heating, shows out on the surface in the form of small globules." The silvery-coloured globules are due to the lead which has become reduced on heating, and the gold visible is most probably a moss-gold, formed from the pyrites present, which contains that metal. A careful examination was made for tellurium and selenium, with the result that neither of these metals were detected. I would suggest that a few tons of this stone be crushed and concentrated, assays being made of an average sample of the crushed stone, concentrates, tailings, and slimes, with a view of ascertaining if the gold, silver, lead, copper, &c., can be saved when experiments can be made as to the best means of treatment for the separation of the precious metals.

LOCALITY—TEN MILES FROM MUDGEE.

Description of mineral—Kaolin.	Per cent.
Moisture at 100° C. } Combined water }	4·24
Silica	69·50
Alumina	21·63
Oxide of iron	strong trace.
Oxide of manganese	n·l.
Lime	·20
Magnesia	·68
Potash ($K_2 O$)	3·54
Soda ($Na_2 O$)	·43
	100·22

LOCALITY—THREE MILES WEST OF MOLONG.

Description of mineral—Black fireclay.

A small brick was made of the sample and well heated in a coke furnace. The brick proved to be highly refractory, but was distorted and much cracked.

LOCALITY—NEAR MOUNT DROMEDARY.

Description of mineral—Hornblende, andesite.	Per cent.
Silica	52·12
Alumina	18·47
Ferric oxide	3·40
Ferrous oxide	4·77
Manganous oxide	trace.
Lime (Ca O)	8·71
Magnesia (Mg O)	5·11
Potash ($K_2 O$)	3·29
Soda ($Na_2 O$)	3·07
Phosphoric anhydride ($P_2 O_5$)	·25
Sulphuric „	trace
Titanic acid	heavy trace.
Moisture	·46
	99·65

LOCALITY—

LOCALITY—MERIMBULA.

Description of mineral—Grey clay.	Per cent.
Moisture	8·21
Oxide of iron	1·02
Silica	73·35
Alumina	14·23
Lime	trace.
Magnesia	·65
Potash	·79
Soda	1·30
Sulphuric anhydride	trace.
Titanic acid	„
	99·55

Bricks made of this clay, when carefully dried and heated, split to pieces, this, no doubt, being due to the contraction of the clay.

The sharp edges were retained, and no fusion had taken place. The experiments were not satisfactory, and as the sample received was small it was impossible to repeat them.

LOCALITY—MERIMBULA.

Description of mineral—White clay.	Per cent.
Moisture	10·04
Oxide of iron	2·04
Silica	65·13
Alumina	22·05
Lime	trace.
Magnesia	„
Potash, Soda	·74
Titanic acid	trace.
	100·00

This clay behaved somewhat similar to the above, the bricks flying to pieces when heated, though the sharp edges were retained, and no fusion had taken place.

LOCALITY—MOUNT WINGEN.

Description of mineral—Aluminous substance, resulting from decomposition or burning of coal-seam underlying mountain.	Per cent.
Alumina (Al_2O_3)	15·44
Ferric oxide (Fe_2O_3)	trace.
Ferrous oxide (Fe O)	3·71
Lime (Ca O)	nil.
Magnesia (Mg O)	·39
Moisture	40·10
Sand	1·88
Sulphuric anhydride	38·48
Titanic acid	trace.
	100·00

LOCALITY—NARRABEEN.

Description of mineral—Brick made from clay.	Per cent.
Silica	89·45
Alumina	10·40
Oxide of iron	trace.
Lime	„
Magnesia	„
Potash	·32
Soda	·36
Titanic acid	trace.
	100·53

A minute trace of vanadium was detected.

LOCALITY—NYNGAN BORE, FROM 647 FEET DEEP.

Description of mineral—Green clay, with fragments of water-worn quartz pebbles.	Per cent.
Moisture at 100° C.	1·75
Combined water	5·88
Ferric oxide	3·56
Ferrous oxide	6·61
Manganous oxide	·40
Silica	56·50
Alumina	17·00
Lime	2·19
Magnesia	2·68
Potash	2·03
Soda	1·58
Phosphoric acid	·29
Sulphuric „	nil.
	100·47

The green colour is due to silicate of iron.

LOCALITY—NARRABEEN.

Description of mineral—Carbonaceous sandy clay.

The clay was finely ground, and damped with water, and fashioned into two small bricks with sharp edges, which were after drying submitted to a severe heat in the assay furnace. The bricks were solid and burnt white, the sharp edges being retained, and I am of the opinion that this clay is suitable for the manufacture of a good description of fire-brick, and can probably be utilised for the manufacture of hearth-stones.

JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

LOCALITY—

LOCALITY—NEWBRIDGE.

Description of mineral—Kaolin.	Per cent.
Hygroscopic moisture	·20
Combined water	4·90
Ferric oxide (Fe_2O_3)	·07
Silica	73·40
Alumina	18·73
Lime	·25
Magnesia	trace.
Potash	2·23
Soda	trace.
Phosphoric anhydride	nil.
Sulphuric „	„
Titanic acid	trace.
	99·78

LOCALITY—PARRAMATTA (2 MILES FROM).

Description of mineral—Shale, with plant impressions.	Per cent.
Moisture at 100° C.	1·05
Combined water	2·35
Ferric oxide	·79
Ferrous oxide	nil.
Manganous oxide	trace.
Alumina	8·81
Silica	85·35
Lime (Ca O)	nil.
Magnesia (Mg O)	·43
Potash (K_2 O)	1·48
Soda (Na_2 O)	trace.
Phosphoric acid (P_2 O_5)	„
Sulphuric acid (S O_3)	nil.
Titanic acid (Ti O_2)	trace.
	100·26

Remarks.—Experiments were conducted as to the fire-resisting properties of the clay. Bricks were made of the clay and burnt, also with the addition of 25 and 30 per cent. of silica. From the results obtained, and on comparing the analysis made with those of British fire-clays, I am of opinion that this clay is suitable for the manufacture of fire-bricks.

JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

LOCALITY—SYDNEY DISTRICT.

Description of mineral—Clay.	Per cent.
Moisture at 100° C.	3·03
Combined water	7·80
Ferric oxide	2·40
Alumina	18·50
Silica	68·50
Lime	trace.
Magnesia	„
Potash	nil.
Soda	trace.
Titanic acid	„
	100·23

LOCALITY—ST. LEONARDS.

Description of mineral—Clay.	Per cent.
Moisture at 100° C.	2·29
Combined water	5·96
Oxide of iron	1·60
Silica	64·89
Alumina	22·66
Lime	·46
Magnesia	·62
Potash	1·92
Soda	·02
Phosphoric acid	trace.
Titanic acid	heavy trace.
Organic matter	trace.
	100·42

LOCALITY—TOWRANG.

Description of mineral—White felspathic sandstone rock, with slight stains of red oxide of iron.

	Per cent.
Moisture at 100° C. / Combined water	4·78
Silica	80·88
Alumina	13·86
Oxide of iron	·51
Oxide of manganese	nil.
Lime	·15
Magnesia	traces.
Titanic acid	„
Potash	„
Soda	„
	100·18

Remarks.—This is an excellent description of fire-clay, and, from the large percentage of silica present, should prove very refractory.

LOCALITY—ULLADULLA.

Description of mineral—Kaolin.	Per cent.
Moisture at 100° C.	2·16
Combined water	11·95
Silica	46·61
Alumina and trace of oxide of iron	37·64
Lime	·30
Magnesia	·14
Potash	1·28
Soda	trace.
Sulphuric anhydride	nil.
	100·08

LOCALITY—

LOCALITY—WOLLI CREEK, NEAR TEMPE, 9 FEET FROM SURFACE.

Description of mineral—Clay.

On carefully drying this brick, and submitting it to a severe heat in the coke assay furnace, the brick being protected from the coke by placing it in a crucible, it split into small pieces. The sharp edges were retained, and no fusion had taken place.

LOCALITY—WOOLLI CREEK, NEAR TEMPE, 20 FEET FROM SURFACE.

Description of mineral—Clay. Result similar to above.

LOCALITY—WOOLLI CREEK, 28 FEET FROM SURFACE.

Result similar to above.

LOCALITY—WOOLLI CREEK, 28 FEET FROM SURFACE.

Result similar to above.

SUMMARY.

The total value of the mineral produce of this Colony to the end of 1891 is £93,536,963 13s. 9d. If the value of the output for 1892 equal that of 1891, the value of our mineral products will, at the end of the current year, exceed 100 millions sterling.

	Quantity.	Value.	Total Values.
		£ s. d.	£ s. d.
Quantity and value of coal raised prior to 1st January, 1891	49,812,814·58 tons	24,066,244 18 5	
Quantity and value of coal raised in 1891	4,037,929·30 „	1,742,795 12 6	
Totals	53,850,743·88 tons	25,809,040 10 11	25,809,040 10 11
Quantity and value of shale raised prior to 1st January, 1891	612,692·00 tons	1,338,556 7 6	
Quantity and value of shale raised in 1891	40,349·00 „	78,160 0 0	
Totals	653,041·00 tons	1,416,716 7 6	1,416,716 7 6
Quantity and value of coke made prior to 1st January, 1891	31 097·00 tons	41,147 3 7	
Quantity and value of coke made in 1891	30,310·35 „	34,473 5 10	
Totals	61,407 35 tons	75,620 9 5	75,620 9 5
Quantity and value of gold won prior to 1st January, 1891	10 220,116·57 oz.	38,075,172 5 7	
Quantity and value of gold won in 1891	153,335·62 „	558,305 12 3	
Totals	10,373,452 19 oz.	38,633,477 17 10	38,633,477 17 10
Quantity and value of silver, silver lead, and ore raised prior to 1st January, 1891	Ingots 4 211.518 47 oz. Silver lead 107,232 77 tons Ore 164,319 75 „	7,682,506 0 0	
Quantity and value of silver, silver lead, and ore exported in 1891	*Ingots 729.590 05 oz. Silver lead 92,383·55 tons Ore 55,396 15 „	3,619,589 0 0	
Totals		11,302,095 0 0	11,302,095 0 0
Quantity and value of copper exported prior to 1st January, 1891	Ingots 90,065 80 tons Ore and regulus 4 651 95 „	5,818,358 0 0	
Quantity and value of copper exported in 1891	Ingots 3,860·15 „ Ore and regulus 665·40 „	205,093 0 0	
Totals		6,023,431 0 0	6,023,431 0 0
Quantity and value of tin exported prior to 1st January, 1891	Ingots 97,458 48 tons Ore and regulus 17,519·45 „	9,255,384 0 0	
Quantity and value of tin exported in 1891	Ingots 2,941·28 „ Ore and regulus 203·25 „	271,412 0 0	
Totals		9,526,796 0 0	9,526,796 0 0
Quantity and value of iron made prior to 1st January, 1891	45,525·61 tons	347,464 13 5	
Quantity and value of iron made during 1891	4,125·81 „	36,101 0 3	
Totals	49,651·42 tons	383,565 13 8	383,565 13 8
Quantity and value of antimony exported prior to 1st January, 1891	5,132·15 tons	93,741 8 6	
Quantity and value of antimony raised in 1891	914 85 „	22,057 0 0	
Totals	6,047 00 tons	115,798 8 6	115,798 8 6
Quantity and value of lead (pig) exported prior to 1st January, 1891	648·60 tons	8,298 0 0	
Quantity and value of lead (pig) exported during 1891	190 65 „	2,025 0 0	
Totals	839 25 tons	10,323 0 0	10,323 0 0

* The bulk of the silver is exported in the form of silver-lead and ore.

	Quantity.	Value.	Total Values.
		£ s. d.	£ s. d.
Quantity and value of bismuth exported prior to 1st January, 1891	168·00 tons	36,141 14 0	
Quantity and value of bismuth exported in 1891	0·40 „	500 0 0	
Totals	168·40 tons	36,641 14 0	36,641 14 0
Quantity and value of oxide of iron and pig-iron exported prior to 1st January, 1891	914·40 tons	2,213 0 0	
Quantity and value of oxide of iron and pig iron exported in 1891	228 75 „	434 0 0	
Totals	1,173·15 tons	2,647 0 0	2 647 0 0
Quantity and value of zinc-spelter exported prior to 1st January, 1891	307 30 tons	3,366 0 0	
Quantity and value of zinc-spelter exported in 1891	218 60 „	2,622 0 0	
Totals	525·90 tons	5,988 0 0	5,988 0 0
Quantity and value of limestone flux raised prior to 1st January, 1891	41,436·80 tons	41,989 5 9	
Quantity and value of limestone flux raised in 1891	74,057 00 „	65,357 6 2	
Totals	115,493 80 tons	107,346 11 11	107,346 11 11
Quantity and value of alumite raised prior to 1st January, 1891	200 00 tons	3,000 0 0	
Quantity and value of alumite exported in 1891	704 00 „	1,888 0 0	
Totals	924 00 tons	4,888 0 0	4,888 0 0
Quantity and value of manganese ore exported prior to 1st January, 1891	100·00 tons	325 0 0	
Quantity and value of manganese ore exported in 1891	138·20 „	340 0 0	
Totals	238·20 tons	665 0 0	665 0 0
Quantity and value of opals raised in 1890	195 lb	15,600 0 0	
Quantity and value of opals raised in 1891			
Totals	195 lb.	15,600 0 0	15,600 0 0
Quantity and value of cobalt exported in 1891	1·15 tons	470 0 0	
Totals	1·15 tons	470 0 0	470 0 0
Quantity and value of fire-clay exp'rt'd in 1891	16·80 tons	55 0 0	
Totals	16 80 tons	55 0 0	55 0 0
Quantity and value of lime exported in 1891	410 00 tons	958 0 0	
Totals	410 00 tons	958 0 0	958 0 0
Quantity and value of marble exported in 1891	635 pkgs.	2,577 0 0	
Totals	635 pkgs.	2,577 0 0	2,577 0 0
Quantity and value of building stone exported in 1891	4,735 No.	5,205 0 0	
Totals	4,735 No.	5,205 0 0	5,205 0 0
Quantity and value of ballast stone exported in 1891	619 tons	713 0 0	
Totals	619 tons	713 0 0	713 0 0
Quantity and value of grindstones exported in 1891	471 No.	311 0 0	
Totals	471 No.	311 0 0	311 0 0
Quantity and value of slates exported in 1891	31,,234 No.	351 0 0	
Totals	31,234 No.	351 0 0	351 0 0
Value of sundry minerals exported prior to 1st January, 1891		52,466 0 0	
Value of sundry minerals exported in 1891		3,217 0 0	
Totals		55,683 0 0	55,683 0
General Total			£93,536,963 13 9

TABLE showing approximately the number of miners employed in gold-mining, the quantity of gold won, the area of ground worked, and the value of machinery employed in the Colony of New South Wales, 1891:—

District and Division.	Alluvial Miners.		Quartz Miners.		Total Miners.	Quantity of Gold.			Price of Gold per oz.		Value of gold won.	Auriferous ground worked.	Quartz reefs proved to be Auriferous.	Value of Machinery.
	Europeans.	Chinese.	Europeans.	Chinese.		Alluvial.	Quartz.	Total.	From	To				
	No.	No.	No.	No.	No.	oz. dwt. gr.	oz. dwt. gr.	oz. dwt. gr.	s.	s.	£ s. d.	sq. miles	No.	£
ALBERT—														
Milparinka	200	..	..	..	200	2,500 0 0	.....	2,500 0 0	..	79/	9,875 0 0	....	....	5,50
Tibooburra	150	..	..	..	150	1,201 17 8	.....	1,201 17 8	81/	..	4,874 0 0	....	....	....
Wilcannia	..	..	17	..	17	.....	.....	.....	..	..	.....	....	....	....
Broken Hill	..	..	..	..	..	.....	5,277 0 0	5,277 0 0	..	75/	19,788 5 0	....	....	....
	350	..	17	..	367	3,701 17 8	5,277 0 0	8,978 17 8	75/	81/	34,537 5 0	....	....	5,500
BATHURST—														
Blayney	34	..	94	..	128	111 4 0	1,640 10 0	1,751 14 0	72/6	78/	3,417 8 11	5	2	12,700
Bathurst	20	4	9	..	33	700 0 0	329 0 0	1,029 0 0	50/	75/	3,285 0 0	....	3	1,400
Carcoar	5	..	48	..	53	.....	1,009 9 0	1,009 9 0	75/	77/6	3,426 4 5	....	6	3,866
Canowindra	..	..	22	..	22	.....	703 3 0	703 3 0	..	78/9	2,769 6 0	....	....	330
Cowra	60	..	60	..	120	600 0 0	525 0 0	1,125 0 0	78/6	81/6	4,300 0 0	40	10	1,000
Mount McDonald	10	..	49	..	59	29 12 0	1,001 13 0	1,031 5 0	74/	77/6	3,789 10 1	....	....	15,700
Mitchell	50	6	42	..	98	165 0 0	5,016 0 0	5,281 0 0	70/	75/	19,618 10 0	5	6	3,500
Oberon	5	..	30	..	35	30 0 0	.....	30 0 0	60/	70/	105 0 0	....	5	1,000
Orange	70	16	192	..	278	.....	3,767 19 17	3,767 19 17	72/6	80/	14,182 15 6	....	....	11,850
Rockley	18	..	..	..	18	134 0 0	.....	134 0 0	74/	75/	502 2 0	16	....	300
Trunkey	70	6	58	..	134	562 13 6	18 0 0	580 13 6	76/	79/6	2,270 1 4	20	27	3,400
Tuena	70	10	30	..	110	1,100 0 0	340 0 0	1,440 0 0	75/	80/	5,537 10 0	....	....	800
Burraga	10	2	..	..	12	40 0 0	.....	40 0 0	75/	76/	150 0 0	....	....	....
	422	44	634	..	1,100	3,472 9 6	14,450 14 17	17,923 3 23	50/	81/6	63,352 14 3	86	59	54,846
COBAR—														
Cobar	..	..	95	..	95	.....	2,635 11 10	2,635 11 10	77/6	80/	10,540 10 0	....	3	7,500
Euabalong	..	..	7	..	7	.....	.....	.....	..	..	.....	....	....	....
Mount Hope	..	..	10	..	10	.....	.....	.....	..	81/8	.....	....	....	2,000
	..	..	112	..	112	.....	2,635 11 10	2,635 11 10	77/6	81/8	10,540 10 0	....	3	9,500
CLARENCE AND RICHMOND—														
Ballina	50	..	..	..	50	274 9 3	.....	274 9 3	77/10½	..	1,068 12 6	....	....	....
Dalmorton	8	..	155	..	163	50 0 0	667 4 0	717 4 0	70/	..	2,510 4 0	352	120	7,000
Grafton	50	..	133	..	183	181 17 14	1,830 7 21	2,012 5 11	47/	76/	5,844 13 8	....	....	2,500
Nana Creek	..	..	47	..	47	.....	217 4 21	217 4 21	70/	75/	814 10 11	255	58	1,020
	108	..	335	..	443	506 6 17	2,714 16 18	3,221 3 11	47/	77/10½	10,238 1 6	607	178	10,520
HUNTER AND MACLEAY—														
Copeland	6	..	60	..	66	.....	67 0 0	67 0 0	70/	72/6	234 10 0	....	24	3,400
Dungog	..	..	8	..	8	.....	23 0 0	23 0 0	..	60/	69 0 0	....	1	1,800
Kempsey	6	..	30	..	36	.....	.....	.....	..	..	.....	....	....	....
Bulladelah	..	..	..	..	..	.....	102 0 9	102 0 9	77/	..	386 14 0	5	4	1,150
Macksville	..	..	48	..	48	.....	11 0 0	11 0 0	..	65/	35 7 3	....	...	5,000
	12	..	146	..	158	.....	203 0 9	203 0 9	60/	77/	725 11 3	5	29	11,350
LACHLAN—														
Barmedman	8	..	..	..	8	.....	54 5 0	54 5 0	75/	77/6	207 10 0	3	13	10,200
Cudal	..	..	27	..	27	.....	672 10 0	672 10 0	75/6	77/6	2,604 17 9	4	5	400
Forbes	20	..	20	..	40	20 0 0	177 10 0	197 10 0	70/	..	670 0 0	1	2	4,790
Grenfell	25	..	60	..	85	126 9 4	262 10 11	388 19 15	76/6	77/6	1,504 3 2	20	26	2,800
Molong	..	..	16	..	16	.....	210 0 0	210 0 0	53/	54/	558 9 3	1	1	5,000
Murrumburrah	40	..	..	..	40	236 13 20	.....	236 13 20	..	77/	906 9 1	....	....	....
Parkes	20	..	360	..	380	3,380 10 8	5,104 17 1	8,485 7 9	70/	75/	30,543 18 4	92	60	19,800
Temora	100	..	100	..	200	.....	309 9 7	309 9 7	..	77/6	1,199 1 0	....	....	....
Young	150	..	..	..	150	5,387 9 0	.....	5,387 9 0	..	..	21,083 3 5	....	....	15,100
Cargo	..	..	12	..	12	.....	260 0 0	260 0 0	72/6	80/	950 0 0	3	7	7,782
Alectown	390	..	40	..	430	6,253 10 0	38 3 6	6,291 13 6	..	75/	23,593 14 2	....	....	....
	753	..	635	..	1,388	15,404 12 8	7,089 6 1	22,493 18 9	53/	80/	83,881 6 10	124	114	65,872
MUDGEE—														
Gulgong	85	..	..	..	85	1,700 0 0	.....	1,700 0 0	..	76/	6,460 0 0	....	....	....
Hargraves	..	..	35	..	35	.....	309 0 0	309 0 0	78/6	79/6	1,176 0 0	10	....	3,500
Peak Hill	450	200	..	..	650	4,947 0 0	4,719 0 0	9,666 0 0	75/	78/	37,705 0 0	18	9	15,000
Wellington	55	7	70	..	132	114 19 20	4,187 6 5	4,302 6 1	74/	76/	15,962 5 11	12	1	21,000
Windeyer	96	80	6	..	182	.....	26 0 0	26 0 0	76/	80/	102 1 0	....	....	1,300
	686	287	111	..	1,084	6,761 19 20	9,241 6 5	16,003 6 1	74/	80/	61,405 6 11	40	10	40,800
PEEL AND URALLA—														
Niangala	..	..	200	..	200	.....	439 19 11	439 19 11	..	80/	1,759 17 10	....	....	....
Nundle	..	..	126	..	126	.....	1,644 14 0	1,644 14 0	72/	..	6,353 14 4	....	....	18,000
Bingera	130	10	..	..	140	1,050 0 0	.....	1,050 0 0	70/	74/6	3,805 0 0	30	1	2,600
Barraba	..	..	25	..	25	.....	133 0 0	133 0 0	..	75/9	503 15 10	....	....	1,600
Armidale	10	3	14	..	27	324 8 15	180 0 0	504 8 15	72/	77/	1,890 15 5	....	....	650
Glen Innes	20	..	200	..	220	130 0 0	1,859 5 9	1,989 5 9	..	76/	7,561 2 7	....	....	....
Hilgrove	..	..	712	..	712	.. ..	28,319 15 12	28,319 15 12	72/6	..	101,033 18 2	....	....	67,570
Scone	..	..	129	..	129	.....	1,689 0 0	1,689 9 0	70/	..	5,650 0 0	....	....	11,500
Uralla	100	6	..	..	106	550 0 0	.....	550 0 0	74/	77/6	2,062 0 0	....	....	....
Walcha	50	..	75	..	125	.....	964 12 2	964 12 2	70/	71/	3,364 13 10	....	....	5,000
Kookabookra	20	35	165	..	220	120 0 0	1,538 0 0	1,668 0 0	72/6	80/	6,652 0 0	....	15	10,500
Swamp Oak	..	..	250	..	250	.....	1,023 0 0	1,023 0 0	..	68/	3,734 6 1	....	7	3,200
	330	54	1,902	..	2,286	2,188 8 15	37,781 6 10	39,969 15 1	70/	80/	144,371 4 1	30	23	120,620
NEW ENGLAND—														
Fairfield	74	14	152	..	239	500 0 0	3,312 0 0	3,812 0 0	..	70/	13,342 0 0	....	11	62,725
Lionsville	7	..	16	..	23	180 0 0	.....	180 0 0	65/	70/	607 10 0	....	....	....
Tenterfield	..	..	40	..	40	.....	496 0 0	496 0 0	..	75/	1,860 0 0	....	....	....
	81	14	208	..	302	680 0 0	3,808 0 0	4,488 0 0	65/	75/	15,809 10 0	....	11	62,725
TAMBAROORA AND TURON—														
Hill End	120	49	130	..	299	2,156 0 0	2,500 18 14	4,656 18 14	78/6	80/	18,600 0 0	40	30	9,813
Ironbarks	60	20	50	..	130	751 2 0	1,175 11 0	1,926 13 0	76/6	80/	7,597 13 0	12	22	10,615
Sofala	139	49	50	..	258	3,153 16 14	600 0 0	3,753 16 14	75/6	76/6	14,264 11 0	20	23	7,000
	319	118	250	..	687	6,060 18 14	4,276 9 14	10,337 8 4	75/6	80/	40,462 4 0	72	75	27,428

District and Division	Alluvial Miners		Quartz Miners		Total Miners	Quantity of Gold			Price of Gold per oz		Value of Gold won	Auriferous ground worked	Quartz reefs proved to be Auriferous	Value of Machinery
	Europeans	Chinese	Europeans	Chinese		Alluvial	Quartz	Total	From	To				
TUMUT AND ADELONG—	No	No	No	No	No	oz dwt gr	oz dwt gr	oz dwt gr	s	s	£ s d	sq miles	No	£
Albury			25		25		242 0 0	242 0 0	75/	80/	937 15 0	10	13	1,050
Adelong	60	33	143		236	2 911 2 23	1,294 19 12	4,206 2 11	75/	77 6	15,983 5 6	40	54	34,240
Cooma	12	4	70		86	50 0 0	530 0 0	580 0 0	72/	76/	2 200 0 0	1	7	3,500
Captain's Flat	4				4	56 0 0	2,077 0 0	2 133 0 0	65/	75/	8 518 0 0	4		1,750
Gundagai	90		26		116	523 0 0		523 0 0	74/	80/6	2 026 12 6			4,600
Junee	9		8		17	9 19 6	261 11 20	271 11 2	72/	78/	1,009 17 8	2	6	700
Cootamundra			15		15							1	1	1,200
Nimitybelle			6		6							40		600
Queanbeyan	6		4		10	21 13 0		21 13 0	75/	77/6	81 18 6			5 000
Reedy Flat	59	5			64	372 0 0		372 0 0	73/	77/6	1,441 10 0	15	10	500
Tumbarumba	164	3	3		170	1,271 0 0		1 271 0 0	74/	82/3	4 956 18 0		11	990
Tarcutta .							20 0 0	20 0 0	71/10	82/6	70 0 0	8	16	1,500
	404	45	300		749	5,214 15 5	4,425 11 8	9,640 6 13	65/	82/6	37,225 17 2	121	118	55,630
SOUTHERN —														
Ulladulla			233		233		42 0 0	42 0 0	75/	81/	170 0 0			
Araluen	180	32	5		217	2,169 0 0	31 6 0	2,200 6 0	68	76/6	8,463 8 0		1	19,380
Bombala	31	8			39	220 0 0		220 0 0		76/	820 0 0			
Kiandra	56	19			75	194 11 10		194 11 10		74 6	729 12 11			540
Pambula			497		497		3 122 0 0	3,122 0 0		75/	11,707 10 0			
Cobargo	5		116		121							2	4	600
Little River	60	45	20		125	1,000 0 0	794 5 4	1,794 5 4	77/6	80/	7,048 2 7	32	46	1,770
Milton	29		33		62									
Major's Creek	66	7			73	1,261 18 0		1 261 18 0	68/	75/	4 723 17 7	5	15	20 165
Moruya	10		260		270	150 0 0	614 0 0	764 0 0	60/	80/	2 821 0 0	3	4	5,320
Nerrigundah	40	35	240		315	250 0 0	350 19 3	600 19 3	70 6	72/6	2,300 0 0	10	20	7,000
Nowra			84		84		3,267 0 0	3,267 0 0	70/	72/6	10,104 0 0			20,000
Nerriga	80		10		90	320 0 0	40 0 0	360 0 0		77/6	1,400 0 0		20	29,500
Wagonga	19		170		189	68 11 0	256 15 0	325 6 0	70/	75/	1,160 1 0			5,350
	576	146	1,668		2,390	5,634 0 10	8 518 5 7	14,152 5 17	60/	81/	51,447 11 1	52	110	109 625

Summary.

Compiled from Mining Registrars' Reports

TABLE showing approximately the number of Miners employed in Gold-mining, the quantity and value of Gold won, the area of ground worked, and the value of machinery, in the Colony of New South Wales during 1891.

District	Alluvial Miners		Quartz Miners		Total Miners	Quantity of Gold			Price of Gold per oz		Value of Gold won	Auriferous ground worked	Quartz reefs proved to be Auriferous	Value of Machinery
	Europeans	Chinese	Europeans	Chinese		Alluvial	Quartz	Total	From	To				
	No	No	No	No	No	oz dwt gr	oz dwt gr	oz dwt gr	s	s	£ s d	sq miles	No	£
Albert	350		17		367	3 701 17 8	5 277 0 0	8 978 17 8	75/	81	34,537 5 0			5,500
Bathurst	422	44	634		1 100	3 472 9 6	14 450 14 17	17,923 3 23	50/	81/6	63 352 14 3	86	59	54,845
Clarence and Richmond	108		335		443	506 6 17	2 714 16 18	3,221 3 11	47/	77/10½	10,238 1 6	607	178	10,520
Cobar			112		112		2 635 11 10	2 635 11 10	77/6	81/8	10 540 10 0		3	9,500
Hunter and Macleay	12		146		158		203 0 9	203 0 9	60/	77/	725 11 3	5	29	11,350
Lachlan	753		635		1 388	15 404 12 8	7 089 6 1	22 493 18 9	53/	80/	83,881 6 10	124	114	65,872
Mudgee	686	287	111		1 084	6,761 19 20	9 241 6 5	16 003 6 1	74/	80/	61,405 6 11	40	10	40,800
New England	80	14	208		302	680 0 0	3 808 0 0	4 488 0 0	65/	75/	15,809 10 0	288	11	62 725
Peel and Uralla	330	54	1 902		2 286	2 188 8 15	37,781 6 10	39 969 15 1	67/10½	80/	144 371 4 1	30	40	120 620
Tambaroora and Turon	319	118	250		687	6 060 18 14	4,276 9 14	10 337 8 4	75/6	80/	40 462 4 0	72	75	27,428
Tumut and Adelong	404	45	300		749	5 214 15 6	4 425 11 8	9 640 6 14	65	82/6	37,225 17 2	121	118	55,630
Southern	576	146	1,768		2 490	5,634 0 10	8 518 5 7	14,152 5 17	68/	83/9	51,447 12 1	63	109	109,625
	4,040	708	6,418		11 166	49 625 8 8	100,421 8 3	150,046 16 11	47/	83/9	553,997 3 1	1,435	746	574,416

TABLE showing approximately the number of Miners employed in mining for minerals other than Gold, Coal, or Shale, at some of the principal mines, the quantity of minerals won during the year 1891, and the value of same, and the value of Plant.

Locality	Miners employed	Quantities								Value	Value of Machinery
		Copper	Tin	Antimony	Alum	Iron	Silver	Silver lead and ores	Other		
	No	tons	tons	tons	tons	tons cwt	oz	tons	tons	£ s d	£ s d
Broken Hill and Silverton	6,465	473					17,243,807	37,404	74,057	4,030,951 10 9	535,164 0 0
Rockley	10						15,000			2,300 0 0	
Blayney	18	271								11,585 0 0	2,600 0 0
Burraga	66	450								22,500 0 0	10,000 0 0
Lithgow	100					4,125 16				36,101 0 3	
Mitchell	570	454					404,006	25		91,132 15 4	24,253 0 0
Orange	184							720		21,269 8 4	10,000 0 0
Bendemeer	19		17							935 0 0	3,000 0 0
Deepwater	260		400							21,200 0 0	7,000 0 0
Hillgrove	8			43			245			3,259 0 0	
Kookabookra	17		5							245 0 0	
Fairfield		54								1,080 0 0	
Emmaville	922		973					595		59,999 12 6	20,000 0 0
Wilson's Downfall	245		240					810		33,383 0 0	2,270 0 0
Glen Innes	90		43							2,121 0 0	
Tingha	600		862							77,580 0 0	
Captain's Flat	128	237					86,846	87		26,258 1 0	5,450 0 0
Burrowa		35								1,750 0 0	4,000 0 0
Moruya	8						4,680			604 10 0	
Macksville	9			69						1,206 12 8	
Mount Hope	40	208								9,158 0 0	7,000 0 0
Nymagee	250	901								45,050 0 0	42,000 0 0

TABLE showing approximately the Machinery employed in Gold and Tin Mining during 1891.

District and Division.	Quartz												Alluvial.										
	Steam engines employed in winding, crushing, &c		Crushing machines	Stamp heads.	Concentrators	Whims and pulleys.	Water wheels	Pumps	Huntington mills.	Whips	Frue vanners	Chilian mills	Steam engines employed in winding, pumping, &c.		Water-wheels.	Turbines	Whims and pulleys	Whips	Pumps	Puddling machines.	Hydraulic hoses	Boring-machines	Sluice boxes	Other machines
	No	Aggregate horse power.											No.	Aggregate horse-power										
BATHURST DISTRICT—																							
Blayney	2	110	2	30																			
Bathurst	3	18		20																			
Carcoar	6	61	7	67			1																
Canowindra						1			1														
Cowra	3	30	3	44									1	8					1				
Mitchell	3	36	2	15																			
Mount McDonald	4	140	3	45									2	50									
Oberon				5									2	14					1				
Trunkey	2	14							1														
Tuena	2	22																					
CLARENCE AND RICHMOND DISTRICT—																							
Dalmorton	3		4	27					2														
Grafton	1	15	1	10					1														
Nana Creek	2	19	3	16				1															
HUNTER AND MACLEAY DISTRICT—																							
Bulladelah	2	42	2																				
Copeland	4	82	5	65				1															
Dungog								2															
MUDGEE DISTRICT—																							
Hargraves	2	65						2															
Peak Hill	5	98	5	61				3															
Windeyer	2	24	1					1															
Wellington	7	105	2	15				3			6												
LACHLAN DISTRICT—																							
Temora and Barmedman	3	95	1	25				1															
Cudal	1	12	1	5																			
Forbes	2	61	2	10				1															
Grenfell	4	16	3										1	8					1				
Molong	2	55	2	30																			
Parkes																				1			
Cargo	6	117	5	35				1															
NEW ENGLAND DISTRICT—																							
Fairfield	14	333	11	72			1	2					1	10									
PEEL AND URALLA DISTRICT—																							
Armidale	2	16	2	15																			
Bingera	3	30	2	15									1	8					1				
Gunnedah	3	28																					
Hillgrove	9	313	6	167			1	2															
Kookabookra	3	35	2	20																			
Niangala	1		1	5																			
Nundle	3	53	2	30				1															
Scone	2	24	4	20			1		1														
Swamp Oak	3	32	3	19																			
TUMUT AND ADELONG DISTRICT—																							
Albury	3	24	3																				
Adelong	8	104	2										8	36	9				4				
Cooma	5	46	5	5																			
Captain's Flat	2	40		40				3	1														
Junee	2	18	1	5					1														
Cootamundra	1	20	1	10				1															
Nimitybelle	1	8	1	5																			
Reedy Flat	1	25	1	5				1															
Tumbarumba	4	12		20					1	1													
Tarcutta	2	16	1	8						1													
Gundagai	4	10	4										4	71					1	1			
TAMBAROORA AND TURON DISTRICT—																							
Hill End	8	162	8	88			3	1	2														
Ironbarks	8	114	3	42					5				1	10					1				
Sofala	10	46	8	54																			
SOUTHERN DISTRICT—																							
Araluen	1	12	1	10									6	77	4	1			12		4		20
Kiandra													2	150								2	
Little River	2	18	1					1	1	1			1	6	4				1				
Major's Creek	7	100	2	15	6	2				3		3	1							15			
Moruya	1	16								1				8									
Nerrigundah	4	30	4	29				1															
Nowra	1	250	1	80					1	1													
Nerriga	1	10	1	5																			
Wagonga	2	16	2	13					2														
	192	3,198	137	1,322	6	6	8	37	15	1	9	1	32	456	17	1			23	17	4	2	25

HARRIE WOOD,
Under Secretary for Mines and Agriculture.

Department of Mines and Agriculture,
Sydney, March 19th, 1892.

WARDENS'

WARDENS' AND MINING REGISTRARS' REPORTS.

BATHURST DISTRICT.—Trunkey Division.

(T. A. Smith, Warden.)

I have the honor to forward my report for the past year. I have been delayed considerably, as the necessary information is difficult to obtain; and Lithgow has not yet been able to gather information from the various coal companies in that district, there being two exceptions, the Oaky Park Company and the Vale Colliery.

Mining has not been very prosperous during the year. Sluicers had, however, a good chance, the winter being very wet indeed, the rainfall being 44 inches. The Sofala fossickers obtained alluvial gold to the value of £14,264; this included several nice nuggets, one being 26 oz. in weight. Sunny Corner returned gold won to the value of £4,356; a large portion of this was from the Paddy Lackey Reef, this being one of the properties to which aid was given by the Department, by means of which a very valuable reef has been again made payable.

Mount M'Donald returns gold won to the value of £3,789. This is reef gold. Some of the reefs are doing well, others have stopped working, the Balmoral being the chief.

Tuena returns 1,640 oz. of gold, valued at £6,312 10s.

The total value of the gold obtained in my district is about £35,000, particulars of which appear in the schedule hereto.

In silver, Sunny Corner and Phœnix Mines return matte produced from 40,746 tons of ore treated, valued at £107,645. Rockley gives silver won as £2,300 in value. The silver mines in Tuena district have not been working during the year.

In copper, Burraga returns 4,500 tons of ore treated, valued at £22,500.

The total value of minerals, other than coal, obtained in my district during the year is about £166,640.

About 1,250 men are employed in mining in this division for gold and silver.

Sixty-eight gold leases have been applied for during the year, the area being 371 acres; 31 mineral leases have also been applied for, area, 1,237 acres.

The revenue for the year is returned at £1,258 17s. 6d.

Mr. Granstedt has sent me a report upon the manganese mine worked by him at Back Creek, Rockley. This property may, some day, grow into value. I attach his report.

In conclusion, I desire to bring under the notice of the Department, the necessity of protecting the alienation of land near the Burraga, and all other mines that require large quantities of wood for the furnaces. I sent a petition some months ago from the Burraga miners to the Department upon this subject. Mr. Thurborn, of the Survey Department, visited the neighbourhood to make inquiry, but nothing further has been done that the public is aware of. Other selections have been taken, and, I believe, for the wood only, the land not being, in my opinion, worth selecting for agriculture. A larger proportion of the firewood used during the year has been taken off freehold areas, a charge of 3d. per ton being made for same. The demand for wood about Burraga will probably increase. Messrs. Sinclair and Parsons having several mineral leases, upon which machinery is being erected, and men employed in mining, the prospects of this new company are exceedingly good.

Return showing the Mining Business transacted at the Divisional Offices under the charge of Mr. Warden T. A. Smith, during the year 1891:—

Division.	Miners' rights.	Business licenses.	Mineral licenses.	Gold lease applications.	Areas of gold lease applications.	Mineral lease applications.	Areas of mineral lease applications.	No. of men employed.	Rainfall.	Gold.	
										Quantity.	Value.
					acres.		acres.			oz. dwt. gr.	£ s. d.
Trunkey	106	27	1	11	100	...	...	134	44·018	518 13 6	2,270 1 4
Bathurst	92	2	2	8	30	6	145	24	...	700 0 0	2,450 0 0
Mount McDonald	62	20	2	14	29	...	...	59	41·07	1,030 12 12	3,789 10 1
Rockley	36	12	4	4	33	6	120	21	...	134 0 0	502 2 0
Burraga	5	15	1	...	...	8	180	180	...	40 0 0	150 0 0
Sofala	328	23	2	13	48	1	50	258	...	3,753 16 14	14,264 10 11
Oberon	26	1	...	1	2	...	...	27	...	30 0 0	100 0 0
Sunny Corner	241	132	21	6	59	8	175	434	...	1,233 0 0	4,356 2 1
Lithgow	...	...	...	...	...	...	...	...	...	.....	.....
Katoomba	...	...	...	...	...	...	...	...	...	.....	.....
Penrith	...	...	...	...	...	...	...	...	...	.....	.....
Tuena	69	4	...	11	70	2	60	110	...	1,640 0 0	6,312 10 0
Totals	965	236	33	68	371	31	730	1,247	...	9,080 2 8	34,194 16 5

Division.	Silver Ore.		Lead.		Silver Ore raised and reduced to Matte.		opper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value	Quantity.	Value.
	tons.	£ s. d.	tons. cwt. qrs.	£ s. d.	tons.	£ s. d.	tons.	£ s. d.
Trunkey	...	...	...	...	...	...	...	...
Bathurst	...	...	...	...	...	...	...	...
Mt. McDonald	...	...	...	...	...	...	...	...
Rockley	150	2,300 0 0	...	...	...	...	...	...
Burraga	...	...	...	...	..	...	4,500	22,500 0 0
Sofala	...	...	...	...	...	...	...	...
Oberon	...	...	...	...	...	...	...	...
Sunny Corner	...	...	...	...	40,746	107,645 5 9	...	...
Lithgow	...	...	...	...	...	...	...	...
Katoomba	...	...	...	...	...	...	...	...
Penrith	...	...	...	...	...	...	...	...
Tuena	...	...	...	...	...	...	...	...
Totals	150	2,300 0 0	...	...	40,746	107,645 5 9	4,500	22,500 0 0

Division.	Revenue, miners' rights, business, and mineral licenses.	Revenue, gold and mineral lease applications, &c.	Total Revenue for Division.	Grand Total Value of minerals, including gold.	Coal.		
					Quantity.	Value.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	tons.	£ s. d.	
Trunkey	70 0 0	92 0 0	167 17 6	2,270 0 0	...	...	
Bathurst	42 0 0	74 15 0	116 0 0	2,450 0 0	...	...	
Mt. McDonald	39 0 0	27 10 0	69 6 0	3,789 10 1	...	...	
Rockley	27 0 0	60 0 0	92 10 0	2,802 2 0	...	...	
Burraga	18 5 0	45 0 0	63 5 0	22,650 0 0	...	...	
Sofala	176 10 0	60 10 0	237 0 0	14,264 10 11	...	...	
Oberon	14 10 0	2 0 0	19 0 0	100 0 0	...	...	
Sunny Corner	214 5 0	138 15 0	367 10 0	112,001 7 10	...	...	
Lithgow	...	...	...	...	...	...	No information received from Lithgow.
Katoomba	...	...	...	...	...	...	
Penrith	...	...	...	...	...	...	
Tuena	32 5 0	85 0 0	126 15 0	6,312 10 0	...	...	
Totals	633 15 0	585 10 0	1,259 3 6	166,640 0 10	...	...	

BATHURST DISTRICT—Orange Division.

(John S. Lane, Warden.)

In submitting my annual report I have the honor to state that during the past year mining operations in my district have by no means retained the life and vigour for which they have been distinguished. The gold and silver-mines at Lewis Ponds, which caused so much excitement and consequent speculation some three or four years ago, have all collapsed, causing heavy losses, and in some cases almost ruin to those who embarked in them. It is a pity there were no laws to control and govern the conduct of companies in connection with mining enterprise when the boom was started. Some of the actions of directors are, to the minds of some, very significant; and the reports which appeared in the newspapers from time to time were very misleading.

Gold-mining operations still continue in nearly all the old workings, with anything but satisfactory results. The engine at the Bluff, Ophir, is not working owing to some misunderstanding between the old proprietor and the recent purchaser. It was thought under the new management that extensive work would be carried on.

The new company at Lucknow are performing a great deal of work, but as yet their efforts have not been rewarded by any large finds. No doubt they will find larger bonanzas than any yet discovered. The "Jackass" is being vigorously and successfully worked. I am not in possession of any details worth reporting *re* this gold-field.

With the aid from the Prospecting Board, the Forest Reefs are promising to assume new life and vigour. Four of the "old stickers" have received large amounts, and it is to be hoped the results will justify the liberality evinced by the Board. Grants havs been given to eleven different parties representing Ophir, Lewis Ponds, Summer Hill Creek, Pine Ridge, Forest Reefs, and Larras' Lake, which, if wisely and skilfully expended, will fairly test these localities. The grants vary from £31 9s. to £625.

The Paint Company have carted 100 tons of pigment to Kerr's Creek Station for Sydney. Different colours of the mineral have been found, and a large quantity of ground taken up by permits.

At Byng things are nearing a standstill. They are not much better at Diggers' Creek or Fourmile. Messrs. Cross and Spiers continue to persevere, buoyed up by a hope of ultimate success.

Nothing is being done that I am aware of as regards copper. I have not heard from Cadia for some time, but I believe operations have ceased.

The failure of Tom's Lewis Ponds Silver and Gold-mining Company (Limited) caused no small amount of disappointment and loss to the shareholders. The weekly reports of the smelting returns inspired a general feeling of confidence, and the very last, save one or two, was more encouraging than either of its predecessors. To outsiders this circumstance is somewhat inexplicable, and they would like an explanation.

BATHURST DISTRICT—Carcoar Division.

(*N. Connolly, Warden.*)

I have the honor to forward my annual report of the Carcoar and North-east Cowra portions of the Bathurst Mining Division in my charge.

The past year has been characterised by great slackness in the prosecution of mining operations, owing, in a great measure, to the flooding of all underground workings consequent upon the tremendous rainfall of the year, and the almost total absence of suitable pumping appliances to keep the water in check, so that work might be carried on.

Although a fair share of the Prospecting Vote has been distributed amongst the mining claims in these districts, I have as yet heard of no very encouraging results, but it may reasonably be hoped that during the current year, and with more favourable weather, greater success may be attained.

At Galley Swamp, "The Homeward Bound," the only mine on the field which has attempted to test the ground below the 60-foot water level, having deservedly obtained assistance from the Prospecting Vote, is carrying on work resolutely, and it is hoped that the sanguine expectations of the party may be realised in striking a well defined and permanent lead of gold.

The Brown's Creek Mine has been shut down for the past five months, owing, it is understood, principally to the flooding of the workings, and the inadequacy of the pumping machinery to keep the ground dry enough to work, rather than to any failure in the yield of gold, which had kept steadily increasing until the work was stopped.

The "Mandurama Gold Trust Mine," formerly known as the "Old Junction," on the Belubula River, has been employed during the year, principally in erecting and testing new machinery with a view to saving the very fine gold which this lease produces, but as yet without remarkable results.

A remarkably rich copper lode has been found and worked for some time on the old Wangoola Estate, now Cobb & Co., at Burly Jacky, about 4 miles from Woodstock Railway Station, but the chief shareholder of the mine, although applied to by me, has failed to furnish any statement of their prospects and workings in time for this report.

The cobalt lodes existing close to the town of Carcoar on private estate, have been taken in hand by a company, who have sent 40 tons of ore home for treatment to thoroughly test its quality, which is said to be very rich.

The Gospel Oak Mine, in the north-east Cowra division, has, I am sorry to say, been shut down for some time, which is the more to be regretted, as the company have shown great enterprise in erecting suitable crushing plant and machinery on the ground.

During the year a good number of permits to mine on alienated lands have been obtained for various localities in this division, so far without any important results having been reported to me.

The Escort returns for the year are 1,564 oz. 7 dwt. 8 gr. gold, which is a substantial increase on the return of last year, although it cannot be regarded as a satisfactory account of the yield of these districts, in consequence of a large amount finding its way to the banks through private hands, owing to the small amount of risk incurred by this mode of transmission, resulting from the quiet state of the country and absence of serious crime.

BATHURST DISTRICT—Mitchell Division.

(*Thos. G. Wright, Mining Registrar.*)

During the year 1891 Sunny Corner Company have raised from their mines 35,287 tons of ore and smelted 39,046 tons, which produced 404,006 oz. of silver, 4,048 oz. of gold, 344 tons of copper, and 25 tons of lead, total value £104,565 5s. 9d., leaving 10,847 tons of calcined ore at grass, valued at £7,300. The number of men employed in and out of the mines are 350. The value of smelting plant, &c., is £16,023 17s. 3d.

At the old Nevada there were 1,700 tons of the ore raised during the year, of which 1,020 tons were sent to Lithgow for treatment; the remaining 680 tons were smelted at the mine, which produced 110 tons of copper matte, valued at £3,080. The number of men employed is 53, and value of plant is £2,000.

At the Silver King Mine nothing more than a little prospecting has been done during the year; one man employed. Value of plant is £6,000.

The Paddy Lackey Claim, at Dark Corner, raised 720 tons of stone, which, when crushed, yielded 936 oz. of gold, valued at £3,226 14s. 7d.; 12 men employed; value of plant, £1,500. There is no doubt but this is one of the best claims on the field.

The St. George has made another start and crushed 70 tons of stone, which yielded 132 oz. of gold, value £495; 19 men employed; value of plant, £2,000.

The Big Hill property has fallen into the hands of W. A. Trewinack, late manager of the Sunny Corner Mine, upon which he intends to erect a large battery. This is looked upon as a good property if worked upon a large and economical scale.

A deal of prospecting has been done by aid from the Prospecting Vote at Lagoon Creek, Jew's Creek, Badger Brush, Dark Corner, Copeland's Silver Hill, and W. F. Hurley's lease at Sunny Corner. In Copeland's there are some really good shows, as also in W. F. Hurley's. A splendid gossan lode has been cut and resembles the old Sunny Corner Mine in every respect.

During the year a water supply has been granted and laid on, which will benefit the town greatly.

During the year there were six applications for gold leases, covering an area of 59 acres, also eight applications for mineral leases, covering an area of 175 acres.

Limestone, going as high as 98 per cent., has been found within 2½ miles of Sunny Corner, which is a great advantage.

During the year I issued 241 miners' rights, 132 business licenses, and 21 mineral licenses.

The amount of gold bought by the local banks and stores during the year was 165 oz., the value of gold being from £3 10s. to £3 17s. 6d. per oz. The total value of plant—smelting and crushing—in this district, is £27,753 17s. 3d.

BATHURST DISTRICT—ORANGE DIVISION.

(Stephen Murphy, Mining Registrar.)

IN submitting my annual report, I have the honor to state that my collections for the year 1891 were as follow:—

	£	s.	d.
148 miners' rights	67	10	0
4 business licenses	2	10	0
19 mineral licenses	19	0	0
Gold-mining leases	141	0	0
Mineral leases	66	10	0
Fees—Warden's Court	0	7	6
Deed fees and stamp duty	16	0	0
Revenue proper	312	17	6
Deposits on permits	6	0	0
Survey fees	28	0	0
Total collections	346	17	6

It will be observed that there is an increase of about £50 in the revenue collected as compared with the previous year, and I trust that this is some slight indication of a revival in mining pursuits. During the year the following applications to lease were lodged with me, viz.:—Gold-mining, 11, for an area of 141 acres; mineral, 6, for an area of 265 acres 2 roods 18 perches. The land applied for is situate at Ophir, Forest Reefs, Cadia, Caloola, and Summer Hill Creek.

Lewis Ponds.

This field, at one time so promising, appears to have ceased to exist, so far as mining enterprise is concerned. It is now almost a "deserted village," and it is very doubtful if any further operations in search of either silver or gold will be carried on in this locality.

Ophir.

Mr. George Slater is still carrying on work at the Bluff, and has recently received some well-deserved assistance from the Prospecting Vote. He expected to have been enabled to carry on operations with the help of some Sydney capitalists, but, unfortunately, the latter did not keep to the terms of their agreement. Some of the miners working in the alluvial occasionally find some valuable nuggets.

Forest Reefs.

At this field the Grand Junction Gold-mining Company, after a long struggle to find the deep lead, have given up the search. Ovington and party, as well as others, are still at work on the church and school lands, but up to the present have not found anything payable. It is hoped that the liberal assistance afforded by the Prospecting Board to the miners in this locality may lead to a satisfactory issue.

Cadia.

Nothing to report with respect to the copper-mining industry, but several leases for gold have been taken up towards the head of Swallow Creek by some gentlemen from Sydney. A report of a satisfactory nature upon some of these leases has, I am informed, been furnished by a mining expert, and it is confidently expected that a large influx of English capital will take place.

Byng.

No mining operations of any moment are being carried on in this locality.

Caloola.

At this locality, in the parish of Larras Lake, a fresh departure has taken place during the past year. I refer to the leasing of several blocks of land for mineral pigments. The first two portions were taken up by Mr. Thomas Eardley, of Sydney, and they now form part of the property of the Gordon Emery and Colour Company (Limited). Mr. H. W. Hodgson, one of the directors, has kindly furnished me with some particulars, from which I have extracted the following:—"We have opened out on a lode of oxide purple, and have driven on the deposit north and south about 25 feet, and have sunk 16 feet. The lode at present is splendid, being 5 feet wide, and entirely free from any grit or foreign matter. We have also found a lode of red oxide, which is opening out well, also one of yellow oxide, besides several others of different shades. We have delivered into our works in Sydney some 60 tons of the pigments, and yesterday we got steam up at the mills, and trust to be in full work from this out. We have at present six men employed on the 80 acres mineral leases at Caloola, and at our works eight hands are engaged. We have at Caloola some 70 tons of pigment ready to send away. The value of the plant at the mine, including tools, &c., is £100, and the value of the plant and machinery at Sydney is £2,500."

I may state that the company referred to has a capital of £50,000, and amongst the directors is the Hon. E. Barton, Attorney-General, besides other prominent gentlemen, some of whom are leading oil and colour merchants. Judging by the "statement showing estimated cost of production against London wholesale prices," furnished with the prospectus, the company should be able to command the markets of all the Australian Colonies.

Besides the land taken up under lease in the parish of Larras Lake, several permits under the Mining Act of 1889 have been granted to search for mineral pigments upon lands conditionally purchased or conditionally leased. One permit of a similar kind has been issued in the adjoining parish of Mulyan.

I trust that this new development may turn out both permanent and profitable.

General.

The total value of machinery in this district is estimated at £21,850, and the number of men employed during the year 462.

Upon inquiry at the local banks I have ascertained that during 1891 they forwarded to the mint 1,441 oz. of gold, valued at £5,013 0s. 4d.

BATHURST DISTRICT—Blayney Division.

(W. Roche, Mining Registrar.)

I have the honor to submit my annual report for the year 1891, I regret to state I am not in a position to report favourably on the mines in my division as I would wish.

The Brown's Creek Gold-mining Company has been idle for the past six months on account of the bad state of the roads, they were not able to get firewood to the battery, consequently the water rose in the mine, which they had to abandon for the time.

The Confidence Gold-mining Company at King's Plains is now idle, as the load or dyke got poorer. This mine is partly worked out. A portion of the Prospecting Vote has been granted to two parties, thereby rendering them great assistance. Watson and party are still prospecting at Flannagan's Gully, and occasionally come across patches of gold. Some three months ago, they obtained from a rubbly vein in two days 30 oz. of gold, but it did not last. They have been continually prospecting this ground for about three years, and have lost a lot of money in doing so. There are a number of persons fossicking on the old workings with various success.

I have issued during the year, 64 miners' rights, 3 business, and 4 mineral licenses, and received 2 gold lease applications.

The Annandale Copper Mine has been shut down for some time on account of the low price of copper, and the ore raised being very poor would not pay for treating.

BATHURST DISTRICT—Mount M'Donald Division.

(G. A. Gunning, Mining Registrar.)

I have the honor to herewith submit my annual report for the year ending 31st December, 1891, and although I have to admit the result of the year's operations falls short of my anticipations, still there is a favourable increase in the output, as compared with the year 1890.

The gross yield of gold from this Division during the year is 1,030 oz. 12 dwt. 12 gr., being 1,001 oz. 1 dwt. from quartz, and 29 oz. 11 dwt. 12 gr. from alluviums, which shows an increase of 148 oz. 19 dwt. 23 gr. on the output for 1890. The approximate value of gold won during the year just closed is £3,789 10s. 1d. I regret to say that I am unable to give the number of tons crushed from Balmoral Mine, but by omitting the return of gold from Balmoral, and that obtained from alluviums, we find 1,246 tons 3 cwt. of quartz was crushed for 928 oz. 1 dwt. of gold, or an average of 14 dwt. 21 gr. per ton.

The following are the several crushings during the year, viz.:—

	Tons	cwt.		oz.	dwt.	gr.		£	s	d
Butcher Reef	89	10	.....	66	10	0	.....	248	10	0
Woman's Lease	214	0	.....	289	0	0	.....	1,083	15	0
Woolston and O'Hara	55	0	.....	14	0	0	.....	54	5	0
Matheson and Domenish	176	0	.....	82	15	0	.....	317	0	0
J. Long and Party	35	0	.....	14	0	0	.....	54	5	0
"Grants"	70	0	.....	70	0	0	.....	262	10	0
Queen	476	13	.....	277	16	0	.....	962	16	3
Queen Tribute	130	0	.....	114	0	0	.....	442	10	0
Balmoral	.....		.....	73	0	0	.....	251	18	10
Alluvial	.....		.....	29	11	12	.....	112	0	0
	1,246	3	.....	1,030	12	12	.....	£3,789	10	1

From the foregoing it will be seen that the result from the Balmoral has been most unsatisfactory and consequently the company was compelled to cease operations in September last. Notwithstanding the poor returns from this mine there are a number of miners here who would willingly take the property on tribute, and judging by past experience, I feel sure these men would, if given the opportunity, again make the claim self supporting. It is to be regretted that this company was not more successful, as it had placed valuable machinery in the form of stamper battery—Frue Vanners—Watson and Denny pans, Rock drills and air winch at the mine. At present there is no indication of the company again working and as the four months suspension has expired, it is expected the property will soon change hands.

At "Grants," very little work has been done during the year, the owners not being in a position to prospect. They made application for aid from the Prospecting Vote, but without success. This property is deserving of the attention of capitalists, and I feel convinced a couple of hundred pounds judiciously spent would open up some payable reefs. Seventy tons crushed during the year from this lease produced 70 oz. of gold.

At the "Te Kooti," north-east, and adjoining "Grants," a shaft has been sunk 100 feet under assistance from the Prospecting Vote, at a depth of 80 feet, a reef 18 in. wide has been struck, which the owners believe will be payable.

Brankin and party who have also been working under aid from Prospecting Vote have struck a reef about 9 inches thick at a depth of . So far the reef shows enough for 2 oz. to the ton.

The Eureka blocks having been amalgamated with "Queen," have not been worked during the year. I am informed that the owners are endeavouring to remodel the company with a view of working this property. If about £400 were expended in putting down a new shaft, there is little doubt but this work would be a dividend paying mine.

Matheson and Dominish, on the lease formerly known as "Clark's Lease," are down 16 feet; have a reef 4 feet 6 inches, and from which they crushed, in December, 120 tons, for a yield of 60 oz. 15 dwt. This paid them handsomely, after paying all expenses—the two shareholders cleared over nine pounds a week per man for the last two months of the year. This claim is expected to give a good account of itself during the coming year.

At "Butchers" Claim work has been pushed on; they are now down 375 feet, and have a reef 12 inches wide, estimated to yield an ounce to the ton. The company also own the Woman's Lease, which adjoins. Rock drills have been placed on this mine, and are working satisfactorily. They have just completed the erection of a second "Huntington Mill," as the one in use was found insufficient to reduce the quantity of stone, which they expect to raise shortly.

At the Caledonian nothing of interest has transpired during the year. At present prospecting is being done under aid from Prospecting Vote.

The

The old "Block Claim" is also again being worked by the aid of a grant from the Prospecting Vote.

The "Queen of the Mount," which has been idle for some years, has been worked most of the year; but I am sorry to say at a slight loss. This claim is partly owned by the Balmoral Company, consequently, when that company suspended work, the Queen was also shut down for a time. A party of fourteen tributors are now working it, and with every prospect of making wages. They are now working at the 110-foot level on a vein about 18 inches thick, which crushes at the rate of about 17 dwt. to the ton.

Fitzgibbon and party, north and adjoining Eureka blocks, have, with the assistance of a grant from the Prospecting Vote, sunk a shaft 61 feet. At the depth of 52 feet they struck a vein about 4 inches thick, and which has since increased to about 7 inches. They consider this vein payable. They have just completed driving into an old working 12 feet distant from new shaft, and inform me they think the former owners left the reef in the foot-wall.

I have issued during the year 62 miners' rights, valued at £24; 20 business licenses, £12 10s.; and two mineral licenses, valued at £2.

Received 14 applications for gold lease, embracing an area of 29 acres, and received £27 10s. as deposit on gold lease applications. There are a number of leases here upon which the labour conditions are not being observed. I would strongly urge the cancellation of leases when not worked, as they are no sooner cancelled than repegged, and in many cases the new owners discover payable shoots.

The claim at present owned by Matheson and Dominish was one of the first worked, and subsequently abandoned, so it will be seen a change of owners often leads to payable discoveries.

Nothing fresh reported from Scrubby Rush, near Milburn Creek. "Everett and party," Bourke and party, and a couple others are still vigorously prospecting. I cannot understand why the claim holders do not take a few tons of the stone raised to a mill, and have it treated. They all seem to think the stone payable. If it is, I think it should be made known, they would then have little difficulty in arranging for the erection of suitable crushing machinery.

Messrs. Fox Brothers have purchased 29 oz. 11 dwt. 12 gr. alluvial gold during the year, which has been obtained from the bed of the Abercrombie River. This river is now very low, and I have no doubt a much larger quantity of gold will be produced from that source this year.

At "Monarch Reef," near Greenmantle, work has been suspended. This company have a quantity of water to contend with, which has greatly retarded work, only 12 tons of stone have been crushed from this mine during the year for a yield of 4 oz. 16 dwt.

The total rainfall for the year was 40·07 inches, consequently there has been sufficient water for mining purposes.

Mr. G. Elliott, who has been prospecting between Oliver's battery and Woman's lease for the past six months, has just struck a reef about 12 inches thick, at a depth of 5 feet, carrying very rich gold. He intends to at once commence sinking on the vein.

I have to thank the several managers and owners for the information they have so cheerfully placed at my disposal.

In conclusion, I may add that the prospects for the coming year are far brighter than they have been at the beginning of any of the last four years. There are at the present four or five very fair shows, and every one is looking forward to far brighter times this year.

BATHURST DISTRICT—Cowra Division.

(*B. P. P. Kemp, Mining Registrar.*)

I have the honor to state that during the year no report of any find of gold has been made to me, but I heard M'Innes Bros., of Tenandra, from their private ground at that place got about £1,300 worth of gold. Some old claims, mineral leases, at Coota and Mangoola, have been taken up again during the year, but no report of any minerals obtained has so far reached me.

The applications for gold and mineral leases have been few, and also for mineral licenses.

BATHURST DISTRICT—Oberon Division.

(*J. S. Hayes, Mining Registrar.*)

In submitting my annual report on the Oberon Division of the Bathurst Mining District for the year 1891, I can only say that operations have been confined almost entirely on the part of miners to prospecting. Very little, if any, gold has been won. It is to be hoped that the aid granted from the Prospecting Vote will result in some one or more of the parties aided in striking something payable, which would give a fresh impetus to mining throughout the Division. The very wet state of the country has in a great measure retarded work during the winter months in all the prospecting claims. This division is known to be auriferous, but bad luck seemed to have attended the owners of claims that were known to be payable. The Luck's All Gold-mining Company has disposed of their valuable crushing plant, which has been removed to another field.

The number of miners' rights issued by me during the year was 26; business license, 1; one application only being received for leases; total revenue collected, £19.

BATHURST DISTRICT—Trunkey Division.

(*W. T. Lee, Mining Registrar*)

Mining inactive in this Division. The Bathurst Company having stopped work, brought about a want of confidence, which is being gradually restored. No. 7 Company have also ceased operations for the present. Their shaft is sunk to a depth of 320 feet, the lower workings being 300 feet, with drives N. 83 feet, S. 39 feet, and towards the Alexandra line, 178 feet.

At the Mountain Run, Messrs. M'Vicar have had considerable success in their alluvial claim. In alluvial mining, claim-holders and fossickers have done fairly well.

At Gray Mount, situated on Grove Creek, just below the Abercrombie Caves, 7 miles south of Trunkey, work is being vigorously carried on; the shaft is down 120 feet; also much of the country well opened.

During the year I have sold 106 miners' rights, 27 business, and 1 mineral license; mining revenue for the year, £167 17s. 6d.

Rainfall, 127 days—44·018 inches.

BATHURST DISTRICT—Tuena Division.

(*T. Bell, Mining Registrar.*)

I have the honor to forward my report for the information of the Honorable the Secretary for Mines for the year ending 31st December, 1891. I regret to state that mining on the whole is not what I should like to have to report. The fact is, that all the silver mines in this division have been closed down for the whole of the year, and so far no likelihood of reviving.

I have issued during the year:—

	£	s.	d.
Sixty-nine miners' rights, value	30	5	0
Business licenses, 4	2	0	0
Mineral licenses		Nil.	
Eleven gold leases applied for, comprising an area of 70 acres	70	0	0
Survey on same	9	10	0
Two mineral leases, 60 acres	15	0	0
Survey		Nil.	
Total revenue	126	5	0

There are 80 alluvial miners in this division, comprising 10 Chinese; 30 quartz miners (Europeans); total miners, 110. 1,100 oz. of alluvial gold has been won during this year in this division, value of samo being £4,262 10s., at the rate of £3 17s. 6d. per oz. In quartz-reefing 400 tons of quartz were crushed, yielding 340 oz. of gold, value of same being £1,275, being at the rate of £3 16s 6d. per oz. the average. The National Bank at Cordillera, which closed on the 3rd or 4th April, bought a large quantity of gold, which is not accounted for in the return, owing to my being unable to obtain same.

In this division there is machinery which cost about £22,500 some three years ago, and scarcely having done any work. At the Cordillera Lead and Silver-mining Co.'s property machinery that cost only three years ago £8,000, the same was sold to the Mount Stewart Lead and Silver-mining Co. a month ago for the nominal figure of £500.

Owing to the ores raised from the different lead and silver mines in this district, notably the Peelwood Hill, Mount Costigan, and Cordillera Hill mines being of such a refractory nature, the ore has been too difficult and expensive to treat, hence the cause of the shutting down of the different mines. In gold a great deal of sluicing has been done during the year, owing to the great rainfall in this division.

In quartz-mining matters have been fairly brisk. I hope to be able to be in a position to report something good in next year's report in reefing in this district, as several reefs have been found during the past six weeks which look splendid, although they are not tested at a depth yet.

At Donelly and Davison's quartz claim, about 3 miles north of Tuena, which is a new find, at a depth of 20 feet 5 lb. weight of stone was crushed for ½ oz. of gold. This claim seems to improve as they go down, having a reef averaging 2 feet thick.

At the Lucky Hit Gold Mine, situated about 3 miles south of Tuena, it is chiefly lime-stone country, the gold in patches being very good and a splendid quality, value of same being £3 17s. 10½d. per oz.

The Excelsior Gold Mine, which is 3 miles north-east of Tuena, and which is now held by a Melbourne company, should turn out well, provided it is properly managed. The company are now about putting another tunnel 240 feet long through the hill, which should thoroughly test it.

BATHURST DISTRICT—Rockley Division.

(*T. C. Cromie, Mining Registrar.*)

I have the honor to herewith enclose you my annual return for 1891, from which you will see that mining in this division is very dull at present.

Of the 134 oz. of gold washed out in this division 80 of them were obtained by Thomas Cotterill at Back Creek, by ground sluicing. The past winter being so wet was very favourable for that purpose, and shows how much alluvial gold there is still at some of the old workings when there is water available for that purpose.

The silver mine at Back Creek is still being worked by G. Withers, Esq., under the management of Mr. E. A. Baker, and it is trusted that the returns from the ore sent away to be smelted will justify further expenditure.

The manganese mines at Back Creek have been closed for some months past, as they would not pay, owing to the low state of the market for that article.

During the year 1891 I have issued 36 miners' rights, 12 business licenses, and 4 mineral licenses. There have also been 4 gold-mining leases applied for for an area of 33 acres, and 6 mineral lease applications for an area of 120 acres.

BATHURST DISTRICT—Burraga Division.

(*J. M'Leay, Mining Registrar.*)

I have the honor to submit my report for the year 1891. The Burraga Copper-mine, owned and worked by Mr. Lewis Lloyd has been working constantly for the past twelve months until the last month, when all the miners, with the exception of six men were knocked off work, it is reported on account of the low price of copper. This mine looks as well as ever it did; there is about 2,000 tons of ore at grass, and the five furnaces are in full work smelting. It is expected that the mines will start again as soon as this ore has been smelted.

Mr. G. T. G. Parsons and G. H. Sinclair have taken 180 acres mineral leases during the year, close to the Burraga Copper-mines; they are working them for silver. The deepest shaft is 75 feet; the thickness of the lode at that depth is 25 feet, and increasing; they expect to have machinery on the ground in a few days, when the full quantity of men will be employed.

Mr. G. T. G. Parsons, under date 30th December, 1891, reports:—

Having sunk shafts and cross-cut lode during the past six months, as follows:—
Sunk vertical shaft on eastern or foot-wall of lode to a depth of 75 feet.
Cross-cut lode at 25 feet level through mixed gossan ore of fair quality, containing silver, lead, copper, and some gol combined. Return by assay considered payable. Cross-cut

Cross-cut lodeat 50 feet level through part gossan ore and part sulphide, containing same minerals as above, in improved quantity and value.

Cross-cut lode at 75 feet level through principally sulphide ores, increasing in value and quantity, but the surface water following the lode down prevented further development at this depth.

Drove n some 30 feet through gossan ore at 30 feet level, then cross-cut lode west through large body of gossan ore of good payable quality.

Sunk vertical shaft 97 feet west of first shaft by some 50 feet; struck the lode, but the force of water was too great for man power to cope with, so at once decided to provide and erect winding engine and pump, which is now in course of transit to the grounds and expect to have same erected in two weeks' time, when full number of hands will be employed to carry on operations as expeditiously as possible.

So far the lode appears to be from 25 to 30 feet wide, and increasing in thickness as it goes down. The true bearings of same are a little east of north and a little west of south by an underlay west with clearly defined foot and hanging walls of gneiss and sandstone slate mixed.

M'Innes and party, who have assistance from the Prospecting Vote to sink a shaft and drive at Golden Gully, near the Isabella, are down about 55 feet, but have not struck anything payable so far, although M'Innes, who has been working at this place for some eighteen years, is quite confident there is a rich reef in the vicinity of the Golden Gully.

The only other mining in this division is done by a few prospectors at the Little River and Werong, who are getting gold, but not in large quantities.

BATHURST DISTRICT—Carcoar Division.

(Chas. Higgs, Mining Registrar.)

I have the honor to forward you report showing the returns received in reply to the circular letter of instructions which I forward to all mining managers and claim holders in my district. None of the claims have been very successful, owing to the influx of water into the shafts, which kept them constantly baling out. The Homeward Bound at Galley Swamp, through want of capital and other causes has only been working on a small scale; during the past year active operations have, however, been recommenced, and water all baled out, and they expect good results.

The Queen of Galley Swamp have finished their Government aid contract, and had great difficulty owing to the influx of water, but by great perseverance struck the reef at the bottom a foot wide bearing gold. They have 30 tons of gold-bearing stone at grass. The smaller claims have been very unsuccessful, but the parties are still persevering.

BATHURST DISTRICT—Canowindra Division.

J. Cusack (Mining Registrar.)

I have the honor to report that the collections at this office for 1891 have been as follows:—

Sixty-four miners' rights	£27
Two business licenses	1
One mineral license	1
Gold-mining leases	46
Surveyors' fees	11
Total	£86

This portion of the Lachlan Gold-fields has had no alluvial works done in it during the past twelve months, and the works carried on in the reefs have been prevented a good deal through so much rain having fallen, causing a great deal of extra work in baling. The excessive wet weather that visited this part for 1891, and no fresh finds, has caused very little progress in searching for new finds or the usual mining industries in this part of the division.

Three gold-mining companies are all that have regularly worked their leases here for 1891: Hayes' Reef, the Red Jacket, and the Blue Jacket—those three companies have employed for 1891 twenty-two men. The value of the plants on them is estimated at £330.

Other parties have prospected for reefs in the same vicinity of the three above named, but up to the present have met with no results.

TAMBAROORA AND TURON DISTRICT—Ironbarks Division.

(J. Shillington, Mining Registrar.)

In submitting my annual report for the Ironbarks Division of the Tambaroora and Turon Mining District for the year 1891, I have the honor to state that there has been a decrease in the number of men engaged in alluvial mining. The old gullies are becoming exhausted, and in most cases the ground is being reworked, while no new finds in alluvial have been discovered during the year. Two tunnels have been put in the southern side of the Muckerawa Bald Hill about 1 mile apart to prospect the old river bed underlying the basalt. One tunnel has been driven over 500 feet to the wash, but has not been sufficiently prospected to determine its value. The other has been driven 460 feet and has just touched the wash, from which some nice shotty samples of gold were washed. The result of further prospecting will be watched with interest, as there are many hills of similar country which would give employment to a large number of men if the results were satisfactory.

In quartz-mining several reefs are being worked, or rather prospected, some of which are considered valuable properties, but unfortunately the capital at command is wholly inadequate for systematic work, the only exception being the Golden Gully Company. This company has been at work during the last four years employing on an average over twenty men. The reef had been worked to a depth of over 200 feet on the underlay, but on the whole the gold won did not quite pay expenses. At the beginning of the year a contract was let to sink another 100 feet perpendicular at the back of the reef (being a continuation of the main shaft), and to drive at the bottom and strike the reef at a perpendicular depth of 270 feet. This work occupied the greater part of the year, but when the reef was cut it showed good gold, and a crushing of 445 tons of quartz taken from this level yielded nearly 2 oz. per ton, which more than paid the year's expenses. This is the only reef on the field tested to that depth, and the result is expected to have a stimulating effect in quartz-mining, as there are several reefs in the vicinity which, in the

the opinion of local practical miners should give equally satisfactory results. In the whole history of quartz-mining in the division the Golden Gully Company is the only one with sufficient capital to open up a mine in a manner to give any hope of developing a dividend-paying mine.

There were 32 applications for gold-mining leases, aggregating 278 acres during the year. No other leases were applied for. During the year there were issued 236 miners' rights, 20 business, and 3 mineral licenses.

TAMBAROORA AND TURON MINING DISTRICT—Sofala Division.

(M. Fagan, Mining Registrar.)

I have the honor to forward my report on the mining interest in this division for the year 1891. While no remarkable discoveries have been made in this division for the year 1891, the yield of gold has been fairly maintained.

Alluvial.

The rainy weather prevailing during the greater part of the year has been greatly in favour of sluicing. Wherever storm-water was obtainable it was brought on to the old workings, or the old mullock and auriferous surface was carted and stacked to await a storm, and, in this way, a considerable quantity of gold has been obtained. The old alluvial deposits having been so continually worked, it is now very difficult to obtain gold by means of the tub and cradle, and old and decrepit men have a hard struggle for existence. At Jew's Creek, 5 miles west of Sofala, two or three parties have done well, the gold, although patchy, being coarse, nuggets up to 2 oz. in weight being sometimes found. The most successful parties were Herriott and M'Lean, at Maitland Point, who obtained 57 oz. for eighteen weeks' sluicing. Bennett Brothers, at Wallaby Point, 60 oz. for nineteen weeks' sluicing, and James Roach averaged £4 10s. per week for fourteen weeks from his sluicing claim at Golden Point. Aid has been granted out of the Prospecting Vote to search for a lead in the deep ground proved to be auriferous at the foot of Wyagdon Hill. The sinking is over a hundred feet through clay and drift.

Quartz-mining.

No new reefs have been found during the year, but some of the old reefs have been worked with fair results.

The Oakey Creek Company at the beginning of the year were working their mine and crushing plant vigorously, the quartz yielding about ½ oz. to the ton, but on the yield dropping to 5 dwt., they stopped crushing. After driving on the reef to the west and south without striking anything payable they let the mine on tribute. The tributors, by driving to the north-east, struck payable stone. The reef now shows in the stopes in very irregular form, varying from 1 foot to 6 feet wide. Their last crushing of 40 tons yielded 27 oz. of gold.

The Big Oakey Company at Surface Hill, after testing their ground to a depth of 230 feet, and cross-cutting east and west for a distance of 400 feet without finding payable gold, let their mine to tributors. They have opened out stopes on the old tunnel vein, and have taken out some crushings, which paid fairly.

The Mount Rosette Company at Dry Creek, with aid from the Prospecting Vote, drove north and south on the reef in the tunnel, with promising indications, but a crushing proved the quartz was not payable.

Messrs. Webb and Company have been working the ground adjoining the Oakey Creek Company, and have had some good crushings. The reef is about 18 inches wide, and shows a steady improvement in quality as they extend the stopes. The Benedick, Bateman's, Riley's, and other reefs have been tested with aid from the Prospecting Vote, with poor results, except in the case of the first-named reef, where some rich veins were struck, but too thin to pay wages for working.

At Nuggetty Hill a few miners still persevere among the old worked and partially tested veins, and occasionally strike a rich patch, as in the case of Thomas Noonan, who obtained 34 oz. of gold from a few small bags of decomposed pyrites. It is to be regretted that no work is being done on the Solitary Reef (long the mainstay of the district), owing to the owners being unable to raise capital to work the mine. Heagney's Reef is also idle, owing to pending litigation as to ownership. Should these mines and the Caledonian be re-started, and the mines at present working maintain their quality, the outlook for the next year would be decidedly encouraging.

There are 258 miners employed within this Division, viz.:—70 quartz miners, and 139 alluvial miners; 49 of the latter are Chinese. 328 miners' rights, 23 business licenses, and 2 mineral licenses have been issued by me. 13 gold-mining leases and one mineral lease have been applied for during the year. Total amount of revenue received, £237.

The following amount of gold from all sources has been transmitted from this division by gold escort and other means during the year:—

	oz.	dwt.	gr.
By gold escort, March Quarter	787	18	4
" June quarter	644	1	11
" September quarter	919	15	15
" December quarter	952	0	21
	3,303	16	3
By other means	450	0	11
Total	3,753	16	14

Value £14,264 10 11

Return of all machinery in the division herewith attached; estimated value of same, £7,000.

I may add that the largest quantity of quartz treated from any mine in this division during the year was from the Queenslander Company's mine Sofala. 1,030 tons of quartz have been raised and crushed from this mine, yielding 175 oz. of gold. There are now 15 men employed in connection with this mine.

TAMBAROORA

TAMBAROORA AND TURON DISTRICT.—Hill End Division.

(*John Miller, Mining Registrar.*)

I have the honor to submit herewith my report for the Hill End Division of the Tambaroora and Turon Mining District for the year ending 31st December, 1891.

During that period I have to inform you that mining generally shows an improvement on last year.

In quartz-mining about 130 men have been employed, who have raised 1,730 tons of quartz, yielding 2,500 oz. of gold, valued at £9,997.

The Robert Emmet Gold-mining Company, Prince Alfred Hill, have sunk a new shaft and erected machinery for the more efficient working of their mine, which at the present time looks remarkably well.

On the same line of reef, and adjoining the Robert Emmett, Suttor and party have six men employed, and are now on gold.

The Cornelian and Premier Gold-mining Companies, at Hawkin's Hill, have been at work throughout the year with satisfactory results.

At O'Riley's Consolidated Company's Mine, Hawkin's Hill, a tunnel is being driven at a lower level for the purpose of draining the water from their old workings. When this work is completed it will be a great advantage both to themselves and other mines higher up the hill.

The Great Amalgamated Gold-mining Company, at Lower Hawkin's Hill, who have had a partial suspension from the labour conditions, for the purpose of sinking an air-shaft, are now about to resume work, and from the prospects in the mine it is believed that a great impetus will be given to mining in that far-famed gold-producing locality.

The Lancashire Lass Gold-mining Company and Clymo and party's Extended Claim, at Root Hog, Macquarie River, are erecting new machinery to cope with the water which has hitherto prevented the successful working of these mines.

Lonsdale and party and Eldridge and party, on the Golden Gully line of reef, have been getting payable gold throughout the year, and at the present time these mines look very well.

Dickman and party also struck payable gold in their prospecting area on same line of reef as the above in December last. They crushed 47 tons of quartz for a yield of 35 oz. 7 dwt. of gold.

At Chambers' Creek and Dun Dun very little mining has been done during the year.

Several private individuals have been prospecting around Hill End, but so far without any good results.

At Tambaroora very little has been done in quartz-mining, but about 600 oz. of alluvial gold has been taken from the old workings, principally by sluicing.

At Little Nuggetty Gully, near Lower Pyramul, a number of men are at work, and are getting some nice gold. This field appears to have been neglected so far as reefing is concerned. Gold has been obtained in nearly all the gullies around there, but no work has been done in the hills until recently. I venture to predict that a bright future is in store for this locality.

Owing to the wet season just passed a large number of miners have found remunerative employment sluicing in the old alluvial ground, and have won 2,156 oz. 18 dwt. 14 gr. of gold therefrom, making a total for the year of 4,656 oz. 18 dwt. 14 gr., valued at £18,600, being an increase on last year of 628 oz.

During the year 34 applications for gold leases have been received, and 340 miners' rights, 13 business licenses, and 1 mineral license have been issued at this office.

MUDGEE DISTRICT—Wellington Division and Ironbarks Division in the Tambaroora and Turon Districts.

(*Fred. Marsh, Warden.*)

In compliance with the instructions contained in your letter of the 19th November last, I have the honor to report for the year 1891 on the mining districts under my charge, namely, the Wellington Division of the Mudgee and the Ironbarks Division of the Tambaroora and Turon Mining Districts.

The reports of the Mining Registrars of these respective divisions are herewith, and show in detail the results of mining operations, principally quartz, the quantity of gold won, and the value of the same, &c., the totals of both divisions being from alluvium 866 oz. 1 dwt. 23 gr.; from quartz, 5,362 oz. 17 dwt. 5 gr., equal to 6,228 oz. 19 dwt. 4 gr., representing the value of £23,115 15s. 5d. This, I think, I may fairly say, considering the rather depressed state of the mining industry for a very considerable time past, is very encouraging, and should the efforts which are now being made at Mitchell's Creek and Golden Gully, Ironbarks, to test deeper country result in a marked improvement in the gold-bearing character of the stone, and this so far seems to be borne out, a very decided impetus will, I have no doubt, be given to reefing generally in this district. As it is, a good deal of attention is being excited with regard to the anticipated increased richness of the stone from deeper levels. Should this theory prove to be correct, I am sure the capital will not be wanting to develop many of the very promising gold leases now held.

There have been no new discoveries of gold of any importance to mention, the small rush to Mount Aubrey, Hyandra, having very quickly subsided, with the result that a short time ago on a visit of inspection, I found no one at work there, the gold leases at Goodrich and Gunner's Dam being also unworked. A great deal of money has been spent on these and other leases throughout the district, and it is not that the leases are not worth working, but that in most cases the necessary means have become exhausted.

If the expectations from the deeper sinking I have referred to are realised, I may venture to say that a reaction will set in and a brighter future for the permanent working of the gold-fields under my charge will be the happy result.

The accompanying returns show particulars in detail, and in forwarding them I beg to record my thanks to all persons interested in fully and freely affording me all the necessary information in their power.

MUDGEE DISTRICT—Mudgee, Gulgong, Windeyer, Hargraves Divisions, and Hill End Division in the Tambaroora and Turon District.

(William J. E. Wotton, P.M., Warden.)

I have the honor to submit my report for the Mudgee, Gulgong, Hargraves, Windeyer, and Denison Town Divisions, of the Mudgee District, and the Hill End Division, of the Tambaroora and Turon District.

Mudgee Division.—There has not been anything of much moment to note in this division until lately, when work was again commenced in the once celebrated Log Paddock, near Mudgee. Boring appliances have been placed in position by a Mr. Higgins, who represents a company, and good prospects have been already obtained, and they are very sanguine of good results. At Appletree Flat, Pipeclay, Limestone, and Merrendee, the usual amount of individual mining has been carried on. At Limestone in particular the Mount Margaret Gold-mining Company have struck good stone.

In the Mudgee Division for 1891 have been issued—1 mineral lease, 1 gold lease, 8 mineral licenses, 3 business licenses, 115 miners' rights, and 2,127 oz. of gold have been bought by the banks.

Gulgong Division.—The Happy Valley Syndicate Co., near the Standard Lead, have struck payable quartz in the drive 60 feet distant from their shaft, and they estimate as much as 1½ oz. to 2 oz. to the ton. Hutton and party, in the old Standard Lead, found their recent washing satisfactory. Dr. Bennett and party are prospecting for a reef on the Black Lead. Talbot and party, at Buckley's Reef, have obtained some first-class specimens from their reef at the 155-foot level, and a crushing from a higher level is to be put through at Mr. Chaffell's battery, Tallewang. At the Canadian Lead, a few parties are making good wages. The Junction Lead Syndicate, lately known as 44 Black Lead, comprises an area of 200 acres, leased from the Crown, and registered in London, capital £10,000, available working capital. The work done consists of working shaft 9 ft. 6 in. x 3 ft. 6 in., and the present depth, 65 feet, through hard basalt rock, with a little water, and a number of men are now employed there. Powerful machinery is being arranged for, and £200 is granted for shaft-sinking from Prospecting Vote.

The Lagoon Paddock Company is an area of 1,081 acres, leased from Mr. G. M. Rouse. Eight bores have been bottomed by diamond drill, average depth (say) 160 feet. Three bores bottomed on washdirt, containing payable gold, the thickness of washdirt being 3 feet 8 inches, 3 feet 6 inches, and 2 feet respectively. There is 1½ miles distance between the bores where the washdirt was struck. A working shaft is now being sunk through the basalt (which here averages 110 feet in thickness), 10 feet by 3 feet 6 inches. A complete plant of the Rand compressed-air rocks drills is in use, erected at a cost of £1,000, which is doing very good work. Shaft will be bottomed, it is supposed, about the end of next March, 1892. As this shaft is over a mile from the last payable gold got at the lower end of the Gulgong Deep Leads, in a great measure the future success or otherwise depends on the results obtained here. A complete working plant, which cost over £3,000, is in readiness for erection when the shaft is completed. This Lagoon Company is registered in London, capital £20,000. The Gulgong Alluvial Gold-fields Company (Limited) area 500 acres, leased from Mr. R. Rouse, of Guntawang. The working shaft is sunk through the edge of the basalt a total depth of 128 feet. The last 75 feet is in the bottom, which here consists of a carboniferous conglomerate. A drive is now in same 60 feet, which is intended to reach, at about 120 feet from shaft, a run of payable wash, which has been traced from comparatively shallow ground to a depth of about 110 feet, and was still dipping. The last wash raised here, though narrow, was rich, and yielded 28 dwt. per load. An efficient and complete pumping, winding, and puddling plant is erected on this lease. This is registered in London with a nominal capital of £75,000. The above three companies are all separate and independent of each other, and have all been created by Mr. Frame Fletcher, and who, as a practical miner, speaks confidently as to the probable brilliant future of Gulgong as a gold producer, and as it was some twenty years ago, and who, after two journeys to London at his sole risk and cost, succeeded in placing the above companies in first-class hands. He is appointed Managing Director of each of the companies, and his name will always be identified with the success of deep alluvial mining in Gulgong.

In the Gulgong Division for 1891 have been issued—38 mineral leases, 16 gold leases, 22 mineral licenses, 7 business licenses, 196 miners' rights, and something over 1,000 oz. bought by the banks.

Hargraves Division.—The New Hargraves Gold-mining Company, have worked with great determination during the whole year, but have not been successful in striking a payable reef, although some veins bearing gold have been met with. This company gives constant employment to 17 men—the shaft is 240 feet deep, and the eastern tunnel 640 feet long—the western tunnel 250 feet long. Up to the present time £12,000 have been spent by the company. The machinery consisting of pumping and winding engine is valued at £1,500. Six gold-mining leases have been worked occasionally during the year with very fair results. The Big Nugget prospecting lease has not been worked during the year, the machinery lying idle on this lease is valued at £2,000. There is no improvement in alluvial mining; there are some 50 or 60 men fossicking on the various creeks who barely get a living.

In the Hargraves Division for 1891, have been issued 4 gold leases; 6 business licenses; 83 miners' rights, and 400 oz. of gold bought by local storekeepers.

Denison Town Division.—My anticipations of last year have been realised, and the creation of the township of Leadville is evidence of the interest taken, and belief in the future prosperity of this field. The Mount Stewart Mine is beyond doubt the leading feature, and since my last report the eastern lode upon that property has been opened up and proved to be of great value. The smelting machinery is nearly completed, and by the end of February or the beginning of March it is expected bullion will be *en route* for the Mudgee Railway Station. I must congratulate the directory upon having such able men in charge as Mr. Drake, late of the Central, as general manager and metallurgist, and Captain Scoble as mine manager. It is a pleasure to visit the mine to notice the order, regularity, and business appearance, there exhibited, reflecting the greatest credit upon those in charge. Great interest is being taken upon this line, and several leases have commenced work, and all will no doubt be working before long.

The Dynevor Mine, a Melbourne Company, under the management of Mr. E. O. Davies is upon a parallel line to the Stewart, and distant about 1 mile south-east, and is in full work and the reports of the manager are very favourable.

There

There is another mine upon this line "The Heart" also at work and spoken fairly of. There has not been any work of any moment done upon the Narangarie line, another parallel line to the Stewart, distant about 3 miles north-west, but various leases have been forfeited and retaken up, and rumour has it that a very large property combining various leases will shortly be put into a company with capital to develop. On the Gladstone line about 5 miles further north-west, work has been done principally upon two mines only, the Bullinda and the Gladstone, under the able management of Mr. M. Marshall. The former has called its shareholders together to consider its position, and the Gladstone has been re-formed and work will, I understand, be prosecuted with vigour upon this property some 220 acres. Assays as high as 1,200 oz. of silver to the ton have been obtained, and from a particularly dense carbonate, totally different from anything in that line which has been seen.

There are various properties upon the field to which attention is drawn as likely to lead to prominence in the future, viz.: Mount Scott, Mount Argent, Mount Davies, Mineral lease 12, Mineral leases 3 and 4, formerly the Grosvenor Mineral lease 23, and 80 acres adjoining Leadville township and only 20 chains from the Stewart and Clarke's Nob.

I think I have named the most prominent; but upon a field over 10 miles in width and the length undefined it is difficult to either visit or obtain information as to all the leases.

The first ground taken up on the field was in 1882 in mineral conditional purchases of which I believe only three exist now being the property of the old Narangarie Company. It was not until the discovery of Mount Stewart at the end of 1887, that this field came into prominence, and since then over 110 leases have been applied for.

I have spoken of the known width of the field—as to its length it is difficult to judge. The main range of the Colony is distant 9 miles south-east from the Dynevor line which is parallel to the range with a strike north-east and south-west, and as this portion of the main range runs from what is known as the Liverpool Range, south-west to near Reedy Creek at Gulgong upon a fair average strike of north-east and south-west for about 45 miles, and along its length at various places prospecting is being carried on it would lead to a presumption that in the future a very extensive field will exist and if a few mines of the calibre of the Stewart and other leading mines are found it would place it in a prominent position amongst the fields of the Colony, particularly as it is a splendid climate, at an altitude averaging 1,650, with water and timber; whilst for working silver-mines the bodies of iron and limestone thereon are valuable adjuncts as flux, and I look to great results from the field during the ensuing year. During the last month or so, on account of the large amount of mining business being transacted in this locality, and which, of necessity compelled applicants and others to travel to Gulgong, Denison Town has been proclaimed a place for holding Wardens' Court.

Windeyer Division.—There is no improvements in mining matters in this division. One gold-mining lease of 10 acres has been taken up during the year by Goodwin and Ward. With regard to the aid that has been received from the Prospecting Vote in this division, although up to the present time the prospectors have not been very successful, James Melbourne and party have put in a tunnel 180 feet in their "Jubilee" claim, and have cut several veins bearing gold. Thomas Aird has put in a tunnel about 400 feet in his claim, but not striking anything payable. The alluvial digging here is mostly done in old ground, and a deal of sluicing was done last winter, with varying results.

In the Windeyer Division for 1891 have been issued 1 gold-mining lease, 17 business licenses, and 157 miners' rights.

Hill End Division.—Work is being continued on the whole line of reef from the Dirt Holes on the north, to Root Hog on the Macquarie River, south, a distance of 10 miles. At the former, Dirt Holes, the extended claim of Macryanus, has improving prospects. The Lancashire Lass Gold-mining Co., and Clymo's Extended Claim at Root Hog, Macquarie River, are erecting new machinery to cope with the water which has hitherto prevented the successful working of these mines. At Golden Gully line of reefs, Lonsdale and party, and Eldridge and party are working, with highly payable results, on a new vein, east of and apart from the many previously-worked veins in the same belt. They have been in good stone throughout the year, and Dieckman and party on the same line struck payable gold in December last, having crushed 47 tons for 35 oz. 7 dwt. Southward, O'Riley's party consolidated, Hawkin's Hill, in the old "Venus" are sinking and driving a tunnel at the low levels, with a view to test the many veins forming belt on Prince Alfred Hill. The celebrated "Robert Emmett" Gold-mining Co., of Emmett and Hughes, on Prince Alfred Hill, raised some 2,000 oz. from their claim in the early part of the year, and they have now sunk a new main pump shaft, fitted to work to at least 1,000 feet; and have also erected powerful machinery, and having overcome the water difficulty are now again raising very rich stone. On the same line of reef and adjoining the Robert Emmett, Suttor and party have six men employed, and are now on gold. The Cornelian Company has found employment for some twenty-five men, raising stone, which has been crushed at the company's own mill; the results not made public. The Premier Company not proving a success under former management is now under tribute to Mr. Carver, who is sanguine on the mine's prospects. Leases of the "Red Hill," formerly Newton's, have been granted, and it is proposed to erect larger machinery to cope with the water, which here is very troublesome. The New Paxton Company has sunk a new shaft with winding engine down close on 300 feet, and as payable results were being obtained from the reefs in bottom, when the old shaft collapsed, the prospects here are considered good. In Clemen's area payable crushings have been obtained, water being the great drawback as well in this as the adjoining rich claims of Riley (formerly Brown's, Rawthornes, and Moore's) amalgamation of the two areas is proposed; meanwhile O'Riley's party are engaged driving a tunnel from the gully beneath into their workings which when once completed will drain the whole workings as well as save the hauling power, the quartz and refuse being trucked to the tunnel's mouth. In the adjoining areas southward very little work has been done during the past year, and complaints having been upheld, some 18 acres were cancelled and retaken, whilst other similar complaints are yet pending. Next south the Great Amalgamated Gold-mining Company, whose area of 45 acres has been pierced by tunnel starting from creek level which has reached 798 feet, and met two veins estimated to yield over 2 oz. per ton. The discovery of these veins has considerably enhanced the value of all mining properties on Hawkin's Hill, being crossed some 1,200 feet below the top of the hill. Sinking and driving for air connections is all the work that can for the moment be carried on in this mine. Partial suspension from the labour conditions for the purpose of sinking this air-shaft was granted

granted, and full work is about to be resumed, and from the prospects it is believed a great impetus will be given to mining in the far-famed gold producing locality. The formation of Hawkin's Hill with the line of reefs so high on its side or near its top together with the Emmett, and Hughes, Scandinavian and other reefs on the main line near the town, strike the expert or even any observer as surprising that from the finding of this belt of reefs a mine drainage combination has not been entered into. The low-level tunnel of the Great Amalgamated could have been pushed ahead even to the town itself for a lesser sum than the hauling of water has represented to this date, not taking into consideration cost of the same in future.

Several private individuals have been prospecting around Hill End with results more or less good. At Tambaroora very little has been done in quartz-mining, but about 600 oz. of alluvial gold has been taken from the old workings, principally by sluicing. At Little Nuggetty Gully near Lower Pyramul, a number of men are at work and are getting nice gold. This field appears to have been neglected so far as reefing is concerned. Gold has been found in nearly all the gullies around there, but no work has been done in the hills until recently. In this Hill End Division in quartz-mining about 130 men have been employed, who have raised 1,730 tons of stone, yielding 2,500 oz. of gold valued at £9,500. Owing to the wet season just passed, a large number of miners have found remunerative employment in sluicing in the old alluvial ground, and have won 2,156 oz. therefrom, making a total of 4,656 oz. 18 dwt. 14 gr. valued at £18,600, being an increase on the previous year of 628 oz. The value of the machinery in the division is £9,813 7s. During the year 34 applications have been made for gold leases, 340 miners' rights, 13 business licenses, and 1 mineral license have been issued.

MUDGEE DISTRICT—Dubbo Division.

(W. T. Caswell, Warden.)

I have the honor to make the eleventh annual report of mining in the district of Dubbo—that for 1891.

Since being relieved of Peak Hill and Tomingley my report might well be dispensed with.

There are 4 leases being worked for ochre—6, 7, 8, and 9 of 1889. Five other leases have been abandoned. This mining may become a steady industry, but there is so much country containing ochre it cannot become very profitable.

Girilambone copper mine is still idle.

Ballimore Mineral Springs, owing to want of enterprise, remains as reported last year, still wasting.

I am informed by Mr. Martin, Mining Registrar, that he has sent in his report of the number of licenses and miners' rights issued during 1891.

MUDGEE DISTRICT—Peak Hill Division.

(Andrew Stewart, Mining Registrar).

I do myself the honor to forward my annual report of the Tomingley and Peak Hill Division of the Mudgee District.

The population of this gold-field, which at the beginning of this year was estimated at 1,400, is now reduced to about 1,100. This reduction appears to have been caused by the almost total failure to find payable gold in the alluvial ground in this neighbourhood; but those intimately acquainted with the resources of the place, confidently predict that, in the matter of population, no further reduction will take place.

Lodes, &c.

During the year a considerable amount of work has been performed in testing the numerous lodes on the hill, and fairly satisfactory results have been obtained by the following companies, viz.:—Peak Hill Proprietary, Crown of Peak Hill, Gibson's Great Eastern, Great Western, and M'Crae and Gough's spare ground.

The average yield per ton of the lode-stuff from the mines just enumerated varies from half an ounce to an ounce.

Dividends over and above working expenses have only been paid by one mine.

The Great Eastern, the Southern Cross Company, after heavy expenditure in prospecting their lease, have abandoned it; and the Wythes Mooney Company have expended £1,200 for no return whatever.

One characteristic feature of these lodes is the uncertainty of their continuity, those already tested being merely bunches or shoots, varying in width from 2 to 20 feet, and in length from 50 to 200 feet; the lodes of the Proprietary and Great Eastern Mines being the largest and best defined.

It still remains a matter of speculation as to whether a properly-defined payable lode of any great length exists at Peak Hill.

The Great Western Mine, formerly known as the Lady Carrington, was discovered during the year, and from the result of a crushing of 133 tons, producing over 78 oz., is considered highly payable. Two other lodes containing gold have also been discovered, but it has not yet been ascertained whether they will prove payable. The discovery in one instance was made on a piece of spare ground adjoining the Great Eastern Mine; the other was made by M'Crae and Hudson on their protection area, about 2 miles easterly from Peak Hill; the latter party have received aid from the Prospecting Vote.

Delaney and party have discovered a quartz leader, about 3 miles southerly from Peak Hill, a trial crushing from which yielded half an ounce per ton.

The quartz reef on Gorman's lease at Peak Hill, which at first promised so well, has been abandoned for some time, the results not approaching anything like to that anticipated.

Quartz Reefs—Myall and Tomingley.

The quartz reefs at Myall and Tomingley still employ a fair number of men. No. 1 Myall being far and away the best quartz reef in this district. During the year 1,020 tons produced 1,013 oz. smelted gold, valued at £4 per oz., which gives the shareholders a handsome return for their outlay.

Alluvial.

The alluvial ground is rapidly getting worked out, and the number of men employed at this description of mining is daily becoming less. Two alluvial claims—Golden Hole and Maloney's—produce over half of all the alluvial gold recovered this year. In many instances miners keep working away in some of the old abandoned claims in the hope that something better will before long turn up the results of their labour at present being only an existence.

Prospecting.

A great many parties of prospectors have been out in all directions trying fresh ground, but so far no payable gold has been reported. A number of these have received assistance from the Prospecting Vote, and without this aid would have been unable to prosecute their search, the majority of them being poor men. The work performed was mostly in alluvial ground. Speaking generally the prospecting work performed during the year appears to indicate that whereas payable shoots of lodes and quartz leaders may be discovered, it is very improbable that anything like a payable alluvial lead will be found in the neighbourhood of Peak Hill.

Gold won.

The amount of gold produced in this division during the year is as follows:—From quartz and lode, 4,719 oz., and from alluviums, 4,947 oz.; giving a total of 9,666 oz. for the year. Of this amount, 8,653 oz. passed through the local banks, and 1,013 oz. were forwarded through Dubbo banks. Compared with last year's return, this shows an increase in the gold derived from quartz and lode—a decrease in that obtained from alluviums; the total of both years being about equal.

Business, &c.

During the year 866 miners' rights, 72 business licenses, and 2 mineral licenses were issued, and 14 applications for gold-mining leases were received.

MUDGEE DISTRICT—Wellington Division.

(*A. G. Chiplin, Mining Registrar.*)

At the Mitchell's Creek Freehold Gold Estate operations have been in full swing during the year.

Some 4,187 oz. 6 dwt. 5 gr. of gold were obtained, valued at £15,518 2s. 5d.: 1,191 oz. 3 dwt. 19 gr. value £4,992 18s. of this yield were obtained from concentrated pyrites.

At the Wunluman Creek payable gold was struck by Wall and party, but I understand the prospectors are about to abandon their claim, it not having turned out so satisfactorily as was anticipated.

The Belara Copper-mines have been idle all the year.

At the Maryvale Coal-mine some 78 tons of coal were raised during the year, and a shaft was sunk to a depth of 100 feet.

The quantity of gold won in the division for the year amounted to 4,302 oz. 6 dwt. 4 gr., valued at £15,962 5s. 11d.

Thirty-nine applications for permits to mine were lodged, and 88 miners' rights, 5 business licenses, and 5 mineral licenses were issued.

The total value of the mining plant in the division is £21,000.

MUDGEE DISTRICT—Windeyer Division.

(*F. Scheibel, Mining Registrar.*)

I have the honor to submit my annual report for the year 1891 upon the Windeyer Division of the Mudgee Mining District.

Very little progress has been made in the alluvial digging during the wet weather. The miners cut races on to the old ground around here, but without much results. The quartz-mining has almost been at a standstill. With regard to the aid that has been received from the Prospecting Vote, I may remark that up to the present the prospectors have not been successful. Thos. Aird has driven a tunnel about 400 feet, but without a show. James Melbourne and party have driven a tunnel about 180 feet. They have struck several veins with payable gold. During the year one gold mining lease of 10 acres was applied for. The number of miners' rights issued here during the year was 157 and 17 business licenses.

MUDGEE MINING DISTRICT—Hargraves Division.

(*John Travers, Mining Registrar.*)

I have the honor to submit my annual mining report for the year 1891. Mining matters in this division for the past twelve months have been at a standstill and very dull.

Four gold-mining leases, comprising an area of 14 acres, have been applied for during the year, and have been executed. The New Hargraves Gold-mining Company have worked with great determination during the year, but have not been successful in striking a payable reef, although some veins bearing gold have been met with.

This company gives constant employment to 17 men. The shaft is 240 feet deep; the eastern tunnel is 640 feet, and the western tunnel 250 feet in length respectively. £12,000 has already been spent by this company and they still continue at work. The machinery on this lease consists of pumping, and winding engines, and valued at £1,500. Six gold-mining leases have been worked occasionally during the year with very fair results.

The Big Nugget Prospecting Lease has not been worked during the year. The machinery lying idle on this lease is valued at £2,000.

There is no improvement in alluvial mining. There are 50 or 60 men fossicking on the various creeks, who barely get a living.

About 400 oz. of gold has been bought by the local storekeepers during the year, and more sold out of the district.

During the year I issued 83 miners' rights, 6 business licenses, and received 4 applications for gold-mining leases.

MUDGEE DISTRICT—Gulgong Division.

(H. De Boos, Mining Registrar.)

In submitting my report for 1891 on the state of mining in the Gulgong Division of the Mudgee Mining District, I have the honor to state that although mining generally has been somewhat depressed during the past year there are already signs of a change to a better state of things.

Some Sydney capitalists have taken up several gold leases on Adams' Lead, and are now erecting machinery and intend thoroughly proving the ground, which, on account of the hard sinking, from 60 to 100 feet of basalt, cannot be profitably worked by the individual miner.

The English Company has commenced work on the Black Lead, at what is locally known as 44. The machinery standing at present on Scully's Prospecting Claim has been purchased by this company and is now being removed to 44. This claim contains 200 acres of leased land. The shaft, which is 10 feet by 3 feet 6 inches, is now down 80 feet in the solid basalt.

At the Lagoon Paddock the shaft is now down 75 feet through the basalt, which is here intensely hard. The sinking is being done by means of the Rand compressed air drill. This ground was prospected by aid of the Government diamond drill, and good prospects were obtained in three bores. It is expected that this shaft will be bottomed about the end of April next.

In the Guntawang Paddock a working shaft is down 125 feet, and a drive of 150 feet has been made to intersect the Bismarck Lead, of which the last washing yielded 28 dwt. to the load. The face of this drive shows wash carrying gold coming in.

These three English Companies, which are under the able and energetic management of Mr. Frame Fletcher, have at present 35 hands employed, and three powerful steam plants for winding, driving, &c., are now in use on these properties.

Talbot and Party, working at Buckley's Reef, Tallawang, brought some very fine looking specimens into town a few weeks ago. They have taken up two small leases on the reef, which should, judging from the prospects already obtained, turn out a very valuable property.

The Newcastle Company, at the Woolshed Paddock, just outside of the town of Gulgong, is still working, though I have not heard with what result.

Bennett and party on the Black Lead, and Thompson and party at the Happy Valley have both done a considerable amount of work during the last twelve months, but have not as yet met with any particular success. The Perriwinkle Lead, of which so much was expected, is now deserted by all except the prospectors, who are still getting a little gold.

There are parties at work at Home Rule, Canadian, Two-mile Flat, Tallawang, and other parts of the Gulgong Division, who seem to be making a comfortable living, and who have done so for some years past.

There is little alteration in the silver-field at Denisontown since last year. There has been a considerable amount of work done at the various mines, and there is no doubt that before the close of 1892 there will be a great and rapid advance in the state of this silver-field.

Smelting works are being erected at the Mount Stewart Silver-mine. It is expected that the works will be finished in April next.

The township of Leadville is becoming quite a centre of population. Stores, hotels, and private houses are being erected daily. There must be about 300 men here connected with the various mining works now being carried on.

During the year, 38 mineral leases and 16 gold leases have been applied for. Twenty-two mineral licenses, 7 business licenses, and 196 miners' rights have been issued from this office. The amount of gold purchased by the banks during the past year was 1,700 oz., at an average of £3 16s. per oz., amounting to the sum of £6,460.

LACHLAN DISTRICT—Forbes, Parkes, Molong, Grenfell, Tichborne, Cudal, Canowindra, Cargo, and Condobolin Divisions.

(E. A. L. Sharpe, Warden.)

I have the honor to transmit herewith my report on the mining carried on in this Division of the Lachlan Mining District during the past year.

In the Forbes District I regret to have to state that mining has almost ceased, and there seems little prospect of a revival.

The Britannia Quartz Gold-mining Company, which at one time promised to give payable returns, and on which the large sum of £15,600 has been expended in machinery and in prospecting, has ceased work, and the general opinion seems to be that it will not be resumed.

I am informed that an attempt is to be made to form a new company and raise fresh capital.

Lewis and party have been sinking on the Old South Lead, and the men informed me that they are on payable wash-dirt on the edge of the lead from which a great deal of gold was obtained when the first rush took place at Forbes.

At the present time this claim is under suspension, and an attempt is being made to form a company to erect machinery required to overcome the water, which is abundant.

Forbes.

The shaft is 120 feet deep, and prospects ½ oz. to the load. When my last report was written one or two claims were at work at the Bald Hills, but I regret to have to report that except one they are now abandoned.

Another claim at work in this division is one Hazelhurst and party, of four men's ground, on Thompson's Lead, near Forbes. Their shaft is 150 feet deep, with a drive of 50 feet to the east. They are now putting in a cross drive, bnt have so far nothing payable.

Pinnacle.

At the Pinnacle Reefs Station, Messrs. Reymond and party are still working. They are about erecting a plant to deal with the water below the level of which the best stone is supposed to be. A recent crushing of poor stone barely paid expenses.

Parkes.

In the Parkes Division one of the principal mines is known as Hazelhurst's, from which a large amount of gold has been obtained whilst in the possession of the original holder, Mr. Wm. Hazelhurst. About two years ago this mine was sold to a private syndicate, and has yielded payable returns up to the present time. The mine is at the present time 360 feet deep. The reef varies from 1 foot to 4 feet in width. The last crushing was 76 tons for 75 oz. The manager reports that he has 50 tons raised, which will probably yield 1 oz. per ton, which pays well. The company have a splendid battery of 20 stampers, with large electric plate tables and blanket streaks, also four Alley's percussion tables and two arasta pans. These appliances seem to be very successful in saving gold which would otherwise be lost, the gold remaining in the tailings being very trifling, only 5 or 6 per cent. The stuff taken from the percussion tables is treated with the arasta pans, and the pyrites kept for further treatment at the chlorine works. Since the company have had this mine, about a year, they have taken out 1,489 tons of stone, which yielded 1,807 oz. 5 dwt.

Another valuable property is the Koh-i-noor, also in the hands of a private syndicate.

This mine is about 1½ miles from Parkes, on the old Caledonian Reef. It is a lease of 12 acres. The reef is about 3 feet wide, and has yielded very good stone at a depth of 160 feet from the surface.

Work was begun early in February of the past year, and considerable time was expended in preliminary operations—getting the mine in working order, erecting necessary buildings, &c.

The company was registered under the No-liability Act, on the 22nd July last. Up to that date 641½ oz. of gold was won, the result of crushings from 978 tons of stone, and paying dividends of £20 a share of 22 shares, each share costing, paid up, £400.

At the time of registration 250 oz. of gold, worth £825 8s. 5d. was on hand, which was placed to the credit of the company, &c., the cost of raising being paid by the syndicate.

Since July last 1,306 tons have been raised and crushed, yielding 733 oz. of gold, worth, it is estimated, £2,455 11s. 10d.

The total amount won since commencing operations is 1,624 oz., worth £5,446 18s. 7d.

A very much larger return would probably have been obtained, had it not been that owing to the inclemency of the weather the roads were almost impassable, carting and crushing operations were impeded for several weeks.

The mine is now in complete working order, with a first-class plant.

The Koh-i-noor and Hazelhursts are under the same manager—Mr. William Hays, and the arrangements for saving time and carrying on the work with the greatest speed are very complete, and reflect great credit on the management.

In these two mines 110 men are employed. Besides Hazelhursts and the Koh-i-noor there are about 10 mines which may be considered payable.

In this division there are about 250 miners at work, and 8,485 oz. 6 dwt. 9 gr. of gold was won during the year 1891, or 4,388 oz. 4 dwt. 9 gr. less than the return for 1890.

Alectown.

In this division a good deal of alluvial gold has been obtained during the past two and a half years, but as the claims are shallow a great many are worked out.

As nearly as I am able to ascertain from inquiry at the present time, there are about 15 claims on what may be considered payable wash. The prospects in the prospecting claim (Cameron and party) are still good. A recent washing of 99 loads gave 110 oz.

The returns from this claim since the mine was taken up are 838 loads for 793 oz. 15 dwt. 8 gr., and over 130 loads remain to be puddled, estimated to yield 1 oz. per load.

As regards alluvial mining, an immense amount of prospecting has been done in this division, but as no new discoveries have been made for a considerable time, it is doubtful if any alluvial finds of importance will be made, at any rate within the immediate vicinity of Alectown. But it must be borne in mind that a large number of prospectors have been away during the later months of the year, and doubtless many of them will return and resume work with the money they have earned by shearing and other bush work.

As regards reefs, there seems reason to think that some payable mines will be discovered in this locality, which will be more durable than the alluvial has proved to be.

Parties are working on the old Stockman's Reef, a short distance from Alectown, in what is known as Watt's Paddock; they have a very good show and a large reef.

It is proposed to put up a battery in connection with the sawmill close to Alectown.

A new reef is situated about 2¼ miles east of the town known as the Bird's Nest.

Sawyer and party have a prospecting claim on this. They found a vein on the surface, 4 inches wide, sunk a shaft 37 feet, and the reef widened out to 18 inches. They crushed a few tons of stone at Parkes, and got 19 dwt. per ton.

This party have aid from the Prospecting Vote and are sinking a new shaft, the old one having fallen in, to cut the reef at 50 feet; the stone looks well and is considered payable.

On the Live Bird Lead a reef was found in a shaft under the alluvial wash. It is not defined, but some very rich specimens were found in quartz. In one specimen the stone weighed 7 oz., and yielded 5 oz. of gold.

One party crushed 11 tons of stone for 11 oz. of gold.

Two claims are prospecting for this reef.

On what is known as the Reserve, 4 miles from Alectown (north), a reef has been discovered by a party of miners who have been working about twelve months; they have sunk several shafts and have about 200 tons of stone raised.

The reef will average about 3 feet, and has been traced for a considerable distance, and shows coarse gold. Twenty tons crushed at Parkes gave 11 dwt. per ton.

Lowry and party have found a reef close to the town and have sunk 20 feet on it.

The stone shows good prospects, and the country is very favourable for mining. The stone can be raised easily and at small cost.

Other reefs have been found in the neighbourhood, from which rich specimens were obtained, but on sinking, the reef ceased to carry gold; these are abandoned temporarily, the parties registering the stone they had raised.

In

In this division at the present time there are 8 parties getting aid from the Prospecting Vote for alluvial and quartz-mining, but so far no important discoveries have been made by them. One party did 600 feet of sinking, the shafts averaging from 57 to 70 feet deep.

As regards reefs in this district, the great drawback is the want of machinery. There is no battery within a reasonable distance, and the miners have not the means to erect one. If this difficulty could be overcome I believe many of the reefs would produce payable stone.

At Alectown the population has decreased considerably, being now about 300; at one time the population was upwards of 1,000.

There are two hotels, two or three stores, a public school, which is well attended, there being 45 scholars, a police station, post and telegraph office, and mining office.

During the past year 12,552 loads of wash-dirt were puddled at Alectown for a return of 6,253 oz. 10 dwt.

Peak Hill.

At Peak Hill, which has recently been added to my district, although the population has decreased considerably, still there are a large number of miners at work; I am informed about 350. There are only 2 lodes at the present time producing gold—the principal one, the Great Eastern, which extends into the Crown of Peak Hill.

On the same mass of lodes are 3 claims working and producing gold.

The Great Eastern mine consists of 2½ acres, the shaft is 129 feet deep, the lode is 40 feet wide, and the opposite wall is not yet reached.

From this mine 1,500 tons of lode stuff has been crushed for a yield of 1 oz. per ton up to the 30th of September last. The stone is carted nearly 5 miles to the Proprietary Company's battery, at a cost of 6s. or 7s. a load.

The mine has paid dividends aud apparently there is an immense body of stone to operate on.

Kelly and party, on the west side, are working the same lode as the Great Eastern Company, but have a very limited area, viz., One Man's Ground. Their prospects are good and they have about 20 tons of stone raised.

Mooney and Wilkes' lease comes next, 200 acres on the north end adjoining the Great Eastern and the Crown of Peak Hill. This company are supposed to be on the lode, and have fairly good prospects. The Crown of Peak Hill is a lease of 19 acres 3 roods 2 perches, and it has been worked as a registered company for nine or ten months.

They have sunk five shafts of various depths, and have recently had a crushing of 400 tons for nearly ½ oz. per ton, which is payable.

This company have a battery of their own close to the mine.

Besides the claim and leases I have mentioned, on the east side of the hill, there are three other claims prospecting.

On the west side of the hill is the Proprietary Mine, a lease of 22 acres. This company, registered at 80,000 shares, has been working twenty-two months. They have a defined lode 14 feet wide, which has been traced 100 feet, and a shaft has been sunk on it 240 feet deep. They have also a dyke, a jumbled mass of ironstone and quartz of great width containing gold.

This Company has crushed about 3,000 tons of stuff from their lode for a yield of ½ an ounce, and has paid expenses, but no dividends.

They cart their stone 6 miles, which will partly account for this. They are preparing to erect a large battery, about 1 mile from Peak Hill, and are excavating a 10,000-yard tank.

The Lady Carrington mine, now the Great Western, a quartz claim of six men's ground, 360 feet along the lode, adjoins the Proprietary lease on the west side. They have so far 20 feet wide of the lode and reckon that the 150 tons that they have raised will go ½ an ounce to the load.

This exhausts the claims and leases on Peak Hill. Out of 70 leases granted on and about the Hill, only 12, embracing an area of 108 acres, are in force.

Two miles south of the Ten-mile Ridges, and 7 miles south of Peak Hill, are two reefs, called respectively the Comet and Who'd have Thought it.

Two crushings, of about 34 tons altogether, have been taken from the last-mentioned reef, for a yield of over 2 oz. per ton.

Two claims are at work on this line of reef.

On the Comet two claims are working, but so far have nothing payable. One of these claims has aid from the Prospecting Vote.

At the present time mining is in a very depressed state at the Peak, and unless fresh discoveries are made the population will decrease considerably.

There are only 6 alluvial claims on payable wash. These are on the east side of the Hill, and within half a mile of it. These 6 claims will be worked out probably in six months.

It seems to be the general opinion that the prosperity of the place depends on the lodes on Peak Hill being payable, and this depends, I think, on economical management.

It is probable that payable reefs will be found in the country between Alectown and Tomingley.

The recent discoveries at Alectown will probably lead to this part of the division being thoroughly prospected.

The great drawback to the ordinary miner is the want of means to put up a battery. I venture to think that if a portion of the Prospecting Vote could be used for putting up small batteries in central places, in charge of the Government, where the stone could be crushed at a reasonable rate, it would pay in most cases, and lead to the employment of many miners where now there are very few.

Unless some capitalist takes a fancy to a reef, and thinks the stone good enough to risk the expense of erecting a battery, the reefs, which are numerous in the Alectown and Peak Hill Division, will remain untried probably for years to come.

There will always be a permanent township at Peak Hill, for even if the lodes fail, in three years a large and valuable area of land will be available for settlement for pastoral and agricultural purposes.

Peak Hill township is nicely laid out, with straight and wide streets. The population is now, I think, about 1,000. There are 2 banks, 8 hotels, 3 or 4 general stores, and a public school, with a roll of 250 children.

Strange

Strange to say, there is no resident clergyman of any denomination, nor was there any even when the place was at its best.

During the year 1891 the returns of gold for this division was 9,414 oz. 19 dwt. 3 gr. Of this, 4,911 oz. 17 dwt. 17 gr. was alluvial gold, and 4,503 oz. 1 dwt. 12 gr. quartz and lode gold. Of the quartz gold, 1,013 oz., from 1,020 tons, came from a reef at the Myall, 8 miles from Peak Hill.

Cargo.

At Cargo, mining is at a very low ebb. The Ironclad Mine, which has been working for many years, and on which a very large amount of capital has been sunk in proving the ground and in machinery, has ceased work, but I am informed that there is a probability that the company will be re-formed and fresh capital obtained.

Early in this year, at the Golden Clad Mine, a new battery has been erected, at a cost of about £2,500, but no stone has been raised or crushed during the past year.

At the Dalworth Mine two shafts have been sunk 150 feet deep and 22 feet, with 268 feet of driving. 123 tons of stone has been raised during the past year, and crushed for a return of 1 oz. 7 dwt. per ton.

At New Chum a rich vein has been struck in Mr. A. Tinnock's 1-acre lease. I may mention that a five-head battery has been erected at Cargo during the past year, and I am informed it has been constantly employed since its erection.

At Cargo during the past year 20 leases have been applied for, 60 miners' rights issued, and 1 mineral license.

In this division 300 oz. of gold was won during the year 1891.

Condobolin.

In this division I regret to have to report very little mining has been done during the past year.

The only mine at work at present is that belonging to Messrs. Vanzetti and company at Mount Tindah. They have a shaft down 70 feet, and are raising galena ore.

The manager speaks favourably of the mine. This company have assistance from the Prospecting Vote.

Canowindra.

At Canowindra the principal miners at work are Hayes and party at Belmore, near Canowindra, who have recently crushed 60 tons of quartz for a yield of 1 oz. per ton. The Red Jacket Company have also raised 160 tons, 60 tons of which have been crushed for a yield of 30 oz. The remainder is estimated to yield 1 oz. per ton.

The Blue Jacket mine has proved a very valuable property to the owners. Their shaft is 300 feet deep and the reef is from 10 inches to 3 feet 6 inches wide. They have 12 men employed. Their last crushing was 489 tons of quartz, for a yield of 606 oz.

The alluvial in this division is apparently exhausted.

Cudal.

At Boney's Rocks the American Claim, which is on Gransden's conditional purchase, and is held by J. E. Evans, by virtue of permit. Two men have been employed in this claim during the year, and 25 feet of sinking has been done, with a cross-cut of 15 feet. A good deal of dead work has been done in repairing and timbering the shaft, and it has taken a lot of labour to contend with the water in the shaft. The shaft is down a depth of 161 feet, with a drive of about 30 feet along the vein of reef, which varies from 3 to 12 inches in width. Five tons of stone were crushed at this claim at Canowindra in January last, and yielded 7 oz. 12 dwt. of gold. Three hundred weight of the stone was treated at the Sydney Mint and yielded at the rate of 9 oz. 16 dwt. per ton.

At gold-lease No. 314, of 1 acre, by Sophia Evans, known as No. 1 Australian Lease, work has not been continuous during the year, but 50 feet of sinking has been done with a drive of 27 feet. The great amount of water that had to be contended against in this claim during the year has considerably hindered the progress of the mine; 6½ tons of stone has been crushed from the claim, yielding 7 oz. of gold. Three tons of stone are now at grass.

At the London Claim, which is amalgamated with two adjoining leases, the property of the same owner, work has been carried on with vigour during the year, and 12 men are at present employed in the mine. The shaft is now down a depth of 260 feet, having been sunk 50 feet during the year; the vein of reef averages 8 inches in width. One hundred and seventy-six tons of stone has been crushed from this mine during the year, yielding 616 oz. of gold. The principal owner of the mine, J. G. Mylecharane, has recently erected a five-stamp battery at Cargo Corner, where there is a plentiful supply of water. The battery is about 3 miles distant from the mine at Boney's Rocks, and is now in full swing crushing a parcel of stone from the London Claim. I believe it is the intention of the owners of the battery to crush for the public when not engaged on their own stone. If this is done there is no doubt the mining industry will be more prosperous in the near future in this division, as the great drawback to miners in the past has been the great expense attached to cartage of stone to have it treated, the nearest battery being 12 miles away. Stone can now be carted from Boney's Rocks to the battery at a cost of about 3s. a ton. The battery, although small, if kept going, will be capable of treating all the Boney's Rocks stone for some time to come, as the reefs in the locality are small and rich.

At Shield and party's claim, known as the Big Blow, three men are at present employed. The shaft is 150 feet deep; the vein of reef varies from 2 to 12 inches in width. Sixteen tons of stone have been crushed from this claim during the year, and yielded 16 oz.

The claims referred to are the only ones that have been at work at Boney's Rocks during the year. They are all on the same line of reef, which runs north and south.

At Paling Yards, on Kearney's conditional lease, Courts and party crushed 80 tons of lode stuff, which yielded 26 oz. 6 dwt. of gold. This was crushed between January and June last. The lode varies from 6 to 12 feet in width. The machine used by the party was very inferior, and was said to waste a considerable portion of the gold. This party have abandoned their former claim, and are now at work on another portion of Kearney's lease, for which portion they hold a permit, but up to the present have struck nothing payable

LACHLAN DISTRICT—YOUNG DIVISION.

(*S. Robinson, Warden.*)

I HAVE the honor to forward my report for the year ending 31st December, 1891. This division again shows an increase in quantity and value of gold won during the year. From three buyers I have had presented authentic vouchers of their purchases during the last twelve months, to the extent of 4,874 oz. 12 dwt. 14 gr., and of cash value, £19,083 3s. 5d. I think it a moderate estimate that quite £2,000 worth of gold has passed through other channels, thereby raising the total yield the £21,083 3s. 5d. To this amount the South Burrangong Mine contributed £14,158 12s. 11d., showing that from all other sources throughout the division the total yield was only worth £6,924 10s. 6d. The amount raised in 1890 was valued at £18,477 14s. 11d., which brings up last year's increase to £2,605 8s. 6d.

Five gold-mining leases have been applied for and submitted for approval. The aggregate of these cover 47 acres. In this item there is an increase, as in 1890 only four leases were taken, comprising 22 acres 2 roods 23 perches. In miners' rights there is a falling off, and also a decrease in issue of business licenses,—only one mineral license was disposed of, and under the heading of mineral leases I have to write "nil." In 1890 the issues were respectively 422 miners' rights, 20 business licenses, 7 mineral licenses, 2 mineral leases, and 4 gold-mining leases. For 1891 the disposals were 372 miners' rights, 12 business licenses, 1 mineral license; mineral leases, nil; and gold-mining leases, 5. The latter is a slight increase on the previous corresponding period. Under all other headings a decrease is shown.

Other transactions of the office:—There were taken up 4 dams, 4 water rights, 2 tail races, 3 sluicing claims, and 2 extended quartz claims.

I may mention that no returns have been sent me for the last two years of the operations going on at Cunningar. These are very extensive holdings, all of them taken up at Young, and duly recorded in our books. If returns had been furnished of these leaseholds, our increase of gold would have been much augmented.

Descriptions and value of plant and other information relating to South Burrangong and Cunningar Mines were given in my report for 1890, and need not here be repeated. Neither need I give details of the number of miners employed in my district, nor their location, as there is no alteration since my former report, or at least not to any appreciable extent, except that Chinese diggers are not now with us discoverable. On the north boundary of the town—Quartz-reef Hill—a number of practical miners are working energetically in order to thoroughly test the ground.

LACHLAN, TUMUT, AND ADELONG MINING DISTRICTS—TEMORA, BARMEDMAN, JUNEE, AND COOTAMUNDRA DIVISIONS.

(*James Baker, P.M., Warden.*)

MY report for the year 1891, concerning the divisions under my charge, must of necessity be brief. The depression in mining mentioned in my previous report has been greatly increased during the past year, so that of actual mining there is very little to report. Moreover, the several Mining Registrars have reported very fully, and it would be a waste of time and space to merely reproduce the facts stated by those officers.

Temora.

Settlement and the population of the town and district are steadily and substantially increasing, and in every direction are seen strong evidences of permanent progress. Our street architecture has improved, and is still improving in a marked degree. Old shanties have in numerous cases given place to large, substantial, and elegant buildings, some of which would ornament metropolitan sites. These remarks do not apply to business places only. They apply with equal force to private residences. These signs of stability are more noteworthy when it is remembered that they have taken place in the face of the great decadence in the mining industry in and about the district. These facts clearly demonstrate the great faith the public have in the immense area of the rich and fertile land in and about the town. Then, too, rapid as has been the progress in the last few years, it would have been much greater if the many thousands of acres of land, reserved as a temporary common round the town and right up to its boundaries, had been available for settlement. Years ago I strongly reported in favour of this land being thrown open for settlement, and every year has greatly strengthened the opinions I then expressed; and I again respectfully urge a favourable consideration of this matter. Of course it might be advisable to reserve a smaller area (say) 640 acres, for commonage in a suitable place, and that area would be ample for the purpose. I should also point out that miners and others are occupying, by virtue of the miners' rights and business licenses, residence and business areas round about the town within the temporary common, the titles to which are regarded as being doubtful and hazardous. It is necessary that if they reside here at all they must occupy some portion of the temporary common, and this necessity has existed ever since the year 1882. There are cases here where the land has been held for ten years in that way, and the holders have not yet been able to change their title to a freehold title; and the only reason for not allowing them to purchase the land is the fact that it forms part of the temporary common. One result of this has been, and still operates, that people with their doubtful—or supposed doubtful—titles, are afraid to make such improvements as they would otherwise make.

Sergeant Buckley, and the officers under him, when collecting the electoral lists, make record of the entire population. In January, 1891, his return gave for the town 1,137 for the country, 1,298; total, 2,435 souls. For January, 1892:—

	Males.	Females.	Total.
Town	795	610	1,405
District	779	627	1,406
	1,574	1,237	2,811

Showing an increase in town population of	268
„ „ district	108
Total increase	376

On the electoral list for the Temora part of the electorate, 207 names have been added, and 87 struck off, leaving a nett increase of 119 on the list.

Yield

Yield of Gold.—The following return has been kindly furnished by Sergeant Buckley, Gold Receiver at Temora.

Return showing the quantities of gold received by the Gold Receiver at Temora, for transmission for gold escort to the Mint at Sydney during the year ending 31st December, 1891 :—

Date of forwarding.	Net weight. oz.	dwt.	grs.	Gross weight. oz.	dwt.	grs.
21 January	30	13	12	32	7	7
18 February	29	7	0	31	15	0
18 March	.....			.....		
15 April	115	5	21	118	8	12
13 May	.....			.....		
10 June	7	15	12	8	17	0
8 July	76	6	16	78	18	2
5 August	.....			.....		
2 September	.....			.....		
30 September	.....			.....		
28 October	88	7	12	93	8	20
25 November	.....			.....		
23 December	.....			.....		
Totals	347	16	1	363	14	17

For the purpose of comparison I continue the table I have been giving in former reports, showing the yearly yield of gold from and including the year 1881 :—

Year.	Gold transmitted by Escort. oz.	dwt.	gr.
1881	29,652	14	4
1882	33,348	0	7
1883	17,347	8	6
1884	14,381	16	1
1885	7,865	15	9
1886	7,161	10	3
1887	3,406	14	13
1888	2,353	12	10
1889	1,369	4	19
1890	801	17	12
1891	363	14	7

The above return includes the gold won both at Temora and Barmedman, but I cannot say the quantity won at each place respectively.

Barmedman.

The very excellent report furnished by Mr. Love, the Mining Registrar at Barmedman, is so complete, that it leaves very little for me to say, as it gives a fair and full description of this division. He has, however, valued the machinery in that division at £10,200, of which £9,000 is the estimated value of Mr. Hardy's plant—the plant erected by the late B.M.G.M. Co. That is the Engineer's estimate of what it would cost to supply a similar plant, and not the smaller sum, which in recent negotiations the proprietor has offered to sell the plant for. Mr. Love has called my attention to this matter, so that if advisable I may offer this explanation.

Cootamundra.

The only mines of practical importance in this division are at Muttama and Mooney Mooney, and as they are geographically within the Gundagai Division, and have been placed under the charge of Mr. Warden Weeks, that gentlemen will, I presume, report concerning them. A little prospecting for manganese has been done about 3 miles from Cootamundra, and a little manganese has been found during the year. Further developement might lead to the finding of a payable deposit, but as far as it has yet gone the prospects are not of an encouraging character.

Junee.

There has not been business to justify me incurring the expenses necessary to inspect the mines in this division. The more so, as the Warden's Clerk there is an officer whose reports upon all matters of a general character can be relied upon. His report as Mining Registrar should supply all information of practical value concerning this division. The gold obtained for the year was 271 oz. 11 dwt. 2 gr., of the value of £1,009 17s. 8d.

GENERAL REMARKS *re* MINING LAW.

Practical experience convinces me that the time has arrived when some amendments should be made in regulations relating to mining, especially gold-mining. His Honor Judge Forbes, in April, 1886, ruled the Mining Board Regulations Nos. 124, 125, and 126, to be *ultra vires*. There is practically no power to enforce the working of ordinary mining tenements held under the Mining Board Regulations, that is to say, these tenements cannot be forfeited for non-working. The regulations say they shall be worked, and mentions the number of miners by which the respective kind of claims mentioned shall be worked, and not to so work them would be to commit a breach of the regulations. And then section 126 of the "Mining Act of 1874" imposes a penalty of £10 for a breach of the regulations, but practically that section, in so far as enforcing labour is concerned, is a dead letter. I have never known a single instance in which that section has been called into action to enforce the working of claims. Miners will not prosecute under it. What they want is that when they set the law in motion *re* abandoned ground is, that they shall have a chance of getting the right to the ground itself, and anything less than this will not induce them to prosecute. The Mining Board Regulations have been in force since 1875, and until the defect before mentioned was given effect to they on the whole worked as well as average human made laws work, but as they now stand they protect the shepherding loafer—men who, like Micawber, are always on the look out for "something to turn up," but who wait for the industry and

and enterprise of their neighbours to turn it up. If there is to be, as I understand there will shortly be, a general revision of the laws relating to mining for gold and other metals, other defects will, no doubt, be dealt with in so far as the Mining Board Regulations are concerned; but as such amending legislation has been promised for some six years past, and is still in the distant future, I hope that I shall not be considered outstepping my legitimate duty if I again urge the passing of a short measure to make valid and of full effect the Mining Board Regulations as they now stand.

Gold-leasing Regulations.—I have noticed for some time past that objections have been taken to the new ground being held under the leasing regulations, and having considerable experience of the extensive way in which the provisions of the regulations *re* labour are evaded, it would astonish me if they were not so objected to. The present system of leasing is, I think, defective, not only as to new ground, but in respect of all mining land. I see nothing sacred in new ground any more than in what is called old ground. I could point out large areas of what, in mining laws and mining parlance is regarded as old ground, that I would be glad to get, if I were mining, in preference to any new ground that has yet come under my notice. The old ground I refer to has been proven, and is known to be wonderfully rich in auriferous deposits, but from a variety of causes, legal, monetary, and others, they are still lying idle and unworked. It would not be proper, for many reasons, for me to mention the exact locality of this old ground in this report, and I only refer to it by way of showing that old ground needs as much protection as new ground. What is really needed is a system of mining law that while it gives fair play and protection to honest mining enterprise, will prevent the loafing waiter on Providence from locking up the mining lands of the Colony be they old or new, until the hard labour of his neighbour proves what they are worth. I can see nothing objectionable in a leasing title, *per se*, any more than a title under the Mining Board Regulations. What is wanted in either case is that the ground shall be efficiently worked. Secure that, and then let the miner take his title in any form that may suit his convenience.

Under the Gold-mining Lease Regulations as at present it is all but impossible to strictly enforce the labour covenants of the leases. Of course, if it be shown by legal evidence that the conditions and covenants of a lease have been broken, there is legal power to cancel the lease; but then comes in the awkward question "how is it to be proved?" The Mining Department in its earnest desire to secure efficient working has from time to time sent circulars to wardens and other officers to report all cases in which the conditions of the leases have not been complied with, but practically this is almost like Pharoah demanding the Jews to make bricks without straw. Take my own case, to say nothing of my thousand and one duties outside those of Warden. I have as Warden charge of a district so large that if I were to properly inspect the mines within it my whole time would be occupied in travelling. Well, that of course is not to be thought of. How then is the difficulty to be overcome. Well, I think it may be met in one of two ways, or by a combination of both. The first is that an officer may be appointed whose sole duty it would be to regularly and systematicly inspect the mines held under lease and report whether or not the conditions had been complied with. The only objection that I see to that system is the cost it would entail upon the State. The other plan which has occurred to me would be to insist upon lessees sending in to the Department monthly returns of their mining operations in the form of a declaration. That return should be full and complete on a simple form to be provided by the Department, but it need not be harrassing. The non-forwarding of that return, or the forwarding of a false one, should involve penalties, and in extreme cases of cancellation of the lease. I can see neither hardship nor difficulty in lessees being compelled to do this. The monthly form could be filled up in a quarter of an hour, and the cost of sending it on a 2d. postage stamp. Of course those returns may be regarded as private and confidential, and need not be made public unless in the interest of justice their publication became imperative. Such returns would not inconvenience honest workers, but they would be a great check upon the dog-in-the-manger loafing shepherds. It might not perhaps be practicable to compel this return in respect of existing leases, but I presume there would be no difficulty in inserting a compulsory condition to that effect in all leases hereafter issued.

There is another matter that I think I ought to invite attention to, albeit its importance would be felt more in the future than in the immediate present. There are in abandoned and forfeited tenements in the Colony many shafts and drives, some of which have cost thousands of pounds to construct. All of these should I think be preserved for future use. Many mines have been abandoned, some from monetary difficulties, some because of unskilful management, some from want of proper appliances, &c., which under better arrangements probably would have been remunerative. Moreover, the scientific and mechanical world is rapidly moving onward, cheaper and more efficient appliances for saving gold, drills and other labour saving mining machinery are coming into regular use, so that it is not only possible but is also very probably that many mines that are now considered too poor to be worth working would in the not very distant future be valuable from a commercial point of view. Besides, all experienced quartz miners know that quartz mines are often flukey and patchy, and that the striking of gold is frequently as much the result of accident as of skill. For these and many other reasons that might be given the public interest demands that these old mines should be kept open for further exploration and development, but this cannot be done unless the shafts and drives be preserved. To do this the timbers securing them should not be taken out. The value of these timbers when brought to the surface would be very small, especially when the cost of removal were deducted, to say nothing of the risk to life and limb in taking them out. If it were even necessary for the State to pay for the value of these timbers the cost would be very small compared with the immense advantage of preserving in fairly good order these old workings. The removal of timber, worth not more than £50, might destroy a shaft that cost many thousands of pounds to sink. To give proper effect to these suggestions a careful code of regulations would be required, and these *inter alia* should provide for locality maps, showing the several shafts and their respective depths, with plans of the underground workings, &c. The cost of these maps and plans would be small, while their value for future guidance and reference would be simply incalcuable. Moreover, a small rental for their use might be charged for the use of these shafts and drives, so as to recoup the Government for its outlay. I have not now time to further elaborate these suggestions, but should have much pleasure in doing so if assured that my effort would be acceptable to the Department.

LACHLAN

LACHLAN MINING DISTRICT—Alectown Division.

(*G. A. Cavanagh, Mining Registrar.*)

Mining matters have been of a steady nature on this gold-field during the past year, no new discoveries being made in the locality of sufficient importance to cause excitement, but as the gold obtained would average about equal quantities per month for the whole of the year the progress of the place has been steady and sure. Alectown proper now consist of—2 stores, 2 hotels, 3 billiard rooms, 2 butcher's shops, 2 bakeries, 3 fruit shops, 1 bootmaker's shop, 1 newspaper vendor, 1 hall, used for general purposes, 2 blacksmiths shops, hay and corn store, telegraph and post office, Warden's Court, and Mining Registrar's office, police station, and a public school, with an average attendance of 45 pupils. The population, as taken by the police officer on the 10th instant, number 532, made up as follows:—Business people, women and children, 225; miners, 307.

Applications to purchase 24 allotments in this town have been made by the occupants thereof, nearly all of which number have been dealt with by the Local Land Board, and confirmed by the Department.

The alluvial workings of this field have been as follows—12,552 loads of wash-dirt have been puddled, of which 6,351 loads yielded 7 dwt. per load, and 6,201 loads, 13 dwt. per load, making a total of 6,253 oz. 10 dwt. This return is independent of a quantity of gold that has been obtained as prospects, for owing to the faulty nature of the leads in this vicinity the miners are obliged to continually keep washing prospects to prevent them from raising useless wash-dirt. In many instances the gold procured in this manner keeps and pays all working expenses of the party during the term they are engaged in getting out a washing. The Prospector's claim, which has been by far the best on the field, has from the date of discovery yielded 878 oz. 15 dwt. 8 gr. from 968 loads of wash-dirt. This claim is still working.

Three miles to the south-west of Alectown two nice specks were (at a depth of 6 feet) unearthed by a man named Cornelius Dinmore. They both weighed between 7 oz. and 8 oz.

With reference to the reefs discovered, an estimate as to their probable importance could not at present be given, for the stone raised from them (with the exception of three cases) has not been treated, as the carting of the quartz to the nearest battery, which is 10 miles distant from Alectown, is so expensive that the parties concerned prefer leaving it to grass, with the hope of machinery being erected in the immediate neighbourhood at an early date. Twelve different reefs have been worked upon more or less during the past twelve months, eight of which are now being constantly worked. The Pride of Alectown Reef, situate about 3 miles north from Alectown, and worked by Breathour and party, is well defined, about 3 feet wide, and in very soft country. 20 tons of stone crushed yielded 8 dwt. per ton. There are about 150 tons of stone to grass at this mine. The Bird's Nest Reef, situate about 2 miles from Alectown, and worked by Messrs. Sawyer, Millan, and Coomber, ranges in width from 9 to 21 inches, is well defined, but in hard country. 20 tons of quartz, treated from this reef, yielded 19 dwt. per ton. This party have about 30 tons of nice-looking stone on surface. Sherlaw and Jones, from a reef discovered under the alluvial workings on the Live Bird Lead, about 2¼ miles east from Alectown had 11 tons of stone treated for a yield of 11 oz. 3 dwt. 6 gr. The other five reefs which are being worked, are within a radius of 2 miles from Alectown, and vary in width from 6 inches to 4 feet, all show gold in more or less quantities. The Old Stockman's Reef is showing splendid stone, about 4 feet wide, with gold-bearing leaders constantly coming in. This mine would be an extra good paying concern if machinery to treat the stone was convenient.

A deal of prospecting, for alluvial gold principally, has been carried on in this division during the past nine months, most of the parties engaged receiving assistance from the Prospecting Board to aid them with the work, but, unfortunately, with all the prospecting done, by hard-working, persevering, and practical miners, the most favourable report that could be made was 4 dwt. 9 gr. to the load, discovered by Keane, Spelman, and party.

The total number of miners' rights issued at Alectown for 1891 is 394; total number of business licenses, 10.

LACHLAN MINING DISTRICT—Barmedman Division.

(*Thos. Love, Mining Registrar.*)

I have the honor to forward herewith my annual report of the mining industry in the Barmedman Division of the Lachlan Mining District for the year ending 31st December, 1891, and regret very much to have to report that mining in this division has remained a dead letter throughout the past year, with the exception of two small crushings, one of 45 tons for a yield of 39 oz. from the Jackson Reef, and one of 13 tons for a yield of 15¼ oz. from the Fiery Cross. With these two exceptions no mining has been done. This result is owing to the same cause as that reported by me for the two previous years—that is, the want of powerful pumping machinery to enable the miners to work the reefs below water level. Till this is done no progress can be made, as all the known payable reefs are worked down as deep as the water will permit. Several efforts to obtain the necessary machinery has been made, but from various adverse causes all efforts up to the present have proved abortive. This is the more to be regretted, as it is well known that not only payable but rich stone has been left underfoot in several claims, but notably in that of the Fiery Cross, where stone varying in thickness of from 1 to 9 feet, containing from 5 to 6 dwt. to over 3 oz. of gold to the ton, has had to be left underfoot owing to the great influx of water at the deepest level worked, which is about 130 feet from this lease, which contains a little over 2 acres. The shareholders have obtained over 5,000 oz. of gold. The country traversed by the reef in this mine is a soft rotten diorite, very easily worked. The reef stuff is a reddish friable decomposed quartz. The gold is of a coarse ragged nature. There is good reason for the hope that such a mine as this will sooner or later attract the attention of capitalists, and cause a strong mining revival in this division. There is the more reason for this hope from the fact that all the reefs worked have given satisfactory returns till the water prevented the working being carried any deeper.

At the Hard-to-Find Reefs, about 1½ mile south of Barmedman, a party of miners have this last week reoccupied Jackson & Co.'s ground, and are making a determined effort to bale the water with horse power, keeping relays of horses going night and day with the view of getting out samples of stone to test the value of the ground, and then if thought good enough, to form a company and put pumping machinery on the ground.

ground. The last crushing by Jackson and Sons from this reef, in February, 1890, gave a return of 40 oz. 18 dwt. from 9½ tons of stone. The reef is well defined but small, but is reported to be "making" larger going down.

Nearly all the miners on the field, finding no employment in the mines, have turned their attention to the more steady and constant, if less remunerative, employment of grubbing, ringing, fencing, and tank-sinking for the farmers, who have lately taken up nearly all the available land in the district. This will account for the fact of 56 miners' rights being issued, while only 8 miners were actually engaged in mining. Most of the 56 are interested in the mines, and only await a favourable opportunity to again resume work in them.

Total number of miners' rights issued	56		
Total number of business licenses	15		
Total number of tons of quartz crushed	58		
	oz.	dwt.	gr.
Yield	54	5	0
	£	s.	d.
Value, at £3 16s. 6d. per oz.	207	10	1½
Total value of machinery on field	10,200	0	0

Rainfall for year, 26 inches 52 points; number of days on which rain fell, 27. Population—Town: males, 121; females, 98; total, 219.

LACHLAN DISTRICT—Grenfell Division.

(W. H. Hazleton, Mining Registrar.)

During the year Messrs. Fitch and party discovered a new reef at the Milkman's Gully, and from a trial crushing of 16 tons obtained 28 oz. 16 dwt. of gold; they have at the present time a large quantity of stone at grass awaiting treatment from which is expected a good yield. Another prospecting party, Messrs. Paterson & Co., have been engaged for some months prospecting the locality known as the Mungel, which is situated about 15 miles in northerly direction from Grenfell, they discovered a reef, and from assays obtained by them they appear to be satisfied something payable will be their reward. Mr. W. G. Campbell, of Homeward Bound Reef, has just come upon a new make which from appearance should give a good return of gold. This discovery was made at 440 feet from the surface; the width of the lode is not yet known. Hinchcliffe and party, of Lawson's Reef, have also just made a new discovery being a small vein showing gold freely. Pettit and party, of the Enterprise Reef, have a large quantity of stone at grass, this party have just completed the erection of a crushing plant in connection with the mine, and intend, when not crushing their own stone, to crush for the public, which will be a great advantage in this division. Fitch and party, of the Young O'Brien Reef, are at present sinking, and expect to cut the reef at about 60 feet from the surface. At St. George's Reef, near the 7 mile, Messrs. Gleadow and party are prospecting on a conditional purchase under a permit. They seem to be satisfied they have discovered something payable, and desire to have the land thrown open for mining. On O'Brien, Lucknow, and Welcome, these reefs are all under lease, and very little work has been done upon any of them. In alluvial I have very little to report only a few parties working at the Quondong and Main Lead, also that during the year seven gold-mining lease applications were lodged at this office.

LACHLAN DISTRICT—Forbes Division.

(E. A. T. Pery, Mining Registrar.)

I have the honor to submit my report and statistics for the Forbes Division of the Lachlan Mining District for 1891. The amount of gold won in this division for the year is practically nil, little work having been effected.

Britannia Co-operative Gold-mining Company (Limited).—Affairs are, if possible, less promising with this company than at the time of my last year's report. Suspension of the labour conditions have been granted during the whole of last year, for the purpose of winding up the affairs of the old company, which are now in process of liquidation.

Pinnacle Reef Quartz-mining Company.—About 600 tons have been crushed during the year, realising 177½ oz. of gold, which can scarcely be considered a good return. Additional machinery is, however, in process of erection for crushing and pumping.

Barnett's Reef Gold-mining Company, Tichborne.—This company has now ceased to exist, the lead, after much prospecting, having failed to prove payable.

Lewis and party (alluvial) South Lead, Forbes.—Suspension of the labour conditions were granted during the latter portion of last year, on account of influx of water. They were previously enabled to rise about 40 loads of dirt which ran half an ounce to the load. If this wash improves in quantity, this should turn out payable.

Moses, Brown, and party have taken up an extended quartz claim 400 feet x 400 feet at Billy's Look Out, about 12 miles on this side of Marsden. They have had suspension up to the end of November last and beyond the fact that they have got a slight show I can report nothing.

Copper.—In regard to this mineral I have nothing fresh to report, except that a further lease of 40 acres has been applied for by Charles Matheson at the Euron workings.

During the past year I have issued 217 miners' rights (principally for holding land); 4 mineral licenses, and 16 business licenses.

LACHLAN DISTRICT—Parkes Division.

(James Millar, Mining Registrar.)

I have the honor to report for 1891:—Miners' rights issued, 580; business licenses issued, 205.

Seventeen leases applied for, aggregating 70 acres.

The owners of 11 mines have applied for suspension of labour, because of want of funds.

The quantity of quartz crushed totals 5,429 tons, showing an average yield of 16¼ dwt.

The Golden Crown shows the highest average—1 oz. 18 dwt. 9 gr. per ton. Haselhurst Proprietary Company comes next with 1 oz. 4 dwt. 4¼ gr. per ton. The Kohinoor tops the list for quantity of gold, 2,060 oz.; and Haselhurst next with 1,827 oz.

The amount of gold purchased by the banks at Parkes totals £30,512.

There is only one puddling machine at work, reporting 964 loads of wash-dirt, yielding 70½ oz., or an average of 31½ gr. to the load.

LACHLAN DISTRICT—Cudal Division.

(A. Minslow, Mining Registrar.)

During the above period I have received 5 applications for gold leases, embracing an area of 23 acres.

At Boney's Rocks work is being carried on with vigour. Twenty-four miners are employed in the different tenements, and it is anticipated that the number of miners will be shortly greatly increased, as at some of the claims preparations are being made to admit of more labour being employed.

At Paling Yards very little work has been done during the past year, only 80 tons of lode stuff being treated by Courts and party, which yielded 26 oz. 6 dwt. of gold.

The following is the amount of business transacted during the year:—

	£	s.	d.
Deposits lodged with gold lease applications	23	0	0
Deposit on permit	2	0	0
Miners' rights issued (23)	10	5	0
Business licenses issued	Nil.		
Mineral licenses issued	„		
Total	£35	5	0

LACHLAN MINING DISTRICT—Temora Division.

(James Miller, Mining Registrar.)

There have been 209 miners' rights, 229 business licenses, and 4 mineral licenses issued during the year. Four applications for gold leases were made for a total area of 20 acres.

Sergeant Buckley, gold receiver, kindly furnished me with a return showing the amount of gold received by him for transmission by escort, the gross weight being 363 oz. 14 dwt. 17 gr.; net, 347 oz. 16 dwt. 1 gr. This includes the yield from Barmedman.

Through the courtesy of the managers of the local banks I am enabled to furnish the following particulars of gold purchased by them, and its value:—

	oz.	dwt.	gr.		£	s.	d.
The Union Bank	112	11	17	Value...	432	15	3
The A.J.S. Bank	15	9	0	„ ...	59	6	0
The N.S.W. Bank	174	15	16	„ ...	677	5	9

Returns to hand from the owners of puddling machines show about 1,277 loads of wash-dirt puddled, averaging 3 dwt. per load, or about 168 oz. 11 dwt.

Mr. F. Heausler reports that he has crushed from his prospecting claim at Gundibindyal 45 tons of stone, yielding 88 oz. This, he states, from 20 feet of sinking and driving.

I have inspected the work done in the Phœnix Gold-mine (formerly known as the Mother Shipton), and from the report furnished me by the Manager, Mr. Neilson, and from personal observation, was very much surprised at the quantity of work done through most difficult ground. From the 6th April last to the end of the year Mr. Neilson reports as follows:—Vertical sinking, 349 feet; on underlie, 186 feet; main driving, 213 feet; total, 748 feet—through strata composed of decomposed and blue diorites, all shooting ground.

The assistance given miners by the Prospecting Vote is causing a greater number to test the country. There being such a large area of auriferous land in this district a fair share of this Vote expended here would give an impetus, and may lead to valuable discoveries of a permanent nature.

LACHLAN DISTRICT—Molong Division.

(J. Atkinson, Mining Registrar.)

At Gumble, 14 miles from Molong, the Delaney's Dyke Gold-mining Company have raised 800 tons of stone, yielding 210 oz. of gold. During the first half of the year 16 men were employed on this lease, but work was stopped in July last, and on the following month suspension of labour was granted for six months for the purpose of reforming the company. There are two dams of water on the property, and the machinery is valued at £5,000.

During the year I have issued 33 miners' rights, 3 mineral licenses, and 1 business license; and received 1 application for a gold lease, and 1 application for a mineral lease.

LACHLAN DISTRICT—Cargo Division.

(Edward Lord, Mining Registrar.)

The Ironclad Mine, owned by an English Company: At this mine very little, if any, work has been done, owing to the want of capital, during the best part of the year the mine has been shut down. The Golden Clad Mine, situated near the Ironclad Mine, and owned by W. Z. Frank, of Sydney: During the year a new 20-head battery has been erected at a cost of £2,500. No stone has been raised or crushed at this mine during the year. The Dalcouth Mine, situated at Gum Flat, and owned by Messrs. C. Powers: During the year 123 tons of stone have been raised and crushed, averaging 1 oz. 7 dwt. to the ton. At New Chum Hill, A. Tinnock, on his 1 acre lease, struck some very rich stone, a crushing of 9 tons yielding 54 oz. of gold. Several other leases have been tried during the year, yielding from ½ oz. to 1 oz. to the ton, but are not considered payable, owing to the vein being very narrow. During the year a 5-head stamper battery has been erected by a public company, and has proved a great boon to the mining around Cargo. It has been kept constantly going since it was erected. At present the mining around Cargo is very dull, owing to all the principal mines being shut down.

During the year 20 applications were received for gold-mining leases, 60 miners' rights issued, and 1 mineral license; total amount collected during the year, £116 10s.

SOUTHERN DISTRICT—Bombala, Bega, Eden, Cooma, and Nimitybelle Divisions.

(*M. S. Love, Warden.*)

Nelbothery.

These mining tenements, now about to be converted into special leases, are situated about 13 miles from Bombala towards Delegate, and will be worked by the Delegate River Hydraulic Sluicing Company. Machinery, consisting of two sets of triple expansion pumping engines, Worthington type, each set capable of delivering 2,000,000 gallons of water per twenty-four hours to a height of 330 feet, through a 22-inch pipe three-quarters of a mile long, are to be erected on the land at a cost of £12,000, which, together with pipes, will make an aggregate of £16,000.

About twenty-five shafts, varying in depth from 13 feet to 57 feet, have been sunk, showing wash from surface to bottom which is slate. Several faces or open cuttings also show payable, and in some instances rich, wash. The land presumably is the bed of an old river, and competent authorities in special reports have spoken favourably of the field. Steps are now being taken to carry on extensive mining operations, which will be watched with intense interest by most residents of the Bombala District.

Tantawanglo.

The swamp embraced within portion 52, F. Wiles, and mineral lease of 40 acres, has been tested in several places, very good prospects of tin and gold being obtained in shallow wash, about 11 feet 6 inches below the surface. The tin is similar in quality to that obtained by the Government prospecting party recently employed in the locality. Application for aid under the Prospecting Vote to test this land has been made by Croaker and party, but in view of the difficulty in contending with the water in the swamp not only on these areas but also on adjoining mineral leases held by Mr. Peadon, I have suggested in a special report that it would be preferable to assist the combined efforts of the respective lessees, provided they could be induced to jointly prove the field.

Dolondondale.

In February last it was reported that a rush had taken place to this locality by reason of the alleged discovery of rich gold reefs, and several miners appeared on the scene, to be disappointed, and return from whence they came. Several shafts were sunk, but no reef seen. Dolondondale is about 35 miles west of Cooma, in the county of Dampier.

Bull Hill.

Messrs. Bennessin and others have done a considerable amount of work in searching for silver on a mineral prospecting area, and aid has been applied for under the Prospecting Vote. I have not been advised of the result of assays from the lode.

Bombala.

With the exception of Nelbothery and Tantawanglo, in this division, mining generally is at a standstill. Most of the leases have been cancelled for ignoring labour conditions.

No work has been done at Little Plain.

Nimitybelle.

Kydra reefs have been abandoned. There is absolutely nothing to report in connection with this division.

Kiandra.

I regret to say that I cannot report favourable results in connection with New Chum Hill. Hydraulic sluicing was stopped, the blocking-out system being substituted, 1,200 superficial yards averaging only 6s. 6d. per superficial yard, which cannot pay expenses. The deep ground leading into the hill was worked all the time. Since then, August to December, the lessees have obtained 15s. a foot from the Prospecting Vote, driving the lower level 150 feet further. The experience of blocking-out would seem to indicate that the interior of the hill will not be a payable venture.

Township Hill—Heinz and Party.—Aid has been granted from the Prospecting Vote to continue the tunnel a further distance of 250 feet, but the lessees do not anticipate reaching the wash at a less distance than 600 feet.

Tantangra.—Messrs. Mulvaney and others reported the discovery of a rich reef at Tantangra in December, and I visited the locality forthwith. A massive and broken outcrop or blow of ferruginous quartz runs north and south on the steep right bank of the Tantangra Creek, showing also on the left side of same. A small sample (about 5 or 6 lb.) of the stone was assayed recently at the Mines Department, yielding no trace of gold or silver. Unwarrantable and unjustifiable reports were circulated with reference to this alleged rich discovery, several miners visiting the locality on a fool's errand, and I had to officially contradict a statement published in the Sydney and country press to the effect that the Warden had reported favourably on this "mountain of gold."

Dunn's Reef.—A north and south reef, 7 inches to 18 inches wide, with vertical walls, in slate country, has been embraced within a gold lease application by one William Dunn. The reef is about 2 miles from Kiandra township, on high ground, 150 feet above creek level. Several good prospects were obtained in my presence by a mortar, and samples of stone have been submitted for assay in Sydney.

In accordance with a request made by the Progress Committee on behalf of the miners, I have recommended, after conferring with Mr. Warden Weekes, that "Lobb's Hole," now in the Tumbarumba Mining Division, be included within the Kiandra Division.

Messrs. Reeckman and party are still testing the copper lode, and have sent 14 tons to Melbourne. Result not known.

Cooma.

Permits under the 1889 Mining Act have been granted to E. P. Margoschis, D. Murray, and W. Lockyer, to search for wolfram on W. Avery's conditional lease at Berridale, in the parish of Coolamatong.

A broken outcrop of quartz, containing wolfram, was traced for 100 yards, running east and west, an assay of a small sample, yielding 69 per cent tungstic acid.

The respective holders are now prospecting the areas.

Colington.

Colington.

Quigg and others continue working, other miners having abandoned the field. Their shaft is 40 feet deep, the vein varying in width from 4 inches to 3 feet, and 290 tons of stone raised yielded 180 oz. When the land, formerly held under conditional lease, was resumed for mining, three gold-leases were granted as applied for, but applicants did not execute them.

Quigg reported for 1890, 254 oz. from 390 tons.

Bredbo.

Not even a prospector in this locality.

Little Plain.

No work. Leases abandoned.

Kybean River.

A syndicate of Sydney and local persons have taken up an alluvial claim on the bank of the river, about 8 miles from the post-office at Umaralla, intending to sluice-wash, which gave fair prospects.

The flooded state of the river suspended for a time the operations, which are reported to be in the hands of competent miners and an engineer.

Fiery Creek.

The following are detailed crushings on this field, from January to December, 1891:—

		oz.	dwt.	gr.
Tindall and party	94 tons, yielding	119	8	5
Freebody and party	84 ,, ,,	133	7	0
Waldron and others	43 ,, ,,	50	5	0
Blake and others	18 ,, ,,	8	17	0
P. Myers	18 ,, ,,	22	10	0
Hammond and others	10 ,, ,,	7	10	12

Being a total of 342 oz., from 267 tons.

The yield from this field for 1890 was 193 oz., from 182 tons.

The stone taken from surface to a depth not exceeding 50 feet has been treated by a small battery at the diggings which was previously erected on the Umaralla River

The claims and leases are held and worked almost exclusively by miners. Syndicates and companies are unknown. Hard work has been rewarded by success, and the general complaint "want of capital" has not been heard.

Cowra Creek.

This field is situated about 22 miles north-west of Cooma, and judging by recent prospects I anticipate its favourable recognition by miners. Prospectors representing Sydney, Victoria, and local interests have given Cowra Creek considerable attention, resulting in fourteen gold lease applications being lodged for a total of 103 acres

A small sample of stone from the Cowra Princess Lease, a few feet below surface, was assayed at the Department of Mines with the following result:—Mispickel with quartz, yielding gold, 5 oz. 19 dwt. 15 gr., and silver, 4 dwt. per ton. Reef 9 inches wide.

Two samples of stone from the Cowra King Lease, assayed at the Mines Department, have thus determined:—No. 1 quartz, vein carrying a little free gold in slate; gold, 13 oz.; silver, 18 dwt. per ton. No. 2, quartz vein, carrying pyrites in slate; gold, 5 oz. 2 dwt.; silver, 6 dwt. per ton.

The country is mountainous, the fundamental rock being slate, and similar to Fiery Creek District. Water conservation by dams can afford every facility for working the mines, and the stone is easily treated.

A five-head stamper machine has been erected at the diggings, but, by reason of a wet season and accidents to machinery, no crushing has yet been effected. Six tons of stone have recently been sent for treatment to Sydney, and should result prove satisfactory arrangements will be made forthwith by a Sydney and local syndicate to develop the Cowra King land.

The treatment of pyrites locally by proper appliances will be the only difficulty in making Cowra Creek a payable field.

Michelago.

The Bowery Gold-mining Co., have erected engine and crushing battery and dwelling-house on land held under lease at a cost of £1,200. Three shafts 150 feet, 150 feet, and 70 feet respectively, have been sunk, and work is now suspended for want of funds. A report has been made as to result of crushings by mine-holders, but from information received from other sources it has not proved satisfactory.

J. Murray drove 500 feet at the 200 foot level without cutting reef, and, although aided from Prospecting Vote for last 100 feet, abandoned the work. He had a 5-head battery worked by water-wheel. This holder, having expended time and energy for nil, removed to Cowra Creek where I hope he will be successful.

Minerals.

In accordance with my request a collection of geological and mineralogical specimens from the chief mining centres of the Colony have been forwarded from the Geological Survey Branch of the Mines Department.

These specimens will form a nucleus upon which to work and are now displayed for public view at the Warden's Office, Cooma.

Mineral and fossil specimens may be saved with advantage in this district and I anticipate valuable additions to the embryo museum.

Umaralla Gold-field.

In November last, the Umaralla Gold-field was duly notified by Proclamation. The area, about 42,800 acres, is partly within Cowra and Ganowra Holdings, county of Beresford, parishes of Rose Valley, Clifford, and Abercrombie.

Most of the mineral leases in the Bombala Division, all leases in Nimitybelle Division, and many gold and mineral leases in the Cooma Mining Division were cancelled last year for non-compliance with the labour conditions.

SOUTHERN DISTRICT—Ulladulla, Panbula, and Moruya Divisions.

(George Maunsell, Warden.)

At Currowan, Messrs. Hobbs and Campbell hold 34 acres which adjoin and follow a reef which has been traced for 500 yards with a breadth of 4½ feet.

Negotiations are now being made by the lessees to amalgamate their interests with a view to develop the property on an extensive scale. As only half an ounce to the ton is expected, the crushing plant must necessarily be very large. The work already done consists of sinking, cross-cutting, tunnelling, and prospecting for the reef. There is a considerable quantity of stone at grass.

At Brimbermala and Bullock Creek a 5-stamper battery has been erected. Wray, the discoverer of this field, holds 12 acres, on which 334 feet of sinking and 143 feet of driving has been done. He has just crushed 72 tons of ore for 154 ounces of gold, and is now crushing 40 tons more, none of the ore was picked. The Joe Thorpe Mine treated 15 tons for 23 dwt. per ton. The Gem Gold-mining Company, have sunk 110 and driven 75 feet; two crushings from this mine of 40 tons gave over 1 oz. per ton. Several here have temporarily abandoned their interests owing to the want of capital and a larger crushing plant.

At Clyde Mallow, 30 acres are leased by Messrs. Hewett and Paul. The former has sold his interest to the Nelligan Gold-mining Company, which has very recently been formed in Melbourne, with a nominal capital of £75,000. A 20-horse power portable engine with a 15-head battery has been purchased, and its erection is being prepared for. The average width of the reef is 4 feet, and its bearing is north and south. As far as surface indications can guide one in forming an opinion it has the appearance of continuity. There are 75 tons of ore at grass. The work done consists in costean, cuttings, trial, and a principal shaft sunk on the reef to a depth of 55 feet.

At Mogo, the Mogo Gold-mining Company have spent £560 in paddocking the eastern side of the creek without any payable results. It hopes to strike the gutter in a few days. About two miles to the N.E. of this place a promising reef has been found at which there are two parties at work.

At Bimbimbie, between Mogo and Moruya, 63 acres have been leased, and there are a few claims. A fair amount of gold appears in the decomposed surface stuff which is principally granitic, though the slate formation is very close by. It does not appear, however, that the true reef has yet been opened. In view of the expectations the owners have of the value of their mines, it seems extraordinary that they have done so little to test them; no attempt has been made to sink to a depth. Till that is done it is impossible to speak about the reef. There are several outcrops in the vicinity which appear to be parallel.

At Moruya, the Moruya Gold and Silver-mining Company have erected new pumping machinery and a Frue Vanner. It has sent about 400 tons of ore to London and Sydney. The average price got for the ore in Sydney is £9. At present all ore is concentrated and shipped to London by Mr. Francis Guy. The company have a large quantity of ore at grass, estimated at not less than 500 tons. The principal work done is the sinking of the shafts about 200 feet. The Little Gem Gold-mining Company having removed its plant; there is no mining going on in the immediate neighbourhood of Moruya; but a party of four Victorians are now prospecting in the neighbourhood. During the year a class has been conducted here in connection with the Technical Branch of the Education Department. The effect of this class cannot be otherwise than beneficial to the mining interests generally, and as attention has been drawn to minerals (other than gold and silver) which may be found in the district, it is possible that, as a certain degree of expertness is gained by the students, further discoveries of minerals of a commercial value may be found.

At Bendithera, little or no work has been done during the year, and I shall shortly report the mineral lease holders for not complying with the labour conditions, so as to permit of others who appear desirous of testing the ground to come in.

At Turlingah, owing to litigation no work has been done on the Italia, which has been disposed of to a syndicate by Mr. N. Leoni. Some machinery has been brought on to the ground, and the owners inform me they intend to work the mine in a vigorous manner. From time to time reports have been received by the Department on the workings and capabilities of this mine. About 1½ mile from here Mr. Cantly is sinking on a very promising reef situate on his private property.

At Wagonga North Head, the Bodalla Gold-mining Company has collapsed through gross mismanagement. The Lady Carrington is under suspension for a considerable time in consideration of Mr. Tornaghi having at my suggestion erected his recently patented pulverisator at Panbula in lieu of here.

At Mount Dromedary, more than the usual activity has been shown here during the year. There are twenty-three leases in full work. Bailey and Milis continue to get rich stone, and their vein widens with depth. They have driven 300 and sunk 200 feet. Clow has driven 365 and stoped 50 by 30 feet. The Mount Dromedary Gold-mining Company have recently erected a 5-stamper battery, worked by a water wheel, and a large flume. Janney and Cowderoy have tunnelled 255 feet and sunk 190 feet on the summit of the mountain. There are two parties prospecting for alluvial on the western slope.

At Nerrigundah and Tin Pot, 600 oz. of gold have been won during the year. Several miners left for Panbula. The principal mines are: The Nerrigundah Gold-mining Company, the Wandella Gold-mining Company, the Eureka, Nil Desperandum, and Pioneer. There are about 120 miners at work. The Nil Desperandum has been assisted by the Prospecting Board. Its last crushing gave 2 oz. to the ton; it has an excellent show at the water level. The Nerrigundah Gold-mining Company has done a large quantity of useful work, and so has the Tin Pot. From what has recently come to my knowledge, I anticipate a revival of quartz-reefing here very soon. McVetty and party and Hewitt and party are the principal alluvial miners, and they are, and have been making fair wages.

The Wandella Gold-mining Company has erected a 5-stamper battery and is now driving from the 80-foot level. Three trial crushings from this level gave the following returns for 6 tons:—1st, 3 oz. 14 dwt.; 2nd, 3 oz. 18 dwt.; 3rd, 4 oz. The Prospecting Board has assisted this company.

At Montreal and Bermagui during the present year, Mr. W. A. Hunt, believing that the gold won in former times came from reefs in those localities, gave them a fair quantity of prospecting without any good results. The usual fossicker is still getting a livelihood here.

At

At Coolagalite, owing to the constant floods of the year, and the absence of crushing appliances, but little progress has been made. Riley and party are now erecting a 5-stamper battery, which must have the effect of advancing this little field of which some hold a high opinion.

Janga and Nelson.—Very good specimens were found here about three months ago on Mr. Richie's private land, which warranted him to apply for a permit; since then Seccombe and party have sunk 50 feet and expect to get a defined reef at a greater depth. Williams and party have sunk a 63-foot shaft. Several parties are prospecting in the neighbouring creeks for alluvial gold, and Darage and party have made a 100-foot tunnel and sunk a 38-foot shaft in Lenahan's Gully, where small quantities of gold are being found, and the miners are hopeful of making important discoveries ere long.

At Robinson's Hole the Prospecting Board assisted a syndicate to prospect the locality so highly referred to in the Rev. Mr. Clarke's work, "The Southern Gold-fields." Five men were employed for three months in searching for alluvial deposits. They made 150 feet of trenching, and sunk four shafts averaging 25 feet each, but owing to the great body of water, caused by the exceptionally large rainfalls of the year, the work has been discontinued for a while.

The Youaka Gold-field.—Speaking generally, the progress of this field has not been so rapid as I anticipated, and the following reasons are assigned for its present backward state:—1st. The diversity of opinion that exists as to the best mode of working its very fine gold. 2nd. The diffidence shown by speculators in investing in a field where the formation is entirely different to any that they have had previous experience of. 3rd. The difficulty of getting rid of some of the original lessees, who did not understand mining. 4th. The over-syndicating and issue of large quantities of scrip in connection with some of the properties; and 5th. Mismanagement in many cases.

Lately, many of the forfeited leases have been retaken by syndicates and companies, who promise a faithful development of their properties.

A company has been formed, with a capital of £50,000, to erect a modern ore reducing plant, embodying all the latest improvements.

A more experienced class of managers are being employed, therefore I have reasons to look forward to this field making much progress during the current year.

The five principal mines are the Mount Gahan Gold-mining Company, capital £45,000; the Panbula Gold-mining Company, capital £60,000; Faulkner Gold-mining Company, capital £24,000; the Bland Proprietary Syndicate; Hidden Treasure Gold-mining Company, capital £40,000; and the Killarney Gold-mining Company, capital £50,000. Besides the above, the following companies have been formed:—Victory Gold-mining Company, capital £18,000; the Morning Star Gold-mining Company, capital £6,000; the Happy Moments Gold-mining Company, capital £50,000; the Panbula Golden Diorite Gold-mining Company, capital £25,000; the Youaka Proprietary Gold-mining Company, capital £100,000; the Speculation Gold-mining Company, capital £50,000; the Panbula Tunnel Gold-mining Company, capital £15,000. The Mount Gahan Gold-mining Company's main shaft is down 156 feet, at which level a well-defined lode continues, which carries good gold. From 1,100 tons of this ore 1,600 oz. was the return. Faulkner's Gold-mining Company has sunk 50 feet, and driven about 120 feet. 120 tons of ore produced 1,890 oz. of gold. The Panbula Company has sunk 80 feet on the lode, and driven a considerable distance. It has won 598 oz. of gold. The Bland's Proprietary large property is being prospected, and 9 dwt. stuff is obtainable on it. The Killarney Gold-mining Company has sunk 101 feet, at which level it is looking very well.

Seventy-two gold and 40 mineral leases have been applied for on this field during the year, and 47 mineral licenses, 535 miners' rights, and 31 business licenses, have been issued.

The Whipstick Gold-field.—The permanent water-level has been reached here, and further developments are postponed till pumping machinery can be obtained. The Whipstick Gold-mining Proprietary Company have sunk a shaft on the underlay to a depth of 85 feet, and driven about 300 feet at that level.

Mount Imlay.—Hough and party, who are in receipt of aid from the Prospecting Board, are prevented from proceeding with their new shaft in consequence of the wetness of their ground.

The Wyndham or Whipstick Silver-mines.—The lodes here consist of a soft granular felspar matrix, impregnated with blotches of bismuth, molybdenum, and chloride of silver. They are capped with granitic rock, containing a large percentage of manganese, white mica, and garnets. The country rock consists quartz, felspar, white mica, coarsely crystalline. 40 mineral leases have been applied for, and 47 licenses issued during the year. The Great Jingera Proprietary Silver-mining Company hold 8 leases for an area of 203 acres. It is opening up the lode in various places. From an outcrop on mineral lease No. 4 it has despatched 4 tons of ore, averaging 1,170 oz. of silver to the ton, and from 3 to 10 per cent. of bismuth. This mine is situated on the summit of the north Jingera Range, about 1,500 feet above sea-level.

There has been scarcely any work done on the other areas applied for, but it is said that the lode will be found on the south and east. It is probable that gold will be found associated with silver and bismuth.

So far as I can ascertain, 5,929 oz. of gold have been won during last year, 110 gold-mining and 44 mineral leases have been applied for, and 54 mineral licenses, 934 miners' rights, 55 business licenses issued. There are about 1,300 miners at work throughout the district.

At Eden Mr. Cohlan and party have received permission to mine for coal, and at Bourunda Mr. Samuels has done a considerable quantity of work in prospecting for shale, and spent £1,500 in the venture, but I am not sanguine of any good results arising from his efforts.

SOUTHERN DISTRICT—Braidwood, Araluen, Major's Creek, Captain's Flat, Queanbeyan, Little River, Nerriga, and Nowra Divisions.

(John L. King, Warden).

At Jembaicumbene, the claim mentioned in my last report has been granted suspension to enable the owners to provide machinery, but the results have not been so satisfactory as it was anticipated they would be.

The claim on the private land of the Dransfields has also ceased work for the present.

The anxiety of the miners to get the Mining on Private Lands Bill passed is as great as ever, as it is known that there is a large quantity of auriferous land locked up. At

At Major's Creek the company have not again started work, the great expense necessary in consequence of the refractory ores being the principal cause.

Sluicing in the bed of the creek still continues, but only wages are made by those working.

At Araluen a pumping plant is in course of erection for the purpose of testing the drift at a lower level. Smith and party are still at work, and are obtaining good results by stripping and sluicing the creek drift.

At Queanbeyan only prospecting is going on.

At Little River the Day Dawn Mine has ceased work, and the machinery is for sale. This is much to be regretted, as undoubtedly it is a good property. The shaft is down 205 feet; the vein in the level is from 6 inches to 4 feet in thickness, the underlay 1 foot in 7 feet. It has been employing from 12 to 40 men during last year. 500 tons was raised, yielding 700 oz. of gold. The plant is valued at £2,500. The cause of knocking off is because the company have failed to make arrangements to further sink.

Ground sluicing is fairly good, but the scarcity of water retards the ordinary miner from making any headway.

At Horseshoe Bend, in the Nerriga Division, the tunnel is completed, and a dam is now being constructed to divert the water from the river when it is intended to sluice the bed of the river. Good results are expected, as the prospects obtained by the aid of the diving bell were good. The late floods caused a great deal of damage and delayed operations for a long time.

The Golden Terrace Company having amalgamated with the Corang Company, they have extended the race of the latter to the special leases of the former, comprising 500 acres, taken up originally by J. J. Semmes, but water in dry weather being scarce, it is found necessary to erect a dam to ensure a permanent supply. About £17,000 has already been spent.

Burrel and Davis' dam in Bulee River was carried away during the floods, which was a great loss, as, had it stood, their land at Peggy's Hill and other places on the Shoalhaven would have, ere this, been worked. They are now having fresh levels taken with a view to re-erection.

Several gold leases have been lately taken up at Montenay with good prospects. The reefs at the Welcome are giving good returns. Other mining is confined to localities where water is available, but it is very scarce.

At Wyambene McWilliams and party were compelled to abandon the idea of sinking on the lode on account of water, but have now been granted aid, and are driving a tunnel which is to be 400 ft. long, to cut the lode. This property appears to be a very likely one, and deserves to be thoroughly prospected, as, should it turn out well, it will open up a large field for both gold and silver mining.

At Currumbene Mason and party, who have for three years constantly been prospecting the swamp as far as they were able on account of the large quantity of water have succeeded in forming a syndicate to cut a drainage race into the swamp, and it is likely to turn out well. The travelling stock reserve should be cancelled and a gold-field proclaimed to embrace the whole of the water shed to the creek. Good gold has been found in several places in this locality, and it is probable that payable reefs are in the hills.

At Boro the Crystal Hill Company are now driving at the 150-foot level to cut the load. The shaft was sunk to the 200-foot level without cutting it. Water became very troublesome and expensive to deal with.

Mr. Blatchford is driving a tunnel, and is making good headway, having reached over 260 feet. Several other parties are working, but with no definite result. Depth is what is required, and money being scarce, it is difficult to proceed.

M'Rae and party have done a lot of work on portion 185. Their new shaft is down 120 feet, with cross-cutting 100 feet. They have expended the aid granted to them, and have applied for temporary suspension to enable them to make arrangements to further sink 100 feet. They also are troubled with water, which seems to exist all over this field at about 150 feet.

The matter of dispute in regard to the leases has all been settled, and as soon as they are granted work will proceed.

An assay office has been erected by Mr. Blatchford, who has engaged a competent assayer (Mr. Dobson), and assays are done on the ground for the owner and the public at a small cost, which is a great convenience. Several persons are receiving aid, and it is to be hoped that something may be the result, though at present the discovery of anything approaching a silver lode seems as far off as it did twelve months ago.

At Nowra, the Homeward Bound is in full work, with 40 head of stampers going, and 20 more in course of erection. They are crushing the whole of the deposit on the top of the hill, and I am informed by the manager, Mr. Allen, the results are sufficient to justify the extra machinery being erected.

Mr. Henson, owner of the Pioneer, which is a similar mine to the Homeward Bound, if erecting 40 head of stampers, and will be crushing in about four months from now. The Victory tunnel is at a standstill, having been driven 390 feet without cutting the supposed lode or the continuation of that being operated upon by the Homeward Bound and Pioneer Companies.

Jones and party have been steadily working gold-lease 56 for a considerable part of the year, and the result of the crushing is most unsatisfactory. 68 tons only yielding 6½ oz.

Gold-lease 1 has been worked by Mr. King, and his battery has been kept going during most of the year, but the results are also unfavourable. It appears that most of the lease-holders have spent large sums of money, and, with the exception of the Homeward Bound, none of them are now paying. A great deal of suspension has been granted, with a view of allowing them to reform their companies and to obtain machinery suitable for the saving of the fine gold, which there is little doubt exists, but is so hard to win.

At Captain's Flat the Commodore Vanderbilt and New Koh-i-nor Silver-mines are at work, but the managers having failed to hand in the particulars, I am unable to give more particulars. They will, however, appear in the local Warden's Clerk's report. Nothing but prospecting is going on besides these works. A Mr. Irwin has taken up a mining-lease, 40 acres, on this side of the range, parish of Jinero, upon which is a large lode, carring large quantities of lead. Wilson and party are also about to work a load existing beyond Bombay, on the other side of the Shoalhaven.

Generally, mining is on the increase in this district.

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The several Mining Registrars' reports will contain all details in regard to their respective Divisions.

The gold sent by escort from this district, obtained from Little River, Araluen, Major's Creek, Jembaicumbene, amounts to 6,184 12 dwt. 23 gr., and there is no doubt but that large quantities leave the district by private hands.

SOUTHERN DISTRICT—Berrima Division.

(F. R. Wilshire, Warden.)

For your information, I beg to report that mining matters in the division under my charge have been very slack during the past twelve months.

Regarding gold-mining—beyond some extensive operations by several companies on the Shoalhaven River near Windellama, towards establishing hydraulic sluicing in connection with an extensive gold-bearing drift deposit there, concerning the probable value of which, I have already made some reports and special references, nothing much has been done, but it is expected that, in the course of a few months, one at least of these companies will be in operation, and most favourable results are anticipated.

In silver-mining nothing at all is doing, and the expectations entertained, that, in the locality of Boro, payable lodes would be found, have, so far, proved unfounded, and nothing further has developed there.

With regard to coal, the local companies and Berrima and Mittagong are doing very little business, and there is some talk of them closing unless the trade improves.

The Joadja Shale and Oil Company are still pushing on, and extending their important works, and continue to do, I believe, an excellent business.

With regard to prospecting for gems on the Wingecarribee River, &c. As already reported, several samples of gems and minerals of various descriptions and in large quantities have been obtained, including fairly-sized sapphires, zircons, &c., and one small fractured diamond.

The operations also resulted in the discovery of a very extensive drift deposit, underlying trap hills, &c., at Burrawang and Kangaloon, &c., which also appears to extend under and across portion of the head of Wingecarribee Swamp, but the swamp being quite an inaccessible quagmire in its whole extent, no tests could be made as to the existence of the drift-bed under it, or otherwise, but a shaft sunk on the verge of the swamp, some 10 feet deep below water level, proved the drift to that depth, the influx of water rendering further sinking impracticable with the ordinary appliances.

This drift-bed is in many respects important, scientifically and economically, &c., the drift itself forming a useful gravel, and will eventually, when facilities for cheaper carriage are greater, be extensively used for road-blinding, gravel-paths, &c., and the discovery thereof alone fully justifies the small sum expended in prospecting, and I hope yet some further mineral deposit will be found in connection therewith.

When the present prospecting terminates I will furnish a special report concerning it.

I may perhaps mention that one of the sources of the large quantity of the mineral "Pleonast" has been also discovered in the course of this prospecting for gems, viz., Riley's Sugarloaf Hill, Kangaloon.

Having just visited the Shoalhaven side, I can now furnish some further particulars relative to the progress of the mining work there in connection with the Great gold-bearing drift, of which I have repeatedly written heretofore.

There are now in existence (I learn on reliable information) some five companies, and one or two in course of formation, preparing to work this drift by means of hydraulic sluicing—representing in the aggregate about three-quarters of a million in capital. One combined company, known locally as the Spa Creek and Jessop Co., capital £200,000, are now engaged in constructing a dam in Nagigomar Creek, which, when completed, will be over 50 feet in height, and cost some £10,000, and will form a body of water some 3½ miles long and nearly 1 in width, in places.

Water from this dam will be pumped 150 feet up into an aqueduct about 13 miles long, consisting of fluming (60 feet high in places), open drain, and tunnelling, and conserved in another extensive dam at the point of mining operations on the Shoalhaven River (Spa Creek). There are nearly 100 men now engaged dam-making, timber-getting, &c., for these extensive works. The other four or five recently-formed companies are preparing to commence operations also.

With regard to the "drift" to be operated upon, I have just inspected it at Oallen's Crossing on the Shoalhaven River, and estimate its greatest thickness there at about 300 feet. It is here intersected by the Shoalhaven, and forms for one-half mile or so both banks of the river, and is being, and has for years been, worked by ordinary "sluicing" in a small way in several places in this locality. Its yield here is said to be profitable even worked in this primitive manner. I passed over miles of this enormous drift-bed, where in places, judging from the general features of the country, it must be of hundreds of feet, up to, I should say, perhaps 400 feet in depth, it is from end to end, covered by forest and scrub and overland, and for miles, and entirely hidden from view by a layer of white sandy loam averaging from 6 inches to 10 or 15 feet in depth. Wherever tested this drift-bed, I am assured, and fully believe it, yields gold to the extent of (on the average) one-half dwt. to the load, or in money value, from 14d. to 2s. 6d. per ton, and considering the growing importance of this deposit, its extensive area (some 40 miles in length, &c.), and its undoubted value as a mining area, likely to be henceforth profitably worked for ages, I again venture to respectfully recommend that a competent officer, to whom I would gladly furnish any information thereon I happen to possess, be sent up to make a thorough and scientific examination of this whole gold-bearing drift-bed with a view of obtaining a reliable knowledge of its apparent value and of having the area charted up and properly located for the information of the mining public, &c.

Ere long this immense and valuable deposit will, I believe, soon be lined with powerful hydraulic sluicing companies for miles, and form, in the near future, one of the most important and valuable and lasting mining districts that the Colony possesses.

The district also contains innumerable quartz reefs, and rich-looking iron-capped lodes in all directions, many of which are known to contain both silver and gold. On the whole I consider this mineral district, including the parishes of Jerrara, Jerralong, O'Allen, &c., has not yet received the attention it is deserving of, has been somewhat neglected by the mining community, and, to some extent perhaps, escaped attention in official quarters.

SOUTHERN DISTRICT.—Berrima Division.

(*B. R. Wilshire, Mining Registrar.*)

During the past year there has been very little gold-mining in this district, a prospecting party has been working (I believe are still searching) at the junction of the Kangaroo and Shoalhaven Rivers, but up to present timehavenot succeeded in obtaining payable gold. There are also other extensive operations being carried on up near Windellama, but are not yet completed.

In coal-mining the A. K. O. & M. Company is the only one in active progress, and that seems to be doing a good trade, all the others being abandoned, or very nearly so, and there is nothing being done in the iron industry whatever.

SOUTHERN DISTRICT.—Yass Division.

(*H. J. Chisholm, Warden.*)

Mining matters in my district are not up to my anticipations, and yet still things, on the whole, are of a progressive nature.

In the early part of the year, several applications to search for gold in the Burrowa District were received, the land chosen is about 2 miles from Rye Park, and from the interest taken in it by the residents in the immediate locality, I am in hopes of something really good taking place.

The Walla Walla Mines.—The proprietors of this mine are most sanguine of its ultimate success, and if it is floated into a no-liability company, a new record of its value will soon be felt.

Though I cannot report any works of a solid character, yet, on the whole, I cannot help feeling that before the ensuing year passes away, mining matters in my district will be very much improved.

SOUTHERN DISTRICT—Nowra Division.

(*John M. Sheehan, Mining Registrar*).

I have the honor to forward you herewith my annual report on the Nowra Division of the Southern District. I forwarded the usual circular during the month of December to the different mine managers; very few, however, returned them to me with the required information. The chief seat of mining operations in this division is Yalwal, and the description of mining is altogether quartz. In all the mines I visited I noticed an absence of anything like a well-defined lode, the stone in all cases being taken from tunnels or large quarries.

Two of the companies, viz., the Pioneer and Homeward Bound, have expended large sums of money during the past twelve months in the erection of new machinery. If both those mines are not thoroughly developed it will not be the fault of the shareholders, who, it is to be hoped, will reap a rich harvest from their plucky enterprise. Through the courtesy of Mr. J. P. Allen, manager of the Homeward Bound Gold-mining Company, I am able to furnish a detailed description of the plant on that company's property:—

The return form handed to me by you does not allow for a very extended explanation of as large a property and plant as we possess.

The mine the property of this company embraces an area of 15 acres, and is worked as a large quarry. The stone crushed is a kind of conglomerate, containing very fine gold scattered through it, chiefly in small ironstone veins and seams.

The mine has been worked for the past sixteen or seventeen years with varying success, but has during that period given some phenomenal results.

It was acquired by the present Company by purchase in 1889, and has been worked since then continuously—the past twelve months with payable results.

The plant consists of a 10-head battery of colonial type, that was purchased with the mine, and 40-head Californian type battery, 20 head of which is now just approaching completion.

The stone, after being blasted out in the quarry, is spalled into convenient size pieces, and trucked into a pass or passes in the floor of the quarry. These passes, three in number, are connected together at the depth of 40 feet by a tunnel about 300 feet long, through which a double line of rails is laid, and the material is drawn out from the tunnel by a horse working this portion, drawing two trucks holding 1 ton each. It is then tipped into trucks on a gravity tramway about 520 feet long, that delivers the stone on to a grizzly or screen immediately over the rock breaker, where it is broken into pieces, 2 inch gauge, and falls into an ore bin, from which the stampers are fed by challenge ore feeders. The pulp, after leaving the box, runs over about 22 feet of electro-plated copper plates, and then into Boss combination pans, and then into a setter, and over shaking table with electro-plated copper-plate bottoms. Amalgamated copper-plates are also introduced inside the mortar or stamper boxes (American principle); but with all these appliances for gold-saving, the loss of gold is very great, amounting to about one-third of the assay contents. A great many experimental processes have been tried here during the past twelve months, but none of them have yet succeeded in saving the very fine gold known to exist in this Company's property. Five tons of stone has been sent to an experimental ore testing works in San Francisco, California; but their results did not come up to our usual work here.

The saving of the gold known to exist in the stone on this field is a question of great moment, as no known process has yet succeeded in saving more than two-thirds of the contents, and in a great many instances not more than one-third.

Encouraged by the results of the past, the Company decided to enlarge their plant, and have erected another 20-head stamp battery (Californian type), and have put in large engine, 250 horse-power, and two steel boilers, and one of Lowcock's patent improved fuel economisers. This additional plant is now nearly completed. I anticipate starting the whole at the end of next month.

During the past year about 10,000 tons of stone has been crushed by 20 head of stampers at an average cost (for mining, crushing, transport, renewals, management, and depreciation of plant) of 10s. per ton.

The expenses have been considerably larger than they ought to have been, owing to the very bad state of the road between here and Nowra, our only outlet to the sea board—the distance, 18 miles, costing for carriage £2 per ton. Owing to this cause, the cost of transport, and the dangerous state of the road, nearly all the gold-mining properties here are not being worked, and any advantage that may occur in other plants working on the same class of stone is not obtainable here.

Pioneer Gold-mining Company:—Plant—40-head stamper battery, iron framing throughout, with condensing engine; Badcock's boilers; 170 horse-power rock crusher, with separate engine ore feeders; two centrifugal pumps for raising water for the battery and engines. When completed this will be one of the most substantial and perfect plants in the Colony, and it is estimated will crush about 2,000 tons per month. Amount of stone raised during the year 1891, 1,090 tons, from which 378 oz. of gold were obtained, valued at about £1,134. The manager informs me that the gold obtained carried about 20 per cent. of silver. Number of men employed, 19; value of plant, £9,500.

The Homeward Bound Gold-mining Company.—Chiefly worked in open quarry; number of men employed, 52; value of plant, £20,000. (*For description of plant see above.*) About 10,000 tons of stone were raised during the past twelve months, yielding 2,879 oz. of gold, valued at £8,940. The main shaft is about 120 feet deep; no defined lode has yet been discovered.

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The Dangera Treasure Gold-mining Company.—4 men have been employed on this property during the past year, during which time 200 tons of stone have been raised. No plant has yet been erected. A tunnel has been driven 175 feet, during which operation a lode 6 feet in width has been cut. No gold has been won as yet.

The Poor Man's Friend Gold-mining Company.—A shaft about 60 feet deep has been sunk on this property. 78 tons of stone have been raised, from which about 10 oz. of gold, valued at £30, has been won.

The Pinnacle Gold-mining Company.—This company have employed 10 men during the last twelve months. A 15-head stamper battery has been erected on the property. I have been unable to obtain the quantity of stone that has been raised. A tunnel, 130 feet long, has been driven during the past year.

As suspension of labour had been granted to nearly all the other claims on the field. I have been unable to obtain any information as to the amount of stone raised, &c., and from the amount of money which speculators have spent on the field during the last twelve months, it is evident they have every confidence in the field, and I fully expect that next year's report will show a considerable increase in the quantity of gold won.

SOUTHERN DISTRICT—Nerriga Division.

(*P. J. Galway, Mining Registrar.*)

This division being watered by the Shoalhaven, Corang, and Endrick Rivers, great damage to mining properties occurred from the excessive flood of 1891, necessitating a large expenditure of both time and money.

A tunnel, nearly completed through property of the Horseshoe Bend Co., was filled with mud, left by the back water, and the timber lining much damaged.

This tunnel, cut in a narrow neck of land, is for the purpose of diverting the river, and leaving from 3 to 4 miles partially dry. The company hold the ground by special lease, and prospected the river bed with the assistance of a practical diver and proper plant.

Whether further work will be by dredging or pumping machinery is undecided.

Monaghan and party, at the Oallen Crossing, working in the river bank, had some months' work filled in, and with difficulty saved their engine and pump.

The heavy influx of water has since prevented the working or prospecting of the ground, which is to be regretted, as there is a large extent of similar ground in the locality.

The fluming at head of the Corang Co.'s race was much injured. This company have amalgamated with the Golden Terrace Sluicing Co., and the race extended to the special lease of 500 acres.

The race is completed, and washing will commence at once.

The entire cost of the joint races exceeds £20,000, and are carried over a very broken country, fluming in parts 70 feet in height, and some 800 yards of syphon pipes were used. The quantity of water intended to be conveyed is forty heads, but a large reservoir will have to be erected at the head of race, before one fourth that quantity will be permanently available.

The dam in course of erection, by Burrill and party, at the head of their race, from the Endrick or Bewley River to claims at Peggy Hill, and nearly completed, was destroyed, and an enormous quantity of timber used in the construction, carried away and lost.

The dam was 40 feet in height from the bed of river, and more than 2 chains in width at base; and beside diverting the water into race, would conserve all surplus supply, thus providing a constant stream at the work.

A first-class mining engineer has visited the site of old dam, and is preparing plans for a new one, which will be commenced next month.

The race to Peggy's Hill, with the exception of some fluming, is finished.

Burrill and party hold some good sluicing properties, both at Peggy Hill and Sandy Point, and practical miners predict that when they have water for hydraulic sluicing, the party will be soon recompensed for their great expenditure of time and money.

Quartz mining is again taking a start. O'Neill and party have had a crushing from the Welcome Reef, of 40 tons for 40 oz., and are preparing to properly work the mine.

Five leases, representing 37 acres, have been taken up at Mounteny, chiefly by parties from Nowra, and work will be proceeded with at once.

A portion of the extended claim, held by the Primrose Company, "Kiddle, Klinger & Co.," and abandoned, has also been taken up, and work commenced.

The majority of the miners were employed during the year, as wages men, repairing damage for the companies.

104 miners' rights were issued during the year, and several were taken out in Nowra and Goulburn.

SOUTHERN DISTRICT—Little River Division.

(*P. J. Galway, Mining Registrar.*)

During the first quarter of the year the rainfall was of such violence that water-races were much injured and dams carried away, necessitating repairs and delaying work, race owners thus losing the best portion of the water supply. Many water rights unused for years past, have been again taken up, and I hope to see ground sluicing again engaging the attention of miners in this division.

The extent of sluicing ground ranging from 1 to 10 feet is practically unlimited, the uncertainty of the water supply being the drawback, but this could be remedied by the erection of reservoirs at the head of the races, which from the natural formation of the country could be cheaply effected.

Work in the river bed has been uncertain during the year caused by freshes, and miners cannot bear the chance of losing their water-wheels and pumps.

Quartz-reefing has been mostly confined to the Day Dawn Mine, which is now idle and has been for three months past.

A larger pump and engine will have to be procured, the present plant not being able to contend with the drainage below the 200 feet, to which depth the reef has been worked, and before more quartz can be raised, the shaft must be sunk a further depth.

During

During the time the last portion of the mine has been working, 348 tons of stone were raised, returning 742 oz. 14 dwt. 10 gr., of the value of £2,966 19s. 7d., not more than twelve men were at any time employed, and a clear dividend of £1,500 above expenses obtained.

The stone was taken from the 135-foot level to the 200-foot level, and clearly shows that the reef on Little River only requires sinking to a depth, the greatest depth previously being 120 feet. The usual depth at which water was found being from 40 to 50 feet, when water put a stop to further sinking.

There is no gold-field in the Colony that presents a more favourable appearance for the investment of capital than this, both in alluvial and quartz-mining, the reefs are almost untouched below the water-level, and 1,200 tons of quartz taken out from different claims some years back, and crushed at the St. Vincent Battery, returned 1,400 ounces of gold.

Dodd and party are sinking on a quartz leader on Swiper's Hill, and from 50 cwt. of stone have obtained £100 worth of gold, the leader is from one to one and half inches wide.

From 40 lb. weight of stone taken from Day Dawn Reef at 200 feet, the reef showing on the floor of drive at the lowest depth, 2 oz. 16 dwt. was obtained.

One hundred and sixty-one miners' rights and 3 business licenses were issued during the year. Five gold-mining quartz leases were also taken up, representing 24 acres, but at present there is no work being done.

SOUTHERN DISTRICT—Araluen Division.

(E. F. Carlile, Mining Registrar.)

The quantity of gold won in this division during 1891, as nearly as can be ascertained, was 2,200 oz. 6 dwt., valued at £8,463 8s., being 2,169 oz. from alluvium, and 31 oz. 6 dwt. from quartz.

The very heavy flood which occurred in July stopped all work, except ground-sluicing, for a considerable time, and it is only during the last few weeks that some of the claims have got into full swing again. The results have been favourable, with good prospects for the future. The ground-sluicers having had their races replenished by the rain, have been doing very well, and as it is raining heavily again at time of writing, they may look for continued good returns.

Two months since a small rush took place in Deep Creek, leading from the table-land into Araluen. Only the prospectors succeeded in finding payable gold, and their claim was and continues rich, £10 per man per week being frequently obtained. This ground had up to the time of the rush been considered private land, and license was charged by the supposed owner; but on the boundaries being run by Mr. Surveyor Pennefather, it was found to be Crown land. It is thought there is a great deal more ground in this division in similar case, for which private license is now being charged.

Considerable interest is being manifested in some new machinery just imported here by Messrs. Jennings & Co. It consists of a powerful engine and centrifugal pump, in which some improvements have been designed by Mr. Jennings. The object contemplated is to shift the stripping by pumping, and thus save the great expense of shovelling, and subsequent removal by horses and carts, or truck. It will also obviate the necessity of underground races, which cost so much to construct. If successful, there is a large quantity of ground in Araluen that can be operated on by similar means, and by numerous parties. The machinery will be ready for starting in a few days.

Very little quartz mining has been done, 20 tons only raised, with a return of 31 oz. 6 dwt. This was on private ground at Bell's Creek, but two parties have just commenced on Government land in Araluen.

SOUTHERN DISTRICT—Majors Creek Division

(John Heazlett, Mining Registrar.)

For many years past I have stated in my Annual Reports, that with a supply of water, the alluvial grounds on the Major's Creek, gold-field would continue to yield a moderate return of gold annually for many years to come, and am now pleased to find, that so far as the year 1891 is concerned my predictions are correct—and which the following figures will prove.

In my statistical report for the year 1890, I find there were 545 oz. 13 dwt. 8 gr. from alluvium and 1,036 oz. from quartz; the value of the latter said to be £4 11s. 11d. per oz. Total gold from alluvium and quartz 1,581 oz 13 dwt. 8 gr. Valued at £6,414 4s. 4d.

The quantity for 1891 amounts to 1,261 oz. 17 dwts. 8 gr. valued at £4,723 17s 7d. all from "alluvial ground." It is, however, only fair to say that although the above figures are correct in one sense, yet in another would be misleading without this explanation, viz.:—during the year 1890 some gold was sold at Braidwood and Sydney and was not accounted for by the gold buyers at the creek, and although I made mention of it in my report—I had only a very faint idea as to the quantity. For the year 1891 I have succeeded in obtaining from the miners, that as much as 220 oz. went to Braidwood and Sydney without passing through the hands of the buyers at the creek—yet I am not certain that I have been informed of all that has been sent away by the diggers—but leaving out of the question the quantity sent by them during 1890 and 1891 there has been about 495 oz. 12 dwt. more gold purchased by the creek buyers during 1891 than what there were the previous year. And to account for this increase I may give two or more reasons. Firstly, the season has been more favourable for flooding-off or ground-sluicing; secondly, the diggers of Long Flat have had their dams filled pretty regularly hence their puddling mills were kept going constantly—except during wet weather—and even then they were enabled to clear away a deal of broken ground which paid for the labour; and lastly the Majors Creek Proprietary Gold-mining Company having suspended work in October, 1890, those who were thrown out of employment were obliged to search diligently for the precious metal or go abroad in search of work.

In tabular forms herewith will be found the number of mills at work and idle, and an estimate of the number of tons puddled, and the average yield of gold per ton, &c., but as the mill owners keep no books the information furnished me is merely conjecture. Yet I have no doubt but what they told me the truth to the best of their knowledge.

The only quartz mining done during the year was by the Company already mentioned; having sunk the main shaft another 100 feet deeper in Dargue's Mine, at Spring Creek; the total depth now is 225 feet, thickness or width of lode at that depth 24 feet, and from which 5 tons was sent to the Clyde for treatment, but I have not heard the result. Reports "if they can be credited" say that assays from the

the stuff shows over 2 oz. per ton for 12 feet across the lode, and the next 12 feet gives at the rate of over 1 oz. to the ton, none of the stone taken out at the above depth has been manipulated at the mine. In the box of samples sent to the Mines Department by me; at Christmas,—there is one piece taken out of the stuff at the 220 foot level—I may just add that there is much talk of the Company making a fresh start early this year.

The Snobs Reef, at Big Hill is as it was twelve months ago, viz.:—idle and has been since February, 1881, yet I am aware of three different parties who would have given it a further trial had the ground been open to be taken up. I am not aware of any but one leasehold within my division and believe it to be registered for suspension of the labour conditions "for what reasons I know not."

During the past year I sold forty-one miners' rights as against thirty-seven during 1890—being an increase of four during the twelve months.

In tabular form herewith will be found an account of the machinery idle during the year and the value of same,—"given to the best of my knowledge," in conclusion I may add that during the latter part of 1891, very little flooding off or ground sluicing has been done, this was owing to a scarcity of water, and as the ground on Major's Creek proper will not pay for working by means of puddling-mills, claim holders are often idle, as it is only during heavy rains they are able to do any good. The ground is deep and the majority of the leads or veins of gold (as they are termed by the diggers) have either run out or gone into some persons private property, and the shallow ground is poor, yet with constant water much gold would be obtained for many years to come.

I append herewith an account of the rainfall during the past year which I have taken from my diary, not having a rain guage, I am unable to state the exact quantity that fell, but have tried to show that on many occasions, the fall was very light.

NUMBER of days on which rain fell during the year 1891, at Major's Creek.

Months	Days	Months	days
January.—One full day and the other eight, showers only	9	August.—Five days wet and the other eight, showery only	13
February.—One full day and the other two, showers only	3	September.—Four days wet and the other seven, showery only	11
March.—Light showers	2	October.—Four days wet and the other two, showery	6
April.—Three full days and the other four, showers only	7	November.—Three days wet and the other six, showery	9
May.—	1	December.—Three days on which very light showers fell	3
June.—Ten days wet and the other two, showery	12		
July.—Showery only	10	Total	86

FROSTS.

April, 7; May, 20; June, 10; July, 17; August, 14; September, 6; October, 6; December, 1; on the night of 25th "'Xmas." Total during the year, 81.

THE following information has been obtained relative to the quantity of wash-dirt puddled during the year, 1891, and the yield of gold therefrom.

Name of parties.	Where wash-dirt was obtained.	Wash-dirt puddled.			Average yield of gold per ton.			Total yield of gold.			Remarks relative to the depth at which the wash-dirt was obtained, &c.
		Tons.	cwt.	qr.	oz.	dwt.	gr.	oz.	dwt.	gr.	
W.C.	Long Flat	832	0	0	0	1	6	41	12	0	From 1 foot to 10 feet in depth.
W.S.	,,	520	0	0	0	1	0	26	0	0	
T.B.	,,	1,040	0	0	0	1	0	52	0	0	
D.P.	,,	520	0	0	0	4	0	104	0	0	
J.F.	,,	208	0	0	0	3	0	31	4	0	
H.G.B.	,,	416	0	0	0	3	0	62	8	0	
C.B.G.	,,	312	0	0	0	3	0	46	16	0	
J.B.G.	,,	624	0	0	0	1	0	31	4	0	
A.F.	,,	312	0	0	0	1	12	23	8	0	
		4,784	0	0	0	1	18	418	12	0	

SOUTHERN DISTRICT.—MILTON DIVISION.

(W. M. Fincham, Mining Registrar.)

I HAVE the honor to acknowledge the receipt of your letter of the 25th instant, and to inform you that in consequence of illness, Mr. Rainsford, the local Clerk of Petty Sessions and Mining Registrar, has been granted leave of absence for one month from the 20th instant. His report which he left with me I forward herewith.

It appears that none of the holders of gold or mineral leases in this district furnished returns to this office, but having made some inquiries, I learn that Mr. S. G. Wray, Manager of the Consolation Gold-mining Company of Brimbermalla, in this district, forwarded a return through the office at Moruya.

The said company are working a true fissure vein (quartz), and crushed 70 tons of stone in December last and 33 tons this month.

The average yield of gold per ton was 2 oz., and the price obtained for it £4 2s. 6d. per oz.

Two shafts of 107 and 91 feet respectively have been sunk without any inconvenience from water.

The only machinery on the ground is a steam 5-head stamper battery.

Adjoining this property is the Gem Gold Mine, worked by A. Smith and party, but it has not yet been developed. These mines are situated 30 miles south from here, and 9 miles from Nelligen.

A never failing supply of fresh water is obtainable from the Brimbermalla Creek in the immediate vicinity.

In the limited time I have not been able to obtain fuller information regarding the mines here.

SOUTHERN

SOUTHERN DISTRICT.—Candelo Division.

(*P. Smyth, Mining Registrar.*)

Mining matters are very quiet in this division at present, with the exception of some of the residents prospecting for gold &c., and I have been informed that the prospectors have found one or two quartz reefs on private property, but so far as I can ascertain the reefs, up to the present, have not been found to be sufficiently auriferous to work them.

SOUTHERN DISTRICT—Pambula Division.

(*Alfred Jones, Mining Registrar.*)

During the past year, 1891, the following have been issued:—Gold leases, 72; mineral leases, 40; mineral licenses, 47; miners' rights, 535; business licenses, 31. Greatest depth of shaft on the field, 155 feet. Quantity of gold won—quartz, about 3,122 oz. Labour on field 197, a number having gone to Whipstick Flat. Population about 320.

At the Whipstick, parish of Wyndham, a number of mining tenements and business areas are being taken up. Silver having been found in quantity.

Assays have yielded as much as 1,100 oz. per ton.

SOUTHERN DISTRICT—Nerrigundah Division.

(*D. T. Stinson, Mining Registrar.*)

I have the honor to report for your information that mining in this division has made very little progress during the last year.

In quartz-mining good reefs are known to exist, but the owners have not the capital at their command to develop them.

The Nerrigundah Gold-mining Company's mine, the principal in the division, worked during the first nine months of the year, employing about twenty men, the mine has been opened out on a very large scale; about 340 tons of stone were treated, yeilding 73 oz. of gold. The mine is now under suspension, but will shortly commence work again on a larger scale.

The Wandella Proprietary Mine "Tin Pot" has been at work continuously during the year, but owing to the absence of the manager I am unable to obtain the returns for this report (but which will be forwarded as soon as received).

The Eureka mine has yielded 33 oz. of gold from 25 tons of stone, the vein is about the richest in the division, but owing to its smallness (4 inches), it takes a considerable time to get out the stone, a quantity of prospecting was also done on this mine.

The Nil Desperandum Company are working on this vein, discovered through aid from prospecting vote, and have a very good show of gold in the stone taken from the water-level, the last 3 tons taken out yielded about 2 oz. to the ton. I am informed that water is now the only obstacle to making this a payable mine.

Of the other quartz mines, prospecting is principally the only work carried on.

Alluvial.

In alluvial the only work going on is what is known as fossicking. M'Vitty and party are making fair wages in their claim on North's Creek. Hewitt and party have also a good prospect on the same creek, the remainder of the alluvial diggers are fossicking in old ground, or the beds of the surrounding creeks.

During the year I issued 89 miners' rights, and 18 business licenses; 4 applications for gold-mining leases were received containing an area of 21 acres.

The total collections for the year were £94 7s. 6d.

SOUTHERN DISTRICT—Cobargo Division.

(*L. J. Clifford, Mining Registrar.*)

In forwarding my annual report for the year 1891, I have the honor to state that there has been very little done in mining in this division during the year.

Riley and party, of Coolagolite, are erecting a five-head battery, 8-horse power, with a view of testing their claim. They expect to start crushing in April.

A little trenching was carried on at Coolagolite in the beginning of the year, but after a while it was discontinued. Since then no work of any sort has been done. Persons holding leases at Coolagolite are only holding their claims until the machinery is erected; then they intend to have their claims tested.

I have sold during the year miners' rights and business licenses to the amount of £26.

SOUTHERN DISTRICT—Wagonga Division.

(*W. J. Foster, Mining Registrar.*)

In submitting my annual report for the year 1891, I have the honor to state that the rainfall in this division has nearly doubled the average ordinary fall, having been 57 inches, which is 27 inches above the average. The effect has been to seriously retard mining operations by preventing surface work and largely to increase by percolation the quantity of water to be removed from the mines.

Mount Dromedary.

Twelve applications to lease for gold-mining purposes, 56 acres 2 roods, have been made. Ten of the applications, covering 51 acres 2 roods, have been approved, and two, covering 5 acres, have been refused by the Department.

Upon the top of the mountain is Cowdroy and party's mine, being four leases, covering 32 acres. A large amount of work has been done—in sinking 230 feet and tunnelling 588 feet—so far to little purpose. Auriferous veins have been cut, but not large enough to be payable, and they are thought to be too shallow. It is now considered by the manager that the cheapest and most effectual way of testing the ground is to drive a lower tunnel, which will cut the vein or reef at a depth, which will probably be done.

The

The Mount Dromedary Proprietary Gold-mining Company (Limited) hold 32 acres under five leases. Four of the leases adjoin, and one is detached a distance of 30 chains, all situated on the eastern slope of the mountain. Upon the lowest lease a battery of five stampers has been erected, driven by an overshot wheel of 25 feet diameter. The detached and highest lease is 30 chains above the machine, and to convey the ore and water from the lease to the battery a wooden flume has been built in the form of the letter V. If it answers the purpose, it is a cheap means of transit. The other leases of the Company are so situated in relation to the battery that the ore and water from them can be conveyed to the battery in the same way.

In Bailey and Miles and Clow and Cowdroy's mines, each have a large amount of backs to stope.

In the other holdings tunnelling is being prosecuted to cut the vein at a depth.

On the whole, mining in this locality is hopeful, although no rich discoveries have been made, and, it may be added, no depth attained, the deepest being 225 feet. The last remark is also applicable to all the coastal fields in this portion of the Southern District.

Wagonga, North Head.

The Bodalla Gold-mining Company's leases, as well as one private one, have been cancelled for non-compliance with the labour conditions.

The Lady Carrington.—On this mine the labour conditions have been suspended the greater portion of the year. No work has been done.

On lease No. 262 very little work, and that of desultory character has been done.

Although this field is now apparently under a cloud and neglected, I am confident that in the near future these reefs will fall into the right hands and be successfully worked, as they are of good size, good walls, and gold-bearing, having yielded from 5 dwt. to 25 dwt. per ton so far as tried.

Montreal.

In alluvial, some three or four men have been fossicking, the returns giving them a bare living.

Coolagolite, Parish of Bermagui.

On this field there are 15 leases and applications to lease in force, besides the Prospecting and one ordinary claim.

A considerable amount of work has been done in the several holdings in sinking, cross-cutting, and driving. The greatest depth attained is 100 feet. There are two shafts that depth.

In one lease, Carmichael and Sercombe's, a strong flow of water has been met at 60 feet deep, and they are engaged in erecting a whim to raise the water. On the north the reef or vein has been traced into C.P. 122, and two or three claims have been taken up thereon under agreements with the owner, as I am informed, and some work has been done on them.

There has been no crushing plant on the field, therefore, no stone could be crushed or gold won. That difficulty will be obviated in a short time, as the Messrs. Riley are placing an 8-horse power engine—and for the present—a battery of five stampers, which will be augmented to ten if required. The battery is expected to be ready for work in two months after the 15 January, 1892.

Progress and Poverty Reef.—No work has been done in this locality—for the present it appears to be under a cloud. Excellent specimens of gold-bearing quartz have been found in the workings—notably the Prospecting claim.

Alluvial.

There are no fresh discoveries, and the work has been and is confined to fossicking old ground.

SOUTHERN DISTRICT—Moruya Division.

(*Henry Bragg, Mining Registrar.*)

I have the honor to submit my report for the year 1891, for the Moruya Division of the Southern Mining District. During the year, thirteen applications for gold-mining leases have been received, containing an area of 93 acres, most of the leases applied for are situated on new ground at a place named Bimbimbie, about 8 miles north of Moruya; several parcels of quartz have been sent to Sydney for treatment, and the returns have been satisfactory. The lessees of the leases are now endeavouring to place machinery on the field.

Wray and party, at Brimbermala, have recently crushed 70 tons of quartz from their lease, which has yielded nearly 3 oz. of gold to the ton, the depth of the deepest shaft is 95 feet, and the stone looking well; this property in all probabilities, will turn out to be a valuable one.

At Turlingah, but little work has been done in the Italia mine for some time past, owing to several reasons; a quantity of quartz has been sent to different places for treatment, and the returns have been satisfactory. The lessees have several hundred tons of quartz at grass ready for crushing, when they can obtain suitable machinery for doing so. Messrs. Emmetts and party, of Mogo, have recently found a very fine looking reef in that locality.

Alluvium.

There is little or nothing to report in alluvial workings during the past year. Messrs. Hall and party have a lease on Mogo Flat, where some good finds have been made in former years, but up to the present time they have not been successful in obtaining any run of the gold as yet. Although they have expended over £500—in searching for it.

Silver.

For the past year four applications were received for silver mining leases containing an area of 240 acres; they are all situated at Bendithera, where several leases were taken up in the year 1890. Very little work has been done on any of them as yet. An attempt has been made to float them into a Company, but so far the lessees have not been successful in doing so. Bendithera is situated about 30 miles to the west of Moruya, over a very mountainous country.

The Moruya Silver Mining Company are still at work, and during the past year have exported 78 tons of ore for treatment, and the returns which are given elsewhere are considered satisfactory, although the stone is said to be very difficult to treat. At the present time the lessees of this mine have about 800 tons of ore at grass.

During the year 53 miners' rights, 10 mineral licenses, and 3 business licenses have been issued. Miners rights for this division are also issued at Bateman's Bay.

SOUTHERN

SOUTHERN DISTRICT—Burrowa Division.

(*T. Foley, Mining Registrar.*)

I beg to report that silver and copper were the principal minerals worked in this district during the year 1891. The Frogmore Copper Mine, about 17 miles from here in a northerly direction, was opened several years ago, and several shafts were sunk by the company, and large quantities of ore were raised and smelted. During the year 1891, however, work has not been very actively carried on, owing, I am informed, to the low price of copper. Only about 100 tons have been raised and disposed of during that period, and work is at present discontinued. The information given in my return as to the value and description of the machinery, &c., has been kindly supplied by Mr. Benjamin Morgan, one of the Directors of the Frogmore Copper-mining Company.

Silver.

At the Proprietary Silver Mine at Wallah Wallah, about 20 miles from here, in an easterly direction, work is being carried on with some energy. Considerable quantities of ore have been raised, bagged, and forwarded for treatment to the Clyde Smelting Works during the year. The assays, I am informed, have been very satisfactory, averaging 36 oz. of silver, and about an equal percentage of lead to the ton. Some three or four leases in this locality are now being developed by the aid of the Prospecting Vote. I have requested by circular in the usual way that the holders of the undermentioned leases might supply a return of the output, &c., from their leases during the year, but the Messrs. Middleton and Wilson, and Mr. Metcalfe only have responded. My returns give the information supplied by these gentlemen. The lease numbers given are the local application numbers, viz., 89–4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 22; 90–4, 5, 6, 7, 9; 91–1, 2, 3, 4.

C. L. Hume, Esq.,

Dear Sir, Wallah Wallah Silver-mine, 9 January, 1892.

I herewith enclose a progress report of the development of our mine for the year ending 9th January, 1892.

The drive at the 50-foot level, north of the north shaft, has been extended 126 feet, yielding 13 tons of No. 1 grade ore, and about 20 tons of No. 2. The crosscut, east of the vertical has been advanced 24 feet; ore, nil.

Winze at the bottom of the 50-feet level, south of the south shaft, was carried down to a depth of 56 feet, opening up communication with the 100-foot drive. Ore body left to stand against the footwall for future working.

North drive, at the 100 feet, has been continued, a distance of 104 feet, yielding 15 tons of No. 1 grade ore, and about 10 tons of No. 2.

(South Shaft.) South drive at this level has been driven 96 feet, yielding about 10 tons No. 1 grade ore, and about 10 tons No. 2.

The number of feet driven through	350 feet
The number of feet of ground sunk through	56 ,,
Tons of ore raised, No. 1 or best grade	38 tons
Tons of No. 2, or second grade	40 ,,

At the same time other necessary work in the way of securing drives and shafts has been carried on, rendering the mine up to date safe and secure.

The above-mentioned work being partly the result of ten men's labour since 1st September, 1891, there being, in consequence of the Company having a suspension, only six men on from about the 1st April, 1891, up to September.

I have, &c.,
J. DELBRIDGE
(*Per* T. R. Rome).

Gold.

Considerable activity has been recently exhibited in prospecting for gold in this division. Several applications to search for gold on private property at or near Rye Park, 16 miles from here, were made in June and July last, very good prospects having been, I am informed, picked up on the surface. Mr. Thomas Morgan informed me only a few days ago that about 2 miles from here, within the Municipal area, he found on the surface a prospect which on assay went 8 oz. to the ton. Since then I believe that a prospect has been found at the same place which went upwards of 30 oz. Two parties, one at Goba Creek, 10 miles north from here, and the other near Binalong, 20 miles south, are being aided from the Prospecting Vote. The former is searching for gold, the latter for silver. Encouraging indications are, I am told, continually presenting themselves, although the metals have not been hitherto discovered in payable quantities. The mining industry in this division is showing signs of prosperity in the coming year.

Four mineral lease applications, of 40 acres each, to search for silver and lead, were made during the year, and 10 mineral licenses, and 27 miners' rights issued during the same period.

SOUTHERN DISTRICT—Bombala Division.

(*W. A. Dovers, Mining Registrar.*)

In tendering my annual report as mining registrar for the Bombala Division, I regret to have to state that there has been an almost complete stoppage in the mining industry in the division ever since the month of April. This was partly owing to the very severe rains and accompanying floods, which prevailed for nearly six months, and partly to the lack of money to carry on the workings; but I am glad to report, upon the other hand, that the new year opens with every prospect of a very different state of things within the next few months. Machinery for the Nelbothery claims is already on its way, and the proprietors have applied for special leases in view of their outlay.

During the past year only 220 ounces of gold have been purchased, at a price of £3 16s. per ounce. Thirty-nine miners' rights, 8 mineral licenses, and 19 business licenses have been issued. The following mining properties can be regarded as likely to turn out good results this next year:—Nelbothery and Little Plain for gold, Bull Hill for silver, and Tantawanglo for tin.

TUMUT AND ADELONG DISTRICT—Kiandra Division.

(*J. M. Scott, Mining Registrar.*)

I have the honor to submit my report for the year 1891. The number of miners' rights issued was 112, business licenses 1, mineral licenses 7. Gold won, 512 oz.

A. M. Winckler and party, at New Chum Hill, at the beginning of the year had 54 men employed, but in June had to get suspension of work for six months, because of an insufficient supply of water, and again for a further period of six months in December, for the purpose of further prospecting this claim. The party

party in now receiving aid from the prospecting grant to drive their tunnel a further distance of 300 feet. This claim consists of 6 leases, covering 120 acres. The gold won from this mine this year was 194 oz. A 5-acre lease held by Messrs. Eldridge and party, at Racecourse Creek, is being worked by means of ground sluicing, which has proved payable. In a 25-acre lease held by Messrs. Heinz, Hooper, and party, on the Township Hill, a tunnel is driven 340 feet into the north side of the hill. They are to receive aid from the prospecting grant to continue a further distance, 250 feet. They do not expect to reach the wash before driving about 600 feet further.

A mineral lease of 40 acres is being worked by Reeckman and party, at Lobb's Hole, for copper. They have a shaft 85 feet deep. The lode varies in width from 3 to 18 inches. Fourteen tons of the ore has been sent to Melbourne with good results. The water has become troublesome. There was some excitement caused by a large reef being discovered at Tantangra, about 9 miles from here. Two 20-acre leases have been applied for, and work will be started on them shortly. There have been 5 leases applied for during the year, covering an area of 80 acres, for gold-mining, and 140 acres mineral lease.

The number of miners working upon this division is :—Europeans 56, Chinese 19.

TUMUT AND ADELONG DISTRICT—Albury Division.

(T. A. Browne, Warden.)

In furnishing my annual report, I have the honor to state that the operations of the past year, though not wholly discouraging, have failed to furnish material for sanguine anticipation of progress. The prevailing feature of the mine work in the Albury District, some of which have been carried on for many years, must be taken to be that of fairly good, even rich crushing, from comparatively small quantities of stone. It is patent to all experienced miners that, to ensure payable results, the compensation for the severe toil, the bodily risk and comparatively heavy outlay which accompany their operations generally, a large body of stone giving a fair, even low average of gold to the ton is indispensable, or a smaller reef richer in proportion. Neither of these conditions would appear to have obtained permanently during the past year in this district, although a fair even generous support has been given to prospectors and syndicates.

In support of my proposition, I may refer to the crushing of Messrs. Crawshaw and Miles at the Nailcan Hill, where from four tons of stone, taken from the old prospecting claim, 8 oz. and 15 dwt. of gold were extracted.

It is not improbable, however, that a discovery of a silver lode upon or in the vicinity of Meredith's claim, May Day Hill, may change the character and prospects of the district. To Mr. C. F. Joubert must be awarded the credit of this important find, for the further development of which he has arranged an amalgamation with this Albury Gold-mining Company, who are working an area of 25 acres for gold and silver. The assays are understood to be highly satisfactory.

Among the prospecting mine-works which have received partial assistance from the vote in aid of such enterprise, the claim of Messrs. Wilson and Day, on the Nine-mile reserve, is perhaps the most successful. A parcel of 2 tons from the 50-foot level, sent for treatment to the Clyde Works at Granville, yielded 9 oz. 2 dwt. 20 gr. of free gold. The pyrites at the rate of 28 oz. to the ton. Another recent crushing of 10 tons produced 56 oz., showing pyrites freely.

On the Hawkesview Estate, near Albury, Messrs. Polkinghorne and party, as also Osborne and party, continue working with satisfactory results.

In the neighbourhood of Jindera I have inspected a reef of promising appearance, situate on conditionally purchased land, the property of Christoph Westendorf, Esq., J.P. It is at present being worked under a permit, and may serve to direct attention to the locality, which bears favourable indications.

In the vicinity of Germanton, distant nearly 40 miles from the town of Albury, ground has been worked for tin; but the quantities obtained have not been such as to warrant general prospecting. The same remark may apply to indications of silver lode in the neighbourhood.

The miners' rights issued for the year are 65 as against 89 of previous year. Business licenses much the same. An increase (46 to 60) in mineral licenses is accounted for by the projected working of mineral land near Germanton, under the superintendence of Mr. Pound, an enterprise which remained incomplete.

TUMUT AND ADELONG DISTRICT.—Gundagai, Adelong, and Tumut Division.

(Charles W. Weekes, Warden.)

I regret that I am unable to report much progress in Gold-mining in this Division during the past year. With the exception of some three alluvial mines, M'Inerney's, Lindley's and Channon's, little else but prospecting has been done.

At M'Inerney's, work below has been stopped for a time whilst additional machinery is being erected. After opening up this mine to a large extent it was found that the plant on top was quite inadequate to get rid of the immense amount of "wash" disclosed by the workings, arrangements have now been made for the erection of two more puddlers of the latest design, to sink a main working shaft away from the lead, to put in a "bottom level," and to erect poppet heads 60 feet high with new winding and pumping engines. So soon as this work is completed the mine can be worked in an economical and efficient manner. The output will I am told be something surprising, a large area of ground is already opened up below with drives and cross-cuts ready for "blocking out" so soon as the "bottom level" or drive is started.

Lindley's was in full work and paying fairly well when the death of the proprietor put a stop to all work for a time.

Channon and party, at Hillas Creek, have been working with great energy against unforeseen difficulties but expect shortly to see some return for their outlay.

The property formerly worked and abandoned by the Florestan Gold and Asbestos Mining Co., has been again taken in hand and good prospects found. It is proposed to form a Company in Sydney to work it again.

The slate deposits in this neighbourhood are again attracting attention, and when the proposed tariff is confirmed an impetus will be given to this industry.

We

We have large deposits of very superior roofing slates within handy distance of the railway. The industry only needs a little nursing to open up employment for a large number of hands.

At Coolac, a few miles from the railway station a large area has been leased for the purpose of working an immense deposit of "chrome."

The proprietors are sanguine of success and talk of soon despatching by train some three hundred tons per week.

This is a new industry and will be watched with some interest as it is said there are other large deposits of the same mineral to be found in the district around.

The Mining Registrar's report will give the various statistics.

TUMUT AND ADELONG DISTRICT—Tumbarumba Division.

(*J. F. Makinson, Warden.*)

It cannot be said that there has been much progress in this division during 1891, nor has mining enterprise fallen off.

The principal work has been, as usual, ground-sluicing for gold, and some little gold has been got from the deep lead under the basalt on the line from Bago to Tumbarumba. All endeavours to develop the silver mining at Coppabella and No Place have ceased, sufficiently good shows to tempt investors not having been obtained. A copper lode has been worked by a small party at Lobb's Hole, with no very promising results.

Gold, silver, lead, tin, wolfram, asbestos, copper, manganese, &c., are known to exist in this division.

The Burra Sluicing Company has been shooting through a bar during the year—all dead work—and has had no yield of either gold or tin. This is the cause of the decrease in the gold out-put in this division. The Tumbarumba Flat Gold-sluicing Company has been prospecting its ground, making races, levelling, &c., and it is anticipated that the work will be in full swing before long.

Newman and party's ground at Burra Creek has been vigorously worked for the last four months, and the first washing-up will take place in about three weeks. The yield is expected to be good in proportion to the work—stripping the depth to the wash being an average of 17 feet. At Mann's Creek Kohn and party have been at work for the last nine months, opening new sluicing ground, and will, floods excepted, know the value of the ground in two months more. At Meragle, Paddy's River, Tumbarumba Creek, and Tarcutta Creek, the usual amount of sluicing for gold has gone on, with average results. The Tumut A.G.M. Co., at Cherry Hill, mining under the basalt, has sold out to a Melbourne syndicate, which tried ineffectually to float a company on a very large capital. This is not to be regretted. A little steady work has been carried on at the mine during the year.

A small party of working miners has taken in hand Storey's Reef at Paddy's River, and will shortly have a battery, now on the ground, erected and at work.

Currie and party are steadily driving into the hill, and thoroughly prospecting for the deep lead at Surface Hill. The party has obtained assistance from the Prospecting Vote. From the look of the wash, &c., it will surprise no one if they are successful. Amended legislation with regard to mining is anxiously looked for here by the miners, especially with regard to mining on private property, and with regard to water privileges.

The yield of gold for the year has been 1,271 oz. Miners' rights issued, 205; mineral licenses issued, 6; business licenses issued, 3.

TUMUT AND ADELONG DISTRICT—Narandera Division.

(*L. S. Donaldson, Warden.*)

The only work that has been done in my division this year has been an occasional trial at the Four-mile and at Cowabbie, by the Evan's Brothers, who have had a few small crushings, the largest and best of which was 720 tons, which averaged 3 dwt. per ton, and cannot be considered payable. These brothers believe that if all the gold that is in the stone could be saved it would pay, but the gold is very light and flaky, and cannot be saved by the available machinery.

Grennell and party, who applied for permission to mine on Clark's property in 1890, abandoned the ground early in 1891.

Ferrier and O'Farrell have been at law about their respective rights to work in Bear's Paddock, and the matter is still pending in the Supreme Court. No work has been done, as an injunction to restrain has been in force.

From what I have been able to observe during the last four years I do not think there is any prospect of payable gold being found in my division, except an occasional small patch. I believe the small amount of gold that has been won has cost about £25 an ounce.

TUMUT AND ADELONG DISTRICT—Albury Division.

(*Chas. A. Conley, Mining Registrar.*)

I have the honor to report another quiet year in mining, both as regards work performed and yield of gold.

A fair amount of prospecting has been done, and in two or three cases promising shows discovered, which only require opening up.

Nail Can Hill, which had been abandoned for some two years, has been given another trial by Messrs. Crawshaw and Miles. 4 tons surface stone taken from the original prospecting claim, yielding 8 oz. 15 dwt.

Another promising reef has been discovered near Jindera, on Mr. Christoph Westendorf's conditionally purchased land, and a permit to work same has been duly applied for.

The Albury Gold-mining Company (silver and gold), May Day Hill, Black Range, have had very satisfactory assays, and are now at work. This company has purchased gold lease of 5 acres, known as Meredith and party's, and are working same in conjunction with their 20-acre silver.

Messrs.

Messrs Wilson and Day (Nine-mile Reserve) sent 2 tons to the Clyde Works, Granville, from the 50-feet level to the 90-feet level, which yielded 9 oz. 2 dwt. 20 gr. free gold, and from the 103-feet level 3 tons gave 3 oz. 16 dwt. free gold, and the pyrites yielded 28 oz. to the ton. Reef from 18 to 20 inches.

In addition to the above, they had a crushing of 10 tons, for 56 oz., which showed pyrites very freely.

Messrs. Wilson and Day are now floating their lease.

TUMUT AND ADELONG DISTRICT—Batlow Division.

(J. T. Hely, Mining Registrar.)

I HAVE the honor to forward my report for the information of the Honorable the Minister for Mines for the year ending 31st December, 1891, and regret to say that mining in this division is very quiet, with no appearance of improving, in the alluvial mining, and unless the quartz claims turn out better than they have hitherto done I am afraid this place has a very poor prospect in future.

The number of miners' rights issued during the year were 64; business licenses, 3.

The amount of gold won during the year was 372 oz., valued at £1,441 10s., and about 40 or 50 oz. may have been sold elsewhere.

There is some talk of giving the quartz reefs another trial this summer, and it is to be hoped they will be more fortunate this time.

TUMUT AND ADELONG DISTRICT—Junee Division.

(Alfred Elliott, Mining Registrar.)

I HAVE the honor to transmit for the information of the Honorable the Minister for Mines my report for the year 1891, upon the Junee Division of the Tumut and Adelong Mining District, and regret to say that the success of mining operations during the year has not been up to my expectations. Quartz mining, except in a few mines, has been almost at a standstill.

At Eurongilly from the Enterprise Claim, Smith and Co. crushed 20 tons of quartz for 31 oz. 15 dwt., 9 tons for 7 oz. 15 dwt., and 30 tons for 15 oz. 15 dwt.

From the Pioneer Claim, Lynch and party crushed 13 tons of quartz for 19 oz. 10 dwt, and from the Welcome Claim, 10 tons for 54 oz. 15 dwt., and 20 tons for 55 oz. 15 dwt.

Hulton and party crushed from their claim 9 tons for 6½ oz.

As you will see most of these crushings were very satisfactory.

At Wantiool, Fincher and party disposed of their claim to C. W. Crawley and party, who, I hear, have invited tenders for sinking the shaft to a further depth of 50 feet.

M'Grath and party, who were granted aid from the Prospecting Vote, sank a number of shafts in the alluvial beyond Junee Reef, but without any very encouraging results.

At Mitta Mitta little or no work has been done. The mines there are no doubt rich in gold, but the ore containing it is what is known as refractory. The ordinary mode of treating auriferous quartz will not answer for the stone in this locality. Expensive machinery is required for the special treatment of this stone. During the year I received two applications for gold leases, and issued 39 miners' rights.

The gold won in my division during the year amounted to (as far as I can ascertain) 271 oz. 11 dwt. 2 gr., representing £1,009 17s. 8d. This is the return kindly furnished by the manager of the Bank of New South Wales. No doubt some small parcels of gold obtained in the alluvial were sold privately, the particulars of which I have not been able to obtain. Value of mining plant in my division, £700.

TUMUT AND ADELONG DISTRICT—Captain's Flat Division.

(Thos. Canning, Mining Registrar.)

I HAVE the honor to forward my annual report, for the information of the Honorable the Minister for Mines, for the year ending 31st day of December, 1891. I am sorry to say mining has been progressing very slowly here during the past year, the greatest obstacle to progress is the expensive and unsatisfactory method of treatment, the ore being very refractory and difficult to treat.

Commodore Vanderbilt Gold and Silver Limited Liability Company, Captain's Flat.—Raised 5,657 tons of ore, from which was obtained the following results, viz.: 745 tons matte, which contained 63,750 oz. of silver, 802 oz. of gold, and 86 tons of lead. From 86 tons 8 cwt. and 2 qrs. of silver lead was also obtained, 23,096 oz. of silver, and 1,275 oz. of gold, valued at £24,366 1s. This company is, I am informed from a reliable source, about to change hands, and will be re-formed into a smaller company. Mr. Thomas Bowen, metallurgist, and formerly in charge of the smelters at Lewis Ponds, has got full charge of the mine and smelting department here at present, Mr. J. V. Thompson, general manager, having left here for Mount Zeehan, in Tasmania. Mr. Bowen is a man of great experience in mining, and more especially in smelting operations. This gentleman speaks well of the Commodore Vanderbilt Co.'s property, and is hopeful of making the mines pay.

New Koh.i-noor Gold and Silver No-Liability Company, Captain's Flat.—Practically speaking there has been very little work done in this mine during the past twelve months—just sufficient to hold the property previous to the new company being formed. When I forwarded my last yearly report the mine was known as the Koh-i-noor Gold and Silver Liability Company, this property has entirely changed hands, and is now known as the abovenamed company. December the 9th No. 1 furnace lit up, and run up to the 25th day of December, 1891, when the furnace was again shut down. During the run 260 tons of ore was treated, and matte obtained therefrom to the value of £720. The present manager of this company, Mr. John Kemp Charleston, was formerly employed as consulting engineer and surface manager at Sunny Corner S. M. Company. New poppet legs, and extensive grading chutes have been erected, and calcining kilns excavated. Mr. Charleston is working very hard to get everything in order when he expects to start a second furnace—one running splendidly at present. This gentleman is thoroughly sanguine of success, and hopes to make this property pay handsomely.

No. of miners' rights issued here during the twelve months is fifty-nine; business licenses, seventeen; mineral licenses, one. Estimated population of Captain's Flat proper: Europeans, 600, Chinese, two.

two. Value of plant, £7,200. I would like to state cause of delay, in not forwarding my yearly report earlier, was that I expected to get a full report from both managers here *re* amount of work done in mines, (sinking, driving, and stoping, &c.), which I was unable to get after waiting; and I am now compelled to forward my report in an incomplete state. I applied by letter, with necessary forms enclosed, asking for full report of work done in mines. I also applied personally, but was unable to get the necessary information.

In conclusion, I would like to state the present aspect of affairs in connection with the progress of mining is more promising than that of the past year, and should things continue as at present throughout the year, I will be able to forward a more encouraging report for the ensuing year.

TUMUT AND ADELONG DISTRICT—Queanbeyan Division.

(C. J. B. Helm, Mining Registrar.)

I regret to state, in furnishing my report for the past year, that mining operations in this district have been almost at a standstill. No new gold leases have been applied for, and only one mineral lease (for silver), from which, so far as I have been able to ascertain, no ore has as yet been obtained.

No mining tenements of any kind were registered during the year.

The Goodradigbee Gold-mining and Sluicing Company, having gone into liquidation after expending something like £5,000 in the construction of races and dams, their plant has remained idle during the year; but I understand Mr. W. Reid, of Brindabella, has become the owner of the property, and intends to start it going again shortly.

Guyormard and party, who had constructed extensive works for sluicing at their alluvial claim on the Molonglo River, and who were just prepared to start sluicing operations, unfortunately had the whole of their works destroyed in the June floods, and abandoned their ground. They had previously obtained some excellent washings.

Walsh's copper lease at Bywong, from which very rich samples of ore have been obtained, was recently taken over by a local syndicate, but very little work has since been done, a suspension of labour having been obtained.

Prospecting generally throughout the district has languished.

TUMUT AND ADELONG DISTRICT—Nimitybelle Division.

(K. J. Lea, Mining Registrar.)

I have the honor to report that Mining in the Nimitybelle District is very quiet at present, and, with the exception of a few miners who are prospecting about the mountains, there is nothing doing, except on the Kybean River, where a company has been formed, or is about to be formed, to work a silver lode, recently found by Wilson and party.

In the early part of the year there was a good deal of talk about gold being found on a flat at Dooloondondoo. Several miners went there, but they soon left, as it was no good.

During the year I sold 13 miners' rights and 1 mineral license.

TUMUT AND ADELONG DISTRICT—Cooma Division.

(Jas. B. Spence, Mining Registrar.)

The sales of miners' rights and licenses show a slight decrease on the previous year, the totals being—Miners' rights, 106; business licenses, 2; and mineral licenses, 9; but this fact does not indicate any depression in mining, as the reports on the different fields by Mr. Warden Love will show.

Gold leases.—Twenty applications have been received during the year, comprising in the aggregate an area of 140 acres, and chiefly situate at Cowra Creek.

Mineral leases.—Three applications of 40 acres each, situate at the Kybean, on a lode of galena about 25 feet wide, assays from which I am informed yielded from 5 oz. to 17 oz. silver, and a large percentage of lead to the ton.

Mining tenements.—Very few applications under this heading, and chiefly consisting of machine areas, dams, &c., showing a probability that more machinery will be erected shortly.

Gold.—Very little alluvial mining to report, consequently the amount won has been small, viz., 50 oz., the price averaging from 73s. to 75s. per oz. The total returns from quartz show an increase on the previous year, and amount to 530 oz., the price being from 72s. to 76s. per oz., and I estimate the total approximate value of both at £2,200.

Machinery.—The total value of mining plant in this division is about £3,500.

Mr. Warden Love is forwarding a general report upon the different mines in this division.

TUMUT AND ADELONG DISTRICT—Tarcutta Division.

(Wm. Johnston, Mining Registrar.)

I am very sorry to have to state mining has not been carried on in the division for the greater part of the year 1891, owing to the reefs running out and want of capital by the few who were prospecting them not having sufficient to enable them to continue operations. There are two batteries in the division, and both have been idle for the last four years—all on account of want of capital to test the different reefs in the district.

TUMUT AND ADELONG MINING DISTRICT—Adelong Division.

(J. James, Mining Registrar.)

Gold returns by Escort:—

	Oz.	dwt.	gr.
Commercial Banking Company	4,127	0	0
Bank of New South Wales	620	10	2
Total	4,747	10	2

representing, at £3 16s. per ounce, a money value of £15,983 5s. 6d.

The above returns include 541 oz. 7 dwt. 15 gr. received from outlying districts.

The

The product of the division is :—

	Oz.	dwt.	gr.
Alluvial	2,911	2	23
Quartz	1,294	19	12
Total	4,206	2	11

The crushing returns are :—

	Tons.	cwt.	Oz.	dwt.	gr.
Reefer Battery	1,034	13	1,267	19	12
Perseverance Battery	53	0	27	0	0
Totals	1,087	13	1,294	19	12

Two hundred and thirty-six miners rights and two business licenses were issued. Eleven applications for gold-mining leases were received comprising one hundred and three acres.

Other business consists of 43 conditional registrations, 19 unsurveyed and 6 surveyed.

Quartz.

The quantity of small lots total 402 tons 3 cwt., the remaining 682½ tons is the output from the Proprietary Gold-mining Company's Mine. This mine, which was favorably alluded to in last report continues to be the centre of attraction, and is under the management of Mr. Clarke.

The Kurragong Mine, also under the management of Mr. Clarke, is just now in thorough working order. The underground work is now being carried on and good results are anticipated.

The Perseverance Gold-mining Company, under the management of Mr. A. W. Molineaux, concentrated their efforts to develop the north shaft of the Little Victoria lease. It was sunk 50 feet making a total depth of 350 feet, also driven to the south at 186 feet, 256 feet, and 300 feet levels, and to the north at the 325 feet level. Altogether about 200 feet were driven. Crosscuts were also put in to the east, at 256 feet level 22 feet, and to the west at 200 feet level 50 feet. In the bottom of the shaft there is a small leader carrying gold, and in the north drive at 325 feet level there is a small shoot of good stone.

The discovery of a small gold-bearing vein in Golden Gully in May last, held out great expectations, because many thought it could be no other than a branch off the old line of reef. The several small holdings were vigorously worked with results at first satisfactory. At present there is a large and permanent inflow of water, and the claims are beginning to show signs of neglect. Efforts were made to amalgamate, but as yet without success. Eventually this must be done, as the means required to cope with water while sinking is out of the reach of individual parties.

At the Lady Mary Company's Mine situated at the Gap, Adelong, a party of tributors are now driving south, and are nearly at the appletree boundary. They have not met with payable stone as yet.

The mining manager of the Gibraltar Hill Gold-mining Company reports that during the last six months 50 tons of quartz were raised and crushed. The yield was 112 oz. The shaft is 45 feet in depth and deepest level at 20 feet. The vein is from 12 to 18 inches in width. The underlay is west, and the strike north and south.

The most important mining undertaking at present is the Proprietary. The depth of the shaft is 390 feet, and the deepest level 390 feet. Thirty-five men are employed, and the output is considerable considering that the vein is 1 foot in width. The value of the gold won during the year is about £3,800.

It is worthy of special notice that the Kurragong Gold-mining Company have at considerable cost put up all the appliances, such as winding engine and gear, so as to have no hindrance. The depth of the shaft is 225 feet and the deepest level 215 feet. Eight men are employed. The width of the vein is 7 inches. The company deserves well, and the present year, 1892, may develop it into a profitable undertaking.

The old line of the Caledonian reef was taken up and prospecting the surface commenced immediately on the east of the splendid shoot of stone which yielded in value about £4,000 worth of gold. The surface remained in its primitive state, and the cuttings opened up a large body of diorite running south-east from the main line. The existence of the diorite to the east of the rich shoot leads to a conclusion that a gold bearing mundic leader at the bottom of the old shaft, long since filled up, will again yield richly with channel formation never before discovered, striking from a depth of 170 feet in a northerly direction. The promoters in prospecting have discovered on the surface, in a line south of the rich vein a channel carrying gold.

There is a splendid belt of auriferous country in the valley existing between the once famed Old Hill and the present Proprietory Company's Mine, Donkey Hill, which requires scientific investigation, and there are great hopes in the future of mining being carried on in this valley so long neglected and almost forgotten.

At the Old Camp Reef the discovery of a large body of stone containing specimen gold gave rise to some excitement, and the Messrs. Cotton and others secured an extended claim. The vain is continuous and considered large for Adelong, but the yields have not come up to expectations. This line of reef was opened in the early days and remained forsaken, and its line could be traced a considerable distance by the mounds of earth. The greatest obstacle to prospecting at greater depths was the water, and with some the project of a tunnel from the Adelong Creek was considered worthy of recommendation. Here again a diorite formation is visible on the surface, and no doubt the confusion which arises when near it in surface prospecting has made searching for gold bearing veins a trying and unprofitable business.

Alluvial.

Mr. A. D. Shepard's lease is the largest contributor and were it not for the steady monthly yields of gold from this quarter alluvial mining would be reckoned as a feature of the past.

The greatest alluvial fossickers in an old field are the Chinese, and even these patient beings cannot get sufficient gold to enable them to obtain extra comforts. The large number noticed to have invaded this field in 1890 has diminished, and only a few remain to toil hard and live upon scanty food.

In concluding this report I may remark that the unworked large areas of land taken up on the line of old reefs should not remain so much longer, as it is contended that it is a bar to all prospecting on once favoured localities.

TUMUT AND ADELONG DISTRICT—Cootamundra Division.

(*A. J. M'Carthy, Mining Registrar.*)

I have the honor to submit my report for the year 1891, on mining matters in this portion of the Adelong and Tumut District as follows:—

I regret to have to state that there has been no advancement in the mining industry in this division during the past year.

I cannot ascertain if any gold has been sold in the division since my last report. No new discoveries have been reported.

During the past year, I have issued from this office 41 miners' rights, 5 mineral licenses, and 1 business license; within the same period, I have received applications for gold-mining leases of the following areas:—one 3 acres, one 3 acres, one 25 acres, one 25 acres, and one mineral lease application of 20 acres.

PEEL AND URALLA DISTRICT—Bingara Division.

(*Corbett Lawson, Warden.*)

I have the honor to forward my annual report upon the Bingara portion of the Peel and Uralla Mining District.

Bingara.—In the early months of the year, considerable excitement existed respecting the Cinnabar finds on Spring Creek, many leases were taken up, and some very good prospects were found. Some shafts were down 80 feet when water stopped all operations, since then work has ceased, and suspension of labour conditions is the order of the day.

Diamonds.—Mercer's Company still continue to work away; all other companies have suspended operations.

Gold.—Fleming's Flat still continues to support a number of old hands, but the yield has fallen off considerably. The Gwydir Gold-mining Company's plant, and the Bingara Gold-mining Company's machinery on the All Nations are still idle. Mining prospects are dull, little or nothing doing.

Top Bingara, Redding Reef, Ironbark, Wood's Reef.—The Mount Moore Company have a good reef that has given good returns for their steady work. The general output for gold for Bingara proper is probably about 1,100 oz, considerably less than last year.

PEEL AND URALLA DISTRICT—Scone Division.

(*H. J. Parker, Warden.*)

I have the honor to forward my ninth annual report upon the Scone Division of the Peel and Uralla Mining District under my charge during the period, 1st January to 31st December, 1891.

I regret to state that there has been a considerable falling off, both in the quantity of stone raised, and the yield of gold. I can only account for this from the fact that the reefs are only partially worked by the individual miner without the aid of capital and machinery. The mineral resources of the district are very great, and only require development. During the past year, 3,050 tons of stone have been raised yielding 1,850 oz. of gold of the estimated value of £6,250. One hundred and twenty-nine miners' rights and 6 business licenses have been issued, and 13 gold-mining leases, of these 10 are on Stewart's Brook, 2 at Moonan (the Denison) and one at Omadale Brook.

Stewart's Brook Gold-fields.—The United Bluey Gold-mining Company (Limited) 1,500 tons of quartz have been raised by this company, which yielded a return of 550 oz. of gold of the value of £1,800. Thirty-nine men have been employed by the company during the year. The machinery consists of a ten-stamper battery with concentrating machinery, viz.:—*Frue Vanners*, the plant being valued at £5,000. The prospects of this company are improving as they have lately struck some good payable stone which is expected to yield well. The company have driven a tunnel and sunk a shaft 70 feet deep, the vein or lode is 18 inches wide. I regret I am unable to give a description of the work done in this mine during the past year. The Mining Manager, Mr. S. Renfrey reports that he is unable to give the required information, in consequence of there being no record of work done before he took charge.

The Royal Standard Gold-mining Company.—This company have a ten-stamp battery, worked by water and steam-power combined, of the value of £1,200. This company have had an average of 12 men employed during the year. Only 72 tons of quartz were raised during last year, yielding a return of 55 oz. of gold.

The property held by the company consists of a leasehold of 60 acres on the Standard line of reef, a great amount of which has not yet been tried beyond a little scratching on the surface; the work that has been done on this claim is as follows:—The reef for the length of 200 feet has been worked down to the depth of 260 feet by means of two drives, Nos. 1 and 2. No. 1 has been driven a distance of 450 feet on the course of the reef, at which point a cross course is met with, and the reef is lost. No. 2 drive is driven 520 feet to where it cuts the same cross course (as in No. 1 drive stated above), both these drives enter the hill at the south end of the company's ground and run north. No. 3 Drive starts at the foot of the hill on the west side, and is driven at high angles to the reef, a distance of 780 feet, cutting the Standard Reef at a depth of 500 feet from the surface; this drive took about two years to complete, the rock being very hard, the air was supplied by means of air-pipes placed along the roof of the drive and entered the bottom of an air-shaft that had been sunk above the mouth of the drive, said shaft being 50 feet deep, the reef when cut was only 2 inches thick.

The reef was driven on southerly for a distance of 53 feet, and northerly 44½ feet, the reef was then from 2 to 8 inches thick, and for a distance of 30 feet on the south side showed very nice gold. There is about 240 feet of solid ground between the work done in No. 3 drive, and the worked ground above at the bottom of No. 2 drive, the last crushing taken from the bottom of the top workings yielded over 2 oz. to the ton, so with good gold showing in the reef in No. 3 drive the 240 feet of solid ground between the two should contain something good.

I understand that it is the intention of the company to rise from No. 3 drive and sink from the old workings above to meet and thus open up and ventilate the mine.

This

This Company have up to the present crushed a total of 1,800 tons from the Royal Standard Reef for a yield of 4,500 oz. of gold, of the value of nearly £16,000 at 70s. per oz.—not a bad yield from a block of land 200 by 260 feet. The company's battery is situate within half a mile of their mine on Stewart's Brook, which gives them a never-failing supply of water; the company have crushed about 700 tons for the public. On the whole, I consider the Standard Company have a first-class property, and which no doubt will again give a large yield of gold to the shareholders.

The Ethel May Gold-mining Company (Limited).—This company have a lease of 10 acres, and have employed an average of 15 men during the year; 880 tons of quartz were raised, giving a yield of about 350 oz. of gold. They have driven a main drive for a distance of 150 feet, and worked over-hand stoping.

The company have a ten-stamp battery erected on Stewart's Brook, driven by a 12-horse power portable steam-engine, distant about 1¼ miles from the mine, of the value of £1,000.

The Pride of the Brook.—(Cook and party.) This claim consists of a 3-acre lease. Two men have been regularly employed. They sunk a shaft 55 feet in depth, and drove two tunnels 100 feet each. 55 tons of stone were raised, yielding 54 oz. of gold.

The Maid of Gala Claim (A. Frame and party).—Consists of a 5-acre lease. Four men have been employed on the claim. They have sunk one shaft 150 feet deep, and a second shaft, 65 feet deep, and have driven a tunnel a distance of 52 feet. They have raised 27 tons of stone, yielding 27 oz. of gold.

The Terry Claim.—Containing an area of 8 acres. The work done in this claim consists of a tunnel driven for a distance of 60 feet. No crushing has taken place in this claim during the year.

The Teddy Morgan.—This claim is a 5-acre lease. No work done this year.

The Little Nell.—This claim is a 4-acre lease. Three men have been employed in the claim. The work done consists of the extension of a drive to a further length of 55 feet on reef from a cross-cut tunnel (*a*) where a cross course east and west was met with, cutting off the reef in that direction. Prospecting was continued by a further extension of drive on the cross course in an easterly direction for 57 feet, at the end of which the reef was again struck, proceeding in her proper course south. Progress was made by again extending the level on the reef (*b*) for a distance of 30 feet south. Foul air was then encountered, rendering its further extension impracticable, and necessitating work for ventilation. This was attained by rising on the vein to meet the original prospecting level to a height of 37 feet, when the junction was effected. This has enabled stoping to be proceeded with immediately. Total amount of backs now available, 120 feet; previous backs, 83 feet.

Prospects of Gold.—Vein or lode on the first level (a). The reef averages 5 inches, with splendid shoots of gold in slate walls for stopes (83 feet backs). On extended level (b) the vein is small, averaging 3 inches, carrying good gold, in rather hard country, but in stopes (backs 120) increases in width to maximum of 2 feet, bringing the average up to 1 foot between block slate walls.

Crushings.—Since last report no crushings have been taken, as it was deemed preferable to complete the necessary dead work first. A crushing of 6 tons is now at grass. Total work on mine to date, including all prospecting works :—

Drives	360 feet.
Sinking and rising	157 „
Total	517 „

South Standard (Bezzant and party).—This claim consists of a 5-acre lease. They have driven a tunnel for a distance of 174 feet, and raised 15 tons of quartz, yielding 20 oz. of gold. Four men have been employed on the claim during a portion of the year.

The Lady Maude.—(Harris and party).—This claim consists of a 7-acre lease, they have driven a tunnel a distance of 50 feet. No crushing has taken place during the year. (This claim has been let on tribute to Messrs. Adams and Towns.)

James Collison and party.—This party have sunk a shaft 20 feet deep, 5 tons of stone has been raised yielding 3 oz. of gold. Timber is on the ground ready for slabbing.

Patterson and party.—Convenient claim. This is a 5-acre lease, 10 tons of quartz has been raised yielding 10 oz. of gold.

Ruggiri and party.—A 4-acre lease, a tunnel has been driven in the claim a distance of 60 feet, 22 tons of quartz have been raised yielding 9 oz. of gold.

Moonan (the Denison).—The Newcastle Gold-mining Company.—(Known formerly as Fuller's Reef.) The company have a lease of 17 acres, 18 men have been employed in the claim during the year. The machinery consists of a Huntington mill and plant of the value of £3,000. The company have driven an incline tunnel 130 feet and worked 80 fathoms of over-hand stoping, 800 tons of quartz was obtained yielding 660 oz. of gold of the value of £2,200.

The Jeweller's Shop Gold-mining Company.—This company have a 20-acre lease, during the year they have driven 220 feet along the line of reef and have also put in two cross-cuts, one of 90 feet and the other 25 feet. They have had no crushing during the year.

Prospecting area at Boomerang Reef, Flaggy Gully.—(Williams and Barber), 30 tons of quartz from the surface raised which yielded 17 oz. 17 dwt., two men were employed at this claim during a portion of the year.

Flaggy Gully (Teague and party), (Ordinary Claim), sunk shaft 30 feet deep, raised 18 tons of stone yielding 9 oz. of gold.

Flaggy Gully, (4 men's ground), (Simpson and party).—Sunk shaft 30 feet deep, drove a tunnel a distance of 20 feet, raised 21 tons of quartz which gave a return of 10 oz. of gold.

Omadale Brook (Johnston and party).—This claim consists of a 10-acre lease, sunk shaft 35 feet deep, had a trial crushing of 3 tons of stone which gave a return of 9 oz. of gold.

Messrs.

Messrs. Taylor, at the Denison, raised 6 tons of quartz yielding 15 dwt. per ton.

Mr. J. M. Hale, has had two men at work at Moonan and at Omadale Brook during the year but have had no crushing yet, other mining has been done in addition to above, but no report has been sent to me.

E. Williams.—Moonan, Crushing battery five stampers driven by water power, value £300.

I estimate the value of the machinery in this division at £12,000.

PEEL AND URALLA DISTRICT—Gunnedah Division.

(*P. Brougham, Warden.*)

I have the honor to submit my report for the year 1891, upon the Gunnedah Division of the Peel and Uralla Mining District over which I preside as Warden. During the year the only mineral raised has been coal and the following quantities have been returned to me.

From Centenary Coal and Coke Company. Curlewis.

		Tons.
Quarter ending	March 31, 1891	2,450
„ „	June 30, 1891	3,100
„ „	Sept. 30, 1891	3,130
„ „	Dec. 31, 1891	3,750
W. W. Lord „	„ Dec. 31, 1891	75
		12,505

As the dispute about portion 60 at Black Jack has been settled, I am of opinion that 1892 will show a large quantity of coal from that locality, the quality of coal from Black Jack is much superior to that raised from Curlewis.

PEEL AND URALLA DISTRICT—Tamworth Division.

(*R. Frappell, Warden.*)

I have the honor to forward my report on the various divisions of the Peel and Uralla Mining District under my charge for the past year.

Nundle.—It is surprising how this old field discovered in the fifties maintains so large a population, the various companies that had taken up leases and finding no profitable results having abandoned the same, the ground has been thrown open to the miners and retaken up; and in some instances they have obtained good patches which, though paying them well, would not have paid companies. The past year has been favourable for sluicing, consequently a number of miners have been profitably employed. The Lady Mary Mine after driving over 1,000 feet on a narrow vein without finding it payable had to be abandoned, and a capital battery is now idle. The Black Snake and Isaacsohn and Thompson's claims under Hanging Rock have still maintained their reputation; the last crushing from the latter giving over 10 oz. to the ton. Mr. Norris, at Mount Pleasant, has a fine run of cement wash over 50 feet wide, by 6 or 7 feet in depth, this is raised by a whim, the shaft being 264 feet deep, it is then carted to his 10-inch stamp battery which returns him a fine cake periodically, and the owner is satisfied with his outlook. The Prospecting Board having granted aid to several parties in the district, I am in hopes that some finds will be the result.

Mount Sheba Sluicing Claim has been doing better this year although not being able to pay a dividend, still it has paid all expenses. I am in hopes when the centre of the enormous basin they are now working is reached the ground will pay. A better mode of working has been adopted, chambers have been driven into the face some 50 feet with cross drives of 25 feet each and barrels of powder securely tamped in, the whole discharged by electricity, this enables the nozzle to wash away the face with greater ease and get through a larger quantity per day; the electric works on this mine are among the best in the colony, and are driven by a Pelton wheel supplied by two fine jets from the pipe; this is the invention of Mr. Parkinson, the manager; a nice patch of alluvial gold was found at the head of Oakenville Creek, giving payable employment to over twenty miners.

Bowling Alley Point.—Parties here have managed to increase their earnings, since I have had many unworked leases thrown open, two or three sluicing parties have made fair wages. The Peel River Company after driving tunnels some 1,800 feet at a great cost, have at last cut the reef they were in search of, it is thin and poor at present, the manager hopes it will enlarge and be payable in driving along it, the quartz veins on this field as a rule are thin and in hard country, and diorite-belts crossing the lodes, they either cut out or become very small. Anderson's Flat, adjoining the township, is said to carry course and payable gold in a heavy wash, but very wet, this ground is open to any one having the means to erect powerful pumping machinery, it has been tried but the power was too small to keep down the water, and the ground is now idle

Tamworth.—Mining in this division quiet, a few parties were working on and about Spring Creek, but the superior attractions of Swamp Oak drew them away; the banks and bed of the Cockburn, the Mullah, and lower part of Swamp Oak Creek offer a good inducement to prospectors, good patches have been got on the banks, reefs run alongside, and gold traced into the bed, but it requires means and a favourable season. I am satisfied that if any parties undertaking the work would be rewarded.

Swamp Oak.—This field is slowly and surely going ahead, notwithstanding the scarcity of capital among the miners, the high price of tools and provisions, and no roads to the place worthy of the name, yet in spite of the difficulties three batteries have been erected, and negotiations for two more are in progress, stone from ½ to 7 oz. to the ton has been crushed, veins from 6 inches to 4 feet are being worked; mines like the Storm King, Rising Moon, Schofields, M'Neilly, Highland Mary, Rainbow, Routine Flush, and many others are payable claims, and as depth is reached they show better than ever—for instance the Storm King at 120 feet, Highland Mary and Rising Moon at 80 feet. Over twenty claims have good prospects, and the area is gradually increasing, with the advent of outside capital and decent roads this is bound to be a promising field. A neat town comprising good cottages, stores, and gardens occupying a healthy and picturesque position, has been established, and only requires better communication with the outside world to be known and appreciated, the climate being A 1, and the town 3,000 feet above sea-level.

Niangala.—This field lies east and 10 miles in a direct line from Swamp Oak, and is 1,000 feet higher being on the table-land of New England, in a stringybark forest where swamps and morasses abound, the climate is cold and very wet, and the ground spongy, therefore, mining is carried on under difficulties, yet there are several payable claims such as the Just in Time, Jersey, Starlight, Morning Star, and others, yet mining from the first from want of capital and enterprise has languished. A town was laid out but only a few lots taken up, no hotel accommodation for man and beast, the former limited, for the latter, none, therefore only persons compelled visit the place, this is a great drawback, yet with some capital and real miners the field offers inducements as there are many reefs indifferently tried, and some not at all, that would pay if properly worked, a four-stamp battery has been erected and negotiations are pending for the purchase of a ten-head battery, winding and pumping-gear, water being troublesome in all claims of 50 feet and upwards.

Bendemeer.—Most of the tin mines are worked out, and no prospecting for lodes has been done at Giant's Den, some few are making wages at tribute, while at Hall's Creek miners are scarcely making a living; at Tara the prospecting shaft with aid from the Board is down 245 feet, and a reef has been struck, but as the party had to sink 5 feet more to complete their contract it has not been broken down, the foot wall is a fine slate highly charged with minerals, and showing a few specks of gold. I trust the enterprising party who have worked here so long without result will reap their reward in a rich quartz reef, they having hitherto been looking for an antimony lode; big lodes of manganese, and it is said, wolfram exists in the neighbourhood and other minerals that only require opening up.

Taking all things into consideration the past year has been a fair one for mining, and I have hopes the coming one will give an impetus to the industry. I learn that on the outskirts of my district many prospecting parties intend to try the surrounding country, and as the Department intend to increase the Prospecting Vote I trust with the aid given some good finds will result.

PEEL AND URALLA DISTRICT—Armidale, Hillgrove, and Walcha Divisions.

(C. E. Smith, Warden.)

I do myself the honor to report that during the year 1891, the undermentioned minerals were obtained within the Armidale Division of the Peel and Uralla Gold Field, viz.:—Gold, 30,366 oz. 19 dwt. 9 gr., and about 1,580 tons of antimony.

PEEL AND URALLA DISTRICT—Glen Innes Division.

(G. Martin, Warden.)

Tin.

The output of this metal for the year shows a reduction as compared with 1890 of more than 200 tons with a corresponding falling-off in the number of miners engaged in the industry. Although much capital and labour have been expended in prospecting new ground, but little finds of any value have taken place, and the great bulk of the ore won has been obtained from the mines which were being worked during the previous twelve months, and from the operations of scattered parties who spread out into every depression amongst the mountains when the rainfall affords them a temporary supply of water for sluicing purposes.

The only systematic operations in this lode have been at the Ottery Mine, Tent Hill, from which were put out 1,747 tons of 4·3 per cent. tin stone, yielding 75½ tons black tin, of the value of £3,739 17s. 5d. on the ground. The expenses of the mine absorbed the whole of the output for the year. After being for many months in abeyance, operations were towards the close of the year resumed on the Butler's Reef, but no reduction of the tin stone to marketable ore had been effected. Small parties with rude appliances were still employed on the reefs at the gulf, and are apparently contented with the pecuniary returns their laborious methods afford them.

The Basaltic Lead Prospecting Company have ceased operations for some time, as the shareholders had become discouraged by the nil result of their labours in driving the tunnel 700 feet under the basalt at Kangaroo Flat, and it is questionable whether the work will be resumed.

At Peircy's Hill, near Deepwater, a local company has been formed to work a deep lead underlying the basalt, which is said to be rich in ore, but preliminary operations in opening the mine, constructing tramway to the river, and erecting buildings and washing plant were still going on at the end of December.

Near Glen Innes the alluvial workings on the Mann River have not been prosecuted with much energy, as speculators were doubtful as to whether the deposits were sufficiently connected to justify any large expenditure in bringing water on the ground, but the leaseholders themselves are now employing labour in development, and express confidence of a profitable return on their outlay. Tin ore is found over a considerable area in the valley of the Mann in the alluvial, but the mining operations have been desultory and mostly by small parties of Chinese.

Thirty-four men with 36 horses were employed at the Glen Smelting Works, and the output of refined ingot tin was 385 tons. The furnaces were blown out, and smelting operations brought to a standstill at these works shortly after the close of the year, in consequence, the manager states, of a reduction on the carriage of ore from Deepwater to the seaboard to 29s. per ton, as against 53s. 9d. charged for refined ingot tin, the difference in the cost of trainage being sufficient it is alleged to turn the scale in favour of the smelters on the coast and to close the local works. Returns show a total production of 1,070 tons 10 cwt. of this ore in the twelve months in the division, but at a lessened value, as the average price on the ground had fallen to £50 per ton.

Silver.

Webb's was the only silver-mine constantly at work, with an average number of 50 men. From the ore raised 354 tons of concentrates, assaying 85 oz. silver per ton, were sent away for treatment at reduction works elsewhere.

The Mount Galena Company, working a part of the year only, with 28 men produced 190 tons of picked ore, which was likewise sent away by rail for reduction. Forty-five tons 9 cwt. were forwarded by rail from other sources, amounting to a production in all of 595 tons 9 cwt. concentrates.

As

As I have stated in previous reports there are numerous veins of sulphide ores in the division from which it has hitherto been found impracticable to extract the silver with any resulting profit on account of the heavy expenses of carriage and the difficulty and cost of treatment at the distant reduction works. Under more skilful manipulation and with lessened cost of carriage, these ores will yet turn out profitable, as the percentage of silver is high, and the deposit in the veins abundant and easily worked.

Gold.

Mining for this metal has expanded, although not in the ratio that was anticipated at the close of 1890. 1,989 oz. were obtained principally from the reefs at Bear Hill, 130 oz. only being from the alluvial.

The bulk of the gold came from the Butcher's Reef and Bear Hill Company's ground, under treatment at their very comple crushing establishments. Some difficulty having been experienced in saving the pyritous gold at the former establishment, two frue vanners were purchased and erected on the battery site, and are stated to have acted effectually in saving the gold which the copper plates were unable to retain. The operations of this Company (Butcher's) were apparently from the start hampered by the want of sufficient capital to properly open the mine, and in consequence it was not possible to keep the ten head of stampers in the battery constantly running.

Mr. W. Jenkins, the Mining Manager, estimates that the cost of crushing the stone from the mine was 10s. per ton, apart from the cost of extraction from the vein. From calculations made it would appear that very nearly two-thirds of this cost could be saved, if an overshot water-wheel were substituted for the engine, and drivers employed by the company.

Nowland Creek (on which the battery stands) would afford an ample supply of water for the purpose.

From the cause above stated operations on this mine were brought to a standstill at the end of the year, with a view to the formation of a new company with more ample capital.

As the stone has lately been yielding somewhat over an ounce to the ton, there is every probability of the venture turning out successfully in the hands of the re-formed association.

Bear Hill has from the first been opened out carefully and well, and some 1,500 tons of stone were to grass before the battery started crushing. The stone does not appear to be as rich in gold as that of the Butcher's, but the workings have rendered the vein much more accessible, and the supply of stone to the battery in consequence is more continuous.

A dam, 25 feet in height, throws back the water in the deep ravine of Cedar-brush Creek, and the levelled battery site near the dam is connected with the lowest tunnel of the mine by a double line of tramway, cut and piled up the steep face of the mountain for more than half a mile. There is every sign of permanency about this well-planned mining property, and the shareholders anticipate steady if not large dividends in the near future.

Other properties on and near this mountain are still in a tentative condition, speculators no doubt awaiting a declaration of dividends from the two working mines before investing in further developments in this locality.

The Welcome Stranger, at Kookabookra, is still shut down for want of capital, but there is some probability of work being resumed under a change of proprietary. The last crushing from this mine gave over an ounce and a half of gold to the ton. The failure to obtain capital to further develop this property has had a most depressing effect on the whole neighbourhood, and operations are in consequence in abeyance everywhere on this part of the field.

Contrary to expectations the Starlight Reef, at Oakwood, has not been a success, and the mine is shut down. This is a depressing result after the repeated good reports which led to an expenditure of several thousands in permanent improvements at the place.

The Glen Elgin Reefs have been slowly but steadily developing with fair promise under the management appointed by the English syndicate in principal possession of the properties.

Three reefs run through this company's land, and as the lines have been traced and prospected from the level of the Glen Elgin River to a height 600 feet on the western face of the range bounding the river, advantage has been taken of the abrupt incline to put in tunnels at different levels, of which four have been driven to distances respectively of 80 feet, 202 feet, 90 feet, and 70 feet on No. 1 Reef. The lode varies in width from 12 to 30 inches and has yielded on trial crushings in bulk, from 1 to 2¼ oz. per ton. Fourteen men have been employed tunnelling, sinking air-shafts, and prospecting Nos. 2 and 3 reefs.

As there is always an ample supply of water in the Glen Elgin River, and a fall of about 250 feet in 3 miles of its course abutting on the reefs, it is intended to utilise the water power thus at hand in driving all the machinery that will be required on the mine, and in this way reducing the cost of extraction to a minimum.

Bertram's Reef runs parallel with the others and has been tunnelled on in a similar manner; No. 1 drive is in 60 feet, No. 2, 123, and No. 3, 97 feet on the western slope of the same range, and on the eastern slope a tunnel has been put in 137 feet. Several air-shafts have also been sunk to ventilate the tunnels. The lode is continuous so far as has been explored and varies in thickness from 12 to 24 inches. An overshot water-wheel about 8 feet in diameter, driving 3 head of stampers, has been erected on this property, and with this comparatively inefficient plant trial crushings in bulk have returned from 1 to 2¼ oz. to the ton. At present the battery is leased by the Glen Elgin Company who get the same results from their stone; and the manager lately sent to Sydney a sample cake of gold weighing 23 oz. from the last crushing. Thomas and party have 14 acres on the eastern slope of the range, through which runs one line of reef 14 inches wide, being a continuation of No. 1 lode in the Glen Elgin Mine. Three tunnels have been put on its course at different levels. The first has been driven 20 feet, No. 2, 50 feet, and No. 3, 101 feet. The stone yields 1 oz. and upwards per ton, and as the water power is equally available for use on this property the expense of crushing ought not to be great. Other reefs in this locality have been prospected with, it is said, satisfactory results, but no steps have been taken for their further development.

Bismuth.

The Kingsgate Mines continued shut down during the year, and although negotiations were entered into with the view of opening up the Glen Innes Mine adjoining, nothing came of the motion in so far as the raising of ore for the market was affected.

Emeralds.

Emeralds.

The Proprietary Company reports a production for the year of washed stones weighing 25,000 carats, but there does not appear to have been any sales as a test of value. £30 it is reported has been offered for a cut gem weighing 5 carats and £2 per carat for all cut stones from the mine.

Antimony.

No development has taken place on the lodes in the parish of Raufsbeck.

Wolfram.

Inquiries have been made with reference to this ore, and it is probable that the lodes known to exist in the division may be worked under the rising demand for the metal.

Copper.

Is known to exist in lode-form near Bald Nob, but no action has been taken to further open up the old shafts or test its value.

Manganese.

Has been found near the Newton Boyd Road in wide veins, but there does not appear to be any demand for the metal, and no leases have been applied for.

Slate.

In huge conical masses exists on the Paddy's Land Range at no great distance from Bear Hill, and judging from appearances it would make good roofing material.

I submit an abstract showing the amount and value of minerals raised, and the average number of miners employed in my division during the year.

ABSTRACT Mining Report, Glen Innes Division, for the year ending 31st December, 1891, showing output and value of minerals, and average number of miners employed.

Emmaville District.

	£	s.	d.
Tin ore—1,038 tons 7 cwt. 3 qr., value £50 per ton at smelting works, Tent Hill.	51,920	12	6
Silver Ore—595 tons 9 cwt.	11,329	0	0
Emeralds—24,000 carats, value unknown	.....		
Wolfram—7 tons, value, unknown	.....		

Glen Innes District.

Tin ore—42 tons 10 cwt.	2,121	0	0
Gold—1,859 oz. 5 dwt. 9 gr. from quartz	7,061	2	7
Gold—130 oz. from alluvium	500	0	0
	72,931	15	1

District.	Minerals worked for.	European.	Chinese.
Emmaville	Tin	300	460
	Silver	150	
	Emeralds	12	
Glen Innes	Tin	20	60
	Gold	220	
	Tin and gold	.....	10
	Totals	702	530

PEEL AND URALLA DISTRICT—INVERELL, TINGHA, AND ASHFORD DIVISIONS.

(W. W. Fraser, Warden.)

THE mining industry on these fields has not escaped the general depression, and the output from Tingha has never been lower. During the year the local buyers have purchased 847 tons. Some 150 tons more has been forwarded direct to Sydney, making a total of 997 tons. The average price per ton on the ground has been £52.

The alluvial is pretty nearly worked out, and although there is abundance of reefing ground capital is required to develop it, and that is wanting. The working miner cannot, unaided, develop the reefs, and capitalists will not invest in undeveloped mines.

Could any aid be obtained in testing the grounds by sending some diamond-drill borers to the field at a charge on the Prospecting Vote, or by way of loan to the miner, to be repaid without interest by instalments, and secured by mortgages on the output and plant?

Silver.

During the year large areas have been taken up for silver at Borah Creek, from which good assays have been obtained, but holders are not financially strong enough to develop the lands. In its present state it would be premature to express an opinion.

Silver reefs have also been discovered at "The Brothers," on the M'Intyre River, about 7 miles above Elsmore, and on Swanbrook, near the Sugar Loaf.

The Ashford Silver Reefs, about 30 miles north of Inverell, are, for the same reasons, at a standstill. The ores are rich, but refractory, and costly to treat at present.

Diamonds.

The diamond-mines lying west of Tingha and Inverell are not being vigorously worked. Some 1,200 carats have been obtained, and the local quotations are from 6s. to 8s. 6d. per carat.

There has been a decrease in the Chinese population. About 250 have left the fields to return to the flowery land.

PEEL

PEEL AND URALLA DISTRICT—Bingera Division.

(Thos. Connolly, Mining Registrar.)

I have issued 176 miners' rights and 19 mineral licenses, and received applications for 11 gold-mining leases, and 5 mineral leases, and as far as I can ascertain there has been won from all sources 1,050 oz. gold, valued at from £3 10s. to £3 14s. 6d. per ounce.

At the Bingera Gold-mining Company considerable work has been done, but so far the returns have not cleared expenses, and they have suspended work for some time past. In alluvial, returns have been very poor for the quantity of work done.

At Spring Creek the Bingera Cinnabar Company has done a great deal of work, but so far without results. At the Proprietary Cinnabar Company the last work done was sinking an underlay shaft to a depth of 80 feet, at which depth they obtained very good results, but the water coming in too strong they had to suspend operations. At Upper Bingera mining is very slack.

At the diamond-mines Mercer and party have had 8 men employed prospecting. They have washed 215 loads of dirt for 96 carats.

PEEL AND URALLA DISTRICT—Barraba Division.

(P. Sinclair, Mining Registrar.)

I have the honor to inform you that I have issued 58 miners' rights and 5 mineral licenses, and 6 applications for gold-mining leases for this year (1891), 3 applications for mineral leases.

There are at present about 60 miners, &c., on the diggings—that is, Crow Mountain and Tea-tree included. Many of the men employed have been away shearing and are now returning to try their luck again. I think this year (1892) will be a more prosperous year for the mines.

The energetic manager of the Mount Moor Company property, Mr. Sandford, has one shaft down 165 feet, and the precious metal looks very encouraging. He has also in course of erection a crushing battery, which makes two machines this company have, and I think by the beginning of February, and under Mr. Sandford's superintendence, we will soon hear that Mount Moor is turning out something handsome.

The John and James Crowley Mine.—This mine has not been at work for some time on account of the owners being unable to work, sickness being the cause (the grippe). Their shaft is down about 70 feet, and there is a good show.

The Albion Company.—This company deserve great credit for the work they have done. They have tunnelled in about 260 feet, and expect soon to get some return for their labour.

The King Solomon Mine.—There has been a great lot of work done on this mine. The depth of shaft is 67 feet; deepest level, 101 feet.

They are at present driving a tunnel to cut the reef at 120 feet from surface, or about 46 feet lower than present shaft.

This will open the mine efficiently, and the owners expect to get good returns for their labour before long.

Diggers and fossickers being spread about so much, it is hard to come to a correct estimate of the amount of gold won.

PEEL AND URALLA DISTRICT.—Hillgrove Division.

(E. Davies, Mining Registrar.)

I have the honor to submit my annual report of the Hillgrove Division of the Peel and Uralla Mining District.

The past year has been fairly prosperous but the field has been retarded owing to the fall in the price of antimony.

Amongst the gold-mines, Baker's Creek still holds the premier position and seems likely for some time to come.

The Sunlight will, in all probability, take a prominent position amongst the Hillgrove Mines, this company is erecting a tramway to the top of the western side of the gorge, and a dam is to be built.

The Earl of Hopetoun Gold-mine has been working for the past four months, and I think ere long that this and the adjoining mines will repay the investors for the capital expended.

The Eleanora is still working and if the price of antimony continues to rise it will doubtless have a prosperous year in 1892.

On the 26th November last the Garibaldi recommenced work and so far is doing well.

The Cosmopolitan and Lady Carrington Mines have been idle for a considerable time, I regret to say I cannot report favourably on the former, on the latter the machinery is being erected, and there may be a change for the better in the future.

Amongst the smaller mines that are likely to become important are the West Sunlight and the Baker's Creek Consolidated.

The Rockvale Freehold, about 16 miles from here, will be in full work in a couple of months, the machinery is on the ground ready for erection, a dam has been built, and a tramway from the mine to the battery is in course of construction.

The silver lodes at Woolomombi have been very disappointing, a considerable amount of capital has been expended, but in no case have expectations been fully realised.

It is a characteristic of this field that the stone improves with depth, which speaks well for its permanency.

During the year, 577 miners' rights were issued, 23 business licenses, and 42 mineral leases

93 gold leases were applied for and 33 mineral leases.

The total revenue for the year from all sources being £1,403 5s. 4d.

The Town of Hillgrove has now a settled and permanent appearance.

West Hillgrove on the opposite side of the gorge is fast rising into importance.

Baker's

Baker's Reef Gold Mine.—There are three reefs on this property, viz.: Smith's, Big Reef, and Hill's averaging respectively 6, 14, and 18 inches in width. The shaft on Smith's Reef is 300 feet in depth, and is intersected from the Big Reef on same level. The lodes are parallel and country of slate formation. There is a 30-head battery and an additional 10-head is being erected.

Sunlight Gold-mining Company.—Six lodes at least are known to exist on this property, the work is confined to one lode varying in width from 3 feet 6 inches to 16 feet. The lode is opened out at four levels by tunnels. There are six shafts and the various levels are connected by winzes affording thorough ventilation and facilities for working, the mine is connected with a 40-head battery by a self-acting tramway. The country is metamorphic slate.

Earl of Hopetoun Gold-mining Company.—This mine is situated at the head of the gorge. There are two levels driven into the hill (No. 1) about 600 feet, running north-east and south-west. Reef varies in width from 5 to 24 inches, consisting of quartz, carrying gold, with antimony in varying quantities. The Countess of Hopetoun, South Hopetoun, and the Hopetoun Extended are in course of development. On the South Hopetoun property there is a reef from 10 to 18 inches in width, which looks very promising.

Eleanora Gold and Antimony-mining Company.—This mine has been working for some years. The fall in the price of antimony was a cause of anxiety to the shareholders. The depth of the shaft is 400 feet, and deepest level 300 feet. The lode is from 3 to 22 feet in width. A considerable quantity of gold has been won.

The Garibaldi Gold and Antimony Company.—This company recommenced work on the 6th November last There are two shafts—No. 1, 200 feet, and No. 2, 100 feet in depth. There is a drive on the lode from No. 1 shaft 96 feet in length. The reef averages 4 feet in width, composed of quartz and antimony, carring a fair percentage of gold.

West Sunlight Reef Company.—This mine is situated on the Western side of the gorge. The reef is from 3 to 9 feet in width, running north-west and south-east. There is one shaft down 100 feet. Excellent assays have been obtained, and there is every probability that before long this mine will take a prominent position in the field.

New Baker's Creek North Gold-mining Company.—This company is driving prospecting tunnels, and partly paying expenses by working the minor lodes. The dip of Smith's reef (Baker's Creek) is on this property.

New Lady Carrington Gold-mining Company.—This company is now erecting new machinery for the purpose of separating the gold from the antimony. There are four tunnels on this reef, which is from 18 to 30 inches in width, consisting of gold-bearing quartz and antimony.

Cosmopolitan Gold and Antimony Company.—No work of importance has been done on this mine during the past year.

Silver.

Della Syndicate.—This mine is situated about 5 miles from Woolomombi, and 15 miles from Hillgrove. The main shaft is 140 feet in depth, and Nos. 1 and 2, 11 and 10 feet respectively. In the main shaft there are two drives along the reef of 25 and 50 feet. The reef strikes 30 degrees east of north, and averages 3 feet in width. The ore consists of sulphide of silver. Some very high assays have been obtained. About £2,000 has been expended on this property. At the time of my visit a contract for sinking an additional 50 feet had just been completed.

Kemp's Syndicate.—This property is about 14 miles from Hillgrove. Main shaft, 12 feet; cross-cutting, 110 feet; reef, 2 feet wide, running 30 degrees east of north. There are two other shafts, 18 and 13 feet respectively. The lode contains sulphide of silver, assaying from nil to 24 oz. to the ton. About £1,200 has been expended on this property.

PEEL AND URALLA DISTRICT—NUNDLE DIVISION.

(*P. B. Harrison, Mining Registrar.*)

I HAVE the honor to transmit my annual report for the year 1891.

I issued during the year 240 miners' rights, 8 business licenses, and 4 mineral licenses. Received 7 applications for gold leases, comprising an area of 31 acres, and 2 for mineral leases, comprising an area of 40 acres.

During the early part of the year a considerable number of good miners left this district for Swamp Oak and Niangala Gold-fields.

The amount of gold won in this district during the year has been far greater than any single year for the past consecutive fifteen years, and locally over 1,400 oz. of gold have been purchased. Mr. Isaacsohn alone purchasing some 1,200 oz. All this has been chiefly obtained from alluvial workings.

No new reefs have been found, and I regret to state several of the old reefs are shut down, owing to insufficiency of gold to make even wages.

Messrs, Issacsohn and Thompson's reef under the Hanging Rock, which is undoubtedly a continuation of the Black Snake line of reef has been, and is as rich as ever, and their last crushing of some 32 tons of stone yielded 304 oz. of gold, and since then the stone being taken out ready for crushing cannot fail to go 20 and 25 oz. to the ton.

The Hydraulic Company are still sluicing away at Red Hill, and although not paying dividends, they are paying their expenses, and are working the ground with less cost than previously.

The Peel River Proprietary Gold-mining Company at Bowling Alley Point have at last struck the reef, which is at present 3 feet wide, and showing a little gold. This company deserve some handsome reward, as they have stuck to the terrible up-hill task, and only for their manager, Mr. John Stanning, being confident of cutting the reef they would have long ago left off work.

The "Bonnie Dundee," at Poverty Point, are, and have been getting out nice stone, which gives a return of 2½ oz. per ton.

No fresh start has been made in the Antimony, but I trust to hear of such shortly.

Four parties are receiving aid from the Prospecting Board, and are doing good work.

The value of the machinery on the field is £18,000.

PEEL AND URALLA DISTRICT—Bendemeer Division.

(J. H. Stumbles, Mining Registrar.)

I have the honor to submit my annual report for the Bendemeer portion of the Peel and Uralla Mining District. During the past year mining has been at a very low ebb in this portion of the district. The Grants Den Tin-mine, at present held by Mr. F. L. Gardner, of Sydney, as turned out 17 tons of tin, value £935. There have been 9 miners' rights issued at this office, and 7 mineral licenses. Mr. G. D. Rowland's prospecting shaft at Mount Tara is now down 245 feet, and he is now engaged in sinking a winze in the southern drive from the 200-foot level. The sinking is in hard slate, and intermixed with quartz-veins. On the foot-wall, at the 237-foot level, some highly mineralised quartz, showing gold, came in on the foot-wall in south-west corner of shaft, about 4 inches wide next to the dig, with about 2 feet of a whitish sedimentary formation between it and the main lode, which underlies about 1 in 12 easterly. Mr. Rowland intends cross-cutting the main lode when he sinks another 5 feet, thereby making a total depth of 250 feet, and from all appearances of the mine, I will not be surprised to see something good struck.

PEEL AND URALLA DISTRICT—Walcha Division.

(J. Mariott, Mining Registrar.)

I have the honor to submit herewith my annual report for the Walcha Division of the Peel and Uralla Mining District for the year 1891 :—

I may, however, state, although I have issued a considerable number of circulars to the various mine-holders in the district, very few replies thereto have been received up to date.

I regret to say mining matters in this district during the past year have not been very brisk. with the exception of Swamp Oak and Niangala. These two places are not now under my control, but the bulk of the gold returned was obtained from there.

The company's leases at Glen Morrison and Tia River respectively have been idle during the greater part of the year. A little work was, however, done in the Centennial Claim, at Glen Morrison, about 150 tons of stone being raised, a small portion only being crushed.

Mount Carrington Claim, situate at Nowendoc.

Mr. Henry Whittam is still working in his tunnel. He reports :—"Now in about 200 feet, showing 5 feet of wash, with a little gold, but up to date not payable, although the wash is getting much coarser, and deepening fast."

Boggy Creek, Nowendoc Hydraulic Sluicing.

Messrs. Tobin and Drought report :—"We have washed away about 7,000 yards of ground for last year, but have not cleaned up yet, so cannot say what amount of gold obtained. Touching the auriferous deposits of the locality, we think there is likely to be payable gold under the basalt, as all the creeks which touch it have a little gold in them."

Mumble Creek, below Yarrowitch.

Mr. M. W. Walsh reports as follows :—"Since my last report I discovered alluvial gold with stone in it. I cannot say it is payable, owing to the quantity of water in the creeks in that locality. If funds were more plentiful I could open up rich reefs there. I discovered a powder in an extensive deposit, superior to anything offered to the public for cleaning silver, &c.

I discovered copper, graphite, galena, and ochres, but have no capital to touch them.

* * * * * * * * * * *

Should any further reports arrive from mine-holders in this district I will at once send them on to you.

Miners' rights issued	148
Business licenses issued	2
Mineral licenses issued	3

Quantity of gold purchased locally, 964 oz. 12 dwt. 22 gr. ; Mint value, £3,364 13s. 10d. ; average value, £3 10s. to £3 11s. per oz. Principally quartz crushings from Swamp Oak and Niangala.

PEEL AND URALLA DISTRICT—Niangala Division.

(W. J. Levingstone, Mining Registrar.)

I have the honor to forward my report of mining operations in this division for the year ending December, 1891.

During the year, quartz-mining has been vigorously pursued. Ten distinct lines of reef have been discovered, upon many of which shafts have been sunk with favourable results. At the present time, however, the want of capital and of efficient machinery for treating the stone has caused a temporary depression—which, however, considering the quality and the quantity of stone at grass, on the several larger mines, can be of but short duration.

From this office, 258 miners' rights, 3 mineral licenses, and 50 business licenses, have been issued.

"*Bungadore G. M. Syndicate*" (The Prospectors.)—Work has been carried on continuously on this lease, which is traversed by the two lines of reef known as the "Just in Time" and the "Jersey"; on the first-mentioned line two shafts have been sunk, No. 1 shaft to a depth of 110 feet, and No. 2 shaft, 40 feet. At the 40-foot level the shafts are connected by a drive, which has been extended to a distance of over 200 feet. On the Jersey line of reef a shaft has been sunk 50 feet. The prospects throughout these workings are reported to be most satisfactory. Sixty tons of quartz have been crushed at the local mill, and yielded about 1 oz. gold per ton; 100 tons of stone are at grass at the present time.

Jersey G. M. Co. (No Liability.)—Mining operations have been actively carried on by this company, a shaft has been sunk on the reef to a depth of 100 feet, and drives, &c., have been extended. A double horse-whip, also substantial buildings, namely, office stables, smithy, &c., have been erected. In December, owing to a heavy influx of water with which the winding appliances were unable to cope, an application for exemption from the labour conditions, for a period of four months, was granted. 46½ tons of stone have been crushed, the yield from which amounted to 149 oz. 19 dwt. 11 gr. gold.

Starlight

Starlight G. M. Co. (No Liability.)—Have been working steadily on their lease, several shafts have been sunk on the underlay of the reef to a depth of about 70 feet, and drives have been extended at the 40-foot level. Reef averages 9 inches in width, and underlays 1 in 40 east, bearing north-west. Eighty tons of stone have been crushed, from which 180 oz. gold, valued at £720, has been won.

Golden Spur (McLennan and party.)—Shafts has been sunk on the several veins, or lines of reef (4), to a depth of about 40 feet, at which level water was struck. Fifty tons of stone have been raised and crushed, which, at the local mill, yielded about 50 oz. gold. Exemption from the labour conditions was granted in December, as the syndicate are unable to carry on work, until appliances for treating the stone raised, are available.

Morning Star G. M. Co. (No Liability.)—This company have confined their efforts to sinking a shaft 100 feet in depth in the middle of the three reefs which traverse the lease. Reef averages about 3 feet in width, and shows gold freely, underlaying slightly west, and bearing almost due north. About 60 tons of stone are at present at grass.

Jersey Lily G. M. Co. (No Liability.)—Company having been formed very recently, work will not be commenced until after the holidays. A vertical shaft has been sunk on the property to a depth of 90 feet, at which level the country was soft, and could be worked without the aid of explosives. About 10 tons of quartz at grass. On the "Butcher's," "Gem," "Twicer," "Kitty O'Shea," "Surprise," "Joker," and other lines of reef, leases have been applied for, work is being carried on, and in most cases the prospects are encouraging.

Crushing Plant.—A 5-stamp mill and Tangye engine and boiler has been erected by J. W. Harle, but as it was without either concentrating or grinding appliances, it proved to be quite inefficient to successfully treat the stone from this field, the gold in which is fine and invariably associated with arsenical pyrites in considerable quantities. The mill was started in September, but after the first few crushings, the results being unsatisfactory, and the loss of gold being proved by assays of the tailings, &c., the managers of the larger mines decided to stack their quartz, pending the erection of more suitable gold-saving appliances, rather than submit it for treatment by the appliances at present available. Consequently the mill is now idle, and many of the mines have been compelled to suspend all work, or they are carrying out the work of development with a small number of men. From the proprietor of the mill I have been unable to obtain returns of the stone which has been crushed.

Paradise Creek, distant about 8 miles in a south-westerly direction, several parties have been prospecting, and five distinct lines of reef have been discovered. Several shafts have been sunk to a depth of about 50 feet. The reefs when so prospected show signs of permanency, and gold visible in the quartz. Several small parcels of stone have been crushed, but I have been unable to obtain the results.

PEEL AND URALLA DISTRICT—Swamp Oak Division.

(*F. J. Buckland, Mining Registrar.*)

I am glad to be able to state that discoveries have been made at Swamp Oak during the past year, which give promising indications of a permanently payable field.

1. *The Alpine Prospecting Claim*, of 4½ acres, is where gold was first discovered by Messrs. Woods and Mitchell, who were the prospectors, although alluvial gold has been found in the same locality some years ago, but was never thought to be payable. Several crushings from this claim have proved beyond all doubt that it is payable.

2. *The Rising Moon.*—A gold lease of 8 acres, taken up by Messrs. Farrell and Sons, who subsequently sold to a Melbourne company for a satisfactory price, and who have, since purchasing, erected a 10-head battery, with two Wheeler's pans, which is kept crushing. Upon this lease is a splendid reef, running right through their lease, and varying in thickness from 1 foot 6 inches to 3 feet. Several hundred tons of quartz have been crushed and yielded 2 oz. per ton from the surface, which the company considers highly satisfactory.

3. *The Little Tichbourne.*—At present under suspension of labour. This is the same line of reef as the Rising Moon, and from which some exceedingly rich stone has been raised. Trial crushings sent to Sydney yielded as much as 30 oz. to the ton. A 5-head battery has been erected on this property, and has been crushing principally for the public. This lease is also formed into a Melbourne company.

4. *The Highland Mary.*—A lease of 10 acres, held by Messrs. M'Donald and Webster, who are pushing on work vigorously. This is the same line of reef as the Little Tichbourne, and which has been traced right through the ground, carrying good gold. 24½ tons of stone just finished yielded 3 oz. 14 dwt. per ton. The reef is about 20 inches wide, with a slate formation, and underlaying to the east.

5. *The Surprise.*—A lease of 1 acre, held by Messrs. Schofield and Sloan. This reef is between the Little Tichbourne and Rising Moon. This is only a small property, being formerly held under miners' right, and has proved to be a very rich piece of ground. About 60 tons of stone was recently crushed, and yielded 264 oz. of gold. This is also a slate formation.

6. *The Storm King.*—An 8-acre lease held by Messrs. Woods and Co., and is proving itself a magnificent property, the main shaft is sunk 120 feet, with a reef 2 feet wide and showing gold freely, proving that the gold will be got by deep sinking. I have seen very rich stone taken out at the 120-foot level, 87 tons of stone from the surface to the 70-foot level were crushed for 128 oz. of gold, about 90 tons of stone at grass expected to go from 3 to 5 oz. per ton.

7. *The Victory.*—This is a parallel reef to the Highland Mary and has proved itself a very rich property held by James M'Neilly and party who have a reef about 1 foot wide from which 15 tons were crushed yielding 5½ oz. per ton; this is also a slate formation.

8. *The Mystery.*—This is also a valuable property held by M'Lennan and Co., and is a continuation of the Victory line of reef, the reef in this mine is narrow (about 6 inches), but exceedingly rich. I have frequently seen very rich stone, the owners have not yet had a crushing but from dollying prospects they expect 6 or 7 oz. per ton when they crush.

9. *The Rainbow.*—A 10-acre lease held by J. A. Wallworth & Co., who have been continuously working for the last 15 months and have found several reefs, varying in size from 6 inches to 3 feet, from a trial crushing sent to Sydney of 6 tons from the small reef yielded 11 oz. per ton, and 6 tons from the 3-foot reef yielded 1 oz. 15 dwt. to the ton, 83 tons of stone have been treated locally and yielded 18 dwt. per ton from the 3-foot reef, this reef is on a granite formation and is a new line of reef from any of the others, the owners intend putting up a 10-head battery and are at present under negotiations for the same.

10. *The Routine Flush.*—This is an 8-acre lease held by Messrs. Tyrrell and Rosenthall, and from what I have seen it bids fair to be the richest mine on the field, the owners have not as yet had a crushing, from dollying prospects I should say it will go from 8 to 10 oz. to the ton. The reef is from 1 foot to 1 foot 3 inches wide from which the rich stone is taken. A second reef has been found about 7 feet wide and is expected to yield ½ oz. to the ton which would pay handsomely with such a body of stone. A trial crushing from the small reef of 1 ton 1 cwt. was sent to Sydney and yielded as much as 12 oz. to the ton.

11. *The New Year's Gift.*—An 8-acre lease applied for by Thos. Hackett & Co., and was recently sold to a Melbourne company for a good sum and who intend to push on with it. This is on the Storm King line of reef and promises to be a good mine from what little I have seen of it I should think it will rank well amongst the payable claims.

12. *The Great Britten.*—This is a two 10-acre lease held by Messrs. Britten & Co., (after whom it is named) work is being pushed on on both leases, at a recent visit the manager showed me some very rich stone and told me that 126 lb. of the same sort of stone was sent to Uralla for treatment by Goddard's Patent, and yielded 8 oz. 17 dwt. per ton, the reef is from 1 foot 3 inches to 1 foot 6 inches and improves at depth, and bears out the opinion of Mr. Kyngdon an assayer, who believes that good gold will not be got until they go down to about 150 or 200 feet and who bases his opinion upon the formation of the slate on one side and granite on the other.

13. *The Lady Sophia.*—This is an 8-acre lease applied for some 15 months ago and has been lying idle until October last, when work was resumed by a party of four men who raised 44 tons of stone in five weeks and got it crushed and which yielded 1 oz. 14 dwt. to the ton, the reef is from 1 foot 6 inches to 2 feet wide and very easily worked in a slate formation, it has since the crushing been sold for a good sum, and the parties who bought it are pushing on with the work in a very systematic way being old miners.

Nearly all the leases applied for are on gold, but the distance to the batteries and the expenses attached to the crushing and carting being so enormous it will not pay to crush second-class stone. The field at present is rather dull owing chiefly to the want of capital, for which the whole place is languishing and I believe if capital were introduced this would be one of the best fields in New South Wales, judging from the crushings both here and elsewhere.

No. of Leases applied for during the year 1891, 68 embracing an area of 412 acres. No. of miner's rights issued, 309; No. of business licenses, 82; No. of mineral licenses, 3; No. of mining tenement's application, 125. Total value of mining plant in this Division, £3,200. Revenue collected during the year, £990 18s.

PEEL AND URALLA DISTRICT—Deepwater Division.

(*T. Selff, Mining Registrar.*)

The season has been all that could be desired for furthering the interests of tin-mining, both alluvial and lode.

Silver.

Castle Rag.—The silver-mining industry has not received as much attention as in the previous year, the shutting down of the Castle Rag Proprietary Mine having had a damaging influence upon the adjacent mines, which also closed.

The late mining operations at Castle Rag Mine were chiefly confined to deeper sinking, and a level put into the lode at a depth of 180 feet diclosing a fair body of ore, assaying from 20 to 60 oz. of silver, and 40 per cent of lead, according to the mine manager's report The shaft was then continued down to a depth of 240 feet, when operations were suspended owing to lack of funds.

Pye's Creek.—The closing down of the Burra Mine at Pye's Creek has also had a damaging effect upon that field, and no silver-mining has been done in that locality for some months. At the Monte Christo silver-mine, 9 miles from Pye's Creek, aid was granted to continue sinking the shaft from the 90-foot level to a further depth of 50 feet, at 30s. per foot. No work was done in the shaft, but a tunnel was started from water-level of creek to strike the bottom of the shaft. After driving 18 feet operations ceased.

Tin-mining.

Tin-mining is undoubtedly the mainstay of this division, and it is considered a good poor man's field. A new tin-mining venture has been floated into a public company, the place of operations being Pearcy's Hill, parish Romney, county Clive. This mine was first prospected upon the principle of a co-operative, miners receiving half wages and a share each in the mine. The prospecting done has disclosed a considerable quantity of tin-bearing gravel. Tunnels have been put in on north and east side of the hill, also shafts sunk, and in each of these, good payable tin has been found.

Machinery is now in course of erection for the expeditious treatment of the wash, and the shareholders are sanguine of it turning out a really good mine.

At Nine-mile W. H. Brown and party have aid granted to sink 100 feet, at 20s. per foot for hard rock, and 3s. per foot for soft basalt. The depth of shaft to end of year was 60 feet, 44 feet being hard rock, and the remainder pickable basalt. As yet, no sign of the bottom.

John Nagle upon the same lead received aid to continue his 54-foot shaft to bed rock, at 15s. per foot. Total depth to end of year, 60 feet, the sinking being very hard and no sign of any change

Scott and party were granted aid in May, 1891, to sink a shaft on portion 102 to a depth of 100 feet, at 5s. per foot for first, and 7s. 6d. for second 50 feet, afterwards increased to 7s. 9d. and 17s 6d. for first and second 50 feet respectively. After sinking to a depth of 76 feet the party ceased sinking, owing to having a great quantity of water to contend with. A whim has since been erected and work will commence at beginning of new year. Should this party succeed in getting payable tin it will doubtless cause many miles of country on the same lead to be prospected.

Greenlaw, Rolfe, and party, Parish Wellington Vale, County Gough, have had aid for sinking 100 feet, at 10s. per foot, and bottomed in November, at a depth of 88 feet, very poor tin-wash. Drive on bottom extended 27 feet north, with no improvement. It is intended to drive 40 feet south. Amount of aid for driving being 5s.

The

The Castle Wellington Tin-mine is being worked by about fourteen men on royalty, chiefly lode tin. The machinery on this mine consists of 12 h.-p. portable engine, driving Huntington mill with two Frue Vanners pump and stone-breaker. Two hundred and twenty-three tons of ore being put through for year 1891.

At Torrington there is a 5-stamper battery in working order, and about 100 tons of ore have been put through for year from lodes in that locality which lies about 7 miles (west) of Nine-mile.

Owing to the patchy nature of the ground the out-put of alluvial tin for year has not been very great. This description of mining being chiefly carried on by Chinese, under the tribute or mineral license system.

In tin-lode mining rich surface shoots continue to be found some of which are very good, while they last. These shoots generally extend to a depth of 20 feet, when the soft matrix is superseded by the hard primary formation of the country granite.

The stone treated at the Castle Wellington Battery represents the out-put from this source of mining for the year 1891.

Miners employed.—The number of miners employed during the year working in silver-mines and prospecting for silver would be about 50. Tin miners (European), 150; Chinese, 60; making a total of 260, and the amount of tin won 400 tons approximately at £53 per ton.

In closing this report I may mention that the mining out look for the ensuing year promises to be much more prosperous in this division than the one just closed, as it is anticipated that the aid granted for deep sinking will be the means of opening up a large area of deep alluvial workings. It being the opinion of Geologists and experts that rich deposits of stream-tin exist in that locality.

The total area of ground covering mining operations and prospecting for minerals in this division would be about 500 square miles.

PEEL AND URALLA DISTRICT—KOOKABOOKRA DIVISION.

(Wm. A. Kelly, Mining Registrar.)

I HAVE the honor to submit herewith my annual report of the Kookabookra portion of the Glen Innes division of the Peel and Uralla Mining District for the year 1891.

With regret, I am compelled to say, that the success of mining operations have not been in accordance with expectation with which the year 1891 opened.

The population of the field during the year has slightly decreased, and is now about 300.

The only mining of any permanency is carried on at Bear Hill, about 4 miles easterly from the township of Kookabookra. The principal of these being the Bear Hill Proprietary Company's Mine, which is situated on the Paddie's Land Range, about 1 mile from the junction of Cedar and Nowland's Creeks. A large amount of money has been expended by this company in developing the mines. The results so far have proved satisfactory and up to expectations. Three tunnels have been driven at different levels along the reef or lode, which averages about 18 inches.

A 10-head battery, with a 16 horse-power engine, with all other appliances, has been erected in connection with the working of the mine, at a cost of about £3,500. A tramway ¾ of a mile in length is also constructed, by which the quartz is carried from the mine to the battery.

The first crushing took place in the month of September last, and was continued till the end of the year; 766 tons of quartz were crushed, giving a return of 756 oz. of gold.

The manager considers this a good return, and is confident the mine will pay its way for some considerable time, and may eventually pay dividends. Sixty men have been employed during the year.

The Butcher's Reef Company, about 1 mile from the Bear Hill Proprietary Mine, is the only other company on the field that have employed labour to any extent during the greater portion of the year. At present all work is suspended at the mine, owing to a suspension of labour been granted from the month of November till the 2nd of February, 1892. The object being to get time to reorganise the present company, and to amalgamate the adjoining claims—the Butcher North with the Butcher's. When complete, I understand it is the intention of the company to have the whole refloated on the Melbourne market.

If successful, and the new company pursue the source of development as the old did, I have not the slightest hesitation in saying that this mine will eventually prove one of the best on the field.

The depth of the deepest shaft is 100 feet, and deepest level 315 feet. In the shaft the reef averages about 8 inches and bears to the north-east.

Expensive machinery has been erected for the crushing and saving of the gold, consisting of a 10-head battery driven by a 16 horse-power engine, and two Frue vanners driven by a 3 horse-power engine.

The cost of the whole plant would be about £2,000.

During the year 900 tons of quartz were crushed, giving a return of 707 oz, of gold. Fifty men have been continually employed about the mine.

Joining the Butchers' on the north, is the North Butcher Company's Mine. At the beginning of the year about twelve men were employed. Three shafts were sunk, the deepest being 40 feet. Twelve tons were crushed during the year, giving a return of 1 oz. 17 dwt. No machinery has been erected by the company.

On the south of the Butchers' is a claim worked by Roberson and party. A tunnel is driven along the reef about 70 feet, which averages about 1 foot in width, carrying good prospects of gold. The walls are well defined. It is generally supposed that this reef will eventually prove to be a continuation of the Butchers' reef.

The New Dominion and Welcome Stranger Mines, worked for a couple of months at the beginning of the year, and then shut down. Some 50 or 60 tons of quartz were crushed; the results I have been unable to obtain.

About 1 mile to the east of the Welcome Stranger, two prospecting areas are held, and worked by P. J. Gormly, and Bending and party. In each case they are receiving aid from the Prospecting Board. The former has a shaft down 56 feet, the latter 72 feet. The vein or leader in each of these shafts, averages about 3 inches, sometimes carrying the colour of gold. The contracts are to sink 100 feet each, or more if approved of by the inspector.

Eighteen miles northerly from Kookabookra, at Oakwood Gully, is the Starlight Reef, worked by a company, who have expended a considerable amount of money in opening up the reef, erecting machinery, buildings, and laying down a tramway line, 1½ mile in length. Two crushings were obtained, of about 150 tons each, from different levels of the reef, which gave a return of about 3 dwt. to the ton. This not being sufficient to pay expenses, all work was suspended. The value of the plant is estimated at about £5,000.

During the year very little alluvial sinking has been followed in this division. About 130 oz. have been procured, principally by Chinamen fossicking in the bed of the Mitchell River, and the old abandoned Oban workings.

About 12 miles from the township of Kookabookra, is the Paddies' Land Silver Mine. This is the only mine worked for silver in this division. At the present all work is suspended, owing to a suspension of the labour conditions being granted for six months. The reef or lode varies from 1 foot to 3 feet in width, carrying both silver and copper. About 150 tons of quartz are on the surface waiting treatment, but as yet no machinery has been erected.

The following table gives the business transacted at this office during the year:—

Miners' rights	126
Mineral licenses	6
Business licenses	23
Business and residence areas registered	21
Machine sites registered	2
Quartz claims registered	2
Gold lease applications—total of 167 acres	29
Mineral lease applications	2

Total amount collected, £248.

PEEL AND URALLA DISTRICT—Inverell Division.

(W. T. Garland, Mining Registrar.)

In submitting my report for the year 1891, I have the honor to inform you that there seems to be a lot of difficulty in divining the Inverell Division from the Tingha Division, and the tracing handed me by the warden about a week ago (which I believe is a very old one) as far as I can make out, shows the Bora Mines and the diamond mines to be in the Tingha Division. I took over the mining duties from the late warden's clerk and mining registrar, Mr. Warden Fraser, at the beginning of June last, and since then have not been able to leave my other duties during the week days to ascertain the number of claims in my division and the names of the holders.

Since taking over the duties from Mr. Fraser, I have issued 29 miners' rights, 1 business license, and 67 mineral licenses, and have taken 2 applications for gold-mining leases, and 57 applications for mineral leases, 48 of the latter being in the vicinity of Bora Creek. The number of applications for leases received for the year being:—Gold-mining lease applications 2, and mineral lease applications 79. The miners' rights issued were 36; business licenses 2, and mineral licenses 115.

There are a few men working about Wallangra prospecting for gold, where a couple of gold-mining leases have been applied for; but up to the present time I have not been informed of anything worth mentioning.

Not knowing my proper division, and having applied for a tracing of it in August last but not receiving it, I am unable to give further particulars; but I am informed by the warden that he also furnishes a report of the whole field.

PEEL AND URALLA MINING DISTRICT—Narrabri Division.

(W. Scott, Mining Registrar.)

The Government prospecting party at Ti Tree Creek, about 12 miles from Narrabri, under basalt 14 feet sinking. Drift carries 1½ dwt. gold to the load, the wash dirt varying from 6 inches to 1 foot in thickness; water is only obtainable at about 2 miles distant.

At Bobbiwa Creek 4 shafts were sunk from 5 feet to 30 feet; in the 30-foot shaft 27 feet of gravel was gone through. A test of 7 loads, washed in cradle, averaged ½ dwt. to the load.

At Old Willaroi Creek, distant about 50 miles from Narrabri, coarse gold was found in the gully, from ½-gr. to 4-gr. specks, but owing to the quantity of water, could not bottom. Gold has been found in eleven different places in the district, miles apart.

PEEL AND URALLA DISTRICT—Gunnedah Division.

(J. J. Kingsmill, Mining Registrar.)

I do myself the honor to report that very little in the way of mining has been done in this district, where we only have coal, during the year 1891.

Out of the 5 mines, only 1 is connected with the railway, viz., The Centennial Coal and Coke Company's Mine, at Curlewis, and at this the bulk of the work has been done, as will be seen from the returns from Black Jack Colliery, Springfield Colliery, Gladstone Colliery, Centennial Coal and Coke Colliery, Morley Colliery. I am glad to say that all the owners have sent in their returns this year.

PEEL AND URALLA DISTRICT—Uralla Division.

(O. Fitzpatrick, Mining Registrar.)

I have the honor to submit the following report for the year 1891.

During that period there were issued from this office 191 miners' rights, 4 business licenses, and 1 mineral license, representing a revenue collection of £97.

There has been no work of consequence done on any of the leases on the Rocky owing in great measure to want of capital. The amount invested during the year 1890 at Melrose, and the consequent apparent failure of that field helped greatly to cripple the resources of the miners in and around Uralla, and it will probably be some time before a recovery will be made sufficient to again place this portion of the district in its old groove.

With

With regard to Melrose, although I believe all the miners have left, and the offices have been closed, reports are being circulated that the field had not a fair trial, and a party has recently gone so far as to peg out and apply for a 6-acre lease with the intention of putting good machinery on the ground.

The year has been a fairly successful one for sluicing, and in one or two claims near Uralla an average of 2 oz. per man, per week, excluding expenses, has been made for some months.

As far as I can glean about 550 oz. for the year would not be far off the amount of gold that has been won, and as there are one or two large workings going on, I hope to have a better report to make for the current year.

PEEL AND URALLA DISTRICT—Armidale Division.

(F. H. Galbraith, Mining Registrar.)

I have the honor to enclose herewith returns of number of men employed in alluvial and quartz gold-mining, also machinery at work and idle, the quantity and value of gold won during 1891 within the Armidale portion of the Peel and Uralla District.

The Warden will report fully on this portion of the abovenamed district.

Two hundred and seventy-one miners' rights, 3 business licenses, and 16 mineral licenses were issued at this office during the past year.

NEW ENGLAND DISTRICT—Tenterfield, Fairfield, Lionsville, and Wilson's Downfall Divisions.

(W. A. Steel, Warden.)

I have the honor to submit for the information of the Hon. the Minister for Mines, my annual report on the New England Mining District, comprising the Tenterfield, Fairfield, Lionsville, Rivertree, and Wilson's Downfall divisions. I took charge of the district at the end of October 1890, when great depression in mining existed in almost every part; a few weeks after my arrival a revival took place at the old Boonoo Boonoo, through the discovery of rich gold, by Stevenson and party on the Buck Reef at Specimen Gully.

Fairfield Division.

I regret to state that the expectations entertained by many in the early part of the year, that the yield of gold in this division has not been realised, and disappointment to many has been the result; only 3,712 ounces of gold have been obtained, as far as I can ascertain, during the past year, 2,036 oz. of which have been won from the Lady Jersey Mine at Long Gully. The Mascotte Mine, situated about 3 miles from Drake, of which very high opinions have been held of its richness, has suspended work for a considerable time with a view of obtaining machinery to properly treat the ore, the greatest difficulty having arisen in doing so, and efforts are being made to raise the necessary funds to accomplish this desirable end, when it is hoped the expectations of the proprietors will be realised in return for the large outlay they have already expended.

The White Rock Proprietary Mine, near Drake, has not been working for over nine months, suspension of labour having been granted to enable the company to raise funds, the original company has been placed in liquidation, and the second period of suspension of three months was granted to give time for a second company to be formed; this has however failed; it is now decided to dispose of the property, and an extension of one month's suspension is granted for that purpose from the 2nd instant, the machinery is the finest in the Colony.

The Adeline Mine.—This mine together with its complete crushing plant has been worked by Mr. J. H. Reid of Tenterfield (Mr. F. Strauss, manager), and with good results.

The Mount Carrington Mine at Fairfield, changed hands in September last; the purchaser being Mr. Wm. Ross of Sydney, a gentleman of large experience in mining in Queensland as well as this Colony, who is very sanguine that the property is highly remunerative, considerable work is being carried on, and a crushing will take place shortly. About 200 miners are employed in quartz, and alluvial mining on this field. 292 miners' rights, and 25 business licenses and 2 mineral licenses were issued this year, against 239 miners' rights, 20 business licenses and 23 mineral licenses the previous year. No new discoveries have been made—at Tooloom a number of miners continue to work, and a larger number of leases have been applied for this year—the results I am unable to give.

Wilson's Downfall Division.—Very little during the year has been done in this division. A number of fossickers, and others principally Chinese, still continue to work for tin, chiefly at Wylie Creek, with varied success; want of water is much felt in this portion of my district year after year. The same remarks apply to the Lionsville Division.

Tenterfield.

In this division I have to report that much activity has been caused, and an impetus given to mining at Boonoo Boonoo, owing to the discovery early in the year of a rich lode on the Old Buck Reef, at Specimen Gully, by Stevenson and party, resulting in a number of applications for gold leases in the vicinity of the reef, and the cancellation of others that had remained unworked for a considerable time previous. Fifty gold lease applications have been made as against 5 for 1890, and 201 miners' rights issued for 68 in the previous year. Several leaseholders have obtained suspension of labour to enable them to obtain machinery to cope with the large influx of water, which is very troublesome on this field. Stevenson's Buck Reef on which gold was struck in March last, have sunk a shaft 100 feet, with drives at 60 feet and 90 feet levels, the gold was struck at the 33 feet level, 7½ tons of stone yielded 496 oz. of gold, which was obtained when being worked with prospecting aid, which has since been withdrawn.

Rivertree.—This portion of my district is situated about 18 miles east from Wilson's Downfall, and is worked wholly for silver, the high expectations in the early part of the year that this field would develop into a large and rich mining centre for the production of silver, has not been realised partly owing to the extreme difficulty experienced in treating the ores, the result being that the chief mines have obtained suspension of labour to enable the owners to devise means to properly treat the ores, and to erect works specially adapted for that purpose; after considerable delay, in which the principal mine owners were

jointly

jointly to contribute towards the erection of the works referred to, the arrangements were not carried out, and the Rivertree Proprietary Silver Mining Company have now decided to erect the necessary plant themselves, and steps were taken last month for their completion within five months, the cost being about £3,000; it is fervently hoped that the enterprise will prove a success, not only as a reward for their pluck, but for the whole mining community, in which case very many important and rich silver mines in this district will be developed and afford employment for hundreds of miners. I venture to say that upon this experiment depends the fate of silver mining at Rivertree.

The amount of revenue collected this year is considerably less than last, and the number of miner's rights, business licenses, mineral licenses issued, and applications for mineral leases have been 133 against 237 last year.

NEW ENGLAND DISTRICT—Fairfield Division.

(J. P. Curran, Mining Registrar.)

I have the honor to forward my annual report for the year just ended, December 31st, 1891, on the mining industry in my division. In doing so I regret to say that my expectations which were based on the prospects of the field in the early part of the year have not been realised. The output of gold has certainly been in excess of that of last year, but there has been a great falling off of the output of antimony and silver. The decrease in the former metal may be accounted for by the low price in the London market, and the latter by the shutting down of the White Rock, no work having been done in that mine during the past year.

The principal gold-producing mine in this division is the Lady Jersey or River's Claim, at Long Gully. Thirty-five men have been employed in this mine continuously, and 2,036 oz. of gold obtained during the past year, and the prospects of the mine point to the fact that this will be a gold-producing claim for many years. This mine has been well tried to a depth of 132 feet, and along the course of the lode for a distance of 300 feet.

The crushing appliances used on this mine are on a very small scale, and not more than 30 tons of ore can be operated on weekly. With a powerful engine and 10-stamps mill a very much greater quantity could be treated at about the same expense as is at present incurred, and the result would be a much larger output of gold. The present crushing appliances consist of one elephant ore stamper and blanket tables. The ore is composed of copper pyrites, galena, zinc-blende, and iron, and yields about 2 oz. of free gold per ton. The blanketings are being stored away for future treatment.

The Mount Carrington Mine is the next mine of importance in my division, and although it has only been a short time at work has already produced about 400 oz. of gold. The work carried on in this mine during the past six months has been more of an exploratory nature than otherwise, the sinking of the main-shaft being the principal feature. The shaft is now down about 170 feet and the permanency of the lode determined. Drives have been put in north and south at the 100 feet level, at this level they have a body of gold bearing matter which varies from 4 to 6 feet in width. The gold in this mine as in all other mines on the field is exceedingly fine, and baffles the most skilful manipulation to prevent loss. The proprietors of this mine, Messrs. Ross & Co., are now erecting an apparatus by which the chlorination of the ore will be effected by electricity, and if the undertaking proves a success it will revolutionise mining in this district. That gold exists in payable quantities in various parts of the field has been proved beyond a doubt, but the difficulty of extraction accounts for the failure of a number of our mines being worked at a profit. I am confident that in time science will solve the problem of treating the minerals of this district by means that will be successful in saving the whole of the gold contained in the ore, and then the prosperity of the district will be established.

Barker's Claim is the next of importance as a gold-producing mine, and is only a few chains south of the Mount Carrington. This mine is being worked on a very small scale, only two men being employed; during the year 73 tons of ore have been raised from which they obtained 240 oz. of gold of the value of £840.

Other small claims in the vicinity of Barker's have had trial crushings of small parcels during the year which gave very encouraging results, notably, Hanneman and party, who had a crushing of 11½ tons, which yielded 16 oz. 17 dwt.; Dwyer and party, 4¾ tons for 10 oz. 17 dwt.; George Knight and party, 6 tons for 7 oz.; King and Keillor, 20 tons for 25 oz.

The prospects of the different mines in the neighbourhood of Mount Carrington are very encouraging.

The Adeline Mine resumed work at the beginning of the year under the superintendence of J. H. Reid, Esq., and for a time it was thought that by economising labour the work of treating the ore could be carried on at a profit, but the success of the mine depended in a great measure on the London market. The ore which was of a complex nature could be reduced to copper matte, which contained about 6 oz. of gold per ton and 45 per cent. of copper, and was estimated to be worth at least £20 per ton on the ground, a price that would have covered all working expenses and left a small margin of profit, but the company were disappointed in their expectations when the metal arrived in England, and had no other alternative but to shut down the mine.

The Mascotte Mine.—This mine has been in operation about 5 years, but the work carried on is of an exploratory nature. A shaft has been sunk to a depth of 200 feet, levels driven at 50, 100, and 200 feet deep, winzes sunk to connect the different levels, and the mine blocked out so as to begin stoping at any time. The manager, Captain Bryant, informs me that assays of parcels of the ore from the mine have been made at different times at some of the reduction works in the colonies and in Europe, and the results have been satisfactory, the average yield per ton being 50 oz. of silver and 1 oz. of gold.

It is expected that early in the next year the necessary appliances will be erected for the treatment of the ore in this mine. The ore is a sulphide, and will require chlorination and amalgamation by the Wheeler pan or barrel process. The value of ore in sight ready to break down is estimated at £100,000 or more. Thirty-two men are continuously employed in the mine. The plant consists of one large winding engine valued at £1,000.

At the other mining localities outside of Fairfield, which is the centre of this division, there is very little to report. At Tooloom a Mr. John Drysdale has taken up a large area of land to work for both alluvial and quartz. Now that a number of his leases have been issued, he will begin work early in the year.

The

The Rise and Shine Gold-mining Company is another company who have acquired a large area of mining property in the same locality, and have been engaged in driving a tunnel to cut the reef known as Payne's Reef. Twelve men have been employed in driving this tunnel since May last, and have driven 267 feet, at which point they have cut a reef 2 feet wide, at a depth of 182 feet.

The Mount M'Donald Company.—This is a Queensland company, who hold a lease of 7 acres of land for gold-mining purposes at Upper Tooloom, and have during the past two years been engaged in sinking shafts and driving tunnels for the purpose of development. They are now engaged in the erection of an 8-stamp battery, to be driven by a 10-horse-power engine. The ore in this mine is estimated to yield 1 oz. of gold to the ton.

Several other parties are prospecting at Upper Tooloom, and though a little gold is found in most of the reefs near the surface, nothing of a payable nature has yet been met with at a depth.

At Pretty Gully the principal work is alluvial mining, at which about thirty men find remunerative employment.

At Lunatic Reefs there is only one party sinking on the line of the Victoria Reefs.

It is my painful duty to report a fatal mining accident, which occurred in the Mount Carrington Mine on the 4th of December, by which two miners, named M'Nulty and Shaw, lost their lives. A coroner's inquest was held on the bodies, and the verdict arrived at was that the men died through inhaling the noxious fumes of a combined charge of rac-a-rock and blasting powder. This is the only fatal accident that has occured in the mines during the year.

The gold won during the year amounts to 3,812 oz. of the value of £13,342; and 54 tons of copper matte, worth £1,080.

I have issued during the year 292 miners' rights, 25 business licenses, and 2 mineral licenses.

NEW ENGLAND DISTRICT—Wilson's Downfall Division.

(Thos. Olver, Mining Registrar.)

I have the honor to forward my annual report of the mining industry of this division for the year ending 31st December, 1891. The tin-mining industry is still in the hands of a few families who, having settled down to work their claims as a permanent employment for themselves and families, make comfortable homes, and show that the migratory digger is a thing of the past. In this district there are one or two claims held as leases, same as in my last report, the majority holding 4-acre claims under their mineral licenses. The prospecting of the deep ground was abandoned through various reasons, the want of co-operation and I daresay the necessary funds, but still the tin ore returns show no falling off.

Graphite.

The Borrodaile Graphite Mine.—There has been a little work done and some 3 tons of ore properly treated and forwarded to England, but with what result I have not been informed.

Silver.

The various mines, private as well as public companies, have been working steadily this last twelve months, not for any extravagant raising of ore, but simply to prove by sinking and driving the large amount of ore lodes they are possessed of necessary before treatment works are erected, which prospecting, I am given to understand, has been so satisfactory that the treatment works will be erected and at work in a very short time, the site having been laid out and excavations for the foundations started. There have also been several parcels of ore sent to the Aldershot Smelting Works, parcels varying from 5 to 15 tons, for the purpose of smelting, and the returns from the same have been something very good, fully establishing the fact that the metal is there. Results will be found in tabulated returns, which tends to show Rivertree Silver Mines are working slow but sure, and not one of the various companies going beyond their means. The different companies, with the exception of the Freehold, are working short-handed, having been granted partial suspension pending the erection of reducing works.

Wolfram.

There is a small syndicate prospecting for same, and have got some splendid samples, but not enough as yet to pay.

Lignite or Coal.

I am not aware any work has been done on this lease, but will visit the locality in a little while, and will then report on the same.

The amount of tin-ore won during the year amounts to 240 tons, valued at £12,323.

	£	s.	d.
Deposits with mineral lease applications	92	0	0
Collections for miners' rights	10	0	0
Collections for mineral licenses	85	0	0
Collections for business licenses	12	0	0
Deed fees and stamp duty on mineral leases	59	0	0
Stamp duty on power of attorney	10	0	0
Summonses and subpœnas	1	7	6
	£269	7	6

On account of Trust Fund—

	£	s.	d.
Survey fees, mineral leases	4	0	0
Survey fees, mining tenement	2	0	0
Deposits with objections to leases	10	0	0
Additional survey fees	1	5	0
	£17	5	0

Miners' rights issued	27
Business licenses issued	12
Mineral licenses issued	85
Applications for mineral leases	9

NEW

NEW ENGLAND DISTRICT—Lionsville Division.

(*Thos. B. Bassetti, Mining Registrar*)

Garibaldi Prospecting Claim.—Bassetti Uduesich and party applied for a suspension of labour for six months and received it; have entered into negotiations with a Melbourne syndicate.

There is no doubt that this mine is a valuable property. If men with capital had it, and put machinery on the ground, it would realise all through an ounce to the ton, because there is every other mineral visible but gold. The owners are very anxious for the syndicate to take it, there is room for forty or fifty miners' and the mine is in a good condition.

Shellamalea Claim.—A. Tamini and party have been still continuing their tunnel up till about two months ago, when Tamini met with a serious accident, through an explosion, which has caused the mine to cease working for a while.

Band of Hope.—J. F. Adams and party are still continuing their tunnel which is in a depth now 180 feet, and driven in over 300 feet, but no gold up to date, but expect to drop on the gold at a distance of 140 feet more.

Cangie.—Sir Walter Scott Mine is still working which is yielding about ½ oz. to the ton and better prospects ahead.

In Ewingar, Bull-dog, and Old Scrub there are still all the same men working there, they all seem contented and are making a fair living.

I have issued during the year 52 miners' rights, and received 6 applications to lease, a total of 72 acres for gold-mining purposes.

As far as I can gather the amount of gold won in my division is quartz nil, alluvial 180 oz., valued at from £3 5s. to £3 10s. Number of miners' at work in quartz claims, 7; alluvial, 16; total, (23).

NEW ENGLAND DISTRICT—Emmaville Division.

(*Frank Potts, Mining Registrar.*)

For the year ending 31st December, 1891, in the Emmaville Division of the New England mining district, mining generally was very dull, the outlook for this year 1892 in lode-tin and silver-mining is more encouraging.

The numbers approximately of miners' engaged were:—

Gold	3	Europeans.			
Silver	100	,,			
Tin	150	,,	Chinese	400.	
Emeralds } Wolfram }	12	,,			
Total	265	,,	,,	400	Grand total . 665.

The table following gives the business transacted:—

Miners' rights issued	8
Business licenses issued	1
Mineral licenses issued	222
Applications, mineral lease	36
Mining tenements	19
Wardens' courts	6

Total amount collected £546 1s. About 973 tons of tin-ore was won during the year, average price £50 per ton on the railway trucks, won principally from shallow workings, alluvial and lode. At Rose Valley and Kangaroo Flat the deepest ground is worked.

Tin.

The Emmaville Division is about 30 miles long and 20 miles in breadth. Nearly all tin-bearing the stream tin being in gullies, flats, and deep leads, the lode-tin amongst the more rocky mountainous country.

Butler's Tin Mine.—Nine men are employed. A 10-head battery and dressing appliances, idle during the year, valued at £1,000. The lode is about 3 feet wide in granite country, underlaying to west, bearing north-east. This mine has been principally prospected only this year. Numerous shafts are sunk, the deepest 150 feet, and tunnelling about 300 feet along the lode. One hundred tons of stone was raised. Estimate, 4 per cent.

Glen Smelting Company, Ottery Lode, Tent Hill.—Twelve Europeans and 15 Chinese are employed. A 10-head battery and concentrating appliance worked almost constantly. About 1,747 tons of stone were raised, producing 75½ tons of block tin. The lode is from 1 to 14 feet wide, in porphoretic granite country, dipping 40 per cent., and bearing north 20 degrees east. The deepest level is 210 feet.

Rose Valley Deep Lead (alluvial).—Nine men are employed. £1,500 value in machinery, consisting of two engines, pump, and winding appliances, is on the ground. No ore has been raised. This Company are prospecting for the rich deep lead of the same name. The wash found is at 98 feet, is 20 to 50 feet wide, and 6 inches to 3 feet high.

The Great Britain Tin-mining Company.—Parties of Chinese, on tribute, work this mine.

Wesley Tin-mining Company, Rose Valley.—Several parties of Europeans have worked on tribute, but owing to water coming in at the great depth sunk work was discontinued. O'Mara and party, at 197 feet, got good wash. and continue at work. Two hundred loads washed up for about 10 tons of ore.

Silver and Lead.

Mount Galena Silver and Lead Company, 9 miles south-west of Emmaville.—Twenty-eight men are employed. Sheds and building are erected, being a new mine, all appliances are primitive. However, 700 tons of ore have been raised, assaying 36 oz. of silver, and 46 per cent. of lead. The ore sold realised £1,651. This mine is very promising. Lately 13 new blocks of land have been applied for surrounding this mine The lode is about 17 feet wide, at the lowest level 97 feet.

Webb's

Webb's Consols Silver-mining Company, parish of Gordon, county Gough.—Twenty men have been employed. £1,000 value in plant, consisting of winding engine and gear, trucks, tools, cages, buildings, &c., have been placed on the mine. No ore has been raised. The shaft is 200 feet deep, and drives in every direction. At the different levels exhibit a fine show of stone (galena ore).

Galena Proprietary, parish Gordon, is a new mine, at present confined to prospecting work Their shaft is 15 feet deep, on ore similar in appearance to Mount Galena Company's.

Webb's Silver-mining Company, Little Plant.—This mine is often spoken of as being near Webb's Consols and Mount Galena. It is, however, about 8 miles in a north-westerly direction from Emmaville, whereas the others are south-west about 9 miles. About 50 men are employed. The shaft is 550 feet deep. 3,000 tons of ore have been raised, from which 354 tons have been sent away, assaying 85 oz. of silver to the ton. Some eighteen months ago a very expensive and extensive leaching plant, smelters, and battery were placed on this mine. Little use has been made of it, as new management have condemned it as unsuitable.

Wolfram.

Several leases for this mineral have been applied for in the north-east portion of the division. None has been sent away. The land being secured speculatively.

Gold.

One party are prospecting for this metal on the Severn River, towards the western boundary of the division.

Coal.

Is known to exist in the western end of the division. At the time of the silver boom here in 1886, several areas were marked off. Little or no work was done.

Gems.

Emeralds.—Emerald Proprietary Company—About 9 miles north-east of Emmaville, in parish of Wellington North, 4 men are employed, 2 shafts are sunk, one 100 feet, the other 50 feet, lode is 2 feet wide in hard slate country, and consists of fluorspar, felspar, and topaz rock. The matrix containing the emeralds is met with in bunches. The load underlies 1 foot in 10, and bears north-east. In their rough state about 25,000 carats have been won, their value when cut and finished and of the best quality is about £2 a carat. Some obtained are of very good colour. This company have had aid from the Prospecting Vote. The lode carries a small percentage of tin-ore.

Emerald Proprietary South.—Two men employed have a shaft 30 feet down on a vein of fluorspar prospecting.

O'Donnell and party's Lease (Emerald).—Two men are employed. A shaft 40 feet in fluorspar, felspar, topaz rock, kaolin, mica schist and few traces of emeralds.

Emerald Extended Company.—Three men are employed. Several shafts have been sunk, a tunnel 75 feet, with several cuttings, prospecting.

HUNTER AND MACLEAY DISTRICT—Kempsey and Nambucca Divisons.

(*John Ducat, Warden.*)

First.—The Deep Creek Mining Field.

Gold Lease, No. 169.—The Nambucca Heads Gold and Silver-mining company (No-Liability).—There is no progress to report of gold won from this mine during the past year, as there has been no treatment of ore to extract gold therefrom; the whole attention of the company has been directed to prove the extent of the lode of metal by sinking and driving through it. They have a shaft down to a depth of 202 feet, and at the 190 feet level have put in drives south-east and west, 41 feet, 52 and 59 feet respectively, and a cross-cut from the east drive of 32 feet before reaching the outer walls. A winze is also down to the depth of the 190 feet level, and in the centre of the lode thus proving there to be hundreds of thousands of tons of auriferous stone to be raised for treatment. Assays have been regularly made of the stone by Mr. Atherton, the managing metallurgist almost daily with very favourable results, yielding from 4 to 22 oz. per ton.

The company then decided to erect chlorination works with all necessary machinery on their own ground, for treatment of their own ore, a full plant with rolls, stone crushers with screens and elevators, &c. Excavations and buildings are now near completion, and they are expected to be ready to commence work sometime in March, at a cost of over £6,000. The electric light is being fitted on throughout the whole of the buildings.

There are about 1,000 tons of stone at grass in readiness for crushing when required.

A mining plant has also been ordered for hauling and pumping so as to enable them to keep the works supplied. There can be no doubt this is a very large mine, and I believe a permanent one.

The Southern Cross Gold-Mining Company (No-Liability), *No.* 227, have two shafts down, but they have such an influx of water in them that with two engines and pumps they could not keep them clear. A new shaft is now being sunk farther to the eastward. They have expended altogether on this mine over £2,000, no auriferous stone has been struck yet.

M. Friedlander and party's G. Lease, No. 764.—This lease is also overrun with water; quite impossible to cope with it without machinery. The lessees have purchased an engine from a contractor, and pumps, but until it is delivered and erected they cannot get the water out, and cannot do any further sinking. They have not struck any ore in either of the shafts.

Should the prospector's mine yield good results when the chlorination works are fairly at work, it will give a fresh impetus to all the surrounding leases.

Silver.

Mineral leases on the same field that are working show no result. There are six shafts down from 68 feet to 108 feet, but in no one of them have they touched on auriferous stone, in all of them the influx of water is a serious drawback, and entails very heavy expense in working.

Antimony

Antimony Leases, Parish Newry, No. 5,774, *S. H. Powell and party.*—There is a good show of antimony in the drive, as well as in a shaft put down at the mouth of the drive. Fourteen tons of ore was won from the mine and shipped to Sydney. The ore was from 50 to 60 per cent. This is the only lease in the locality at work.

Silver.

Parish Kullatine, Kempsey.—There comes only a meagre report from these mines; several of the leases are being worked; the veins are small and narrow; silica samples have given assays from 16 to 41 oz. per ton. There is a drive in on the face of the hill on M. lease, No. 6,879, H. H. Mansfield and party to a distance of 130 feet; the auriferous vein is only about 6 inches wide, the miners seem to think it is improving. On a hill farther south at the prospecting area of Weingarth and Weiri, they likewise are driving into the hill, there is a better show of a reef, but of a very refractory character, yielding iron, copper, and zinc pyrites, it assayed 33 per cent. of silver and traces of gold.

Tin.

During the latter portion of the year a discovery of block-tin was made at parish of Belangry, near Rolland's Plains, and ten leases were applied for. Not much work has yet been done on the field, except trenching at various places on the prospector's lease; both ruby and black tin were found, some of the stone assaying as much as 50 per cent. metallic tin; lode is supposed to have been found. At almost any place on the majority of the leases the surface stone when broken shows tin through it. No alluvial tin has yet been found. The prospectors have 10 or 12 tons stacked ready prepared for crushing. I should hope in a few months more, to be able to report good prospects from this field.

Antimony.

Leases on the upper branches of the Nambucca River. There is not very great progress to report from these mines, in most of them the outcrop has generally turned out to be bunchy. Lease, No. 5,889, James Mackay and others, two drives are put in on the face of the hill, the lower drive has now a depth of 110 feet through hard refractory rock, with only small veins of antimony showing in the rock: About 100 yards up the hill, another drive has been opened and is in about 35 feet; from this drive they took 12 tons of good ore, at present it has pinched out a lot. Near the bottom of the hill and facing the creek a large reef can be traced along the surface for a considerable distance. In the parish of Medlow two or three leases show better prospects, the lodes of antimony are more defined, and of greater body. Lease, No. 6,683, A. Graham and party. On this lease there is a great show of ore, the reef as now seen in the drive shows a width of about 5 feet. Notably the other leases that appear to have the best show, are Nos. 6,612, 6,676, 6,805, 6,813. Altogether during the year about 100 tons of ore were shipped from these mines.

What is required on each and every one of the mining fields in these two divisions, is capital to develop the mines, and in my opinion where expended under skilled and experienced management, satisfactory results would be obtained.

The Corangula Mines are not working.

HUNTER AND MACLEAY DISTRICT—Bulladelah, Copeland, Stroud, Taree, and Dungog Divisions.

(*F. W. Garstang, Acting Warden.*)

It is to be regretted that the annual report for 1891 will not compare with that of the previous year, and, so far as this district is concerned, this would appear, in some cases at least, to result from the fault of persons owning leases, rather than from that of the ground.

Those of the miners whose experience leads them to form a favourable estimate of the ground, secure it, in many instances, without any prospect of being able to adequately work it themselves, but in the hope of disposing of it to syndicates and others having the capital necessary, not merely to place machinery and plant on the ground, but also to pay the cost of prospecting it.

Such disposal has sometimes been effected, but the subsequent management appears to have been incomprehensible, for instance, in one mine in the Copeland Division, costly and ponderous machinery has been placed, moved, and removed, labour and money have been expended, but no record appears to exist of any test of the reef to indicate payable prospects.

Hence the condition of the field is at present deplorable, and general business in the town at a low ebb, but where experience and perseverance are brought to bear very different results obtain. Take, for example, the workings known as the Right Track, about a mile out of Copeland, being ground applied for by J. Warren, and the subject of a dispute recently settled in the Warden's Court at Copeland. A nice little patch of 38 ounces of gold of good quality was the result of washing a quantity of granulated red clay, surrounding leaders near the Morning Star line of reef, and puddling is still being prosecuted with satisfactory results, the lessees being confident of opening up a hitherto unworked reef of considerable value.

This circumstance would appear to justify the inference that what is mainly needed in this division is judicious working.

Other leases which, in the past, have yielded well, are not at present worked, for reasons known best to the lessees, who appear to be content to allow forfeiture, and by one or other of the late party or some other arrangement, continue to hold the ground by succession of applications, to the possible exclusion of parties who might be really disposed to work it.

The returns from the mines where gold has been won during the year, with an exception hereinafter noted, have generally been disappointing. The details of these have been furnished by the Mining Registrars.

In the Dungog Division Vanderkolk and party and Salter and party have done heavy and expensive work in tunnelling well worthy the attention of the Prospecting Board. The work is through exceedingly dense rock. The latter have got the reef and have made very extensive preparations for systematic working.

On the church and school land at Cherry Tree, 4 miles from Dungog, I recently saw the battery in work, and found two parties (6 men) employed, one of them speaking very hopefully of the prospects.

In

In the Bulladelah Division, with the exception of the Curecki lease, where 53 tons of stone yielded 102 oz. 9 dwt. there is, unfortunately, little of a satisfactory nature to report. The Coolongolook field is practically, for the present, deserted.

The suspension of labour granted to the Alum Company will expire in January, when the manager informs me, work will be resumed. The importance to the neighbouring township of this industry is considerable, and should properly, I think, induce the Lands Department to concede to this company what it requires in the way of special lease for wharf and tramway purposes, especially as such would not be detrimental to any existing interests so far as known. The amount of money expended, the work already done, the buildings, machinery, and plant, taken as a whole, would appear to indicate an enterprise entitling this company to more than ordinary consideration, especially when the interests of the township are thrown in.

Speaking generally, there appears to be no reason, assuming that in some instances the present objectionable practice of holding land idle for purely speculative purposes be abandoned, and the ground be worked by bona fide mining parties, why the Warden's report for 1892 of these divisions should not be of an entirely different character to that of the present one.

HUNTER AND MACLEAY DISTRICT—Kempsey Division.

(John Ducat, Mining Registrar.)

I have the honor to forward my annual report for the Kempsey Division of the Hunter and Macleay Mining District, as Mining Registrar, for year 1891.

There are no alluvial diggings of any description in this division, and my duties have almost been confined to the sale of miners' rights, business and mineral licenses. A list of the numbers of each sold during the year is appended hereon.

There were two mining tenements applied for as machinery areas that required to be registered.

A few rumours of alluvial finds of gold were mentioned, and some small lots of good shotty gold brought in, but nothing payable has yet been discovered.

	£	s.	d.
Miners' rights, sold at 10s. each—35	17	10	0
Do. 5s. do—24	6	0	0
Business licenses, at 20s.—4	4	0	0
Mineral licenses, at 20s.—24	24	0	0
	£51	10	0

HUNTER AND MACLEAY DISTRICT—Macksville Division.

(E. Hitchins, Mining Registrar.)

I have the honor to submit my annual report for the year 1891, for the Macksville Division of the Macleay Mining District. In consequence of this being a new division and only very recently sketched out to me, and my inability to visit the several portions therein, my report must necessarily be brief. As regards the amount of metal won, the year has not been a very prosperous one, mainly owing to the want of capital. However, after each lease has been executed the lessees endeavour to fulfil the labour conditions, and apparently with prosperous results.

In the meantime, should persons with capital step in, the following year will surely be far more prosperous.

Gold.

The Nambucca Heads Gold and Silver-mining Company (No-Liability).—This mine is situated at Deep Creek, about 8 miles north of Nambucca Heads. The main shaft is sunk 200 feet through a lode of arsenical iron pyrites, 50 feet wide proved; the depth of deepest level, 190 feet. The company have 6 tons of ore to grass, for bulk assay. The value of the gold won, £35 7s. 3d. They have now in course of construction a plant, at a cost of £5,000, consisting of chlorination works, with pumping and winding gear, which will soon be completed. Forty men are now employed at this one mine.

The Southern Cross Gold-mining Company.—Shaft, 150 feet deep. This company have an expensive pumping gear at work, but up to the present they are unable to cope with the flow of water.

No. 1 West.—David Anderson and party. About 200 yards west of the prospectors. This company are vigorously at work, and have great difficulty to battle against the constant influx of water. However, they expect shortly to strike the lode of pyrites which is supposed to run through the whole of the surrounding country.

Several other claims in this locality are doing a fair amount of work.

Antimony.

Several leases have been taken up to mine for this metal in the vicinity of Taylor's Arm and Bowraville, but with the exception of two or three leases nothing of any importance has yet been done, owing mainly to the want of capital and the fluctuating price of the ore.

The Real M'Kay (A. M'Kay and party).—This claim have raised 49 tons 14 cwt. of ore realising £806 12s. 8d. They have tunnelled into the mountain about 55 feet and are at present turning out some splendid ore. Four men are employed on this claim.

Graham's Hope and South Arm Antimony Company (A. Graham and party).—The depth of this shaft is now 20 feet; deepest level 40 feet, lode 1 to 4 feet wide bearing N.N. East. The company have raised 20 tons of ore realising £400. Six men are employed on this mine.

Bull Creek (John E. Scrivner and party).—Drive 30 feet, ore in boulders bearing south by north-east. Fourteen tons of ore to grass.

There are several other antimony leases (mostly all at work) in this vicinity. Among them Chambers and party, and Fleming and party have a splendid show.

I have issued for the year 30 miners' rights, 7 business licenses, and 3 mineral licenses.

During the year I have received six applications for mineral leases comprising an area of 169 acres.

HUNTER AND MACLEAY DISTRICT—Bulladelah Division.

(Robert Quayle, Mining Registrar.)

I do myself the honor to report as follows, respecting the Bulladelah and Coolongalook portions of the Hunter any Macleay Mining District for the year ending 31st December, 1891.

Very little mining has been done since my last report with the exception of the Currecki Lease, No. 711, which has been worked by a Melbourne syndicate who have expended £4,600 in erecting machinery and sinking a shaft to the depth of about 120 feet; 53 tons of quartz have been crushed yielding 102 oz. 9 gr. of gold, suspension of labour for one month was granted on the 16th of October, last, but work has not yet been resumed.

The Mountain Maid Gold Lease, No. 697, have done no work to speak of excepting bailing water.

Coolongolook has been deserted by the miners for some time and several leases have been cancelled, 26 miner's rights sold.

The Australian Alum Company, Bulladelah, have raised about 3,000 tons of Alumite, 1,500 tons of which have been shipped to England, where the company have erected extensive works for the treatment of their raw material. A considerable quantity of manufactured alum has been forwarded to Sydney for local consumption, and about 100 tons are still in stock at the mine. Two men employed at present.

Myers, Partridge, & Co's. Limestone Quarries, situated on the Myall Lakes, near Bungwall, has forwarded 1,640 tons of limestone to their asphalt works in Sydney. Four men employed.

HUNTER AND MACLEAY DISTRICT—Copeland Division.

(Alfred Stone, Mining Registrar.)

I have the honor to forward herewith my report for the past year of the Copeland Division of the Hunter and Macleay Mining District.

During the year ending 31st December, 1891, there have been 24 applications for gold-mining leases, making a total area applied for, 171 acres.

There were 83 miners' rights, 56 business licenses, and 2 mineral licenses issued at this office during the year.

I regret to say that my last year's forecast of the prospect of this gold-field has not been realised, and that the present outlook is decidedly gloomy.

The year opened with work being energetically carried on at the Rosetta, Mountain Maid, Lady Belmore, Dead Bird, Mint, and Boronel lines of reef.

The Black Prince Syndicate, holding 50 acres on the Rosetta and Prince Charlie Reefs, drove a tunnel about 100 feet to the reef, then a further distance of 200 feet along the lode, they also sunk a shaft from the surface to the tunnel, and erected crushing plant. A trial crushing of 70 tons of quartz, I regret to say, only yielded about 15 oz. of gold, an average of 4 dwt. 6 gr. per ton, which so discouraged the syndicate that no work has since been done on these leases.

The Mountain Maid line of reef, Kelly, Fallon, and Hodgson's amalgamated leases, consisting of 12 acres: The lessees, aided by the Prospecting Vote, continued driving the tunnel from the creek level for the purpose of cutting the Mountain Maid Reef, until their funds being exhausted they entered into negotiations with a Queensland syndicate for the purchase of a portion of the property. It most unfortunately happened that the mining expert (E. B. Lindon), sent from Brisbane to report on the property, was accidently killed while being lowered down the shaft, since then all further negotiations have fallen through.

The Hidden Treasure Gold-mining Company has 18 acres on the line of reef, and a ten-stamp crushing plant. No work during the past year has been done on this line of reef, although the company have been promised aid from the Prospecting Vote. Thirty-eight tons of refuse was crushed for a yield of 6 oz. of gold.

The Centennial Gold-mining Company, which spent so much money in tunnelling for the reef, is defunct and their leases cancelled. This property was re-pegged by two parties and both applications refused. It was again pegged out in November and is once more in dispute,

The Lady Belmore line of reef, on which several leases were held by Messrs. Andrew, Brockwell, and Edwards. These leases were cancelled in February last and taken up again by Messrs. Brockwell and Edwards, who have screened and crushed 60 tons of mullock and refuse from the old shaft for a yield of 8 oz. of gold. They are now taking a crushing out from the tunnel at the creek level, Mint line of reef. Messrs. Sala and Co. took out 20 tons of stone which is still at the mine, not being able to get it crushed owing to the Bowman battery (the nearest) being allowed to get out of repair. The stone not being of sufficient richness to justify them in carting into Copeland for the purpose of having it crushed. They are now engaged driving a tunnel in order to cut the reef at a lower level.

The Morning Star line of reef, on which no work has been done for more than seven years, is now being worked. John Warren while prospecting this line of reef came across some very rich patches, altogether about 38 oz. of gold in red clay along-side this reef, and has since taken up several leases. A syndicate has been formed for the purpose of testing the value of this find, and are now putting up a puddling machine.

The Dead Bird line of reef, situate about 16 miles north of Copeland, was the scene of considerable activity during the greater part of the year. Thirty acres were taken up by a Newcastle syndicate. A reef varying from 10 to 18 inches thick was driven on for a considerable distance. Two tons of stone were taken out and forwarded to Ballarat for testing, but the result, so far as I am aware, has not been made public. The Company purchased and commenced to erect a small crushing plant (water power), and also cut a water-race of over a mile in length, but owing to causes, to me unknown, all work in connection with the mill and mine suddenly ceased in October last. This is one of the many instances of the want of good systematic management that has frequently occurred on this field; for the greater part of the year there were 10 men employed erecting machinery and cutting a costly water-race, whose wages ranged to £2 10s. to £4 per week, and only 2 men plodding on in the mine, and at no time was any stone obtained with indications of gold to warrant the expenditure of so much capital in erecting machinery.

The Mountaineer line of reef, parish of Boranel, on which there are two leases in force, viz., gold lease, portions 417 and 39; the former is the property of A. T. Moore, who has been during the past eighteen months engaged driving a tunnel along the line of reef; the stone has been tried at different stages, but with very poor results. The lessee is in receipt of aid from the Prospecting Vote at the rate of 20s. per foot. On William Lally's gold lease, portion No. 39, little or no work has been done for two years.

Alluvial.

There are only 5 or 6 old miners working in the creeks, which is very poor indeed; they inform me that they scarcely obtain enough to make ends meet. I am unable to say what quantity of alluvial gold has been won, but certainly not more than 10 oz. for the year.

There are about 70 miners on the field. The value of the machinery on the field is estimated at between £5,000 and £6,000, which at present is all idle.

The total amount of gold obtained from quartz for the year is 67 oz.

In conclusion, I may add that although the gold-mining interest is at present at such a low ebb, I am strongly of opinion that there are several good chances for legitimate speculation on this field if the requisite capital could be brought to bear on some of the leases now held unworked, and the money judiciously expended.

HUNTER AND MACLEAY MINING DISTRICT—Dungog Division.

(*Harry S. Bingle, Mining Registrar.*)

I have the honor to transmit herewith my annual report for the year 1891.

Mining interest in this district is at a very low ebb, and only a few men, viz., 8, are at work on Crown lands. Nothing good has been found so far, although practical miners are assured by indications that the field around the Little River, especially Wangat, 22 miles from Dungog, will eventually turn out good. The work is slow, owing to the hardness of the rock through which they are prospecting.

One Company has struck the reef running east and west in a tunnel at about 230 feet, width 4 inches, but what it will turn out remains to be proved.

There has been during the year 5 applications for gold-mining leases (3 of which have been refused). and 1 for a mineral lease of 80 acres on coal land at Rix's Creek, near Singleton.

Forty miners' rights have been issued, and 3 mineral licenses.

Owing to the excessive wet weather, the Warden granted suspension to three lessees of gold-mining leases.

CLARENCE AND RICHMOND DISTRICT—Lismore, Casino, and Ballina Divisions.

(*E. Jones, Warden.*)

I have the honor to forward you my annual report upon mining in the Lismore, Ballina, and Casino divisions of the Clarence and Richmond Mining District.

Gold.

The amount of gold won during the past year is fully one-half less than in 1890. This I attribute primarily to there being no heavy southerly and easterly gales to wash the sand from the beach and terraces. Miners will not sink for the alluvial sand, stating that it does not pay, except when found in such rich patches, as the New Zealander's lead, at Evans' Head.

Secondly: No systematic prospecting has been done in any of the divisions assigned to my charge, with the exception of the Black Rock, at Ballina, The return from the Mint from the stuff treated was so favourable, viz., at the rate of 1 oz. 7 dwt. to the ton, that the party immediately applied for a gold-mining lease of 25 acres. I am led to believe that as soon as the lease is issued, active mining operations will be commenced at this mine.

Thirdly: The miners employed beach-mining were fully one-half less than during the preceding year, the only gold-mining in my divisions are of this class, and the amount of gold won about 400 oz. Several miners' rights were issued from the Casino office for operations in the adjoining division of the same mining district.

Platinum.

I am informed considerable quantities of this precious metal are in the hands of some miners at Evan's head, there being no purchaser in the locality, or any person able to estimate its value as found. I am much suprised that mining for this metal has not induced the capitalist and prospector to give it more attention, for it is undoubtedly found in payable quantities in the beach sand in conjunction with other valuable minerals. In proof I cannot do better in the interests of this class of mining than publish the report and assay from your department of the 12th of June, 1891, viz.:—

Sir, Department of Mines, Sydney, 12 June, 1891.

In reference to the platinum bearing sand, submitted by Mr. M. Conlon, and forwarded by this Department to Johnson, Mathey, and Co., London, Vivian and Sons, Swansea, and the Sheffield Smelting Company, I have the honor to inform you by direction of the Secretary for Mines and Agriculture that Johnson, Mathey and Co. report the concentrated platinum ore as per sample sent would be worth about £1,000 per ton. Vivian and Sons state that they do not deal in such ore, and the Sheffield Smelting Company say that the ore would be of no value to them.

The Analyst and Assayer of this Department reports as follows respecting a sample of the sand:—"Sand containing magnetic oxide of iron, cassiterite, ilmenite, zircons, quartz, &c., submitted for assay, with a view of ascertaining the presence of platinum. On a qualitative analysis being made platinum gold, and tin were detected; also osmium and iridium, these being combined as iridosmine. Four large assays were made for platinum, it being found extremely difficult to get any two assays to thoroughly agree, due to the difficulty of taking an average for assay. The following are the results obtained:—

No. 1. Platinum	1·117 per cent.	No. 3. Platinum	1·381 per cent.
No. 2. ,, ...	1·069 ,,	No. 4. ,, ...	1·276 ,,

Mean average of four assays, 1·211.

Taking the percentage at 1·211, the concentrates would yield 395 oz. 11 dwt. 20 gr. per ton. The value per ton, taking platinum at £4 5s. per oz. troy, about £1,680. The quantity of the concentrates received being small, it was impossible to estimate the percentage of tin and gold present. I am of opinion that by grinding the concentrates much finer, and submitting same to a further concentration, that a fair proportion of the quartz, zircons, &c., would be removed, thus improving the value.

I have, &c.,
HARRIE WOOD,
Under-Secretary.

The

The valuable information contained in this letter was published in the local papers, with the result that Messrs. Cloutier and party, of Ballina, obtained in a few days fifteen carts of sand, which they forwarded in November last to Messrs. Johnson, Mathey, & Co., platinum merchants, London, for treatment. They expect to receive the value of the consignment next month, which is anxiously looked for. If payable it will give immediate employment to a large body of miners, the area in which the sand is found being extensive.

Coal.

Coal-mining in a small way is still carried on at Robinson's Hill, Swan Bay, and at the Aberdare Coal-mining Co.'s property, Moonenbar. The coal is now showing a decided improvement, the quality being better, and the bands smaller. Should the coal-mining industry suffer the calamity of another strike, the local requirements could, by the expenditure of a little capital, be supplied from these mines. Mr. Buchanan is still sanguine of finding good coal or shale in the deep ground which he has so energetically prospected for nearly two years, and, if successful, will prove beyond doubt the existence of an extensive coal-field in the centre of a district in which the demand for the mineral is continuously increasing. Mr. Buchanan's mineral prospecting area is situated between the two mines referred to.

CLARENCE AND RICHMOND DISTRICT—GRAFTON, NANA CREEK, AND DALMORTON DIVISIONS.

(*W. Clarke, Warden.*)

IN forwarding my report for the past year, I have the honor to point out that since my appointment in February last, my time has been almost entirely occupied with court and office work, and that therefore I have been unable to thoroughly inspect my district.

During the year the prospects of the Dalmorton Division brightened, and new discoveries were made, but towards the end of the year things became quiet again, owing to rash speculators, want of capital, and machinery.

I desire to bring under your notice that, in my opinion, the No-Liability Mining Act has been to a great measure the cause of failure in this and other districts. Companies are floated by speculators without means, with a big capital on paper, but really nothing subscribed, and then if they cannot sell out or get in the calls, the company cannot carry on. I think it needs some explanation in some cases as to how it was shown that the necessary capital had been subscribed before registration.

A new discovery was made at Mount Poole, near the Frenchman's Flat, and I visited the same immediately afterwards, on the 14th July. Mount Poole is situated 7½ miles west of Dalmorton, and the formation is slate. The ground was pegged out in all directions and applied for. Two properties have been floated into companies, viz., "The Mount Poole Marvel" and the "Mount Poole." In the Marvel (known as the Prospectors) the reef was then about 2 feet 6 inches wide, showing good gold, and about 2 oz. of good coarse gold was washed out of the mullock. I visited this field again on the 10th September. The Marvel was then down 17 feet, and the reef was 4 feet 4 inches wide. The first test crushing was in Sydney, when 4¼ tons went 12 oz. 11 dwt., and 36 cwt. of rubble went 7½ oz. The next crushing was at the Golden Hope Battery, Dalmorton, when the result was 104 oz. from 5 tons 18 cwt. I then looked for a site for a town, which was subsequently designed by Mr. Surveyor Murray, and reserves suggested by me. On the 7th October I approved of the village as designed, which is designated "Springbrook," and I found a great number of tenements for residence, business, and machinery purposes pegged out. I am informed a third crushing from the Marvel went 6 oz. per ton. This would be at a depth of from 33 to 35 feet. Several other leases were proved to have payable reefs. Riley and party, adjoining the Marvel, had a crushing which, I am informed, went about 1 oz. per ton. Notwithstanding these grand prospects, and the formation, which is slate and sandstone, and the situation of the mines, they being close to the Little River, everything for the present is at a standstill, owing to the want of capital and machinery; but the leases have been granted, and the owners must either develop or abandon what appears to be a good payable field.

The Chandler's Creek Amalgamated Company has been assisted by the Mining Bank, and about £3,000 has been spent in developing their properties and erecting machinery, and I have no doubt that these properties will prove to be payable and remunerative to the owners.

The Scottish Chief.—The battery and dam are finished, and crushing will be soon carried on.

The Sir Walter Scott Company, at Cangai, has not been successful, although the mine is evidently a good one. The quartz has been difficult to treat, and only a low quantity of free gold has been saved. The assays have been splendid, and it has been found that the present machinery cannot treat the quartz. I append the result of the crushings for the year. The mine appears to be developing into a silver mine by the last assays, and 6 tons are being sent to Sydney for treatment. The last assays were as follows:—First, 14 oz. 16 dwt. of gold and 75 oz. silver per ton; second, 11 oz. of gold and 28 oz. silver per ton; third, 15 oz. 11 dwt, of gold and 59 oz. silver per ton.

Nana Creek.—This according to the annexed return of quartz crushed at the battery used by the public appears to be a good working miner's field.

Woogoolga.—Several leases were taken up during the year, but as yet little has been done in the way of proving them.

Mann River.—Work has been carried on at the Adelaide, formally known as the Little Dora, but the results have been poor, the quartz evidently requiring special treatment. Rea and party and other leases have been at work. I believe Rea has a good show.

Antimony.—T. H. Smith has raised and shipped a few tons from his freehold, but the result has not been satisfactory owing to the low market price, other holders have done nothing.

Coal.—Harding and party's mine at Smith's Flat has virtually been abandoned. The old coal mine at Maclean has been taken up again by Dunnett and See, and they appear to intend to thoroughly test it.

Good work has been done on Cadell's property at Black Slate Creek and a good deal of money expended, and work is being pushed on again with a good show of success.

The Magpie and Golden Hill have been doing good work and the results of crushings at the Excelsior battery have been satisfactory. The yield from about 30 tons from the Golden Hill was about 2 oz. to the ton, and the gold was of excellent quality being worth £3 17s. 10½d. per oz. Many other properties have good prospects and good work has been done on them, and I have no doubt further details will be furnished by the local mining registrars.

I regret that the Golden Hope Gold-Mining Company (No-Liability), Dalmorton, has been a failure and gone into liquidation. The lesson the working miners received at the hands of this company may have a beneficial effect in future, and prevent them allowing their wages to run on the faith of promises. However, the company's action in victimising some of the men out of their wages has done a good deal of temporary harm to mining in that division.

I think this year will, by perseverance, and if capital and proper appliances be employed, prove that the district contains ample and remunerative employment for a bona-fide mining population.

I append particulars showing crushings, work done in court, and so forth.

The Sir Walter Scott Gold-Mining Company (Limited).

Tons crushed.	Amalgam.	Retorted Gold.	Standard Gold.	Fine Silver.	Amount for Gold.	Amount for Silver.
1428½	oz. dwt. 3905 2	oz. dwt. 1286 1	oz. 789 621	oz. 409 32	£ s. d. 3091 5 2	£ s. d. 72 5 0

Court Cases.

Grafton	53
Dalmorton	61
Nana Creek	1

Applications for Gold Leases.

Place lodged.	No. of Application.	Area applied for.
		a. r. p.
Grafton	2	12 0 0
Nana Creek	11	47 0 0
Dalmorton	104	632 2 18
	117	691 2 18

Mineral Leases.

Place lodged.	No. of Application	Area applied for.
		a. r. p.
Grafton	1	80 0 0
Nana Creek	5	160 0 0
Dalmorton	...	... ...
	6	240 0 0

Result of crushings ascertained.

Place.	Tons.	Retorted Gold.
	ton cwt.	oz. dwt. gr.
Grafton	1428 10	1286 1 0
Nana Creek	248 13	217 4 21
Dalmorton	341 13	667 4 0
	2018 16	2170 9 21

Miners' Rights, &c. issued and Tenements registered.

Place.	Miners' Rights.	Business Licenses.	Mineral Licenses.	Claims	Machinery Areas.	Water Rights.	Business and Residence Areas.
Grafton	132	1	11	...	...	...	...
Nana Creek	45	2	1	...	...	...	...
Dalmorton	241	25	10	2	3	2	14
	418	28	22	2	3	2	14

CLARENCE AND RICHMOND DISTRICT.—Murwillumbah Division.

(Joshua Bray, Warden.)

I do myself the honor to report that no payable gold has yet been discovered in the district under my charge.

A few miners' rights were issued during the year, and there is a little prospecting going on.

CLARENCE

CLARENCE AND RICHMOND DISTRICT.—Grafton Division.

(J. B. Gibson, Mining Registrar.)

In forwarding my Annual report and returns for the past year I would point out that owing to my recent appointment I have little to report.

There have been issued 132 miners' rights, 1 business license, and 11 mineral licenses. I received one application for a mineral lease, and two applications for gold leases.

Harding and party have virtually abandoned their coal mine at Smith's Flat. Dunnet and See have taken up the old Maclean coal mine and intend testing it.

The return of gold is compiled from information received from the Banks and contains the gold won in other divisions.

CLARENCE AND RICHMOND DISTRICT.—Nana Creek Division.

(George Geddes, Mining Registrar.)

Jubilee.—This, a prospecting claim, is the property of Mr. Alexander Nicholson, and is situated upon the Matilda Hill, Nana Creek. Since my last report the tunnel on the North side, at the 50-foot level, has been driven a further distance of 25 feet, intersecting a reef which has been driven at a right angle from the tunnel 45 feet, and from which has been taken 30 tons of stone. Its crushing yielded 14 oz. 3 dwt. 10 gr. of gold. From a drive 27 feet east, 11¼ tons of stone were crushed, the yield being 4 oz. of gold. It was got from the same line of reef. A vein was then worked up to the surface giving 10 tons of stone, which when crushed gave 5 oz. 16 dwt. of gold. Mr. Nicholson also owns a 1-acre lease. It is No, 136, Por. 169, and is situated on the west side of the prospecting claim, 30 feet of a stope at the 30-foot level, in the shaft which is 37 feet in depth, 10 tons of stone has been taken, and is now at the battery, Mr. O'Grady's at Nana Creek, to be crushed in the early part of the new year. Appearances indicate 1½ oz. stone. A tunnel on the south side of the hill at the 200-feet level was, under a grant from the Prospecting Vote, driven as per my last report, 108 ft. 6 in. The work being so difficult to carry on, it was discontinued. A thorough miner then took the work in hand, and from the 15th August to the 12th December, 39 feet has been driven, the major portion of the work is now being done. There is therefore but 27 feet 6 inches to complete the distance, 175 feet, under the grant.

Fifteen Acre.—This is a gold lease, No. 197 por. 187, and is near Mr. O'Grady's battery, Nana Creek. It was owned originally by Messrs. Matthews and Thompson, but is now the property of the former. The main shaft is a depth of 120 feet and there growing water was struck, causing the work of sinking to be discontinued. At the 80-foot level a drive of 50 feet was put in to the north-east, and stoping thence to the surface was done. From the stope 55 tons of stone was got, the crushing of which yielded 28 oz. 13 dwt. of gold. Another crushing of 26 tons of stone from the north-east drive yielded 23 oz. of gold. The reef is about 16 inches wide. At the south-west end of a drive extending 30 feet it has been stoped to the surface. Owing to water being struck a whip had to be rigged and used, this of course entailed much extra expense. The lessee states that from the 12th January to the 12th June a sum of £200 was expended in the work of the mine, of which about £150 was for wages. For the gold won an advance of £100 5s. 6d., at 70s. per oz. was obtained from the Bank and a refund had to be made, making the sum received but £99 16s. The lessee informs me that he has applied to the Department for a grant from the Prospecting Vote, and I think his application is far more worthy the Board's favourable consideration than some who have on this field been allowed grants, but have never availed themselves of the concessions made them.

Nana's Daughter. No. 1 East Lady Bella Line.—This is gold lease 142, portion 182, and is the property of Mr. T. R. O'Grady. It has an east and west reef, and is a continuation of the Lady Bella. A shaft has been sunk 59 feet, carrying payable stone all the way from 2 to 4 feet wide. Reef in the bottom, 2 feet 6 inches solid stone. At the 50-foot level a drive east is in 102 feet 8 inches, carrying payable stone for 70 feet, when a heave was encountered, on which a cross-cut was driven 20 feet without meeting reef. The level was then driven ahead 32 feet 8 inches, showing stone in detached junks here and there, but not settled yet. Same level driven west 115 feet, reef in end 13 inches. At 67 feet in, a blind shaft, 47 feet deep, is sunk on a rich shoot of stone; this dips out to the west at about 25 feet down, but the formation, with large clay digs and about 12 inches of shelly quartz, continues to the bottom, where the water is too strong. In this level there is also 23 feet of cross-cutting, in search of a parallel reef, also a 9-foot rise. No. 1 tunnel for drainage is in 95 feet 6 inches, and connected with the other workings. No. 2 tunnel is driven on course of the reef 66 feet, and is now nearly holed through to the west level from shaft. 275 square feet have been stoped here. This is the only stoping done as yet; also 14 feet of a rise put up, and shaft sunk 12 feet. Reef averages here throughout about 14 inches. There are 7 tons of stone at grass. Besides what was crushed last year, 50 tons have been milled this year for 62 oz. 11 dwt. of gold, worth about £3 17s. per oz.

Lady Bella.—This is the property of Messrs. Forbes and Wood, an 8-acre lease, No. 140, portion 180. In it are 2 shafts, No. 1 west No. 2 east, and are about 80 feet in depth each. No. 3 east is about 40 feet in depth, and No. 4 east about 35 feet in depth. There are two tunnels driven, one 40 feet, the other 50 feet. From No. 1 west to No. 3 east a drive has been put through 150 feet. Part of this has since been stoped out. A shaft on the north and south line of reef is down 40 feet. The gold won has been procured chiefly from shafts Nos. 1 and 2. The reefs, of which there are several, are on the average about 15 inches, but at times reach over 2 feet in width.

No. 1 West, Lady Bella Line.—This is gold lease 141, portion 181. It contains 4 acres, and has recently passed into the hands of a company entitled the Golden Eagle Gold-mining Company (No Liability). In this ground 2 shafts are down, one 45 feet, the other 30 feet. In the eastern shaft is a reef showing gold, but it could not hitherto be worked, owing to a constant influx of water. A tunnel on the south side is being driven to intersect the Lady Bella line of reef. It is in now 120 feet. The cost of driving exceeds £1 10s. per foot. The work is being done under contract, and the contractor finds it a difficult matter to, at that price, carry the work on satisfactorily.

Three Star.—This is owned by Messrs. Bendell and Mercer, and is gold lease No. 237, portion 57, consisting of 4 acres. They have put in a tunnel, its bearing south-south-west; length, 97 feet; height, 7 feet; breadth at bottom, 3 feet 6 inches, in order to cut the reef on the Lady Bella line. The country is on the hanging wall side. In addition to the foregoing there is trenching done to the extent of 128 feet, averaging 3 feet in depth. A shaft down 11 feet has caved in. *Speculation.*—

Speculation.—This ground has been worked by Mr. J. S. Nicholson as a test. It is situated on the north-east side of the Matilda Hill, and is distant about three-quarters of a mile from the prospecting claim Jubilee. A No. 1 shaft, 14 feet deep, has been sunk, and from it was taken 11 tons of stone, which yielded 5 oz. 3 dwt. 12 gr. retorted gold. The reef at the depth stated is 2 feet in width. No. 2 shaft, distant about 40 feet from No. 1, is down 25 feet, from which has been taken 16½ tons of stone; this is at grass, to be crushed in the early part of the new year. The thickness of the reef at the depth stated averages 10 inches. The formation at the bottom of both of the shafts is brown slate, and gold is to be seen plainly in the stone taken therefrom.

Pride of the Hills.—This was taken up originally by Messrs. Sullivan and Coyle as a 4-acre gold lease, but has now become the property of the latter, and is No. 242, portion 59. The main shaft is down about 12 feet, with some 9 tons of quartz to be operated upon in the beginning of the new year. A quantity of prospecting has been done in this leased ground.

Lady Carrington.—This is gold lease 137, portion 164, and is owned by Mr. George Fauvel. It was fully reported on by me last year. He finished sinking under his grant from the Prospecting Vote on the 11th July, completing 89 feet 8 inches. A further grant was then, under advice of the 27th July, 1891, made to aid him to drive along the reef 25 feet from each side of his then shaft, and about 10 feet from the bottom, driving the 50 feet to be at 20s. per foot. The work was completed on the 29th October, 1891. In the month of May a crushing was had, resulting in a yield of 6 oz. 13 dwt. from 8 tons of stone.

Homeward Bound.—This property is owned by Messrs. L. R. and F. J. Ruddert, consists of 2 acres, and is gold lease 149, portion 176. No work of any importance has been carried on in this leased ground during the year. Fully reported on last year.

Unnamed.—This is owned by Thomas Thomas, and is gold lease 220, portion 190, containing 6 acres. It adjoins the Homeward Bound on its eastern and southern boundaries. Not much, if any, work has been done in this ground during the year.

Unnamed.—This is owned by Messrs. Nelson and Thomas, and is gold lease 221, portion 191, containing 8 acres. It adjoins the Homeward Bound. No work has been carried on here during the year.

Caledonian.—This is also also owned by Messrs. Nelson and Thomas, and is gold lease 222, portion 192, containing 10 acres. No work has been done in this lease of any importance during the year. This, with the three properties immediately preceding, have had labour suspended on them for a time through the year, by order of the Warden; and I understand that all the properties are in the hands of a Sydney solicitor, with a view to their being floated into a company, on the London market.

Nymboi.—This is owned by Mr. S. H. Jones, and is gold lease No. 131, portion 162, containing 7 acres. No work has been done during the year, and that fact, through the Warden, has been made known to the Department. He has been called upon to show cause why the lease should not be cancelled for non-fulfilment of its conditions.

Eureka.—This has been acquired by Messrs. McVicar and Osborne, and is gold lease 228, portion 194, containing 2 acres. The aid granted to Mr. S. H. Jones to drive a tunnel 150 feet has been transferred to them, and they, on the 11th December, had driven 44 feet.

New Year's Gift.—This is the property of Mr. Oliver Anderson. It contains 4 acres, and is gold lease No. 132, portion 156. Under his grant from the Prospecting Vote, nothing has been done towards sinking the main shaft, now 66 feet deep; on the underlay a further depth of 30 feet at 15s. per foot; nor has he had any of the stone crushed, which I stated in my last report as being then at grass. Suspension of labour for a short time was granted him by the Warden. The only work carried out in this lease during the year is that of a tunnel on the south side of the hill, having been driven in 50 feet, in order to meet and drain the shaft.

The Challenge.—This is gold lease No. 128, portion 165; its area 4 acres—the property of Mr. O. Anderson. No work of any importance has been done on this lease during the year.

Advance Australia.—This was applied for as a 6-acre gold lease, on the 8th May this year, by Mr. Frederick Julius Rudder. It was formerly the property of James Wilson and party, but was cancelled for non-fulfilment of the labour conditions. They had a grant from the Prospecting Vote, but only a portion of it came into their hands—and should a lease be granted the present applicant, it is his intention to apply for the balance of the subsidy money.

Jessie Smith.—This is owned by Messrs. William Campbell and party, and is a prospecting claim. Under advice of the 25th February of this year they were aided from the Prospecting Vote to the extent of £100 to sink a new shaft 100 feet deep on the line of reef in a north-easterly direction from their old shaft, and not within 100 feet of it, at 20s. per foot. The work was finished on the 2nd June. Again, under advice of the 13th July, they received aid to drive from the bottom of the said shaft along the reef, 30 feet from each side of the shaft, or a total of 60 feet, at 20s. per foot. The direction of the drives is north-east and south-west. This work was carried out on the 2nd October. A further grant has, under advice of the 16th November, been made to aid them in driving another distance of 50 feet, at 20s. per foot, from the present level of the shaft. Six feet only of this was driven on the 23rd December. The stone taken from the reef, I have been advised from the Department of Mines, is quartz, with zinc blende and galena.

Advance Orara.—This place was visited by me on the 17th and 18th December. It is situated about 16 miles from Nana Creek, near the west branch on Friday Creek, Upper Orara. It is the property of Messrs. John McLeod and party, contains 10 acres, and is gold lease No. 212, portion 1. The state of the work is as follows:—No. 1 shaft is 22 feet deep, the reef runs east and west, and is found to be from 3 inches to 1 foot in width. The stone has assayed 22½ to 35 oz. per ton. 1 cwt. went at the rate of 3 oz. per ton. No. 2 shaft is down 60 feet and well timbered; 16 feet to the underlay. The reef at the bottom is 5 feet, but averages about 3 feet. From 2 cwt. 0 qr. 2 lb. of stone from this reef, bearing nearly north and south, was got 6 dwt. 2 gr., equal to about 3 oz. per ton. This was treated at the Clyde Works, Sydney. No. 3 shaft is down 18 feet. The reef's bearing is east and west, and is from 1 to 2 feet in width, showing good gold. It is considered 15 dwt. stone. From a piece of stone weighing 10 oz., Mr. M'Leod tells me, gold was got rating at 56 oz. to the ton. No. 4 shaft has a depth of 20 feet, and is on the No. 1 line of reef, and distant from it about 3 chains. The reef here is a foot in width, carrying good gold. There are two or three other shafts down to depths of from 12 to 14 feet. Trenching has also

also been done as follows:—33 feet, bearing north-north-west, average depth, 5 feet; 51 yards, like bearing, average depth, 4 feet; 8 feet, with an average depth of 2½ feet; 21 yards, bearing east-north-east, average depth, 3 feet; 5 yards, like bearing, 1½ feet average depth; and 44 yards, bearing north and south, average depth, 2½ feet.

Unnamed.—This is the property of Messrs. John M'Leod and party. It is situated on Friday Creek, Upper Orara. Contains 20 acres, and is mineral lease No. 6,990, portion 1. Prior to the granting the lease some trenching was done, but nothing has since been carried on.

Unnamed.—This is in close proximity to the foregoing mineral lease. Is the property of Messrs. Campbell and Davis. Consists of 20 acres, and is mineral lease No. 6,718, portion 2. No permanent work has been carried on in this lease, and the lessees have consequently been called upon to show cause why their title to the lease should not be cancelled.

Nana Queen.—This was, until the 16th December, 1890, abandoned ground, when a 1-acre gold lease was applied for by Mr. J. S. Nicholson under application No. 121. It is situated about 3 miles south-east of the Warden's office here. There are three shafts in the claim, each with a depth of about 22 feet. From No. 3 shaft 3 tons of stone are at grass, and it is intended to crush it in the early part of the new year. The bearing of the reef in this shaft is directly north and south, and is about 7 inches thick, and there is every indication of its becoming larger. There are leaders in from either side of the shaft. The country is hard, consisting principally of blue metal. The application was notified as approved in the *Gazette* of the 7th October, 1891, but when the lease was issued, the applicant declined to execute it.

Woolgoolga.

This place is distant from here about 29 miles, and the reefs are situated about 5 miles in a south-west direction from the Woolgoolga Post Office. The Warden, under advice of the 13th November, requested me to furnish him with particulars of all new finds during the year. To that end I visited Woolgoolga on the 29th December, returning thence 31st idem, obtaining all particulars *re* the state of the mines. Those have been transmitted to him in full, and, presuming that they are needed for his annual report, I withhold them from mine.

Nancy Lee.—This is gold lease No. 248, portion 189. It is owned by Mr. George Matthews; is situated on the eastern boundary of the Jubilee Prospecting Claim on the Matilda Hill at Nana Creek. Was executed by him on the 17th December, and will be worked upon the expiration of the holidays.

Gold-mining leases.—In the course of the year 11 applications have been received at this office, aggregating in area 47 acres.

Mineral leases.—Five of these have been applied for, the aggregate area being 160 acres.

I have issued 45 miners' rights—that is ten less than last year; but that is readily accounted for. Numbers who have interests on, and are working on this gold-field, get their miners' rights from the Mining Registrar in Grafton. Business licenses issued, 2; mineral licenses issued, 1.

Quantity of stone crushed, yield of gold, and on whose account:—

Name of Owners.	Name of Claim.	Quantity crushed.	Yield of Gold.	Average.
		Tons. cwt. qr.	oz. dwt. gr.	oz. dwt. gr.
George Fauvel	Lady Carrington	8 0 0	6 13 0	0 16 15
Alexander Nicholson	Jubilee	30 0 0	14 3 0	0 9 $10\frac{2}{5}$
,, ,,	,,	11 5 0	4 0 0	0 1 $18\frac{2}{8}$
,, ,,	,,	10 0 0	5 16 0	0 11 $14\frac{2}{5}$
Forbes and Wood	Lady Bella	37 5 0	35 10 12	0 19 $1\frac{115}{140}$
,, ,,	,,	32 0 0	50 13 12	1 11 $15\frac{3}{4}$
George Matthews	Fifteen acres	55 0 0	28 13 0	0 10 $10\frac{2}{55}$
Thomas Robert O'Grady	Nana's Daughter	50 0 0	62 11 0	1 5 $0\frac{12}{55}$
John Stephens Nicholson	Speculation	11 0 0	5 3 12	0 9 $9\frac{9}{11}$
James Robert Taylor	Prospecting Claim, Woogoolga	*4 3 0	4 0 23	1 0 0
		248 13 0	217 4 21	0 17 $11\frac{311}{407}$

The lot marked thus * was crushed in Sydney.

O'Grady's Battery.—Through this, the only one which has been worked this year, 244 tons 10 cwt. of stone has been put through, some of it giving poor results. Plant valued at £700.

Jones' Battery.—This has been idle for a long time. The value of this is said to be about £260.

Sharpe and Morrow's Battery.—This is still at the Day Dawn Reef. It has not been worked since the year 1889. They value it at about £60, and are wanting to dispose of it.

Those interested in mining upon this field, under gold and mineral leases, and applications for such, number over 90.

Mr. George A. Stonier, F.G.S., and Geological Surveyor, visited this field on the 15th December, and examined the claims of those who had applied to the Department of Mines for aid from the Prospecting Vote.

Plenty of rain has fallen throughout the district; the country is looking splendid, there being an abundance of grass and water everywhere.

CLARENCE AND RICHMOND DISTRICT—Dalmorton Division.

(*W. F. Poole, Mining Registrar.*)

In submitting my annual report for the year 1891, I regret to say that mining matters are in a most languishing state, notwithstanding the fact that a number of claims have had trial crushings which have given highly satisfactory results.

The Golden Hill crushed 20 tons for 33 oz. gold; Working Miner, 11 tons for 37 oz. 9 dwt.; Magpie, has averaged about 3 oz.; Carbine, 1½ oz. per ton.

War Cry, 18 tons for 24 oz.; Lady Jersey, 4 tons 17 cwt., went 1 oz. 1 dwt. 10 gr. per ton; this reef is said to be 20 feet wide in places; Golden Hope averaged over an ounce to the ton. Mount Rea, one crushing gave 8 oz. per ton.

The

The Prospectors Mount Poole, now known as the Mount Poole Marvel Gold-mining Company, have had several crushings which gave from 3 oz. to 18 oz. per ton. The two best crushings being 5 tons 17½ cwt. for 55 oz., and a similar quantity 105 ozs., an average of 9 oz. and 18 oz. respectively per ton; from the latter crushing a bag of specimens was not put through, or it would probably have given over 20 oz. per ton.

The Pride of Mount Poole, Reilly and Party, now known as the "Mount Poole New Era," Gold-mining Company, has had two trial crushings averaging a little over an ounce per ton. The Scottish Chief crushed 46 tons for 26 oz. of gold. A 10-head battery has been erected in connection with this mine, which will enable the owners to thoroughly test their mine without the heavy expense of cartage to the river.

The new find at Mount Poole, in June last caused a good deal of excitement, and when the phenomenal crushing of 18 oz. to the ton became known, quite a rush set in to the locality and the country was marked out for miles. A large number of leases were taken up, but at the present time they are nearly all idle, and are likely to remain so until the leases are issued.

At Chandler's Creek (main branch), A. Young and party have got a fair show of gold in a number of small veins, and an application has been made for aid to develop the most promising. This being entirely new country, gives ample scope for prospecting, and I believe something good will be obtained in the locality.

Black Slate Creek has been under suspension the last few months, but work is to be resumed in a few days. Tenders have been called for sinking, and also for carting quartz to the Excelsior battery. Mr. Cadell proposes to put through 40 or 50 tons, which ought to be a sufficient test of the value of the mine to its present depth.

The Chandlers Creek Amalgamated are erecting a Huntington Mill, and expect to commence crushing in a few weeks. They are employing at the present time 17 men. The Garden Hill Mine (one of this Company's properties) is one of the best defined reefs on the field, and I believe a very rich shoot of stone has just been driven through in the tunnel, which is now in about 150 feet.

The Tower Hill Company have driven their tunnel about 60 feet, and expect to cut the reef in about 190 feet further. The vein on which they are driving shows very nice gold in places, and should act as a stimulant to the owners to push on the work.

Although the past year has not realised expectations, I am of opinion that the coming year will witness a greater output of gold than any previous years since 1874.

I sold during the year 241 miners' rights, 25 business licenses, and 10 mineral licenses. I received 104 applications for gold-mining leases (comprising an area of 632 acres 2 roods 18 perches) 3 machinery areas, 1 ordinary quartz claim, 2 stream water rights, 1 creek claim, 7 business areas, and 7 residence areas.

CLARENCE AND RICHMOND DISTRICT—Lismore Division.

(*C. Coghlan, Mining Registrar.*)

Gold.

Since the formation of the Ballina portion into a separate Mining Registrar's District, which embraces the coast from Evans' River to Byron Bay, and which includes almost all the known auriferous ground on the Lower Richmond, there is little left for me to report upon regarding gold-mining. Fourteen miners' rights, and 6 mineral licenses have been sold.

Coal.

Coal-mining has been developed sufficiently to indicate that very extensive coal seams exist in the vicinity of Swan Bay, which only awaits a slight increase in local consumption to attract capital and a practical mining population.

Three parties have been working during the year, two by tunnels, in hills of about 500 feet elevation, and about 3 miles apart, and the third on a ridge about midway between these hills.

By direction of Mr. Warden Jones, I visited these mines on the 15th and 16th January, and have to report as follows:—

Nicholia and party, Aberdare, has opened a well defined and properly propped tunnel, 280 feet into the south-east side of the hill, at about 250 feet elevation; and thereby tapped a seam 6 feet thick, and from which about 150 tons of good-looking coal has been hewn and stacked outside. The quality has been tested in the usual way, and has been proved to be equal to any such in the Colony.

The Coraki Coal Company at Robinson's Hill, about half a mile from deep water, has worked a good seam in a similar way to that of the Aberdare mine, by tunnel and tramway, 180 feet in to the hill, from which many tons of coal have been removed for local consumption, and proved to be of good quality. This company has been formed with a capital of £25,000, of which about £15,000 have been subscribed.

Buchanan and party, at Reardon's Ridge, Moonebar, about midway between the other two mines, at a much lower level, have sunk a shaft 160 feet perpendicular, which penetrated a seam of mixed bands, which would hinder its being profitably worked, and, therefore, it has been abandoned.

This party is boring about 30 chains to the eastward, at 150 feet lower level, where a very pure and thick seam is supposed to exist.

CLARENCE AND RICHMOND DISTRICT—Ballina Division.

(*T. W. Cohen, Mining Registrar.*)

The gold in my division is mostly obtained from the sea-beach, the result of severe gales from the east.

During the year about fifty miners were at work on the beach and I believe most of them did well. It is a matter of great difficulty to ascertain the aggregate result of the miners working or the quantity of gold produced, but so far as I can learn about 274 oz. were obtained during the year, and presumably a far greater amount which I cannot account for. The standard value of the gold is £3 17s. 10½d.

An application has recently been made for a gold-mining lease, of 25 acres of land, situate at Black Heads, north of the Richmond River Heads, portion of this land was worked some years ago, but was subsequently abandoned.

The sale of miners' rights, &c., for the year was as follows:—Miners' rights, 56; mineral licenses, 3; and business licenses, 1.

The total amount of revenue collected by me for the year was £55 5s. 6d.

ALBERT DISTRICT—Euriowie, Broken Hill, and Mount Gipps Divisions.

(W. C. Rodgerson, Acting Warden.)

In submitting the annual report for the year ended the 31st December, 1891, upon the state and progress of the mines in the Broken Hill and Silverton Divisions of the Albert Mining District, I have the honor to state that owing to my arrival here on the 1st January, 1892, I have not had an opportunity of personally inspecting the various mining properties in this important district. From records to hand, and which are given below, it will be seen, however, that the past year as far as silver-mining is concerned has been a very prosperous one, and shows a very large increase in value to any former like period.

The rainfall for the year was only 9¼ inches, and as this was patchy and fell in small quantities and long intervals it was not sufficient to fill the different tanks in this district, therefore prospecting has only been carried on upon a limited scale.

The most notable discovery made has been that of platinum associated with silver, copper, and other minerals in a lode formation. This industry promises to become a very important one, and already several claims have been pegged out, principally situated near Stephen's Creek, some 10 miles from Broken Hill. At the present time only prospecting work is being carried on at the platinum claims, but several samples of the metal have been forwarded to England. with a view of ascertaining its value, and the best and cheapest mode of treating it.

A fair amount of prospecting for ironstone suitable for fluxing purposes has been pursued with varying results, but not of sufficient importance to detail.

On the mines, working on the Broken Hill line of lode has been carried on in a similar manner to that of the previous year, with the exception of the Proprietary Mine where, in addition thereto, portions of the surface are being removed to a sufficient depth to meet the old workings, where the old timber is removed and likewise large quantities of payable ore. This is known as the open cut or quarry. This company has also in course of construction an amalgamating mill of 60-head stampers, where it is intended to treat that class of ore known as dry ore containing a little lead and high in silver. This plant is expected to be in working order by next March.

A deal of attention is being paid to the treatment of sulphide ores, and with this end in view the associated mines have secured the services of Professor Schnable, an eminent German metallurgist, who is now engaged in experimenting upon these ores. His report is anxiously awaited, as in the event of a cheap and profitable treatment being arrived at, a new era in the history of the Broken Hill mines will commence, as several of the mines which are now not paying dividends would be able to return handsome profits.

The Umberumberka Mine, which is the chief mining support to Silverton, has been opened to a good depth and worked continuously during the past year, though the number of hands have varied between 11 and 150. The work done has been principally in driving levels and cross-cuts. The out-put of ore is much smaller than that of previous years. This mine has never stopped work since the commencement of silver-mining on the Barrier. It was ths first company formed here and the first to pay dividends, though none have been paid during the past year. The lode being much smaller and the ore very low grade in carbonate of iron is the lowest grade in the district, and furnishes a striking example that small lodes of very low grade can be made to pay. The size of the company and its area of ground have just been largely increased to enable command of more capital to explore new ground, as nearly all the old opened ground is fully tested, and is being abandoned for new work. At present 40 hands are employed, and the ore being raised is coming from the lower and deeper levels where hitherto little or no ore had been obtained, and promises even better returns. The ore when on the surface requires considerable manual and mill handling to concentrate it for smelting in South Australia, and which system has been much improved, enabling ¾-inch ore to be jigged. The new company takes over the mine properties in February next with a much increased staff.

At the Pinnacles Group Silver-mining Company from 55 to 110 men have been employed during the past year. The value of the plant is £35,000. The concentrating plant has ceased working owing to a difficulty in treating the ore with success. The ore is peculiar to this company, it is galena and free from zinc, the trouble being the fact that part of the silver is in combination with a very light mineral, and hence cannot be saved by concentration. Recent experiments have demonstrated that the ore can be easily and successfully (metallurgically and financially) treated, but two processes are required, viz., concentration and lixiviation, but owing to the expensive royalty this company is paying to the parent company, as I am imformed by the manager, they cannot see their way to erect necessary appliances to treat the low grade ore. Operations are confined to mining and dressing ore of a sufficiently high grade for smelting direct. There is about five years' ore in sight. There are two working shafts and three levels, the deepest being 300 feet.

During the past year, the limestone flux quarries, at Black Hill, Thackaringa, and Acacia Dam have practically ceased work owing to the opening of the Tarrawingee Flux Tramway Company. The cost of this line which connects the Tarrawingee quarries with Broken Hill, and which is 41 miles in length, amounted to the sum of £106,730 19s. 3d. It is fully ballasted and suitable for passengers and other traffic, having a 3 ft. 6 in. gauge. One hundred and eighty men are employed; the value of the plant is £17,079 18s. The machinery at the works consists of one double air-compresser, one Tangye's locomotive engine 30 horse-power, four locomotives, two "Gates" crushers, 92 seven-ton waggons, and 25 one-ton waggons. The limestone is a surface deposit and is being worked as an open quarry. The amount of limestone raised last year was 74,057 tons 1 cwt. 1 qr. which was sold for £65,357 6s. 2d. or nearly 18s. per ton.

The number of miners employed in the Broken Hill division is approximately 5,650, and in the Silverton division about 850. The aggregate value of machinery in the Broken Hill mines is £445,848, and in the Silverton mines £89,316. The population of the whole district may be computed at 30,000.

The following figures, from the returns to hand, show the quantity and value of minerals raised during last year in the district, viz.:—471,101 tons of ore representing a value of £3,960,676 11s. 7d.

The exports are as follows:—

	Tons	Value
Silver Lead Bullion	54,722	£2,539, 685
„ „ Ore	93,942	985,403
Copper Ore	203	3,955
	148,867	£3,529,043

The

The exports show an increase over the previous year of 18,661 tons in quantity and £900,507 in value. Gold obtained from silver and lead bullion raised from the Proprietary Mine, at Broken Hill, last year was 5,277 oz., valued at £19,788 5s.

The following figures show the amount of revenue received, and the business done at the Warden's office at Broken Hill and Silverton. Broken Hill, £7,843 2s.; Silverton, £4,708 17s. 6d., giving an increase over the transactions of 1890 of £1,993 1s. 6d. for Broken Hill, and £59 7s. for Silverton.

Miners' rights, &c., issued :—

	Broken Hill.	Silverton.
Miners' rights	1,434	43
Business licenses	4,299	189
Mineral licenses	287	120
Mineral lease applications	310	340
Gold lease applications	2	...

ALBERT DISTRICT—Wilcannia Division.

(W. C. Rodgerson, Warden.)

In submitting my annual report on the state and progress of the mining industry in the Wilcannia Division of the Albert Mining District for the year 1891, I regret that the hopeful aspect of affairs indicated by my last report has not been realised, and that, in fact, very little progress has been made in the development of the mineral resources of the district. This is no doubt primarily due to the difficulty experienced in obtaining the necessary capital to work the mines, and there are other causes, such as absence of water, limited fuel, and expensive carriage to Broken Hill—the nearest railway-station. During the year 33 mineral lease applications have been made, as against 169 for the previous year; and 5 gold-mining applications, as against 12 in 1890. There have been 39 miners' rights, 31 mineral licenses, and 12 business licenses issued.

At Cawker's Well Gold-field no work has been recently done, but I am informed that operations will shortly be resumed. At Candy Peak, a fair show of gold has been found, but no defined reefs have yet been struck. The principal claims are Reilly's and Jackson's.

Nuntherungie Silver-field.—The causes already mentioned have seriously retarded the development of these mines. No permanent lode has been found, but merely what is termed lode formation, consisting of earth interspersed with mineralised veins. In some cases bunches of ore have been met with of a payable character, but until thoroughly tested at greater depth I fear there will be great uncertainty as to its becoming a permanent field. The difficulty of getting in outside capital is shown by the general desire on the part of a large number of lessees to obtain suspension of the labour conditions, many of whom give as a reason the want of funds to carry on work. There is reasonable hope of a rich mineral deposit being found somewhere in the neighbourhood, if the field is developed by the introduction of capital. About £1,200 have been expended altogether on the various claims, the principal of which are The Proprietary, Nil Desperandum, Tarella Consols, Central, and the Kootra Copper-mine. On the Proprietary two shafts have been sunk to a depth of 50 feet, and 5 tons of ore have been treated, realising £70. The Nil Desperandum has four shafts, at depths of 75, 70, 40 and 25 feet, and 60 feet of drives, besides some costeening. About 10 tons of ore have been raised, 8 tons of which have been treated, averaging 45 oz. of silver and 25 per cent. lead to the ton. Two shafts have been sunk on the Tarella Consols at depths of 86 and 65 feet respectively, but no ore raised. The Central has raised and treated 50 tons of ore, averaging 65 oz. of silver and 40 per cent. lead per ton; two shafts, 50 and 30 feet. The Kootra Copper-mine has sunk one shaft to 50 feet, cross-cuts 40 feet, and drives 12 feet. And No. 2 shaft is sunk 26 feet, cross-cuts, 16 feet, and have, besides, a large amount of costeening. The number of claims on the field are about 90, population 107, of which a large proportion are miners. There are 3 stores, 1 public-house, butcher's shop, baker, and two boarding-houses. The water supply is obtained from a large station tank, the miners paying a rental of £1 10s. per week for the use of it. There is also the copper- mine well, about 3 miles from the township.

The Black Mountain claims number about 40. The Proprietary Silver-mining Company has expended about £8,000; the value of the machinery is £700. No. 1 shaft has been sunk 290 feet, and there are 3 other shafts from 50 to 150 feet deep, with drives.

The opal mines at White Cliffs have not made any material progress, owing principally to the insufficient supply of water, and most of the claims are under suspension from this cause.

ALBERT DISTRICT—Milparinka Division.

(E. L. Maitland, Warden.)

In submitting my annual report for the past year, I regret to have to chronicle a further decline in the mining industry within the district under my charge. For this decline many reasons may be given, chief among which is the non-success and ultimate sudden collapse of the Mount Browne Company, leaving liabilities due in this neighbourhood to the extent of £500, or thereabouts.

This, as might naturally be expected, has had a most depressing effect throughout the district, the more so because the majority of the miners had an implicit belief in the mine, and confidently expected it not only to pay dividends, but also, by proving the existence of payable gold in the deep ground, revive public confidence in the field. The usual January rains did not fall in the greater portion of the district, and, therefore, the only work done was a little dry blowing until April.

The rabbit plague, too, which has now fairly reached this district, is a serious matter to the *bona fide* miner, as the pests clear off every vestige of herbage in the vicinity of water, leaving nothing for stock. At the present time the roads to Wilcannia and Broken Hill are virtually closed, so far as teamsters are concerned, and should the present weather continue much longer the necessities of life will be at famine prices.

With these drawbacks it is of little wonder that a more favourable report is not forthcoming, and the amount of gold won during the year 1891 (2,500 oz.), is most satisfactory under the circumstances.

As a proof that more than simply payable gold exists in this division I may instance four men's ground at Stringer's Hill which yielded 250 oz. for eight months' work, or about £250 per man.

There

There is a want of enterprise and also of practical miners which sadly retards the development of the resources of the district, little or nothing in the way of prospecting being done, and consequently I have no discoveries to report. Even when assisted by a grant from the Prospecting Vote it was a matter of difficulty to get a suitable party of miners willing to leave the old workings and try new country.

The April rains filled most of the dams in the neighbourhood of Mount Browne, and work was in full swing for four or five months, and some good returns were obtained from surfacing, principally by Kershaw Brothers, who put through a large quantity of surfacings for a return up to 9 dwt. to the load.

After nearly two years of a struggling existence the Mount Browne Company unexpectedly stopped work at the end of November last without meeting liabilities incurred in this district to the extent of £500 or thereabouts, chiefly for valueless cheques given in payment of wages and wages due. Some cases of great hardship occurred. In one instance two men sent up from Victoria by the company, and to whom £50 or £60 for wages were due, had to beg for sufficient funds to enable them to return to their homes; however, the matter did not come under my jurisdiction of Warden, as those who sued the company elected to do so under the Masters' and Servants' Act, but the fact of the management of the company being situate in Victoria leaving them without redress shows the need of further legislation in such cases.

With the stoppage of work the water supply for Mount Browne ceased; but, thanks to the promptness of the Department of Mines in subsidising the work of pumping water for domestic use, and the kindness of the directors in allowing the use of their machinery free of charge, no great inconvenience was felt. The company have since let the mine on tribute to a local party who commenced work on the 1st January, the whole of them have, at one time or other, worked in the mine and express themselves confidently as to their prospects of success. There is no doubt the management had many drawbacks to contend with, much of the machinery purchased from the old company not being worth the cost of erection, and what with high wages, carriage on materials, and the great cost of timber of all descriptions it can hardly be said the mine had a fair trial.

Many of the old residents have left Stringer's Hill, but those remaining appear to be doing fairly well. The best return in this division has been from Bond's claim, viz., 250 oz. from 212 loads; depth of workings, 78 feet; wash-dirt, 6 inches. The only other claim now on payable dirt is Campbell and party, who washed 180 loads for an average of 8 dwt. per load. Stephens and party, after struggling against adverse circumstances for nearly twelve months, appear to have at last struck payable ground.

The work done at Good Friday has been wholly surfacing, but the returns have not been equal to last year, and consequently there are but few miners in this locality at the present time.

The labour conditions not having been fulfilled on a number of the gold-leases at Warratta, they were reported and subsequently cancelled.

The old machinery on the Whittabreenah Claim has been put in order and a parcel of stone crushed, but, as might be expected, with defective machinery and highly mineralised water, the return, about 8 dwt. per ton from stone in which gold was freely visible to the naked eye, was most discouraging, and work was again stopped.

The mine has recently been let on tribute to a party of miners who, after some weeks work, obtained a small crushing from the 220-foot level, which gave a return of 15 dwt. to the ton. This proving satisfactory, the party have deepened the well, and are driving to cut the reef at a lower level. If the quartz reefs at Warratta are to prove a success improved gold-saving appliances are indispensable.

In the neighbourhood of Tibooburra splendid rains fell early in January enabling work to be carried on during the first half of the year; but, although no fresh discoveries have been made, the gold won in this division is over 1,200 oz., a splendid return considering the small number of miners at work, and from appearances there is a large area of auriferous ground still unworked that will yield an equally good return, and give employment to a fair number of miners for many years to come. The inhabitants of Tibooburra have at all times laboured under the disadvantage of being without a reliable supply of water for domestic use, this has now been overcome by the Department purchasing the dam known as Allpress', situate about half a mile from the town, and which is in every way suitable for the purpose.

Good returns have been obtained from Evans' Gully, where a portion of the Prospecting Vote was spent in endeavouring to trace the run of gold in the upper part of the gully, but without success.

Kooningberry is deserted chiefly owing to the discovery of the Nuntherungie silver-field; but it is the opinion of many practical miners that good returns will yet be obtained from the reefs in that locality.

It is at all times difficult to form a correct estimate of the amount of gold won, and the more so in this district where much is forwarded direct to Victoria; but in putting the quantity at 2,500 oz., I am probably rather under than over the actual amount raised.

ALBERT DISTRICT—Tibooburra Division.

(B. Hynes, Mining Registrar.)

I have the honor to submit the annual mining report for the year 1891, of the Tibooburra Division, of the Albert Gold-mining District.

Having been only appointed in September, the Warden, Mr. Maitland will fully report on the prospects of the district.

One hundred and forty miners' rights and 46 business licenses have been issued during the year.

The amount of gold won during the year is 1,201 oz. 17 dwt. 18 gr. of the approximate value of £4,874 0s. 6d.

ALBERT DISTRICT—Wilcannia Division.

(A. R. Pratt, Mining Registrar.)

I have the honor to inform you that there has been a decrease in the number of miners' rights, mineral licenses, &c., issued from this office in comparison with last year.

There is at present a great slackness in mining operations throughout the district, chiefly owing to the scarcity of water.

I have not been able to obtain returns of opal raised from the White Cliff Field or of silver from the Nuntherungie Field; but, as a good many of the leases on these fields are under suspension of labour conditions, it is probable that not much work has been done.

COBAR DISTRICT—Cobar Division.

(T. C. K. M'Kell, Warden.)

In forwarding my report of the Cobar Mining Division for the year 1891, I regret to say that mining operations were not carried on with the same amount of energy which characterised former years, this no doubt being due to the fact that those who speculated have almost, if not altogether, exhausted their funds, without receiving any beneficial results in return.

In a large and waterless tract like this, where water has to be conserved, the miner with ordinary means has many difficulties to overcome, and unless he sees some indication of success, or receives some assistance with foreign capital, all interest soon vanishes, and the lease becomes abandoned, and afterwards cancelled. Such has been the case in many instances during the year in this district.

The Chesney Cobar Company have not made the necessary returns applied for, but from information gathered they won 885 oz. 8 dwt. 11 gr. gold; but in consequence of the gold not being so productive as anticipated, suspension has been granted to enable the shareholders to form a new company to work the mine for copper instead. Since 1887 some £24,000, including about £9,000 worth of gold obtained, have been expended in developing the mine, and giving employment to a number of miners. The deepest shaft is 263 feet, with 3,000 feet of drives, and 250 feet of stoping. During the year between £3,000 and £4,000 were expended, and a considerable quantity of work done.

The Chesney North lease was cancelled, and the land shortly afterwards applied for by Messrs. Wright and party, who have since floated a new company of 30,000 shares, of 20s. each, paid up to 18s. Operations will be commenced early in the new year.

The Occidental Company have been steadily working, employing about twenty men. The deepest shaft is 200 feet. 2,534 tons were crushed at the mine, yielding 1,555 oz. of gold, valued at £6,207. It is the intention of this company to erect further machinery.

The Fort Bourke Tunnel Company won 172 oz. of gold, the yield being an average of about 3 dwt. to the ton.

At Billagoe mining has virtually ceased, there being only two or three miners prospecting. The once-famous Mount Billagoe Gold and Silver Mine wound up during the year, and passed the property over to a new syndicate, who intend commencing work at an early date, having let a contract to sink a new shaft 100 feet; this being the outcome of the favourable opinion expressed by Mr. Warden Slee during his late visit.

Copper.

The Great Cobar Mine.—This valuable property is still lying idle, having been shut down in August, 1889.

The Nymagee Mine raised 9,355 tons of ore, which was smelted at the mine, realising 901 tons of copper, valued at £45,050, being 107 tons more than last year.

The New Burra Burra Company have about 50 tons of ore at grass. The main shaft is about 112 feet. Work had to be suspended on account of the mine making water. Government assistance has been granted to this company.

The Chesney Cobar, the Occidental, and the Cobar Quartz-crushing Company, kept their batteries fairly employed, and, as far as ascertainable, the gold won in the division during the year was 2,635 oz. 11 dwt. 10 gr., being 883 oz. 11 dwt. 10 gr. in excess of last year.

A number of applications and cases were disposed of by me during the year, in the Warden's Court.

Rainfall, 30 inches 15 points.

COBAR DISTRICT—Hillston Division.

(M. C. O'Neill, Warden.)

Herewith I beg to submit my report for 1891, as follows, viz.:—

Gold.

Mount Allen Gold-mining Company.—This company is carrying on operations at Mount Allen, 11 miles from Mount Hope. Ten men are employed, and the value of the plant at present in use is £2,000. Machinery is in course of erection. The gold appears in ironstone; the depth of the shaft, and the depth of the deepest level are each 75 feet, and the bearing is north and south. During the year 10 tons of ore were sent to the Clyde works, and the same yielded from 2 oz. to 4 oz. 7 dwt. of gold to the ton, and from 9 dwt. 18 gr. to 1 oz. 13 dwt. 12 gr. of silver to the ton. Four parcels of the ore were also forwarded to the School of Mines, Ballarat, and the result of the assay was from 1 oz. 16 dwt. 6 gr. to 2 oz. 10 dwt. 8 gr. to the ton.

Mount Dromedary.—About 12 miles north of Mount Hope. Very little mining has been carried on here, and during the year several leases were cancelled for non-fulfilment of the labour conditions.

Creamy Hills.—Twelve miles from Euabalong. Cabot and party have a prospecting claim here, and three men are employed. About 12 tons of quartz have been raised, but no gold has been won. The depth of the shaft is 120 feet, and the depth of the deepest level is 75 feet. The width of the vein is 2 feet, the dip 1 in 3, and the bearing is north and south. A second prospecting party, named Eason and O'Brien, are working in this locality, and the depth of their shaft is 70 feet. Two men are employed, but no auriferous results have yet been obtained. The same has to be said of a third party (Eason, Clark, & Co.), who employ two men, and who have sunk a shaft 60 feet deep. With the exception of the Mount Allen Mine, the gold-searching operations of the year have turned out unsuccessful. It is believed, however, that gold is to be had in payable quantities both at Creamy Hills and at the Dromedary, and I am of opinion that some State inducement should be offered to men willing to thoroughly test the country, and in this recommendation I include the land around Cudgellico, where I feel satisfied that gold will be procured some day or other.

Copper.

The New Mount Hope Copper Company.—This Company conducts its operations at Mount Hope. Thirty-six men and four boys are employed, and the value of the plant is £7,000. The depth of the shaft is 340 feet, as also is the depth of the deepest level; the width of the lode is 58 feet, the dip is east, and the bearing south. 1,091 tons of ore were raised during the year, yielding 208 tons 5 cwt. 3 qr., 15 lb. of copper smelted on the ground, and the value whereof was £9,158.

The

The Great Central Copper Company, South Mount Hope.—No work has been done at this mine during the year. I am not in a position to say what has been the cause of this; but I am inclined to the belief that the stoppage of work was occasioned by the low price of copper and the cost of transit, &c., coupled with extravagance of management. But whatever has been the cause, the cessation of the work of production has given the place a deserted appearance, as the men, no longer required, had to migrate to other parts, and as a consequence, stores, hotels, &c., have had to close up, a result that is invariably brought about wherever productive industry ceases.

In closing my report, I must again point out the urgent necessity of railway extension to this part of Riverina. Easy and cheap transit is a very important factor in developing the resources of the country, mineral or otherwise; and, as the Government of the day seems to be favourable to an extension to the Lachlan, *via* Temora, I would strongly urge that no time be lost in undertaking so necessary and important a work, which, while pushing on natural production, will be the means of check-mating large landholders and their business parasites, whose disloyaltv to New South Wales is evidenced by their every-day advocacy of railway intercourse with Victoria, *via* Hay and Deniliquin.

COBAR DISTRICT—Cobar Division.

(Harcourt Holcombe, Mining Registrar.)

I HAVE the honor to report that during the past year mining operations in this district have been very dull. Only five applications for leases were received—4 gold leases, covering an area of 26¾ acres, and 1 mining lease of 40 acres. I also issued 30 miners' rights, 1 mineral license, and 8 business licenses. Work at Bald Hills and Billagoe has practically ceased, and nearly every lease at these two places has been abandoned.

The Great Cobar Copper-mine has remained idle throughout the year, and even when it eventually resumes work, it is probable that the ore will be sent to Lithgow to be smelted, on account of the difficulty of obtaining fuel in the neighbourhood.

The only activity displayed has been along the line of what is know as the Chesney Reef extending from Fort Bourke Hill, adjoining the township of Cobar, to the Peak some three miles to the southward. From the Jubilee 140 tons were crushed, and from the adjoining claim, the Fort Bourke, 600 tons, both averaging slightly over 5 dwt. On the latter claim, the Leslie Shaft, situated about 100 feet north from the eastern end of the 500-foot tunnel, has been sunk about 20 feet. This is one of the shafts in respect of which aid was granted by the Prospecting Board.

On the southern side of Fort Bourke Hill the old North Chesney Gold-mining Company have forfeited their area. It was immediately repegged and a new company formed to work the mine for copper.

From the adjoining claim, the Chesney Cobar, no returns have been received, the manager being absent in Melbourne; but on the 21st December last a three months' suspension was granted by the Warden to enable the present company to be wound up and reconstituted as a Copper-mining Company.

At the Occidental, steady work has been pursued, throughout the year 2,534 tons were crushed for an average of 12¼ dwt. The company have already a 10-head stamper in use, and the erection of an additional 10-head has been commenced.

At the adjoining claim, the South Occidental, formerly known as the Great Cobar Gold-mining Company, or Harley's lease, almost no work has been done, and it is a pity to see such a valuable property lying idle. The present proprietors started with excellent prospects, for when they pegged out the land on the forfeiture of the former lease, a shaft had already been sunk on to the reef, carrying stone in every respect similar to that in the Occidental Mine, and the Occidental mill is only a few yards distant from the head of their shaft.

At the Peak, the Prospecting Company's shaft, aid to sink which, was granted by the Prospecting Board, is down rather more than 50 feet below the 82-foot level, and is still in country rock.

No returns have been received from the Burra Burra Copper-mine, situated some 30 miles east of the town, on the Nyngan Road; but I understand that the property has been steadily developed during the year.

In conclusion, two discoveries, which have been quite recently reported, raise a hope that there will be a revival in mining matters before long.

Marcus and party report having struck a wide lode carrying silver ore and lead in Mr. M'Donald's 8,000-acre paddock, about 4 miles south-east from Billagoe. They are the more hopeful as the formation of the country is slate, quite distinct from the granite of Mount Billagoe.

At Mount Dijoe, a few miles north-west from Bald Hills, Green and party have found a rich silver lode, and have secured an 80-acre lease. Having plenty of capital they intend to work the ground energetically.

With the advent of the railway bringing a larger population, and an influx of capital, better times are hoped for.

COBAR DISTRICT.—Euabalong Division.

(John Quirk, Mining Registrar.)

I HAVE the honor to submit herewith my annual report of mining operations, &c., for year ending 31st December, 1891, Cobar Mining District, Euabalong Division.

Cabot and party's prospecting claim is sunk to a depth of 120 feet, two stopes have been put in at the 35-foot level running north and south along the line of reef 17 feet in each direction. At the 75-foot level a stope has been put in running north for 20 feet. The reef is underlaying to the east about 1 in 3 feet. The quantity of gold bearing quartz raised during the year amounts to about 12 tons. Gold shows freely at the 35 and 75-foot level. The ground held is 480 feet along the line of reef. The number of men at present employed is three, work appears to progress but slowly in this claim.

No. 1 North on same line held by Eason Clarke and party, being an ordinary claim 240 x 400, their shaft is 60 feet but carrying no gold.

No. 1 South ordinary claim held by Eason and O'Brien, in this claim two shafts have been sunk, one to a depth of 50 feet, the other to a depth of 70 feet, but as yet have failed to find gold in either shafts.

Very little business has been done at this office during the year 1891 in issuing miners' rights, business licenses, &c., there being only 8 miners' rights at 10s. each, 3 business licenses at £1 each, sold during that period.

COBAR DISTRICT—Mount Hope Division.

(*T. Davis, Mining Registrar.*)

I have the honor to forward my report for the year 1891, and in doing so I am glad to say that the mining industry is on the improve in this division.

Ironstone Hill Gold-mine.—This property is situated 11 miles north of Mount Hope, and has been taken in hand by a metropolitan syndicate, and is registered under the name of the Mount Allen Gold-mining Company. This company have purchased machinery to the value of £2,000, which consists of a 10-stamp battery and a 20-horse-power engine. Ten tons of stone sent from this mine in February last year to the Clyde works yielded from 2 oz. to 4 oz. 7 dwt. of gold to the ton, and 9 dwt. 18 gr. to 1 oz. 13 dwt. 13 gr. of silver to the ton. Another parcel of stone from the same mine was sent to the School of Mines, Ballarat (Victoria), and yielded from 1 oz. 16 dwt. 6 gr. to 2 oz. 10 dwt. 8 gr. of gold to the ton. The gold is said to be of excellent quality and when sold brought £4 1s. 8d. per oz.

During the year the new Mount Hope Copper Company's mine, which is still worked by a party of tributors, 1,094 tons of ore smelted produced 208 tons 5 cwt. 13 qr. of fine copper valued at £9,158. The plant is valued at £7,000.

The Great Central Copper-mine, South Mount Hope, ceased operations in March last year.

COBAR DISTRICT—Nymagee Division.

(*D. Dwyer, Mining Registrar.*)

During the year 8 miner's rights and 2 mineral leases were issued.

On the 1st of April, a number of the townspeople formed a syndicate to have the country in the immediate vicinity of the town searched for gold and silver, good indications were found, but no payable lode was met with.

The Nymagee Copper-mine has been at work during the year.

The value of the plant of this mine is £42,000.

The amount of ore raised during the year was 9,355 tons which was smelted at the mine and realized 901 tons of copper, valued at £45,050. The depth of the mine is 734 feet; deepest level, 720 feet. The width of the lode is from 8 to 20 feet. Two hundred and fifty men are employed at this mine. Although the Nymagee Copper-mine is the only mine at work in this division at present, experienced miners speak hopefully of the future development of the mining industry in the Nymagee portion of this district.

COBAR DISTRICT—Hillston Division.

(*D. G. M'Dougal, Mining Registrar.*)

During the past year 2 gold leases were applied for, of 25 and 10 acres respectively, and 1 mineral lease of 59 acres, the locality being near Mount Hope, 15 miner's rights and 2 business licenses were sold, and 13 mining tenements for residence and business areas were registered. Ten Courts were held at Hillston by the warden, principally to dispose of applications for suspension of work, and objections to same.

There are three claims being worked at Creamy Hill, near Euabalong, the first being Cabot and party's, the main shaft has been sunk to a depth of 120 feet, two stopes have been put in at the 35-foot level, running north and south along the line of reef. At the 75-foot level a stope has been put in running north for 20 feet. The reef is underlying to the east about 1 foot in 3. The quantity of gold bearing quartz raised during the year amounts to about 12 tons. The area of ground held is 480 feet by 400 feet. Three men are employed in the mine, but the work appears to progress slowly.

No. 1. North on the same line of reef held by Eason, Clark, and party, being an ordinary claim 240 x 400. Depth of shaft is 60 feet. Reef cut at 40 x 60 feet, but carrying no gold.

No. 1 South is an ordinary claim held by Eason and O'Brien. In this claim two shafts have been sunk, one to a depth of 50 feet, the other to a depth of 70 feet; but have failed to discover the reef in either shafts.

The above claims are the only ones at work in the Euabalong Division and no yields have yet been obtained from them; seven men being employed at the claims.

At Lake Cudgellico all mining work is suspended, and it is the intention of the prospectors at Euabalong to apply for their land as a gold-lease to enable them to work it more extensively.

COBAR DISTRICT—Condobolin Division.

(*R. T. M'Nevin, Mining Registrar.*)

I regret to state that very little has been done with regard to mining in my division since my last report.

The Eureka Silver and Copper Mining Company are not working their mine at present.

The Condobolin Silver, Copper, and Gold Mining Company have a shaft down some 90 odd feet, with a drive of 120 feet from the lowest level, but are not working their mine at present either.

Messrs. Vanzetti, Mitchell, and Company's Mine, at Mount Tinda, is being worked under Government grant, they have a shaft down some 70 feet and are getting a good quantity of good looking galena stone.

The manager of the mine informs me that he has every hopes of getting on to a payable lode.

CHIEF INSPECTOR OF MINES' REPORT.

In submitting my Annual Report for the year 1891, I have the honor to inform you that the following is a list of the accidents reported on by the Wardens, Coroners, Inspectors of Mines, and Mining Registrars, as having occurred during the year 1891 in the Metallic Mines of New South Wales.

No. of Accidents	Date.	Name of Mine or Company	Locality.	Persons killed.	Persons seriously injured.	Occupation.	Cause of death or injury.	Fatal.						Non-fatal.					
								Falling down shaft.	Fall of rock drill down shaft.	Fall of earth.	Injury by railway truck	Explosion of shot.	Poisonous fumes.	Falling down shaft.	Falling down winze.	Fall of earth.	Fall of cage.	Crushed between railway trucks.	Explosion of shot.	Miscellaneous.
	1891.																			
1	2 Jan.	Proprietary Mine ..	Broken Hill	George Layton	..	Miner	Fall down shaft	1	.											
2	13 ,,	Umberumberka Mine.	Silverton	..	Joseph Davey	,,	Fall of earth . . .									1				
3	19 ,,	Proprietary Mine	Broken Hill	John M'Donald		,,	Injury to leg by truck ..		..		1									
4	29 ,,	Baker's Creek Mine.	Hillgrove	. . .	P Nolan	,,	Explosion of shot ..		..										1	
5	29 ,,	,, ,,	,,	....	R. Northmore	,,	,, ,, ...		..										1	
6	3 Feb	,, ,,	,, ...	.... ..	P. Reid.....	,,	,, ,, . .		.										1	
7	3 ,,	,, ,,	,,	. . .	Thos, Brown	,,	,, ,, . ..		.										1	
8	5 ,,	Cummings & Little field.	Battery Flat, Carcoar.	Chas Littlefield	....	,,	Fall of earth		..	1									1	
9	5 ,,	,, ,,	,,	H. G. Schey ..	....	,,	,, ,, ...		.	1										
10	9 ,,	Proprietary Mine ..	Broken Hill .	. . . . .	Jas. Hanford .	,,	Fall down shaft		..					1						
11	15 ,,	,, ,, .	,, .	Augustus Blasker	..... .	Surface hand.	Crushed by waggon .		..	..	1									
12	19 ,,	North Mine.. ...	,, .	A. Polgreen .	.. . .	Miner	Fall of rock drill down shaft.		1											
13	26 ,,	Consols Mine	,,	J. C. Neiring ..		,,	Explosion of shot					1								
14	12 Mar	Balmoral Mine	Mt. M'Donald.	. . .	Thos. Williams	,, ..	,, ,, . .		..											
15	13 ,,	Tarrawingee Flux Mine.	Broken Hill ..	. . . .. .	Edward Waller	,, .	Fall of earth.. . . .		.							1			1	
16	18 ,,	Kohinoor Mine	Parkes ..	.... . .	John Webb .	,,	,, ,, .. .		..							1				
17	20 ,,	Proprietary Mine	Broken Hill .	. . .	Stephen Boland	Furnace hand.	Fell in smelter. . .		..					.		1				1
18	23 Apr.	. . . . .	Araluen .	H. Herbert .	. . ..	Miner	Fall of earth . ..		..	1										
19	24 ,,	Proprietary Mine .	Broken Hill .	. .	C. Paul .	,, .	Explosion of shot .		.	.										
20	3 May	,, ,, .	,, .	Joseph Turner	.. ..	,, .	Poisonous fumes . .		..				1						1	
21	7 ,,	. . . . .	Rocky River .	James Mead		,,	Fall of earth		..	1										
22	9 ,,	Proprietary Mine	Broken Hill	.... .	John Edwards .	,,	,, ,, . .									1				
23	18 ,,	Eleanora Mine ...	Hillgrove ..	.. ..	W. Wilson .	,,	Explosion of shot .		..										1	
24	28 ,,	. ...	Mt M'Donald	. . . . .	F. Dommish	,,	Fall of earth . .		..							1				
25	4 June	. . .	Wyanbene ..	....	J M'Williams .	,,	Explosion of shot ..		..										1	
26	27 ,,	Pambula Golden Diorite Co.	Pambula	....	— Power	,,	Fall down shaft .. .		..					1						
27	6 July	Proprietary Mine .	Broken Hill .	C. Chapple ...	. . .	,, .	Fall of earth .			1										
28	10 ,,	Mountain Maid ..	Copeland .. .	E. B. Linden .	. ...	Mining expert	Fall down shaft	1	..											
29	23 ,,	Gold Hill.....	Burnt Yards	....	Edward French .	Miner	,, ,, ..		..					1						
30	25 ,,	Block 10	Broken Hill	Chas. Bray .	... .	,,	,, ,, . .													
31	7 Aug.	Proprietary Mine .	,, .	R. Carlisle . .		Laborer	Fall of timber on surface	1	..											
32	7 ,,	Tarrawingee Flux Mine.	,,	....	D. Rankine	Miner.	Explosion of shot ..		.				1							
33	7 ,,	,, ,, .	,,	. ...	Thos Clancy	,,	,, ,, . ..													
34	7 ,,	,, ,,	,,	.... .	C. Talkinson	,, .	,, ,, . .												1	
35	7 ,,	Sunny Corner Co.	Mitchell	. . . . .	Joseph Rushton	,, .	Fall of rock ...		..							1			1	
36	12 ,,	East Consols Mine	Broken Hill	H Thompson .	.. . .	,, .	,, ,, ...		..	1										
37	12 ,,	,, ,,	,,	Alfred Aitkins .	....	,,	,, ,, ...		..	1										
38	12 ,,	,, ,,	,, .	.. .	James Rice . ..	,,	,, ,, ...													
39	27 ,,	Proprietary Mine	,, .	.. .. .	Chas Sawyer .	,,	Fall down shaft		..							1				
40	3 Sep	Kerd & Maxwell's ..	Tent Hill .	. .. .	R. Waltham .	,,	Fall of earth.							1						
41	10 ,,	Baker's Creek Co	Hillgrove ..	....	Thos. Rollins	,,	Explosion of shot ...		..							1				
42	11 ,,	Block 10	Broken Hill .	. ...	John Sutton .	,, .	Fall down shaft												1	
43	15 ,,	Proprietary Mine .	,,	... . . .	Richard Jones	,, .	Fall of cage .. .		.											
44	26 ,,	Sunlight Co. .. .	Hillgrove . ..	. .....	— Curry	,, .	Fall of earth . .		..							1				
45	28 ,,	Block 14 ..	Broken Hill ..	Thos. Brown ..	. . . . .	,, .	,, ,, ...			1										
46	17 Nov.	Proprietary Mine	,,	.... ..	Joseph Rodgers	,, .	,, ,, ...													
47	26 ,,	Block 14 . .	,,	J. Williams ...	. ...	,, .	Fall down shaft	1	..							1				
48	1 Dec.	Mount Carrington	Drake . .	J M'Nulty . .	.	,, .	Poisonous fumes . .						1							
49	1 ,,	,, ,, .	,, ..	Michael Shaw .		,,	,, ,, . . .						1							
50	2 ,,	Proprietary Mine	Broken Hill .	.... .	Jas. Comms	Surface hand.	Crushed by trucks .		..									1		
51	14 ,,	Mount Grey Mine .	Trunkey	.. .	H Meynell	Engineer	Fall down winze		.					1						
52	16 ,,	Wandella Mine	Nerrigundah	. . . . .	— Whelan	Miner	Fall of earth.....		.							1				
								4	1	8	2	1	3	1	5	11	1	1	12	1
										20						32				
														52						

ABSTRACT.

Killed :—3 Gold, quartz.
4 ,, alluvial.
13 Silver.
—
20

Injured :—14 Gold, quartz.
17 Silver.
1 Tin.
—
32

Total..... 52

TABLE B.

NUMBER of Men employed in the Metalliferous Mines of New South Wales, and value of Machinery, at 31st December, 1891.

Mining District.	Alluvial Gold.		Quartz Gold.	Silver.	Copper.	Tin.		Other.	Total.	Value of Machinery.
	Europeans.	Chinese				Europeans.	Chinese.			£ s. d.
Albert	350		17	6,565					6,932	540,664 0 0
Bathurst	422	44	634	714	106			78	1,998	95,699 18 0
Clarence and Richmond	108		335						443	10,520 0 0
Cobar			112		302				414	51,500 0 0
Hunter and Macleay	12		146					9	167	12,950 0 0
Lachlan	753		635		4				1,392	50,772 0 0
Mudgee	686	287	111					16	1,100	40,825 0 0
New England	80	14	208	200		365	590	12	1,469	62,725 0 0
Peel and Uralla	330	54	1,902	63		432	556	15	3,352	114,120 0 0
Tambaroora and Turon	319	118	250						687	27,428 0 0
Tumut and Adelong	404	45	300	60	69			2	880	61,080 0 0
Southern	576	146	1,768	43		8		53	2,594	90,125 0 0
Total	4,040	708	6,418	7,645	481	805	1,146	185	21,428	1,158,408 18 0
Persons killed per 1,000 persons employed.	·84		·47	1·70		·51			·93	
Persons injured per 1,000 persons employed.			2·18	2·22					1·49	

TABLE C.

ACCIDENTS of a minor nature which occurred during the year 1891.

Date.	Name of Company.	Name of Injured Person.	Nature of Injuries
1891.			
14 Feb.	Sunlight Mine, Hillgrove	Joseph Wilson	Injuries to head through stone rolling down hill.
17 April	Tom's Lewis Ponds, Lewis Ponds	F. Moore	Falling into pass.
31 July	British Mine, Broken Hill	Chas. Mitchell	Arm caught in concentrating machinery.
12 August	Butcher's Gold-mine, Bear Hill	Joseph Heber	Slight injuries to back.
18 Nov.	Rising Sun Mine, Broken Hill	William Ball	Explosion of gelatine.
18 „	„ „	John Ball	„ „
28 Dec.	Crown of Peak Hill	Alex. Williamson	Falling down tip.

Table B gives, in addition to the percentage of persons killed or injured, the number of persons employed, and the value of mining machinery in or on the metalliferous mines of New South Wales during the year 1891.

Out of a total of twenty persons killed during the year, three lost their lives in auriferous quartz-mining, four in alluvial gold-mining, and thirteen in silver-mining. Of the injured persons fourteen were engaged in auriferous quartz-mining, seventeen in silver-mining, and one in tin-mining; being an increase in the number of accidents during the year as compared with 1890 of four in silver and two in alluvial gold-mining. There were, in addition to the above, seven minor accidents, by which persons were slightly injured, but were capable of doing their usual work within a few days or hours from date of accident.

By the above it will be seen that the majority of accidents have again occurred in the silver-mines, in which no less than thirteen have been killed and seventeen seriously injured, out of a total of twenty killed and thirty-two injured.

During the year the total number of persons employed in the metalliferous mines, or on the machinery in connection with said mines, were 21,428, or 723 persons less than were employed in 1890. This decrease is due to the fact that numbers of persons were discharged from some of the copper-mines, and to the partial failure of the great rush to Peak Hill. But the value of machinery in use in connection with the metalliferous mines of New South Wales have increased from £1,066,223 in 1890, to £1,158,408, or an increase of £92,185 during the year.

Plate 1 and plate 2 are illustrations of the mode of timbering adopted in the principal Broken Hill mines. This system of securing the underground workings of mines is known as square set of timbering, and is of recent date as far as Australia is concerned, although it has been in use for many years in Germany and America, for the purpose of successfully working wide and extensive lodes in lieu of the filling-in system. The system of square set timbering was first introduced by Mr. W. H. Patton, the manager of the Broken Hill Proprietary Company. It was afterwards adopted by Block 14, British Blocks, and other mines at Broken Hill.

The Department of Mines sustained a great loss by the untimely death, through influenza, of the late Mr. Inspector Rue, whose sterling character stamped him as a man well fitted for the position, as is proven by the esteem and respect shown to his remains at the day of his burial by all classes of the community in the Broken Hill district.

During the month of December a competitive examination was held in the Department of Mines, Sydney, for the position of Inspector of Mines, to fill the vacancy caused by the death of the late Mr. Rue. Fourteen candidates presented themselves for examination, and the successful candidate, Mr. James Hebbard, who obtained the highest number of marks, was recommended by the examiners, and appointed in place of the late Mr. William Rue.

Owing

PLATE. I.

SYSTEM OF TIMBERING

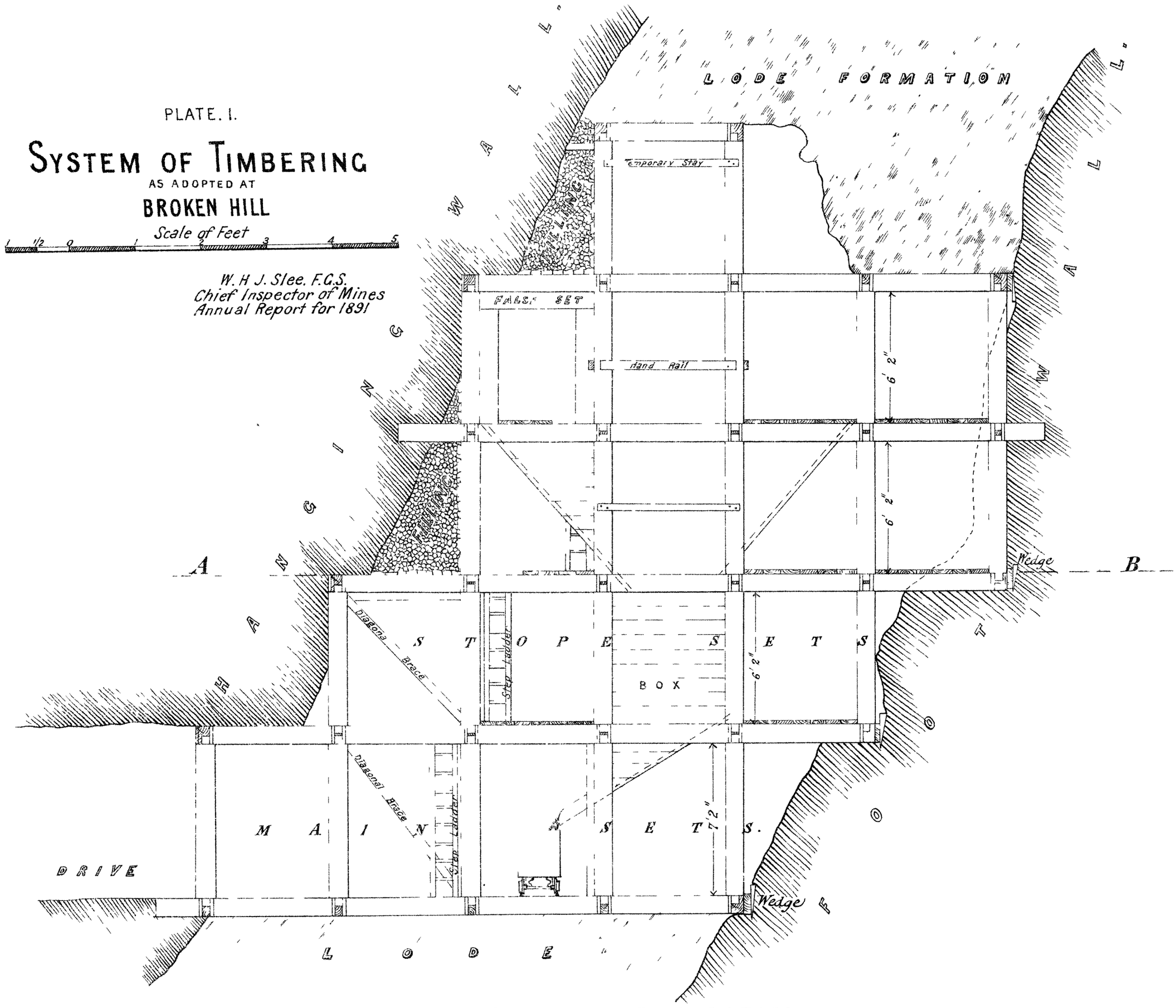
AS ADOPTED AT

BROKEN HILL

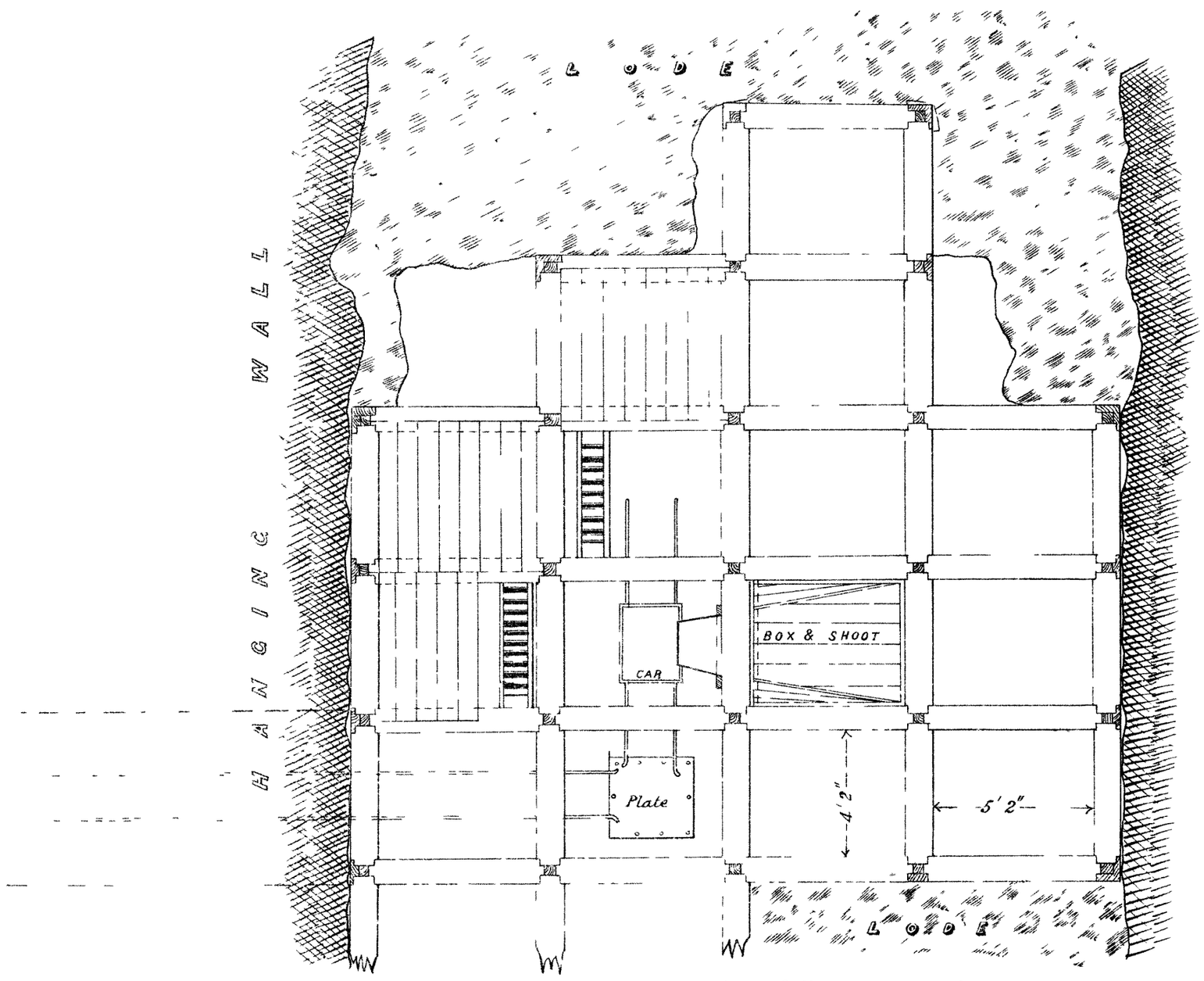
Scale of Feet

0 1/2 1 2 3 4 5

W. H J. Slee. F.G.S.
Chief Inspector of Mines
Annual Report for 1891



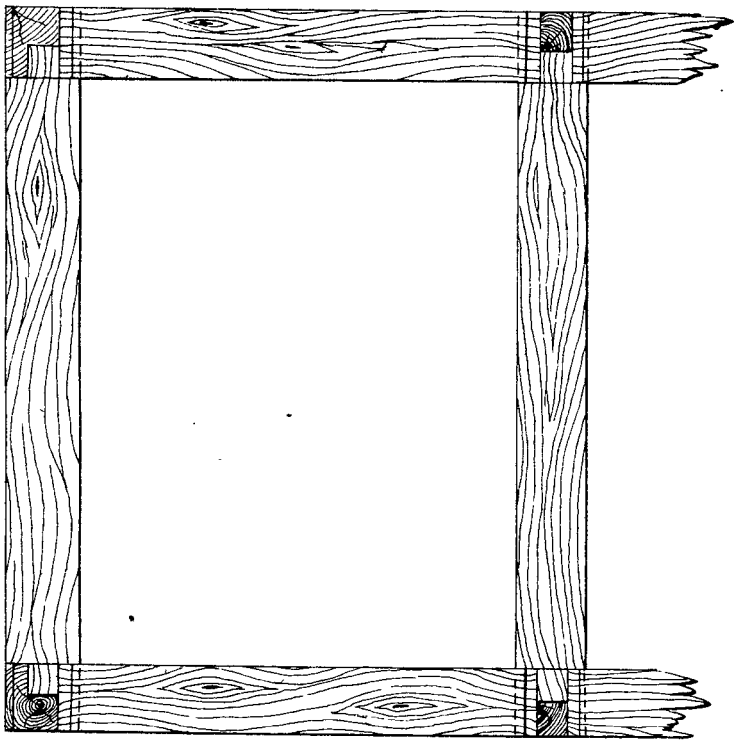
VERTICAL PROJECTION.



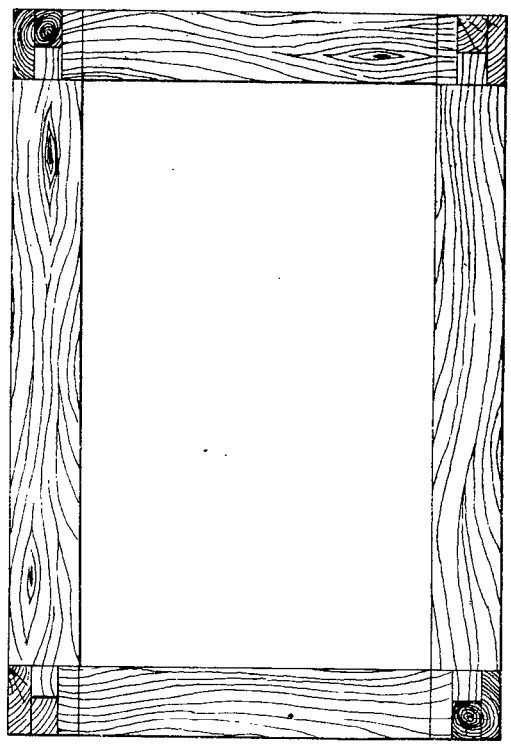
HORIZONTAL SECTION A. B.

(S & 874)

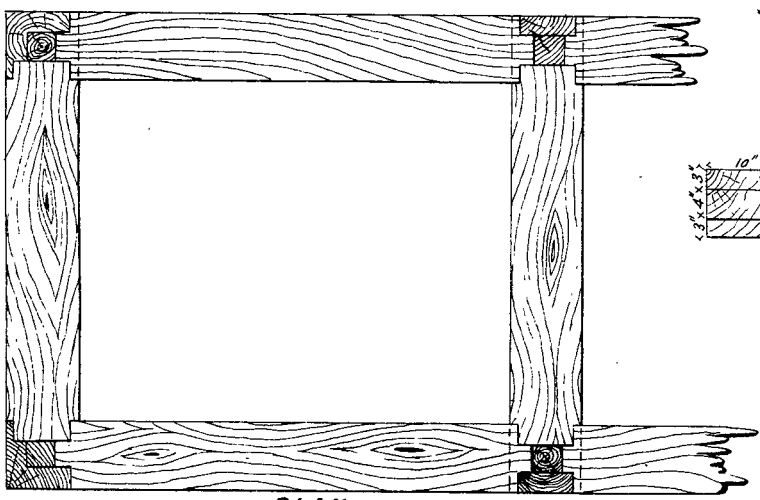
PHOTO-LITHOGRAPHED AT THE GOVT PRINTING OFFICE
SYDNEY NEW SOUTH WALES



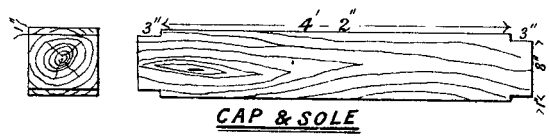
SIDE ELEVATION.



END ELEVATION.

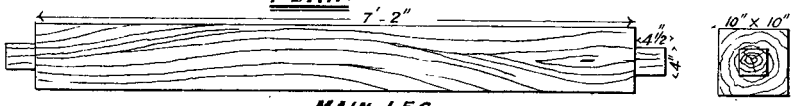


PLAN.



CAP & SOLE

CAP & SOLE.



MAIN LEG

STOPE LEG.

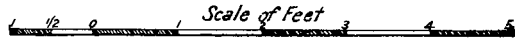
PLATE. 2.

SQUARE SET
SYSTEM OF TIMBERING

AS ADOPTED AT

THE SILVER MINES

BROKEN HILL



W. H. J. Slee. F.C.S.
Chief Inspector of Mines
Annual Report for 1891

(Sig. 874)

Owing to the duties performed by me as Warden at the Peak Hill and Alic Flat Gold-fields, my travelling during the year has not been as extensive as former years, having only travelled to Cobar and few other places.

Nothing has occurred in the Peak Hill gold-mines since my Annual Report of 1890 was written, as Warden of Peak Hill, to require me to write a report for 1891 on that gold-field, or to in any way alter my opinion in connection with my former reports.

I enclose herewith, for publication in my Annual Report for 1891, Progress Report on the Cobar, Budgery, and Alic Flat Mining Districts.

I have, &c.,
W. H. J. SLEE,
Chief Inspector of Mines.

Sir,

Warden's Office, Alecktown, 2 November, 1891.

I do myself the honor, before I finally relinquish my Warden's duties here, to forward a brief report on the gold-producing prospects of the Alecktown Division of the Lachlan Gold-field. Alluvial mining is rather dull, no new discoveries having been made of late, although prospecting parties are out in all directions, and payable gold may be struck at any moment. A large number of miners are still making a living out of the partially worked-out ground. But the heavy rains during last winter have retarded greatly the progress in alluvial mining. Gold in quantities which may, under favourable circumstances, be considered payable, has been obtained in numerous quartz-veins around Alecktown, notably, Brettnell, Harvey, and party, the Bird's-nest Reef, the Stockman's, and others. At the Stockman's Reef a new discovery has been made by Burgess, Williams, and party, which consists of a new mass of quartz-veins, all more or less containing gold, underlying those quartz-veins formerly worked as the Stockman's veins. A second claim has been taken up by Butcher, Morgan, and party, and known as No. 1 North. There appears to be little doubt that the Alecktown district would profitably employ a number of quartz-miners, provided a small quartz-crushing battery was erected in the neighbourhood, as the distance to cart the quartz to the Parkes crushing machine is too great and expensive.

I have, &c.,
W. H. J. SLEE, F.G.S.,
Warden.

The Under Secretary for Mines.

PROGRESS REPORT by W. H. J. Slee, F.G.S., Chief Inspector of Mines, on the New Burra Burra and Budgery Mineral District.

Sir,

Budgery, 16 October, 1891.

I do myself the honor to inform you that instead of returning direct from Cobar to Nyngan I visited the localities known as Boppy, New Burra Burra, and Budgery, with a view of reporting on the application for aid out of the Prospecting Vote which had been made for those localities.

The country *via* Boppy to Hermitage Plains Station, on the latter of which the New Burra Burra Copper-mine is situated, presents very favourable indications for the existence of silver and copper ore deposits, and is well worthy of a thorough systematical prospecting. The geological formation generally consists of slates, granite, and porphyry, and on nearly all the hills large outcrops of iron occur, which, by careful examination and systematical prospecting, may prove to be the caps or backs of payable argentiferous or cupriferous deposits.

About 34 miles from Cobar, on Fort Hermitage Plain Station, and 6 miles southerly of Budd's Hotel, on the Nyngan to Cobar Railway, is situated the New Burra Burra Copper-mine. The workings of this mine are not extensive. Two shafts have been sunk, and some rich carbonate ore has been taken from near the surface. A furnace has been erected, and from 6 to 7 tons of copper sent to market. The ore occurs in felspathic rocks, and consists of carbonates, oxides, and grey sulphides, with small patches of malleable copper; but so far no yellow sulphides have been discovered at the greatest depth obtained, which is 115 feet from surface. In the south shaft, which is 89 feet in depth, very promising silicious gossan has been sunk through; and if this shaft was continued to a greater depth favourable results may be anticipated, and the New Burra Burra may yet rank as one of the foremost payable copper-producing mines in New South Wales.

The Budgery mineral deposits are situated about 28 miles from Nyngan, within 1½ mile from the Nyngan-Cobar Railway, and about 2 miles west from Hall's Hotel. Large crops of iron ore can be traced on the surface, and fair assays of gold and silver have been obtained in the quartz-veins and gossan. Gold in small quantities has also been obtained near the surface, the locality having a decided auriferous appearance, and deserves a thorough systematic prospecting.

I have, &c.,
W. H. J. SLEE,
Chief Inspector of Mines.

The Under Secretary for Mines.

PROGRESS REPORT by W. H. J. Slee, F.G.S., Chief Inspector of Mines, on the Mines in the Cobar District.

Sir,

Cobar, 14 October, 1891.

Having in accordance with your instructions visited the Cobar district for the purpose of reporting on the several applications for aid out of the Prospecting Vote, and on mining matters in said district generally, I do myself the honor to inform you that mining matters at and near Cobar are at present in anything but a flourishing condition, very few miners being employed.

At the Great Cobar Copper-mine, which is under the temporary charge of Mr. William Gillard, only three men are at work, driving a cross-cut at the 54-fathom level, a few fathoms north of Becker's shaft, towards the east. At the time of my inspection the cross-cut was 130 feet in length, the last 30 feet having been driven through patches of yellow sulphide ores, which at the end of the cross-cut looked less patchy and of higher quality than when first met with, and, as the eastern wall has not been reached, the lode or deposit of ore may be of great width. The ore so far raised to grass I think could be dressed up to fully 10 per cent. This discovery is certainly of great importance, as it is probable that on the higher levels grey sulphides, or even oxides and carbonates, may be discovered to be resting on the yellow sulphide ores.

In

In one of my first reports on the Cobar Copper-mines, more than ten years ago, I strongly recommended cross-cutting in the Great Cobar Mine towards the east, by which means payable copper deposits were likely to be discovered on the northern part of the company's property.

Southerly of the Great Cobar Copper-mine are situated the gold-reefs, as they are generally termed, such as the Jubilee, Fort Bourke, North Chesney, South Chesney, Gladstone, Golden Cross, Albion, Occidental, Great Cobar Gold-mine, Peak, and others; but with the exception of the Jubilee, Fort Bourke, Chesney, Occidental, and the Peak, they are all idle. A large amount of gold has been won near the surface from most of these mines, but notably so from the Jubilee, Fort Bourke, the Chesney, and Occidental. These misnamed reefs are in reality gossan lodes of lenticular shape; the gold being very fine, but of high quality, has undoubtedly been freed by atmospheric action from the iron pyrites, and it appears to me to be only a matter of the near future, should sinking be adhered to, that the so-called gold-reefs will have to be ranked as copper-lodes or copper pyrites deposits. I would therefore strongly recommend the various leaseholders to come to an agreement and sink one deep shaft (say) at least 500 feet in the most likely locality or site to be determined upon, and thereby solve the problem whether or not these lodes will pay for either gold or copper at a greater depth.

The Billagoe Mines are situated about 25 miles north of Cobar. A large amount of work has been done here, but at the time of my inspection there was only one miner at work. The formation is a conglomerate, probably of the palæozoic formation. Although rich deposits of gold have been found at Billagoe, I think that the quartz-veins, whenever and wherever found in the same formation, as at Billagoe, will always be of a broken or fragmentary character and very patchy.

At the Bald Hills, about 50 miles north of Cobar, and 30 miles west of Byrock, a large amount of work has been done in sinking shafts, costeening, and otherwise, principally on small minute quartz-veins, which occur in either jasper, rock, or quartzite: and I fear that whatever capital may be employed in this locality for the development of gold or silver mining, it will have the same effect—nil results—as the time and money devoted and wasted by former parties who endeavoured to make the Bald Hills a payable mineral field.

The railway is likely to be at Cobar within the next six months, when the mining industry will, no doubt, revive, and the Great Cobar Copper and the Fort Bourke and Occidental lines of lodes will be able to smelt ore and produce copper at a lower rate than has hitherto been done in the Cobar district, and a large number of miners are likely to be again profitably employed.

I have, &c.,
W. H. J. SLEE,
Chief Inspector of Mines.

The Under Secretary for Mines.

Sir,

Sydney, 15 January, 1892.

I have the honor to forward my annual report for the year 1891, on the mines and mining districts inspected by me.

During the year the following districts in the north have been inspected by me:—Armidale, Hillgrove, Wollomombi, Tingha, Inverell, Borah Creek, Glen Innes, Kookarabookra, Bear Hill, Deepwater, Nine Mile, Emmaville, Tenterfield, Boonoo Boonoo, Drake, Rivertree, and Copeland.

In the south—Adelong, Gundagai, Muttama, Cooma, Kiandra, Cowra Creek, Bredbo, Buckley's Crossing, Bombala, Craigie, Colington, and Michelago.

In the west—Mt. McDonald, Woodstock, Cowra, Broula, Carcoar, Mandurama, Galley Swamp, Burnt Yards, Blayney, Brown's Creek, King's Plains, Newbridge, Trunkey, Tuena, Costigan, Peelwood, Binda, Parkes, Peak Hill, Rockley, Wiseman's Creek, Back Creek, Burraga, Sunny Corner, Hill End, Gulgong, Home Rule, Mudgee, and Denison Town.

In the extreme north-west—Broken Hill, Silverton, Pinnacles, Mt. Gipps, Balaclava, Rockwell, and Purnamoota.

As a rule managers and miners observe the Regulations for the Inspection of Mines; although individual cases have come under my notice where the Regulations were ignored, and in such cases I have at once given notice in writing and have enforced the compliance of said Regulations.

The total number of mines inspected by me are 287—of this number 157 are gold mines, employing 1,297 men; 78 silver mines, employing 5,521 men; 5 copper mines, employing 125 men; and 38 tin mines, employing 298 men.

During the year a miner named William Wilson was summoned for infringing Rule 3, section E, of the Regulations for the Inspection of Mines by drilling out a missed shot. This case was tried before the Police Magistrate, at Hillgrove, and the accused fined 5s. and costs of court. The leniency of the fine was due to the desire of the Government for only a nominal fine, as the case was brought on as a caution to miners generally, and to show them that the Regulations cannot be broken with impunity.

I have, &c.,
DAVID MILNE,
Inspector of Mines.

The Chief Inspector of Mines, Sydney.

SUPERINTENDENT.

SUPERINTENDENT OF DRILLS, REPORT.

Superintendent of Drills to the Under Secretary for Mines and Agriculture, reporting on the working of the Diamond-drills and Water-augers for the year 1891.

Sir, Department of Mines and Agriculture, Diamond-drill Branch, Sydney.

In submitting my annual Report on the working of the Diamond-drills and Water-augers for the year 1891, I do myself the honor to attach to said Report the following Appendices:—

Diamond-drills.

Appendix A.—Return showing the locality, strata, depth bored, percentage of core extracted, value of diamonds used during the year, and rate per foot, exclusive of office salaries, store wages, and rent; also Superintendent of Drills' travelling expenses.

Appendix B.—Summary of diamond-drills, showing the number of feet bored, total working cost to the Department, average cost per foot, and the amount receivable for the year 1891.

Appendix C.—Balance-sheet for diamond-drills.

Appendix D.—Diagrams Nos. 1 to 13, sections of boring during the year 1891.

Water-augers.

Appendix E.—Return showing the locality, depth bored, and rate per foot, exclusive of office salaries, store wages, and rent; also Superintendent of Drills' travelling expenses.

Appendix Ea.—Return showing the cost of reaming and clearing the 106-mile bore on the Milparinka to Wanaaring Road, exclusive of office salaries, store wages, rent, and the Superintendent of Drills' travelling expenses.

Appendix F.—Summary of water-augers, showing number of feet bored, total working cost to the Department, and average cost per foot during the year 1891.

Appendix Fa.—Summary showing total cost of reaming and clearing the 106-mile bore at the Milparinka to Wanaaring Road during the year 1891.

Appendix G.—Balance-sheet for water-augers.

Appendix H.—No. 1 to 2 sections for boring during the year 1891.

The total depth bored with the diamond-drills during the year 1891 is 7,797 ft. 9 in., or 59 ft. 7 in. less than during the year 1890. The average cost per foot of boring, exclusive of office salaries, store wages, and rent, also Superintendent of Drills' travelling expenses, is 12s. $7\frac{7}{16}$d. per foot, or 9d. per foot more than during the year 1890.

The total working and field cost, exclusive of office salaries, store wages, and rent, also Superintendent of Drills' travelling expenses, amounts to £4,921 8s. 2d. But the total cost, inclusive of office salaries and expenditure in connection with the Diamond Drill Branch, amounts to £5,825 14s. 6d., or at the rate of 14s. $11\frac{1}{4}$d. per foot, or $5\frac{7}{16}$d. per foot more than in 1890; whereas the total earnings during the year amount to £7,268 5s. 6d., or 18s. $7\frac{11}{16}$d. per foot, or $10\frac{7}{16}$d. per foot more than in 1890.

Percentage of core saved during the year is 90·84, or 3·67 more than during the year 1890. The percentage of core saved would have been higher had it not been for the fact that about 200 feet of tubing had to be driven down through sand at the Anna Bay Bore, Port Stephens, which, of course, gave no core whatever.

The cost of the wear and tear of diamonds during the year is 1s. $9\frac{3}{8}\frac{7}{2}$d., or 1s. $2\frac{3}{3}\frac{3}{2}$d. more than in 1890. [See comparative statement of diamonds used per foot on Appendix B.] Only for this increase in the wear and tear of diamonds used, the total cost of boring at per foot would have been lower than during the year 1890. Several causes, over which I had no control, have contributed to this increase. 1st, the hard basalt at Gulgong and Anna Bay, and the deep bore at Cremorne Point, were the cause of the greatest loss. 2nd, during the early part of the year the stock of diamonds being very low, and no good quality could be obtained in the market, inferior diamonds had to be used; and, lastly, the cost of diamonds, especially carbons, have risen during the year fully 30 per cent.

Notwithstanding this extra cost of the wear and tear of diamonds, I am able to report that the revenue during the year, on account of the diamond-drills, exceeds the expenditure by £1,442 11s. 0d. This amount has however been absorbed in the purchase of new plant and diamonds not used during the year. Thus it will be seen that the Diamond-drills Branch is self supporting, notwithstanding that a fair percentage is allowed for wear and tear of machinery during the year.

Five (5) bores were put down by No. A drill during the year in the hard basaltic country near Gulgong, the shallowest bore being 120 feet, and the deepest 154 feet. Gold in sufficient quantities was brought to the surface by the diamond-drill from the auriferous drifts below the basalt, to induce Mr. Fletcher, who represents an English company (who paid the cost of boring), to discontinue boring, and commence to sink a shaft, in the full belief that an extensive auriferous lead has been discovered. Should these anticipations be verified by actual results, then the benefits accruing therefrom will be incalculable, not only for Gulgong, but the Colony at large, as it will give great inducement to prospect other large tracts of basalt in our metalliferous districts, both for gold and tin, or other minerals.

No. 4 drill completed a bore at Nowra for coal 1,423 ft. 4 in. in depth, of which 82 ft. 9 in. were bored during the year. A bore was also put down with No. 4 drill for the A. A. Company, near Waratah, 1,127 ft. 6 in. in depth.

With No. 7 drill two shallow bores were put down at Nobby's, Newcastle, 343 ft. 7 in.; and with the same drill a bore was started and completed 1,207 ft. 1 in. in depth at Greta. A bore was put down near Anna Bay 1,213 ft. 1 in. in depth, the latter part being in serpentine rock.

With No. 11 drill the bore at Cremorne Point, near Mossman's Bay, Sydney, was completed at the depth of 3,095 ft. from the surface. The diameter up to 2,000 ft. was 4in , but owing to the soft shaly strata the bore-hole had to be tubed and the diameter reduced to 3 in. This being so far the deepest diamond drill bore in Australia, and the most important bore as yet put down in search for coal in New South Wales; consequently it has been watched with the deepest interest by scientific men and others who take an interest in the correlation of the coal seams of this Colony and the practical workings of said seams. Fully 96 per cent. of the total core has been brought to the surface; the loss of core principally occurring in the soft shaly strata. Very little was lost from the several coal seams passed through.

The core section was frequently examined by Professor David when he held the position as Geological Surveyor of this Department, and was carefully taken by him from the 2,798 ft. to the lowest depth obtained since his connection as Professor with the Sydney University.

A bore was completed with No. 13 drill, at Wyee 946 ft. 8 in. in depth of which 592 ft. 2 in. were bored during the year. A bore was also started and completed at Bulli by the same drill 793 ft. 1 in. in depth. The diameters of the above mentioned bores have been 3 and 4 in. in diameter, none being less than 3 in., and although the rate at per foot for boring has been considerably reduced during late years, I hope to be able to recommend still greater reductions during the year 1892. By the balance-sheet herewith it appears as if the expenditure exceeded the revenue by £33 10s. 9d. But this is owing to a large consignment of drill-rods, the principal part of which are still in store and are not likely to be used for some time; also £300 worth of diamonds bought but not used during the year.

The clerks in the branch, the storeman Mr. Leigh, and the foremen in the field, have all assisted me as far as possible to bring the diamond-drill boring operations for the year to a successful issue.

Water-augers or Boring Machines other than Diamond Drills.

In the early part of the year I recommended that the bores at the 106 mile and 121 mile Wanaaring to Milparinka Road should be discontinued on the wages systems and let on contract. My recommendation received Ministerial approval, and the work is now carried on on the contract system.

Total number of feet bored on the 106 mile and 121 mile on the Wanaaring to Milparinka Road up to the time said bores were handed over to the contractor was 89 ft. 6 in. at the 106 mile, and 180 ft. 4 in. at the 121 mile, or a total of 1,296 ft. and 1,303 ft. respectively.

Depth bored during the year 279 ft. 10 in.; cost of boring at per foot inclusive of carriage but exclusive of office expenditure 50s. 4d., but inclusive of office salaries and all other expenditure 61s. 11⅞d. per foot or £1 9s. 11½d. per foot more than during the year 1890. This high rate per foot is due to the defective machinery which was in use and which mainly caused me to recommend the contract system.

I have, &c.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX A.

DIAMOND DRILL work, showing average cost per foot, exclusive of office salaries, store wages, and rent for year 1891.

No. of Machine.	No. of Bores.	Locality.	Diameter of Bores.	Strata.	Depths				Days occupied.								Rate bored per hour.	Per-centage of core obtained.	Cost.		Remarks.
					At 31 Dec., 1890.	Of Shafts sunk by Company, 1891.	Bored During 1891.	Total.	Moving.	Erecting.	Boring.	Repairing.	Reaming.	Delays.	Holidays.	Total.			Amount.	Per foot.	
			in.		ft. in.	ft. in.	ft. in.	ft. in.									inches.		£ s. d.	£ s. d.	
A	3 to S	Gulgong	4	Basalt	29 6	50 0	813 8	893 2	17	24	143	27	..	2	6	219	8·53	80·66	606 8 2	0 14 10$\frac{7}{8}$	Owing to the hard basalt, boring was slow, and the wear and tear of diamonds very considerable.
4	1	Nowra	3	Coal measures	1,340 7	.....	82 9	1,423 4	..	..	12	2	..	..	1	15	10·35	98·77	33 4 11	0 8 0$\frac{13}{16}$	This bore was put down for coal, but no payable seams were tapped, although it is considered that it ought to be further tested.
4	1	Waratah	4	,,	.....	.....	1,127 6	1,127 6	25	13	102	6	..	1	4	151	16·58	97·86	364 4 1	0 6 5$\frac{1}{2}$	Boring for coal for the A. A. Company.
7	1	Cessnock	3	,,	952 9	.....	267 3	1,220 0	..	..	37	6	..	1	2	46	10·83	99·6	122 8 1	0 9 1$\frac{7}{16}$	Boring for coal with favourable results.
7	1 & 2	Nobbys	3	,,	.....	.....	343 7	343 7	11	12	28	18	..	6	4	79	18·41	82·36	181 17 1	0 10 7	Boring for coal.
7	1	Greta	3	,,	.....	.....	1,207 7	1,207 7	5	10	117	21	..	1	6	160	15·48	97·85	369 13 2	0 6 1$\frac{1}{2}$	Boring for coal with favourable results.
8	3	Anna Bay	3	Sandstone, basalt, and serpentine	.....	.....	1,213 1	1,213 1	2	6	126	27	14	55	5	235	14·44	76·00	552 18 7	0 9 1$\frac{3}{8}$	Boring for coal with unfavourable results; hard basalt and serpentine, which caused the wear and tear of diamonds to be very considerable.
11	1	Cremorne	3	Coal measures	1,585 1	.....	1,357 1	2,942 2	..	..	94	189	15	4	11	313	21·66	96·33	1,913 16 11	1 8 2$\frac{1}{2}$	
13	1	Wyee	3	,,	354 6	.....	592 2	946 8	..	..	100	42	..	6	6	154	8·88	95·29	422 8 11	0 14 3$\frac{3}{16}$	Boring for coal through thick beds of conglomerates; the latter proved very severe on the wear and tear of diamonds,
13	1	Bulli	4	Basalt and coal measures	.....	.....	793 1	793 1	11	8	102	25	..	4	4	154	11.66	91·58	354 8 3	0 9 1$\frac{1}{4}$	Boring for coal in the coal measures overlying the Bulli seam.
					.....	.....	7,797 9	.....	71	73	861	363	29	80	49	1,526	13,59	90·84	4,921 8 2	0 12 7$\frac{7}{16}$	

J. S. McNEIL.
J. S. LEIGH.

W. H. J. SLEE, F.G.S.,
Superintendent of Drills.

APPENDIX B.

SUMMARY of Diamond Drill work, showing number of feet bored, total working cost to Department, average cost per foot, and amounts receivable for 1891.

No. of Machine.	Locality.	Bored.	Wages.	Carriage.		Travelling expenses.	Repairs.	Diamonds used.	Stores issued.	Sundries.	Proportion of balance of general account.	Proportion of balance of general stores issued.	Office salaries.	Store wages.	Rent.	Total.	Cost per foot.	Amounts receivable in full.	Amounts conceded by the Minister.	Amounts receivable less Ministerial concessions.	Amount receivable per foot.
				Railway.	Other.																
		ft. in.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
A	Gulgong	813 8	335 17 4	1 13 6	0 5 0	1 8 6	3 5 4	144 15 10	19 11 3	1 0 0	96 17 0	1 14 5	61 15 4	47 17 10	23 15 3	739 16 7	.....	652 17 2	.....	652 17 2	.....
4	Nowra	82 9	20 15 0	.....	.....	1 10 11	.....	.....	.....	.....	10 15 3	0 3 9	6 17 3	5 6 5	2 12 10	48 1 5	.....	84 15 2	.....	84 15 2	.....
4	Waratah	1,127 6	227 13 6	4 5 2	15 5 2	1 2 6	2 18 9	7 15 9	26 18 10	1 11 0	75 6 8	1 6 9	48 0 9	37 5 0	18 9 9	467 19 7	.....	847 0 4	.....	847 0 4	.....
7	Cessnock	267 3	70 1 0	3 16 2	0 6 6	2 11 10	.....	13 3 6	10 1 1	0 10 0	21 10 5	0 7 7	13 14 6	10 12 10	5 5 8	152 1 1	.....	280 16 11	.....	80 16 11	.....
7	Nobbys	343 7	118 0 0	3 2 11	0 7 6	1 10 6	.....	8 13 9	10 5 2	7 0 2	32 5 8	0 11 5	20 11 9	15 19 4	7 18 5	226 6 7	.....	246 5 7	14 5 8	231 19 11	.....
7	Greta	1,207 7	234 5 4	11 3 3	1 2 3	1 8 4	7 6 6	14 12 5	31 13 2	2 7 8	64 11 4	1 2 11	41 3 6	31 18 7	15 16 1	458 12	.....	919 17 2	.. .	17 2	.....
8	Anna Bay	1,213 1	344 13 4	9 13 6	18 15 0	.....	8 5 6	47 6 9	24 13 0	1 0 0	96 17 0	1 14 6	61 15 4	47 17 10	23 15 3	686 7 0	.....	991 10 2	122 0 1	869 10 1	.....
11	Cremorne	1,357 1	1,031 19 4	.....	8 11 9	7 8 5	141 7 6	313 5 6	279 15 9	.....	129 2 8	2 6 0	82 7 1	63 17 1	31 13 10	2,091 14 11	.....	2,397 2 2	.....	2,397 2 2	.....
13	Wyee	592 2	190 14 8	5 15 10	2 1 6	0 7 6	0 19 3	134 5 8	20 5 8	2 4 6	64 11 4	1 3 0	41 3 6	31 18 7	15 16 11	511 7 11	.....	422 7 8	.....	422 7 8	.....
13	Bulli	793 1	213 0 8	4 2 11	2 12 10	0 12 0	1 4 2	25 12 11	39 18 5	1 10 0	64 11 4	1 3 0	41 3 6	31 18 7	15 16 11	443 7 3	.....	561 18 11	.....	561 18 11	.....
		7,797 9	2,787 0 2	43 13 3	49 7 6	18 0 6	165 7 0	709 12 1	463 2 4	17 3 4	656 8 8	11 13 4	418 12 6	324 12 1	161 1 9	5,825 14 6	0 14 11$\frac{1}{4}$	7,404 11 3	136 5 9	7,268 5 6	0 18 7$\frac{13}{16}$

J. S. McNEIL.
J. S. LEIGH.

Comparative statement of diamonds used per foot:—

1883 = 3/8
1884 = 2/0$\frac{15}{16}$
1885 = 1/5$\frac{5}{16}$
1886 = -/8$\frac{13}{16}$
1887 = 1/6$\frac{13}{16}$
1888 = 1/0$\frac{3}{16}$
1889 = 1/3$\frac{3}{16}$
1890 = -/7$\frac{13}{16}$
1891 = 1/9$\frac{27}{32}$

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX C.

Balance Sheet, 1891.—Diamond Drills.

	£ s d	£ s d		£ s d	£ s d	£ s d
Value of plant and machinery in field and store at 1st January		12,107 5 5	By amount receivable for boring during year	7,240 9 11		
Value of stock in store at 1st January	864 4 6		Amount receivable for tubing and core boxes	27 15 7		
Value of plant purchased through store	516 7 5				7,268 5 6	
Value of stores purchased through store	399 3 8					
		1,779 15 7	Inspection fees		17 4 0	
Working expenses (exclusive of office salaries, store wages, and rent)	4,921 8 2		Diamond fractures sold		2 16 0	
Office salaries	418 12 6		Boiler sold		240 0 0	
Store wages	374 12 1					7,528 5
Rent	161 1 9		Value of plant and machinery in field and store	12,107 5 5		
		5,825 14 6	*Less* for boiler sold	240 0 0		
Value of diamonds on hand at 1st January	810 13 7			11,867 5 5		
Value of diamonds at drills at 1st January	576 19 7		*Less* 2½ per cent for depreciation	296 13 8		
Value of diamonds in suspense at 1st January	225 12 3				11,570 11 9	
Value of diamonds purchased during year	870 5 3		Value of plant issued and not used		802 3 4	
Value of diamonds exchanged for fractures	56 16 2					12,372 15 1
		2,540 6 10	Value of diamonds on hand at 31st December		989 11 8	
			Value of diamonds at drills at 31st December		455 6 4	
			Value of diamonds in suspense at 31st December		370 16 5	
						1,815 14 5
			Value of stock in store at 31st December			502 16 7
			Cost of boring in excess of amount receivable thereon			33 10 9
	£	22,203 2 4			£	22,253 2 4

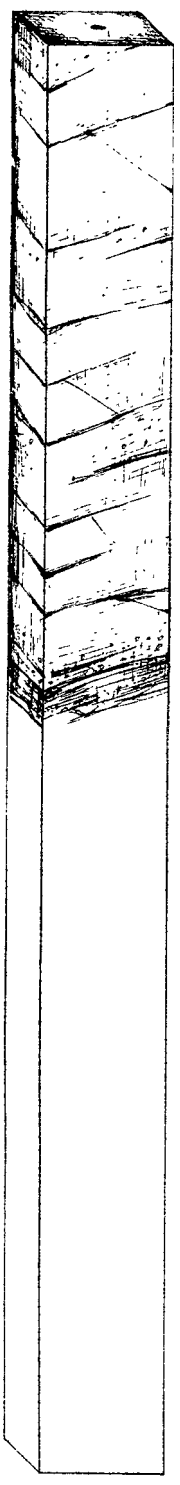
J S McNeil.
J S Leigh

W H. J. Slee,
Superintendent of Drills.

APPENDIX D.

Appendix D. Diagram 1

Section of Bore No 4
No A Diamond Drill
at Gulgong



Borehole 3" Diam[r]	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Hard broken basalt	89	0		
	Hard basalt, solid	44	6		
	Black clay	0	6		
	Grey clay	2	0		
	Decayed wood & drift	3	0		
	Granite	1	0		
	Total depth			140	0

Compiled from the Foreman's Weekly Returns.

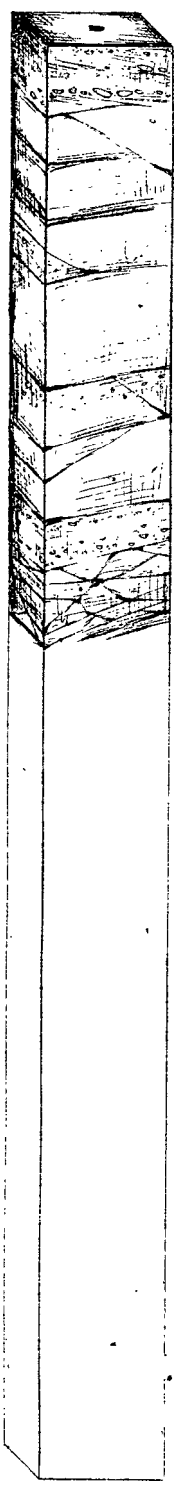
(Sy 874)

Appendix D. Diagram 2

Section of Bore N° 5

N° A. Diamond Drill

at Gulgong



Borehole 3" Diam.r	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Drift, clay & boulders	11	0		
	Hard broken basalt	35	6		
	Hard basalt	21	9		
	Honeycomed basalt	28	3		
	Drift	8	0		
	Decomposed granite	15	6		
	Total depth			120	0

Compiled from the Foremans Weekly Returns.

(S/g 8/74)

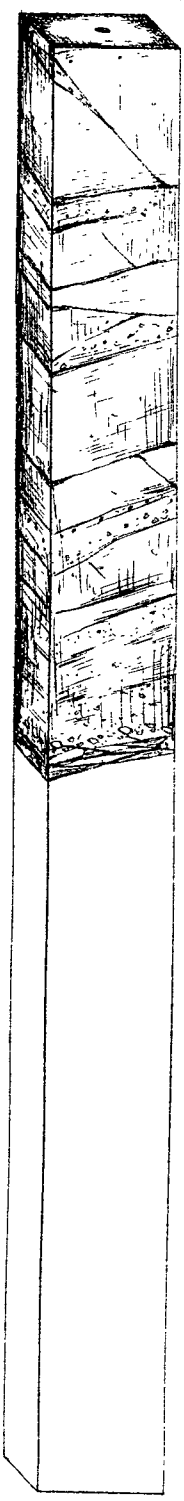
Appendix D.

Diagram 3

Section of Bore No 6

No A. Diamond Drill

at Gulgong



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Hard broken basalt	30	0		
Hard basalt	27	8		
Broken basalt	5	6		
Hard basalt	22	5		
Broken basalt	17	9		
Basalt, softer	15	6		
Hard sandy clay	19	0		
Fine grey drift	10	4		
Wash dirt	2	0		
Decomposed granite	3	10		
Total depth			154	0

Compiled from the Foreman's Weekly Returns.

(S/C 874)

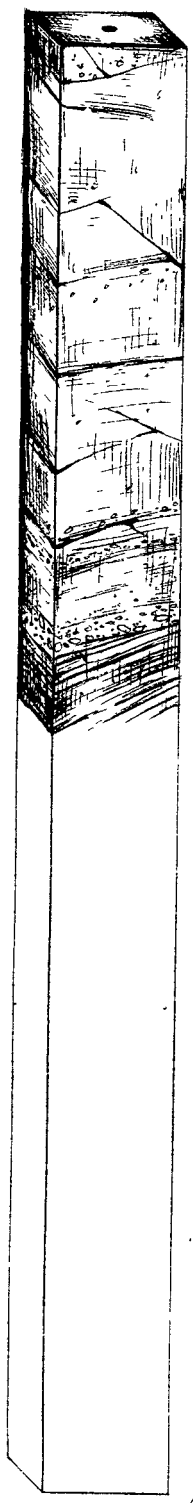
Appendix D.

Diagram 4

Section of Bore N° 7

N° A. Diamond Drill

at Gulgong



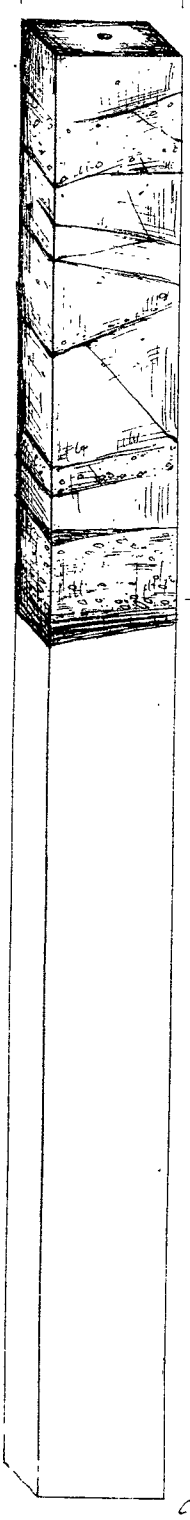
Borehole 3" Diam[r]	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Hard broken basalt	42	0		
	Hard basalt	65	0		
	Yellow cement	0	6		
	Dark clays	1	4		
	Yellow sandy clays	12	5		
	Drift	1	0		
	Heavy wash	3	6		
	Altered slates	12	3		
	Total depth			138	0

Compiled from the Foreman's Weekly Returns.

(S.19874.)

Appendix D. Diagram 5

Section of Bore No. 8
No. A. Diamond Drill
at Gulgong



Borehole 4" Diam.	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Hard broken basalt	25	0		
	Hard basalt	77	0		
	Yellow sandy clay	15	0		
	Heavy wash	3	8		
	Soft slate	2	0		
	Total depth			122	8

Compiled from the Foreman's Weekly Returns.

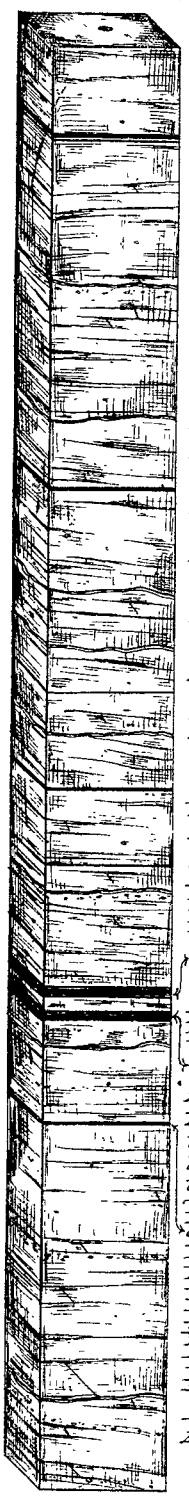
(S198874)

Appendix D. Diagram 6

Section of Bore N° 1

N° 4 Diamond Drill

at Waratah



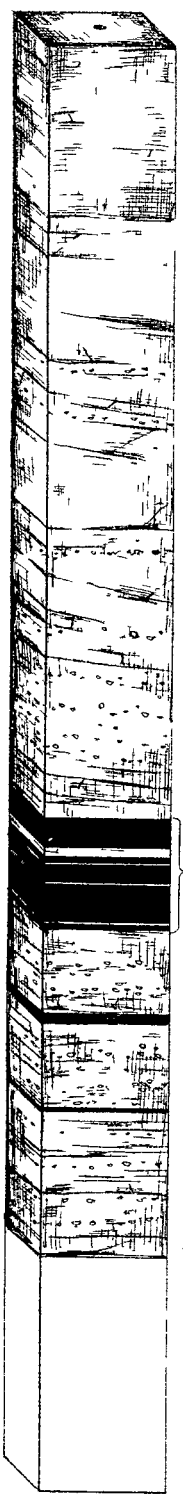
Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Standpipe	5	6		
Dark Shale & shaly sandstone	101	7		
Dark shale	5	9	122	10
Coal	0	4½		
Dark Shale	2	4½		
Shaly sandstone	30	0		
Sandy Shale	5	2		
Blue post	16	2		
Chert	1	0		
Dark Shale, Chert & Blue Shale	100	5		
Shale & Chert bands	4	1		
Shale & sandstone	9	0		
Dark Blue shale	18	2		
Chert		2½		
Shale with fossil leaves	16	1½		
Blue Shale	63	6		
Shale & sandstone	11	6		
Shale	2	7	403	6
Coal & bands	0	5		
Coal	0	8		
Sandstone & shale	27	11		
Chert		9		
Shale & sandstone	1	11		
Black shale	4	7		
Coal & bands	1	11		
Shale & clay		5		
Sandstone & shale with blue shale	81	8		
Shale & coal		4		
Shale & sandstone	40	10		
Blue Shale	11	9		
Coal & bands	0	5		
Shale & sandstone with chertrock	90	6		
Sandstone & shale	56	3		
Shale	9	6	733	4
Coal	0	3		
Sandstone & shale	5	9		
Shale with coal partings	1	5		
Shale & sandstone	31	1		
Coal	0	0½		
Shale & Sandstone	51	11½		
Ironstone		11		
Shale & sandstone	9	8		
Shale & coal pipes	2	1½		
Shale & sandstone with ironstone bands	24	2	861	6
Coal & dirty Bands	0	6		
Coal	0	7		
Band	0	1		
Coal	0	6½		
Brass band	0	0½		
Coal	0	11		
Coal & coal bands	1	11		
} Coal Seams	4	9		
Shale & sandstone				
Shale & coal pipes	2	8		
Ironstone	1	1		
Shale	0	4		
Coal	0	7	870	5
Coal & bands	1	9		
Shale & sandstone	0	8½		
Coal & bands	1	6		
Black Shale with coal pipes	0	6½		
} Coal Seams	4	3		
Blue Shale				
Sandstone & Shale	1	2		
Blue Shale, sandstone & shale	36	2		
Black Shale	29	6		
Cinder Coal	5	7		
Chertrock	1	6		
Cinder Coal	1	6		
Black Shale	1	10		
Cinder Coal		8		
Ironstone	1	0		
Shale & coal pipes		8		
Shale & ironstone bands	3	0		
Coal	2	11	960	10
Shale & ironstone bands	12	5		
Shale & sandstone	12	5		
Shale	5	11		
Fireclay		10		
Shale & sandstone	5	8		
Shale & coal pipes	3	0		
Shale & sandstone	19	8		
Shale & coal pipes		5		
Shale & sandstone	7	5		
Ironstone	2	5		
Shale & sandstone		5		
Shale & coal pipes	3	8		
Shale & sandstone	2	4		
Shale, ironstone & coal pipes	2	6		
Shale & sandstone with ironstone bands	68	7		
Black Shale	23	7		
Total depth			1127	6

Compiled from the Foreman's Weekly Returns.

(S19874)

Appendix D. Diagram 7

Section of Bore N° 1
N° 7 Diamond Drill
at Cessnock



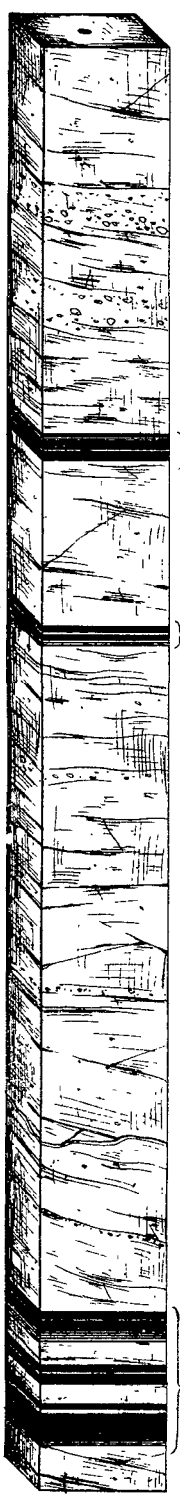
Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
Depth of bore 31st Dec! 1890			952	9
Hard blue post	36	10		
Shaly and grey sandstone	32	8		
Conglomerate	1	3		
Dark sandst! & mixd bands of fine conglomerate	12	0		
Dark & shaly sandstone	26	6		
Conglomerate	1	0		
Coarse sandstone	10	10		
Coarse sandstone mixd coal pipes	6	3		
Conglomerate	2	10		
Coarse sandstone with coal pipes	7	0		
Fine conglomerate mixd coal pipes	22	2		
Fine conglomerate	9	4		
Brass & coal bands		7		
Clay		5	1122	5
Coal	6	0		
Black shale & clay bands	0	9		
Black shale	0	9		
Coal	1	0		
Band	0	5		
Coal	1	0		
Band	0	5		
Coal	1	0		
Band	0	5		
Coal	1	0		
} Coal Seams	23	2		
Black shale	1	7		
Sandstone & shale bands	1	8		
Conglomerate	15	8		
Grey shale	1	0		
Sandstone & conglomerate		8		
Brass & coal		8	1166	10
Coal	1	10		
Black shale		6		
Shale & sandstone	2	2		
Coarse conglomerate	16	11	1188	3
Coal		8		
Conglomerate		9		
Blue shale	1	8		
Conglomerate & sandstone with coal pipes	3	9		
Conglomerate & sandstone	2	9		
Shale & sandstone		1		
Brass band		1		
Conglomerate & sandstone	9	10		
Shale & sandstone with small bands of conglomerate	8	10		
Sandstone	3	4		
Total depth			1220	0

Coal seams bored through in the presence of Mr Hammond of the Geological Branch.

(Sig 874)

Appendix D. Diagram 8

Section of Bore N° 1
N° 7 Diamond Drill
at Nobbys



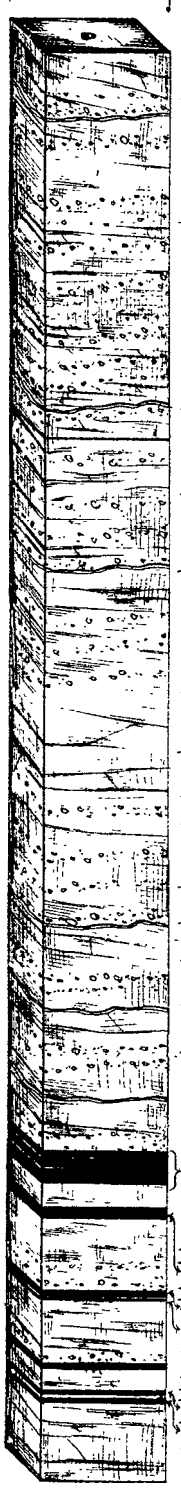
Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Standpipe	15	0		
Shaly sandstone	15	3		
Conglomerate	9	10		
Shaly sandstone	8	5		
Sandstone & Conglomerate	12	8		
Sandstone	6	11		
Shale & sandstone with ironstone bands	14	11		
Shale & clay		3	83	3
Coal with bands — 1 2½				
Coal — 1 7				
Clay band — 0 1½				
Coal — 1 1½				
} Coal seams	4	10		
Shale	1	6		
Shale & sandstone	30	11		
Shale	3	9	124	3
Coal — 1 2				
Clay bands — 0 0½				
Coal — 1 0½				
Coal & bands — 0 5				
} Coal seams	2	8		
Shale	1	10		
Shale & sandstone	52	10		
Sandstone	25	5		
Sandstone & shale	72	9		
Shale with ironstone bands	3	5	285	2
Burnt Coal — 1 5				
Shale — 0 1½				
Burnt Coal — 1 1½				
Clay & burnt coal bands — 2 7				
Dolerite — 5 10				
Burnt Coal — 0 1 1				
Clay — 0 3				
Burnt Coal — 1 4				
Black Shale — 1 11				
Burnt Coal — 0 7				
Clay — 1 3				
Burnt Coal — 3 1½				
Coal good — 2 8				
Coal & ferry bands — 2 4				
} Coal seams	28	4		
Sandstone	10	9		
Total depth			324	3

Compiled from the Foreman's Weekly Returns.

Sig 874

Appendix D. Diagram 9

Section of Bore N° 1
N° 7 Diamond Drill
at Greta



Borehole 3" Diam^r — Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Clay & soft sandstone	10	10		
Hard Conglomerate	66	7		
Sandstone with hard conglomerate	13	8		
Fine Conglomerate with Sandstone bands	46	3		
Shaly Sandstone	13	6		
Hard Conglomerate & Sandstone	35	4		
Conglomerate	43	2		
Conglomerate & Sandstone	70	0		
Conglomerate & Shaly Sandstone	104	7		
Coal pipe		0½		
Shaly Sandstone & Conglomerate	11	9½		
Blue post with Conglomerate	33	10		
Shaly Sandstone with Conglomerate patches	62	9		
Hard Blue post	19	2		
Shaly Sandstone with Conglomerate patches	39	6		
Blue post with Conglomerate patches	25	8		
Hard Blue post	34	10		
Shaly Sandstone with Conglomerate	12	6		
Hard Blue post	10	9		
Shaly Sandstone with Conglomerate	14	3		
Hard Blue post with Conglomerate patches	275	10		
Hard Blue post	98	5		
Hard Conglomerate	3	9		
Shaly Sandstone & Chert	52	3		
Fine Conglomerate	6	0		
Blue Shale & Sandstone with chert	11	8		
Sandstone with fine conglomerate patches	68	2		
Fine Conglomerate	8	5	1193	6
Coal	0	4		
Band	0	2½		
Coal	0	1½		
Band	0	3		
Coal	0	10½		
Band, white	0	3		
Coal	0	4½		
Band, black	0	5		
Coal	1	1		
Band	0	1		
Coal	0	6½		
Band	0	3		
Coal	2	3		
} Coal Seams	12	9		
Dark Shale	1	4		
Indurated Clay	10	10		
Coal	4	11		
Dark Shale	3	0		
Hard Conglomerate	32	5	1258	9
Coal	1	5		
Clay Shale	1	9		
Coal	1	2		
Clay Shale	2	6		
Conglomerate	24	1	1288	6
Coal	3	3		
Sandstone	0	9		
Hard Conglomerate	2	8	1295	2
Dark Shale with Coal pipes	6	0		
Coal	1	0		
Black Shale with Coal pipes	1	4		
Coal	0	4		
Shaly Sandstone	2	4		
Total depth			1307	2

Mr Bates, Inspector of Collieries witnessed the Coal Seams bored through as per above section.

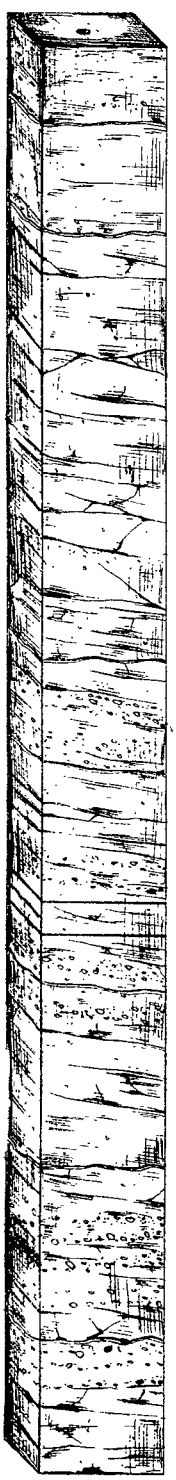
(S.g.874)

Appendix D. Diagram 10

Section of Bore N° 3

N° 8 Diamond Drill

at Ana Bay



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Sand drift & Clay	110	0		
Decomposed ironstone & clay	56	0		
Hardened clay	35	6		
Volcanic rock	48	10		
Red clay shale	13	9		
Dark drift	7	0		
Brown clay shale	12	5		
Amygdaloidal lava	23	6		
Ironstone	5	9		
Fine dark sandstone	26	8		
Broken shale & clay	4	1		
Greenish serpentine basalt	14	0		
Red decomposed basalt	38	6		
Hard amygdaloidal basalt	4	0		
Fine dark sandstone	114	0		
Conglomerate and red & grey shale	10	4		
Fine conglomerate	76	10		
Fine dark sandstone	18	10		
Conglomerate	68	0		
Dark shale	10	6		
Conglomerate	6	3		
Shale with brass	3	7		
Conglomerate	3	9		
Dark shale	1	11	711	0
Splint Coal	0	1		
Dark shale	13	6	724	7
Coal	0	1		
Grey & black shale	10	7		
Conglomerate	125	10		
Grey & black shale	8	6		
Conglomerate	14	10		
Grey & black shale	1	6		
Conglomerate & grey shale	2	1		
Black shale & coal pipes	3	4		
Sandstone	11	10		
Grey & black shale & sandstone	63	8		
Sandstone & ironstone	96	11		
Conglomerate & ironstone	10	2		
Conglomerate	12	3		
Ironstone	8	6		
Conglomerate	11	7		
Basalt	23	11		
Conglomerate	37	11		
Basalt	15	0		
Grey shale	2	6		
Broken basalt	2	5		
Drift	2	2		
Broken basalt	16	9		
Serpentine	8	2		
Depth bored to 31st Dec. 1891			1213	1

Compiled from the Foreman's Weekly Returns.

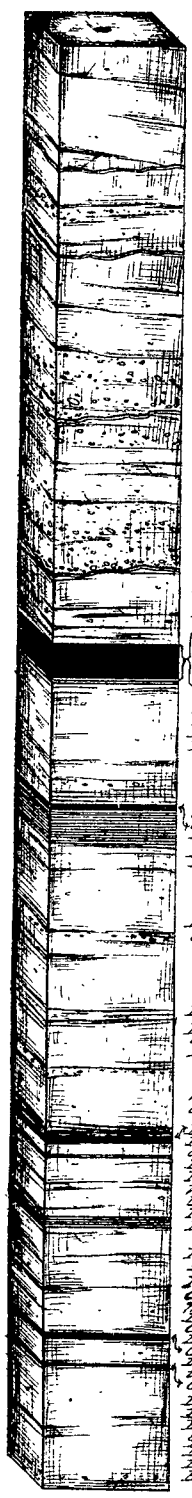
(Sig B74)

Appendix D. Diagram II

Section of Bore N° 1

N° II Diamond Drill

at Cremorne

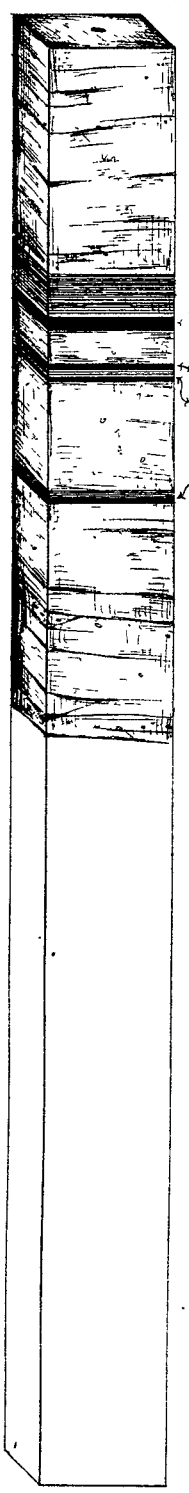


Borehole 4" Diam[r] — Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Depth of bore 31st Decr 1890			1585	1
Grey shale & sandstone	15	9		
Shaly sandstone	9	0		
Sandstone	30	3		
Grey shale	28	6		
Sandstone & grey shale	94	0		
Shale & sandstone	90	2		
Sandstone	67	9		
Dark shale	5	6		
Shaly sandstone	10	6		
Sandstone, shale & conglomerate	148	6		
Sandstone & fine conglomerate	39	0		
Shale & sandstone	35	0		
Sandstone & conglomerate	45	6		
Clay shale	40	6		
Shale & sandstone	9	0	2254	0
Conglomerate	107	2		
Grey shale & sandstone	23	10		
Conglomerate, shale & sandstone	200	10	2585	10
Sandstone, shale & conglomerate	99	10		
Shale, sandstone & conglomerate	112	4	2798	0
Black carbonaceous shale with slight conchoidal fracture and thin vertical films of calcite (Roof of first coal seam)	3	9	2801	9
Coal calcined with strings of calcite	0	2		
Coal " " dyke matter	0	3½		
Coal " " thin calcite strings	0	9		
Coal " " dyke matter	0	4		
Coal " " calcite strings	0	4		
Clayey coal, slightly coked & much contorted	1	6		
Carbonaceous sandy clay shale with vertebraria at 2 inches below Coal	1	3		
Fine laminated clayey carbonaceous sandstone	3	6		
Hard grey micaceous sandstone with Black Carbonaceous streaks	7	0		
Hard grey sandstone with pebbly bands passing into fine conglomerate	7	3		
Hard grey sandstone with small pebbles	1	0		
Hard or small pebbles	0	9		
Hard grey sandstone	1	0		
Hard gritty grey sandstone, almost fine conglomerate	0	5		
20 " " with small pebbles	1	0		
20 " " coarse with small pebbles	0	8		
20 " " do do	1	6		
Carbonaceous gritty grey sandstone with a few ½ inch pebbles at top	0	8	2829	6½
Clayey calcined Coal with strings of calcite	0	9½		
Black carbonaceous clay shale becoming sandy downwards	1	1		
do do with bands of grey sandstone	1	2½		
Dark carbonaceous sandy shale hardened by dyke	1	0		
Dark gritty sandstone with minute calcite veins	0	9½	2838	9½
	1	6½		
Dolerite dyke, bleached in colour & amygdaloidal with calcite. The junction of the dyke with the shale underlies 1 in 3	34	4½		
Dark indurated sandy shale with calcite veins	1	11½		
Dark grey carbonaceous fine grained clay shale with Annularia at 2881 feet	5	1	2881	9
Inferior clay ironstone	6	0½		
Very fine blackish grey laminated clay shale, Glossopteris at 2882 ft 9 ins	15	11½	2898	3
Dirty splint coal	1	2		
Fine grained grey laminated sandy shale with Glossopteris and vertebraria with 2 inch concretion of clay ironstone 11 ft from bottom	2	9	2902	2
Black carbonaceous clay shale	0	2		
Fine grained grey laminated sandy shale with Glossopteris &c.	7	10		
Very fine grained clayey sandstone with shaly laminated bands in places	4	10	2915	0
Fine grained grey laminated sandy shale	1	9		
Black carbonaceous shale	2	3		
Fine grained grey clayey sandstone & mudstone with shaly bands	13	6		
Fine grained grey sandy laminated clay shale with concretions of clay ironstone	6	6		
Mudstone passing into fine grained grey laminated sandstone	1	4		
Laminated clay shale	1	1		
Clay ironstone	0	3½		
Dark grey clay shale	0	3½	2941	2
Coal	1	0		
Dark carbonaceous clay shale with the last 12 inches almost	5	0	2947	2
Inferior coal	0	3		
Coal, laminated, splint & bituminous	0	3		
Dark carbonaceous clay shale	0	3		
Light grey fireclay	0	3		
Light grey hard clay shale sandy in places with glauconite band at 2958 ft & bands of carbonate of iron at 2951-2	10	0		
Ditto, latter part highly micaceous	3	4		
Dark grey sandy shale with vertebraria	1	3½		
Black carbonaceous shale	0	11		
Carried forward			2963	6

(Sig. 874)

Appendix D. Diagram II

Continuation of Section of Bore N° 1
N° II Diamond Drill
at Cremorne



Borehole 4" Diam[r]	Nature of Strata	Thickness of Strata ft	Thickness of Strata in	Depth from Surface ft	Depth from Surface in
	Brought forward			2963	6
	Dark grey laminated sandy shale with bands of fine clayey sandstone & ½ inches clay ironstone at 2982·6	26	9		
	Fine grey sandstone with thin bands of dark clay shale	10	6		
	Dark grey laminated sandy clay shale	11	9		
	Black carbonaceous clay shale	5	10		
	Brownish grey fire clay	0	1½		
	Black laminated carbonaceous clay shale	1	7½		
	Brownish grey fireclay	0	1	3020	2
	* COAL, quite unaltered, upper 9 inches dull black inferior splint, remainder consisting of bands of brittle bright bituminous coal & splint thickest band of bituminous coal being 4"	2	4		
	Dark grey laminated sandy shale	7	2		
	Black carbonaceous clay shale	0	4	3030	0
	Coal	0	6		
	Black carbonaceous shale	0	6		
	Brown micaceous shale	0	7	3031	1
	Inferior splint coal with bands of bituminous coal	0	3		
	Brown clay shale	0	6½		
	Whitish grey hard clay shale upper part probably fireclay	8	8½	3040	2
	Ditto darker & laminated passing into sandy clay shale	2	10		
	Grey & dark grey laminated sandy shales	10	5		
	Black carbonaceous clay shale	0	5		
	" " " with coaly parting	1	1	3054	11
	* COAL splint with bituminous bands	0	5		
	Brownish grey fireclay	0	1		
	Light grey laminated shaly sandstone with darker grey bands of clay shale	3	1	3058	6
	Concretionary aggregate of small veins of white mineral, probably calcite	0	3		
	Dark grey hard sandy shale	1	6		
	Laminated fine grey clay shale	0	6		
	Yellowish grey soapy clay shale with vein of carbonate of iron	0	2	3060	5
	More or less laminated grey & dark grey sandy shales with bands of fine shaly sandstone more clayey downwards	13	1		
	Blackish grey carbonaceous clay shale	2	3		
	Dark grey laminated clay shale	0	6	3076	3
	Blackish grey carbonaceous shale with Glossopteris, shows signs of separation by dyke Gangamopteris at 3074'-3'	2	2		
	Clay ironstone	0	1		
	Blackish grey clay shale	0	4		
	Soapy dark grey clay shale	0	1	3078	11
	Blackish grey clay shale, carbonaceous in places	3	1		
	Laminated soapy yellowish grey & dark grey clay shales	0	7		
	Hard grey clay shale with fern roots	0	11		
	Shale with clay bands	11	6		
	Total depth			3095	0

The Core Section was frequently examined by Professor David B.A., F.G.S &c when he held the position as Geo. Surveyor of this Dept and was carefully taken by him from the level of 2798 feet to the lowest depth obtained since his connection with the Sydney University.

(Sig 874)

Appendix D. Diagram 12

Section of Bore N° 1

N° 13 Diamond Drill

at Wyee

Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Depth of bore 31st Decr 1890			354	6
Sandstone, conglomerate & shale	19	1	373	7
Splint Coal 0 2 Bright coal 0 6 Band 0 0 1 Coal & bands 0 2 6 Coal 0 0 1 Band 0 0 2 Coal 0 1 0 } Seam	2	4		
Blue and grey shale	5	1		
Hard Conglomerate	138	6		
Shale	1	9	521	3
Shale & Coal bands 1 1 Coal 0 0 1 Dark shale & coal bands 0 2 0 Indurated clay 0 0 2 Dark shale with streaks of coal 0 2 4 Grey shale 0 0 3 Coal 0 3 6 Dark shale with streaks of coal 2 0 8 } Seam	7	5		
Grey shale	4	10		
Conglomerate	20	11		
Grey shale, chert & grey post	11	10		
Dark Shale & Coal pipes	2	2		
Black Shale	1	5		
Pipe clay		8		
Black shale & coal pipes	1	8		
Chert	2	3		
Grey Shale & Conglomerate	93	11		
Dark Shale		7	668	11
Coal 0 1 1 Dark shale 1 1 7 Coal 0 4 7 Dark shale & coal pipes 1 5 } Seam	3	5		
Grey & dark shale & chert	13	3		
Grey shale	29	10		
Dark shale with traces of coal	1	1		
Grey shale & soft chert		11		
Dark shale with traces of coal	1	9		
Dark grey shale & soft chert		9		
Dark shale with traces of coal	1	3		
Grey shale	11	10		
Conglomerate	6	8		
Cherty sandstone	1	1		
Dark shale with coal traces		4		
Soft cherty sandstone		3		
Conglomerate	19	9		
Dark jointy shale & soft chert	5	5		
Dark shale with coal traces		7		
Grey shale	17	5		
Conglomerate & grey shale	12	10		
Dark Shale & Coal pipes	1	10		
Shale & chert	1	2		
Dark shale & coal traces	1	0		
Chert & shale	1	2		
Dark shale & coal traces	1	0		
Grey shale	2	2		
Dark shale & coal traces		5		
Soft chert		5		
Shale	2	0		
Dark shale & coal traces		4		
Dark shale & chert	4	0		
Dark shale & coal traces	2	0		
Grey shale	1	2		
Dark Shale & coal traces	1	2		
Grey shale & chert	11	3		
Conglomerate	94	0		
Shale & sandstone	8	10		
Conglomerate	15	3		
Total depth			946	8

Compiled from the Foreman's Weekly Returns.

(Sig 874

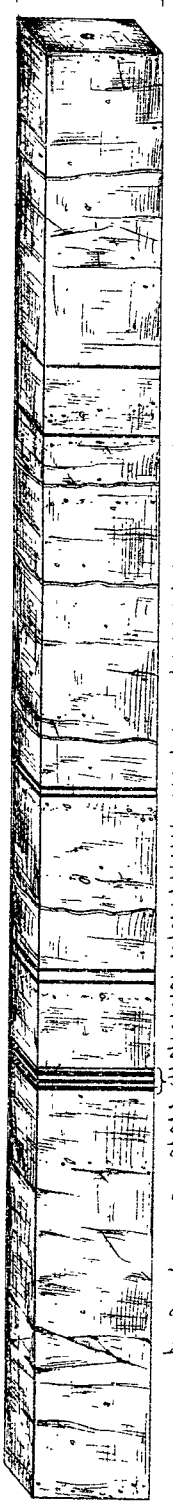
Appendix D.

Diagram 13

Section of Bore No. 1

No. 13 Diamond Drill

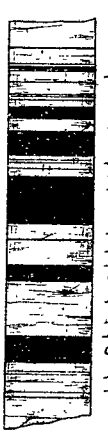
at Bulli



Nature of Strata	Thickness of Strata ft	in	Depth from Surface ft	in
Stand-pipe	26	7		
Sandstone	52	8		
Hard blue shale	141	2		
Basalt	15	6		
Grey shale	26	2		
Sandstone & blue shale	5	11½		
Indurated clay		2½	268	3
Coal	0	5½		
Blue shale	2	6		
Shale & sandstone	2	3½		
Blue shale	2	3		
Indurated clay	1	6		
Blue shale & shaly sandstone	4	0½		
Shale & sandstone	4	6		
Blue shale	2	5		
Dark shale	8	8	297	2
Coal	0	1		
Indurated clay		11		
Shale, sandstone and blue & grey shale	20	3		
Grey shale, indurated clay & sandstone	17	7		
Sandstone & grey & dark shale	47	10		
Grey shale with fossils		8		
Shale & sandstone	40	3		
Sandstone, grey & blue shale	17	5		
Sandstone, dark & grey shale	40	5		
Sandstone & shale with chert	20	11		
Sandstone with grey shale & fossils	2	5		
Shale & sandstone	16	0		
Basalt	18	6		
Grey shale & chert	4	10		
Shale & sandstone	43	3		
Shale full of Glossopteris & Phyllotheca	4	7	593	1
Coal & bands	0	10		
Sandy shale with vertebraria	0	4		
Shale with phyllotheca	1	10	597	1
Coal	0	3		
Shale	0	3		
Soft shale & sandstone with Glossopteris	6	7		
Shale with Glossopteris	8	6		
Black shale with coal bands	4	6		
Black shale with streaks of coal	4	6		
Indurated clay & black shale	4	4		
Dark shale & indurated clay	6	4½		
Shale, sandstone & grey shale	37	0		
Sandstone	9	8		
Sandstone, dark & grey shale	7	2		
Grey shale with fossils	1	2		
Dark shale		2½		
Coal	0	1		
Dark shale		1½		
Grey shale	2	1½		
Coal		6		
Dark shale	0	3½		
Grey shale	1	2		
Sandstone	3	8		
Grey & dark shale	3	1½		
Indurated clay & dark shale	3	4½		
Dark shale & coal traces	1	9		
Grey shale & soft sandstone	5	9½		
Indurated clay & dark shale	8	5	716	11
Coal seams (See enlarged section)	7	4		
Black shale & traces of coal	5	0		
Indurated clay & black shale	6	6		
Grey shale & chert	3	9		
Black shale and coal traces		7½		
Grey shale	2	0		
Grey shale & sandstone	26	0		
Sandstone & shale	19	10		
Grey shale, sandstone & chert	5	0		
Basalt	14	2		
Total depth			805	3

Compiled from the Foreman's Weekly Returns.

Coal Seams at 716'-11"



	ft	in
Dark shale & streaks of coal	1	3
Coal	0	3
Indurated clay	0	3
Coal	0	6
Dark shale & streaks of coal	0	3
Pyrites	0	2
Coal	1	0
Splint coal	0	4
Indurated clay	0	6
Black shale	0	0½
Coal	0	4
Black shale	0	9
Indurated clay	0	2
Black shale	0	3
Coal	0	6½
Black shale with streaks of coal	0	9
Thickness	7	4

(Sig 8731)

APPENDIX E.

WATER-AUGER work, showing average cost per foot, exclusive of office salaries, store wages, and rent for 1891.

No. of Machine.	No. of Bores.	Locality	Days occupied.								Depths.			Rate bored per day.	Cost of Carriage.	Working cost.		Cost per foot.		Remarks.
			Moving.	Erecting.	Boring.	Repairing.	Reaming.	Delays.	Holidays.	Total.	At 31 Dec., 1890.	Bored during 1891.	Total.			Exclusive of Carriage.	Inclusive of Carriage.	Exclusive of Carriage.	Total.	
			..	..	170	85	14	11	5	285		279 10		1 $7\frac{3}{4}$	38 10 0	665 15 11	704 5 11	2 7 7	2 10 4	
1, 2, and 7.	1	Milparinka to Wanaaring Road— 106-mile Bore	..	..	63	34	11	..	..	108	ft. in. 1,206 6	ft. in. 89 6	ft. in. 1,296 0	ft. in. 1 $5\frac{1}{16}$	£ s. d. 12 7 3	£ s. d. 311 5 4	£ s. d. 323 12 7	£ s. d.	£ s. d.	This bore has now been let on contract.
3	1	121-mile Bore	..	..	107	51	3	11	5	177	1,112 8	190 4	1,303 0	1 $9\frac{5}{16}$	26 2 9	354 10 7	380 13 4	.....	.....	This bore is now being deepened on contract.

J. S. McNEIL.
J. S. LEIGH.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX Ea.

REAMING and clearing 106-mile Bore to depth of 1,206 feet 6 inches from surface.

No. of Machine.	Days occupied.									Cost.
	Moving.	Erecting.	Boring.	Repairing.	Reaming.	Delays.	Holidays.	Baling.	Total.	
1, 2, and 7	.....	.....	.....	96	14	5	3	...	118	£ s. d. 352 6 3

J. S. McNEIL.
J. S. LEIGH.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX F.

SUMMARY of Water-augers, showing number of feet bored, total working cost to Department, and average cost per foot, for 1891.

No. of Machine	Locality.	Bored.	Wages.	Carriage.		Travelling expenses.	Repairs.	Stores issued.	Sundries.	Proportion of balance of general account.	Proportion of balance of general stores issued.	Office salaries.	Store wages.	Rent.	Total.	Cost per foot.	Remarks.
				Railway.	Other.												
		279 10	460 17 0	5 16 5	32 13 7	.....	22 15 0	39 12 11	5 8 9	135 0 2	2 2 1	75 9 10	58 10 8	29 1 0	867 7 5	3 1 $11\frac{3}{4}$	
1, 2, &7.	Milparinka to Wanaaring Road— 106-mile Bore	ft. in. 89 6	£ s. d. 219 6 0	£ s. d. 5 16 5	£ s. d. 6 10 10	£ s. d.	£ s. d. 22 15 0	£ s. d. 14 8 4	£ s. d. 4 18 9	£ s. d. 49 1 11	£ s. d. 0 15 4	£ s. d. 27 9 0	£ s. d. 21 5 8	£ s. d. 10 11 3	£ s. d. 382 18 6	£ s. d.	
3	121-mile do	190 4	241 11 0	.....	26 2 9	.....	.....	25 4 7	0 10 0	85 18 3	1 6 9	48 0 10	37 5 0	18 9 9	484 8 11	.....	

J. S. McNEIL.
J. S. LEIGH.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX Fa.

SUMMARY showing total cost to Department for reaming and clearing 106-mile Bore on the Milparinka to Wanaaring Road to depth of 1,206 feet 6 inches.

Wages.	Carriage.		Travelling Expenses.	Repairs.	Stores Issued.	Sundries.	Proportion of Balance of General Account.	Proportion of Balance of General Stores Issued.	Office Salaries.	Store Wages.	Rent.	Total.
	Railway.	Other.										
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
228 9 0	29 8 8	7 11 0	.....	8 14 4	16 4 5	5 17 0	55 4 8	0 17 2	30 17 8	23 18 11	11 17 9	419 0 7

J. S. McNEIL.
J. S. LEIGH.

W. H. J. SLEE,
Superintendent of Drills.

APPENDIX G.

Balance Sheet, 1891.—Water-augers.

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To value of field plant and machinery at 1st January...	6,529 19 2		By value of field plant and machinery at 31st December	6,529 19 2	
Value of new Stock in store at 1st January	1,543 12 10		*Less* value of tubing left in bores £459 14 3		
		8,073 12 0	Plant sold as under ... 68 0 2		
Working expenses (exclusive of office salaries, store wages, and rent)	704 5 11			527 14 5	
Office salaries	75 9 10			6,002 4 9	
Store wages	58 10 8		*Less* 2½ per cent. depreciation	150 1 1	
Rent	29 1 0			5,852 3 8	
		867 7 5	Plant issued and not used ...	24 5 0	
Reaming and clearing 106-mile bore on the Milparinka to Wanaaring Road.....	.....	419 0 7	Tubing „ „ ...	90 0 0	5,966 8 8
Value of stores purchased ...	108 18 3		Value of tubling left in bores on the Milparinka to Wanaaring Road, viz.:—		
Value of plant purchased ...	126 9 1		106-mile bore	250 10 2	
		235 7 4	121-mile bore	209 4 1	
					459 14 3
			Portion of plant sold...	.....	68 0 2
			Value of new stock in store at 31st December	.....	1,605 18 7
			Profit and loss during year representing value of work performed in search of water	.....	1,495 5 8
	£	9,595 7 4		£	9,595 7 4

J. S. McNeil,
J. S. Leigh.

W. H. J. SLEE,
Superintendent of Drills.

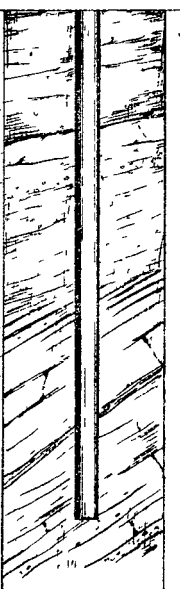
Appendix H. Diagram 1

Section of Bore No. 1

No. 2 Water Auger

at 106 Mile Post

Road Milparinka to Wanaaring

Thickness of Strata ft	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
1206	6	Depth of Bore 31st Dec. 1890					
8	6	Swelling clay					
4	7	Hard white rock					
7	8	Sandy swelling clay					
23	3	Stiff swelling clay					
10	2	Hard slaty bands					
10	5	Sandstone & shale bands					
24	11	Hard grey shale bands					
1296	0	Total depth					

Compiled from the Foreman's Weekly Returns.

Sig 374)

Appendix H. Diagram 2

Section of Bore No. 1

No. 3 Water Auger

at 121 Mile Post

Road Milparinka to Wanaaring

Thickness of Strata ft	in	Nature of Strata	Borehole	Height Water rose from point of tapping	Quality	Depth Water tapped ft	in
1112	8	Depth of Bore 31st Decr. 1890.					
12	0	Black shale					
1	3	Hard Rock					
2	4	Grey clay with bands of fine sand					
8	2	Soft sandstone					
9	9	Clay with coarse white sand					
2	0	Soft sandstone					
15	8	Clay & sand					
4	0	Soft sandstone					
18	4	Clay with bands of sand					
2	0	Sandstone					
4	0	Hard clay & sand					
3	0	Very hard grey rock					
0	6	Coarse Quartz sand					
0	10	Boulders					
2	8	Stiff clay					
1	0	Hard pan					
13	1	Clay with bands of coarse sand					
1	3	Hard rock					
20	0	Grey clay with bands of hard cemented sand					
7	6	Grey sandy clay					
1	0	Grey rock					
1	0	Clay					
15	0	Sandy clay					
1	0	Hard pan					
14	0	Sandy clay					
1	6	Grey shale					
2	0	Hard rock					
8	0	Grey shale					
5	5	Black clay					
1	3	Boulders					
1	6	Strong clay					
0	9	Hard blue boulders					
9	3	Blue clay with bands of stones & sand					
1303	0	Total depth					

Compiled from the Foreman's Weekly Returns.

(Sig. 574)

EXAMINER OF COAL-FIELDS REPORT.

Report of the Examiner of Coal-fields for the Colony of New South Wales for the year 1891.

In accordance with the provisions contained in the 26th section of the Coal Mines Regulation Act, 39 Vic. No. 31, I have the honor to submit reports from Messrs. Dixon, Bates and Humble, Inspectors of Collieries for coal-mines at work, and opening out in the counties of Northumberland, Durham, Gloucester, Buckland, and Pottinger, called the Northern District, and Mr. Rowan, Inspector of Collieries for coal-mines at work, and opening out in the counties of Cumberland, Camden, Cook, and Roxburgh, called the Southern and Western Districts, with this my general report for the year ending, 31st December, 1891.

The information I have the honor to submit, in respect to the condition and progress, &c., of the coal and boghead mineral (yielding large quantities of gas and oil per ton) mines during the year 1891 is as follows:—

In 1889 the fatal accidents were 41 and the non-fatal accidents 57. Eleven of the fatal ones happened from falls of coal, 11 from a crush at the A. A. Company's Hamilton Pit, 4 from over-winding and falling down the South Burwood sinking-shaft, and 15 others from falling stones in sinking shafts, being jammed by skips, and from explosions of powder and gas, &c., &c.

In 1890 the fatal accidents were 13 and the non-fatal accidents 36. Four of the fatal ones happened from falls of coal, 2 from being injured by trains of skips, 1 by a bucket falling down a sinking shaft, 1 by an explosion of powder, 1 by a fall of stone, 1 by a boiler explosion, and 1 by a pit-cage.

Seventeen of the 36 non-fatal accidents occurred from falls of coal, 2 by falls of stone roof, 2 by skips, 1 by blow from a prop, 1 by ignition of fire-damp, 1 an explosion of powder, 1 foot crushed by ventilating-fan, 2 by surface-waggons, and 1 through being scalded by steam.

In 1891, the year under notice, there have been 21 fatal and 54 non-fatal accidents. Seven of the fatal accidents happened from falls of coal, the 8th by a fall of roof stone, 9th to 12th inclusive from falls of stone in sinking shafts, 13th and 14th by skips, 15th by a pit inundation, 16th by being suffocated in a coal-hopper, 17th by being injured at screens, 18th by fire-damp, 19th to 21st inclusive by waggons.

Twenty-six of the non-fatal accidents occurred from falls of coal, 27th to 34th inclusive from falls of stone roof, 35th to 42nd inclusive injuries from skips, 43rd injured by a descending cage, 44th to 47th inclusive by blasting powder, 48th by a horse-whim, 49th blow from a spragg, 50th injured by winch-handle, 51st injured by a horse, 52nd injured by a prop, 53rd injured by a waggon, 54th injury from a trolley.

SUMMARY showing the number of fatal and non-fatal accidents in 1891, the names and occupations of the persons who died or were injured, cause of death or serious injury, and the names of the collieries where they occurred.

No. of accidents.	Date of accident	Name of colliery	Where situated	Name of person killed	Name of person seriously injured	Occupation	Cause of death or serious injury.	Fatal							Non fatal													
								By iron pipe & stone falling down shaft	By tidal waters	By small coal in hopper	Loaded and empty waggons	By falls of coal.	By loaded and empty skips	By falls of stone, &c., roof.	By fire damp	By loaded and empty skips	By falls of coal	By descending cage	By blasting powder	By horse whim	By waggons	By a sprag	By a trolley	By falls of stone, &c., roof	By handle of winch	By a kick from a horse	By a falling prop	Total fatals	Total non fatals
1	2 Jan	East Lambton	New Lambton	Hubert Thos Brown		Labourer	Fatal injuries by iron pipe falling down shaft	1																				
2	6 ,,	New Lambton C pit	Adamstown		Alex Roy	Driver	Fracture of right leg by a loaded skip									1												
3	8 ,,	Pride of Ferndale	Tighe's Hill	John Garnett		Colliery proprietor	Entombed by inundation of tidal waters		1																			
4	8 ,,	Co operative	Plattsburgh		Thomas Shaw	Miner	Injury to back and hips by fall of coal										1											
5	20 ,,	,,	,,		William Fisher	,,	Left thigh fractured by empty skips									1												
6	24 ,,	Greta	Greta		Benjn Walters	Carpenter	Bruised by descending cage, bottom of B pit											1										
7	27 ,,	South Wallsend	Cardiff	Thomas Ashby		Labourer	Suffocated by small coal in coal hopper			1																		
8	28 ,,	Newcastle Wal'send	Wallsend		George Lovedale	Miner	Injury to back and hips by fall of coal									1												
9	30 ,,	Mount Pleasant	Wollongong		William Kenning	,,	Severe burns about the face and neck by powder												1									
10	31 ,,	Newcastle Wallsend	Wallsend	George Ebenzr Green	...	Waggon-greaser	Fatal injuries by empty waggons whilst shunting				1																	
11	31 ,,	South Wallsend	Cardiff		Wm Parr	Miner	Burns to both hands by ignition of core powder												1									
12	7 Feb	Seven mile	Stroud Road		John Brown	Banksman	Injuries to leg and bruises on body by a horse whim													1								
13	11 ,,	Mount Kembla	Wollongong	James Sheard		Miner	Fatal injuries by fall of coal, died 20th February					1																
14	11 ,,	,,	,,		L Loveday	,,	Bruised on foot by falls of coal									1												
15	11 ,,	Newcastle Company's A pit	Newcastle	John Nash		Fettler	Fatal injuries by loaded waggons				1																	
16	21 ,,	Bellambi	Wollongong		R Morgan	Horse driver	Hurt on back by waggons at the screens														1							
17	28 ,,	Brown's No 4 tunnel	Mimmi	Ephraim Homer		Wheeler	Fatal injuries by loaded skips in tunnel						1															
18	3 Mar	North Illawarra	Wollongong	William Murray		,,	Crushed about the head by fall of stone							1														
19	5 ,,	Richmond Vale	Richmond Vale	Charles Purcell		Sinker	Fatal injuries by fall of stone down shaft	1																				
20	6 ,,	West Wallsend	West Wallsend		John Smith	Miner	Burns on face and chest by ignition of loose powder													1								
21	11 ,,	Greta	Greta		David Gronow	,,	Collar bone fractured and hip bruised by fall of coal									1												
22	18 ,,	Australian Agricultural Co's No 2 pit	Newcastle		Edward Harding	,,	Compound fracture of right leg by fall of coal									1												
23	19 ,,	Greta	Greta		Daniel Anderson	,,	Fracture of left leg by fall of coal									1												
24	24 ,,	Metropolitan	Helensburgh		G Ross	,,	Injuries to leg by fall of coal										1											
25	2 April	,,	,,		C Griffith	,,	Arm broken by a skip									1												
26	7 ,,	Hetton	Carrington		Alex Reid	,,	Fracture of collar bone by a fall of coal									1												
27	23 ,,	Corrimal	Wollongong		John Bald	Wheeler	Arm broken by a skip									1												
28	2 May	Tickhole Adit	Teralba	George Proctor		Miner	Fatal injuries by fall of stone, &c., roof							1														
29	4 ,,	Newcastle Coal Co's A pit	Newcastle		John Atkinson	Screen boy	Fracture of lower jaw by a blow from a sprag whilst spragging																1					
30	9 ,,	North Illawarra	Near Wollongong	Oswald Spowatt		Horse driver	Killed by a waggon				1																	
31	14 ,,	South Bulli	Bulli	Thomas Tresseden		Miner	Fatal injuries by fire damp								1													
32	15 ,,	,,	,,		R Nicholson	Labourer	Arm fractured by a trolley																1					
33	19 ,,	West Wallsend	West Wallsend		Henry Hargreaves	Miner	Severe burns by ignition of loose powder													1								
34	1 June	Hetton	Carrington		Wm Jones	,,	Injury to thigh by a loaded skip									1												
35	2 ,,	Bulli	Bulli		James Allen	,,	Injuries to hand and leg by fall of stone																	1				
36	2 ,,	Mount Pleasant	Wollongong		Wm Fisk	,,	Arm broken by a skip									1												
37	7 July	New Lambton C pit	Adamstown	John Elwood		,,	Fatal injuries by fall of coal					1																
38	10 ,,	South Bulli	Bulli		Samuel Shandley	Labourer	Head cut by the handle of a winch on incline																		1			
39	21 ,,	Brown's	Mimmi		Morris Chalmers	Miner	Collar-bone broken by fall of coal										1											

SUMMARY showing the number of fatal and non-fatal accidents in 1891—*continued.*

No. of accidents	Date of accident	Name of colliery	Where situated	Name of person killed	Name of person seriously injured	Occupation	Cause of death or serious injury	Fatal								Non fatal														
								By non pipe & stone falling down shaft	By tidal waters	By small coal in hopper	Loaded and empty waggons	By falls of coal	By loaded and empty skips	By falls of stones, &c., roof	By fire-damp	By loaded and empty skips	By falls of coal	By descending cage	By blasting powder	By horse whim	By waggons	By a spring	By a trolley	By falls of stone &c., roof	By handle of winch	By a kick from a horse	By a falling prop	Total fatals	Total non fatals
40	29 July	Co-operative	Plattsburgh		Luke Conn	Wheeler	Hand crushed by skips									1													
41	4 Aug	South Wallsend	Cardiff		Walter Gough	Miner	Fracture of thigh by fall of coal										1												
42	5 ,,	Bulli	Bulli		T. Jones	,,	Leg broken and bruised on back by fall of coal										1												
43	7 ,,	Burwood	Glen Rock, near Newcastle	Antoni Siedenkamp		,,	Fatal injuries by fall of coal, died August					1																	
44	18 ,	Gleta	Gleta		Alf. Palmer	,,	Injury to back by fall of coal										1												
45	20 ,	Bellambi	Wollongong		James Rowlison	,,	Leg broken by fall of coal										1												
46	21 ,,	South Waratah	Charlestown		Henry Banfield	,,	Fracture of leg by fall of coal										1												
47	28 ,	South Bulli	Bulli		G. Cunningham	Horse driver	Jaw broken by a kick from a horse																		1				
48	3 Sept	Burwood	Glen Rock, Newcastle		Joseph Chas. Williams	Wheeler	Thigh fractured by a skip									1													
49	10 ,,	Bellambi	Wollongong		Wm. Burns	Miner	Two ribs broken by a fall of stone																	1					
50	10 ,,	Australian Kerosene Oil and Mineral Company	Joadja	A. Hanner		Labourer	Fatal injuries by a waggon on the incline																						
51	21 ,	Burwood	Glen Rock, Newcastle	Edwd. Wm. Disney		Miner	Fatal injuries by a fall of coal					1																	
52	22 ,,	Metropolitan	Helensburgh		Wm. Shurvey	,,	Skull fracture by a prop being knocked out																				1		
53	28 ,	Brown's	Minmi		Robert M'Bane	,,	Fracture of ribs by skips									1													
54	12 Oct	Metropolitan	Helensburgh		John Keir	,,	Leg broken by fall of stone																	1					
55	13 ,,	Stockton	Stockton	Nathan Bannister		,,	Fatal injury by fall of coal					1																	
56	19 ,,	Burwood Extended	Redhead		Richd. Kelly	,,	Severe scalp wound by fall of coal										1												
57	21 ,,	Burwood	Glen Rock, Newcastle		Thos. Lennox	,,	Injury to leg by fall of coal										1												
58	22 ,,	Co-operative	Plattsburg		Saml. Hope	,,	Injury to back by fall of coal																						
59	2 Nov	,	,,		Alfred Pattison	,,	Fracture of ribs by fall of coal and stone									1													
60	10 ,,	Australian Agricultural Co's No. 2 pit	Newcastle	James Watson		,,	Fatal injuries by fall of coal and stone							1										1					
61	16 ,	South Waratah	Charlestown		Enoch Gould	,,	Fracture of thigh by fall of stone																	1					
62	17 ,,	Australian Agricultural Co's No. 2 pit	Newcastle	Herbert Hamilton Beaumont		Driver	Fatal injury by upsetting of empty skip						1																
63	19 ,,	Newcastle Wallsend	Wallsend	Thos. W. Parkes		Miner	Fatal injury by fall of coal					1																	
64	19 ,	Metropolitan	Helensburgh		A. M'Culloch	,,	Leg broken by fall of coal										1												
65	19 ,	,,	,,		Samuel Rees	,,	Leg broken by fall of coal										1												
66	25 ,,	Australian Agricultural Co's No. 2 pit	Newcastle	Jno. Manning		,,	Fatal injuries by fall of coal					1																	
67	25 ,	,,	,,		Thos. Rotherham	,,	Internal injuries by fall of coal										1												
68	25 ,,	Helton	Carrington		Robert Mason	,,	Fracture of thigh by fall of coal										1												
69	27 ,,	Young Wallsend	Young Wallsend		Geo. Clarke	,,	Fracture of ribs by fall of coal										1												
70	29 ,	Metropolitan	Helensburgh		John Ferguson	,,	Foot crushed by fall of coal										1												
71	3 Dec	Mount Kembla	Wollongong		Robert Kerns	,,	Leg broken by fall of coal										1												
72	5 ,,	New Lambton	Adamstown		John Potts	,,	Fracture of leg by fall of coal										1												
73	11 ,,	Summerhill	Plattsburgh		Alex. Blau	,,	Fracture of ribs by fall of coal										1												
74	24 ,,	East Lambton	New Lambton		Thos. Phillips	,,	Fracture of leg by fall of coal										1												
75	29 ,,	Mount Kembla	Wollongong		Wm. Kelly	,,	Fracture of leg by fall of stone																	1					
							Total	2	1	1	4	7	2	3	1	9	27	1	4	1	1	1	1	6	1	1	1	21	54

The returns of the collieries raising coal and shale (boghead mineral) which have been collected and forwarded to me by the Mining Department show the following figures for the year 1891:—

COAL RETURN.

	Northern District	Southern and South western Districts	Western District	Total
Tons of round and small coal raised	tons cwt qr 2,853,251 13 1	tons. 837,873	tons cwt. qr 346,804 13 0	tons. cwt. qr. 4,037,929 6 1
Value of round and small coal raised	£ s d. 1,354,028 12 8	£ s. d 314,662 2 0	£ s d 74,104 17 10	£ s d. 1,742,795 12 6
Persons employed above ground	Number. 1 577	Number 457	Number. 68	Number. 2,102
Persons employed under ground	6,732	1,550	436	8,718

PETROLEUM OIL CANNEL COAL OR BOGHEAD MINERAL RETURN

Western and Southern District

Tons of boghead mineral or petroleum oil cannel coal	49,349 tons.
Value of boghead mineral or petroleum oil cannel coal raised	£78,160
Persons employed above ground	44
Persons employed under ground	216

NUMBER of men employed at new mines sinking and in course of development in the Northern District in 1891.

Company	Locality	Men employed		Totals	Remarks
		Under ground.	Above ground		
Messrs. Allan and Wilde and T Scanlon	Dunmore, Maitland	1	1	2	Prospecting.
Newcastle and Stockton Land and Coal Company	Road, Raymond Terrace and Stroud.	6	6	12	Proving quality of coal-seam
Messrs. Russell & Co	Denton Park, Maitland	4	3	7	
Messrs Ruttley and Wilde	Merewether	3	1	4	Getting coal.
Matthew Tulip	East Maitland	4	3	7	Sinking shaft.
Geo O Hyde	Willow Tree				Prospecting.
Henry Harper	Teralba	6		6	,,
Stanford Greta Coal-mining Co	Near Maitland	4		4	Heading in coal.
Toronto Coal Company	Lake Macquarie	4	2	6	,,
F. Marshalls	East Maitland	2		2	Sinking
James Berry	,,	2	2	4	,,

COKE manufactured during 1891.

District	Name of Company	Quantity.	Value
		t. c. q	£ s. d.
NORTHERN.			
Minmi	Brown's	40 0 0	50 0 0
Platisburg	Co operative	1,197 5 0	1,945 10 7
Wallsend	Purified C. & C. Co	6,200 0 0	9,300 0 0
Rix's Creek	Singleton C. & C. Co	1,136 17 0	1,136 0 0
East Maitland	Thornley	900 0 0	900 0 0
SOUTHERN			
Bulli	Bulli Coke Co.	9,141 0 0	9 141 0 0
Cardera	Australian Coal-mining Co	10,281 0 0	10,281 0 0
Wollongong	Do do	675 0 0	675 0 0
Para Meadow	Mount Pleasant C. & C Co	739 5 0	1,044 15 3
Total		30,310 7 0	34,473 5 10
ABSTRACT			
Newcastle District		9 474 2 0	13 331 10 7
Southern District		20,836 5 0	21,141 15 3
Total		30,310 7 0	34,473 5 10

Importation of Coke into South Australia.

With the exception of a few tons, all the coke imported into South Australia is used in smelting Broken Hill ores. It is interesting to glance at the following table, compiled by the South Australian Customs Department, showing the quantities and values of all that was imported during the year 1891 :—

Country.	Port Adelaide.		Port Pirie.	
	Tons.	Value.	Tons.	Value.
		£		£
Great Britain	10,263	13,688	60,658	112,352
Germany	8,356	18,725	20,232	35,493
Holland	3,376	8,475	.....	.....
Belgium	984	2,035	.....	.....
New South Wales	1,561	3,017	7,047	11,478
New Zealand	578	815	600	900
Victoria	39	69	.	.
Total	25,157	46,806	88,537	160,223

Total for the province, 113,694 tons, valued at £207,029.

COMPARATIVE statement of Returns for 1889–90.

	Men above ground.	Men below ground.	Tons of round and small coal.	Value.
NORTHERN DISTRICT.				
Australian Agricultural, Newcastle, Wallsend, Newcastle Coal, Lambton, Co-operative, Brown's, Duckenfield, South Waratah, Ferndale, Wickham and Bullock Island, Hetton, Burwood, Stockton, West Burwood, Northern, West Wallsend, New Lambton C Pit, Sunderland, Bloomfield, Thornley, Greta, New Anvil Creek, Rix's Creek, Ellesmere, New Park, Rosedale, Dulwich, Centenary, Monk-Wearmouth, Fern Valley, East Lambton, Ebbw Vale, South Wallsend, Summerhill, Northumberland, Young Wallsend, East Greta, Gartlee, Morriset, Burwood Extended, Hill End, Homeville, Greta, Maitland, North Stockton, Richmond Vale, Swansea, Wallarah, Shamrock Hill, Elemore Vale, Rotunda, Roschill, Durham, Marshall's, Denton Park, Hillside, North Borehole, Toronto and Morley, South Stockton, Seven-mile, Stanford and Greta	1,577	6,732	tons. cwt. qr. 2,853,251 13 1	£ s. d. 1,354,028 12 8
Total in 1891	1,577	6,732	2,853,251 13 1	1,354,028 12 8
„ 1890	1 405	6,315	2,120,046 6 1	995,931 2 6
Increase in 1891	172	417	733,205 7 0	358,097 10 2
SOUTH AND SOUTH-WESTERN DISTRICTS.				
Metropolitan, Coal Cliff, North Illawarra, Bulli, South Bulli, Osborne, Wallsend, Mount Kembla, Australian Kerosene Oil and Mineral Co, Bellambi, Corrimal, Mount Pleasant, Great Southern, South Clifton, Mount Pleasant New Pit and Box Vale	457	1,550	837,873 0 0	314,662 2 0
Total in 1891	457	1,550	837,873 0 0	314,662 2 0
„ 1890	525	1,434	597,598 0 0	217,162 13 11
Increase in 1891	.....	116	240,275 0 0	97,499 8 1
Decrease in 1891	68	.....	.....	.....
WESTERN DISTRICT.				
Katoomba, Main Camp, New South Wales Shale and Oil Co., Oakey Park, Vale, ZigZag, Vale of Clwydd, Lithgow Valley, Eskbank, Eskbank Old Tunnel, Hermitage, Cooerwull and Rawdon, Irondale, Cullen Bullen and Australian Kerosene Oil Company	68	436	346,804 13 0	74,104 17 10
Total in 1891	68	436	346,804 13 0	74,104 17 10
„ 1890	104	532	343,232 3 1	65,995 3 0
Decrease in 1891	36	96	.....	.....
Increase in 1891	.....	.....	3,572 9 11	8,109 14 10

From these returns we find that in the Northern District in the year under notice there has been an increase of 733,205 tons in the quantity of coal raised, and £358,097 in the value. Last year (1890) there was a decrease of 504,301 tons in the quantity, and £265,293 13s. 11d. in the value, which, as stated in my last year's (1890) report, was caused by "the closing of the mines through a struggle for mastery between labour and capital, commenced by the Maritime Labour Association, which lasted ten weeks, viz., from 28th August to 7th November. 1890, on which day most of the collieries resumed operations."

In

In the southern and south-western districts there has been an increase of 240,275 tons, and in its value of £97,499 Last year there was a decrease, due to the labour crisis, of 103,974 tons, and in its value of £73,002, which, as stated in my last year's (1890) report, was a very large decrease coming as it did after a decrease of 95,234 tons of coal raised, and a decrease of £47,874 in its value in the previous year (1889)

In the western district there has only been an increase of 3,572 tons, and in its value £8,109, whilst in the previous year (1890) there was an increase of 13,519 tons and a decrease of £15,464 in its value.

Years	Exports to Intercolonial Ports			Exports to Foreign Ports			Total Exports			Home consumption
	Quantity	Average per ton	Value	Quantity	Average per ton	Value	Quantity	Average per ton	Value	
	Tons	£ s d	£	Tons	£ s d	£	Tons	£ s d	£	Tons
1889	1,310 228	0 10 4 22	678,200	1 077,474	0 11 1 88	601,071	2 387,702	0 10 8 58	1,279 271	1 267,930
1890	1,149 944	0 10 6 96	608 338	672,330	0 11 3 31	379,065	1,821 874	0 10 10 04	987,173	1 239 002
1891	1,397,256	0 10 0 30	700,380	847,473	0 10 10 43	460,580	2,244,729	0 10 4 12	1,160,965	1,793,200
	3,857,028	0 10 3 60	1,986,918	2,597,277	0 11 1 12	1,440,721	6,454,305	0 10 7 44	3,427,409	4,360,132

Years	Total output and value			Coal raised per each person employed in and about the mines			Value of coal raised per each person employed in and about the mines			Tons of coal raised per each life lost		
	Quantity	Average per ton	Value	Quantity	Average tons per each person employed	Persons employed	Value	Average value per each person employed	Persons employed	Quantity	Average tons per each life lost	Lives lost
	Tons	£ s d	£	Tons	Tons	Number	£	£ s d	Number	Tons	Tons	Number
1889	3,655 632	0 8 11 10	1,632,848	3,655 632	355	10 277	1,632,848	158 17 8	10,277	3,655,632	89,161	41
1890	3,060,876	0 8 4 29	1,279,088	3,060,876	290	10 315	1,279 088	124 0 0	10,315	3 060 876	236 145	13
1891	4,037,929	0 8 7 58	1,742,795	4 037,929	373	10 820	1,742,795	161 1 5	10,820	4,037,929	192 282	21
	10,754,437	0 8 7 87	4,654,731	10,754,437	342	31,412	4,654,731	148 3 11	31,412	10,754,437	143,392	75

Northern District.

Number of persons employed in and about the mines	8,309
Number of persons employed under ground	6,732
Quantity of coal raised in tons	2,853,251
Number of non-fatal accidents	33
Number of lives lost by accidents	16
Persons employed per each non fatal accident	252
Persons employed per each life lost	519
Tons of round and small coal raised per each non-fatal accident	86,462
Tons of round and small coal raised per each life lost	178 328
Tons of coal raised per each person employed in and about the mines	343
Tons of coal raised per each person employed under ground	423
Value of coal raised	£1,354,028 12 8
Value of coal raised per each person employed in and about the mines	162 19 2
Value of coal raised per each person employed under ground	201 2 8

Southern and South-Western District.

Number of persons employed in and about the mines	2,007
Number of persons employed under ground	1,550
Quantity of coal raised in tons	837,873
Number of non-fatal accidents	21
Number of lives lost by accidents	5
Persons employed per each non fatal accident	95
Persons employed per each life lost	400
Tons of round and small coal raised per each non-fatal accident	39,899
Tons of round and small coal raised per each life lost	167,572
Tons of coal raised per each person employed in and about the mines	418
Tons of coal raised per each person employed under ground	540
Value of coal raised	£314,662 2 0
Value of coal raised per each person employed in and about the mines	156 15 7
Value of coal raised per each person employed under ground	203 0 1

Western District.

Number of persons employed in and about the mines	504
Number of persons employed under ground	436
Quantity of coal raised in tons	346,804 13 0
Number of non-fatal accidents	Nil
Number of lives lost by accidents	Nil
Persons employed per each non fatal accident	No non fatal accident
Persons employed per each life lost	No life lost
Tons of round and small coal raised per each non fatal accident	No non-fatal accident
Tons of round and small coal raised per each life lost	No life lost.
Tons of coal raised per each person employed in and about the mines	688
Tons of coal raised per each person employed under ground	795
Value of coal raised	£74,104 17 10
Value of coal raised per each person employed in and about the mines	147 0 7
Value of coal raised per each person employed under ground	169 19 3

The

The following table shows comparisons between the year under notice and the preceding year, as regards the proportion the accidents and deaths bear to the person employed, and the quantity and value of the coal for each person employed in and about the mines and under ground in the Northern, Southern, and Western Districts

	Northern District		Southern and South western District		Western District	
	1890	1891	1890	1891	1890	1891
Number of persons employed in and about the mines	7 720	8 309	1,999	2 007	636	504
Number of persons employed under ground	6 310	6,732	1 494	1,950	532	436
	£ s d					£ s d
Quantity of coal raised in tons	2,120,046 6 1	2,853 251	597,598	837,873	343,232 3 1	346,804 13 0
Number of non fatal accidents	28	33	6	21	2	Nil
Number of lives lost by accident	9	16	2	5	2	Nil
Persons employed per each non fatal accident	275	252	326	99	318	No non fatal accident
Persons employed per each life lost	857	519	979	400	318	No life lost
Tons of round and small coal raised per each non fatal accident	75,716	86 462	99,599	39,899	171,616	No non fatal accident
Tons of round and small coal raised per each life lost	235 560	178 378	298 799	167,572	171,616	No life lost
Tons of coal raised per each person employed in and about the mines	274	343	305	418	539	688
Tons of coal raised per each person employed under ground	335	423	416	540	645	795
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
Value of coal raised	99,931 2 6	1,354 028 12 8	217 162 13 11	314,662 2 0	65,995 3 0	74,104 17 10
Value of coal raised per each person employed in and about the mines	129 0 1	162 19 2	110 17 0	156 15 7	103 15 3	147 0 7
Value of coal raised per each person employed under ground	157 14 2	201 2 8	151 8 8	203 0 1	124 1 0	169 19 3

The following statistical return, furnished by Mr. W R Logan, the Collector of Customs at Newcastle, shows the greatest increase in the export of coal from that port has been —

United States, 173,934 tons, Victoria, 142,763, South Australia, 122,913, Phillipine Islands, 24,179, Singapore, 23,290, Chili, 19,732, Western Australia, 19,555, Java, 19,158, Tasmania, 15,441, New Caledonia, 10,561, Mauritius, 10,420, Straits Settlements, 8,454, Queensland, 8,395, Sandwich Islands, 8 280, Mexico, 5,467, New Zealand, 5,385, and Fiji, 4,350 tons, and the greatest decreases are to India, 9,432, Hong Kong, 5,148, South Sea Islands, 2,941, and 1 213 tons

The export of coke shows a large decrease as follows —South Australia, 2,229 tons, Victoria, 3,145, New Caledonia, 504

NEWCASTLE —New South Wales export of Coal during the years 1890 and 1891.

Countries	1890	1891	Increase	Decrease
	Tons	Tons	Tons	Tons.
Victoria	725,868	868,631	142,763	
New Zealand	154,773	160,158	5,385	
South Australia	130,073	252,986	122,913	
Queensland	5,279	13,674	8,395	
Tasmania	51,909	67,350	15,441	
Western Australia	14,902	34,457	19,555	
Hong Kong	41,185	36,037		5,148
New Guinea		7,013	7,013	
United States	145,935	319,869	173,934	
Straits Settlements		8,454	8,454	
Java	24,531	43,689	19,158	
Ecuador		679	679	
New Caledonia	6,702	17,263	10,561	
Celebes Islands		2,048	2,048	
Mauritius	7,009	17,429	10,420	
Fiji	7,446	11,796	4,350	
India	25 522	16,090		9,432
Phillipine Islands	28,603	52,782	24,179	
Peru	24 272	23,976		296
Chili	167,726	187,458	19,732	
Sandwich Islands	26 509	34,789	8,280	
Mexico	5,564	11,031	5,467	
South Sea Islands	4,101	1,160		2,941
Sumatra	966	1,330	364	
Singapore ..	20,904	44,194	23,290	
China	931	930		1
Siam	1,213			1,213
Guam	3,115	5,526	2,411	
United Kingdom	3,000	*3,930	930	
Total	1,628,038	2,244,729	635,722	19,031

COKE.

Queensland		11	11	
South Australia	2,829	600		2,229
Victoria	3,591	446		3,145
New Zealand	19	40½	21½	
New Caledonia	759	255		504
Tasmania		30	30	
Sandwich Islands	21			21
Total	7,219	1,382½	62½	5,899

* Bunker coal

DECENNIAL RETURN.—Port of Newcastle.—Foreign and Intercolonial Ports.

Year.	Vessels cleared outwards for Foreign and Intercolonial Ports.		Total value of Imports from Foreign and Intercolonial Ports.	Quantity and value of Coal exported to Foreign and Intercolonial Ports.		Total value of Exports (inclusive of Coal) to Foreign and Intercolonial Ports.	Total amount of Revenue collected.
	No. of Vessels.	Tonnage.		Tons.	Value.		
			£ s. d.		£ s. d.	£ s. d.	£ s. d.
1882	1,143	737,772	632,073 0 0	1,080,446	527,575 0 0	618,586 0 0	76,799 12 7
1883	1,305	926,956	658,601 0 0	1,359,505	722,428 0 0	1,440,752 0 0	87,844 12 0
1884	1,433	1,066,462	788,653 0 0	1,505,395	835,070 0 0	1,699,047 0 0	108,720 0 0
1885	1,388	1,076,346	930,200 0 0	1,552,136	832,495 0 0	1,927,626 0 0	108,834 18 6
1886	1,335	1,097,382	843,474 0 0	1,544,694	828,189 0 0	1,398,728 0 0	119,131 15 0
1887	1,334	1,154,439	781,796 0 0	1,658,386	886,921 0 0	1,788,664 0 0	117,543 7 10
1888	949	815,516	758,586 0 0	1,580,337	852,083 0 0	2,067,460 0 0	126,036 7 9
1889	1,277	1,126,892	924,150 0 0	2,091,557	1,102,722 0 0	1,894,321 0 0	132,018 0 1
1890	916	842,180	816,694 0 0	1,628,038	875,197 0 0	1,768,379 0 0	124,782 14 10
1891	1,425	1,476,097	877,063 0 0	2,244,729	1,160,965 0 0	2,032,522 0 0	166,048 2 9

RETURN showing the quantity raised, price per ton, and value of the boghead mineral or petroleum oil (cannel coal), commonly called kerosene shale, from 1865 to 1891 inclusive.

Year.	Tons.	Average price per ton.	Value.	Year.	Tons.	Average price per ton.	Value.
		£ s. d.	£ s. d.			£ s. d.	£ s. d.
1865	570	4 2 5·47	2,350 0 0	1878	24,371	2 6 11·49	57,211 0 0
1866	2,770	2 18 10·48	8,154 0 0	1879	32,519	2 1 10·96	66,930 10 0
1867	4,079	3 14 9·21	15,249 0 0	1880	19,201	2 6 7·03	44,724 15 0
1868	16,952	2 17 7·11	48,816 0 0	1881	27,894	1 9 2·59	40,748 0 0
1869	7,500	2 10 0·00	18,750 0 0	1882	48,065	1 15 0·00	84,114 0 0
1870	8,580	3 4 3·18	27,570 0 0	1883	49,250	1 16 10·77	90,861 10 0
1871	14,700	2 6 3·91	34,050 0 0	1884	31,618	2 5 7·85	72,176 0 0
1872	11,040	2 11 11·91	28,700 0 0	1885	27,462	2 8 11·62	67,239 0 0
1873	17,850	2 16 6·55	50,475 0 0	1886	43,563	2 5 10·79	99,976 0 0
1874	12,100	2 5 1·48	27,300 0 0	1887	40,010	2 3 10·43	87,761 0 0
1875	6,197	2 10 2·22	15,500 0 0	1888	34,896	2 2 2·26	73,612 0 0
1876	15,998	3 0 0·00	47,994 0 0	1889	40,561	1 18 3·55	77,666 15 0
1877	18,963	2 9 0·82	46,524 10 0	1890	56,010	1 17 2·07	104,103 7 6
				1891	40,349	1 18 8·90	78,160 0 0

THE following notices were received during the year, of new mines opening out, or in course of development, mines reopened, sinking pits, driving tunnels, change of management, and names of collieries:—

Dunmore Estate near Maitland.

On 26th January, Mr. Allan Wilde, on behalf of himself and T. Scanlan, gave notice that he would on the 28th commence to sink for coal on the Dunmore Estate, situate between the Patterson and Hunter Rivers.

Bulli Pass, Bulli.

On 3rd February, Mr. John Williams, on behalf of the Bulli Pass Coal and Coke Company (Limited), gave notice that he had reopened the B pit at Bulli.

Seven-mile, Stroud Road.

On 4th February, Mr. G. W. Pepper, agent for the Newcastle and Stockton Land and Coal Company, notified having recommenced operations in Garrett's tunnel, 7 miles from Raymond Terrace, to test the coal-seam.

Denton Park, West Maitland.

On 18th February, Messrs. J. Russell & Co., notified that they were sinking a trial-shaft for coal at a place beyond West Maitland, known as Denton Park.

Burwood, Merewether.

On 25th March, Mr. James Ruttley, junior, notified his intention to start a colliery at the head of the Newcastle Coal Company's B pit line, to be known as the Hillside Colliery.

Maryvale, Wellington.

On 30th April, Mr. C. F. Lambert gave notice on behalf of the Maryvale Coal-mining Company, of their intention to hew and raise coal from a new shaft, situate at Maryvale. It is a depth of 55 feet, carefully timbered from top to bottom, a ladder-way put down, and will be worked by experienced miners under a competent manager.

Rathluba, East Maitland.

On 4th May, Mr. Matthew Tulip notified of having commenced to sink a shaft on the Rathluba Estate, east side of Sugarloaf Road.

Willow Tree, near Murrurundi.

On 15th May, Mr. G. O. Hyde gave notice that he was sinking shafts prospecting for shale near Willow Tree, Liverpool Ranges.

Co-operative Colliery.

On 3rd June, Mr. James Fletcher, manager, gave notice that he was sinking a new furnace-shaft in connection with the colliery.

Tickhole,

Tickhole, Teralba.

On 3rd June, Mr. Henry Harper gave notice that he had been for some time prospecting at the Tickhole by tunnel with a view of opening out a colliery.

Hartley Vale.

On 3rd August, Mr. William Hall, general manager for the New South Wales Shale and Oil Company, gave notice that he had commenced sinking a working shaft, estimated depth 60 feet.

Stanford, Greta, near Maitland.

On 27th July, Mr. Henry Trenchard gave notice that he was driving a tunnel for the purpose of reaching a coal seam on mineral lease 6 or 7, parish of Stanford.

Toronto, Lake Macquarie.

On 14th September, Mr. T. J. Evans, on behalf of the Toronto Coal Company, notified that the company had been formed to work coal on the Toronto Estate (Coal Point), and that operations will be commenced forthwith.

Seven-mile, Stroud Road.

On 11 September, Mr. A. Thomas, mining engineer, notified that prospecting operations had been resumed at Garrett's old tunnel.

Marshall's Pit, East Maitland.

On 25th September, Mr. F. Marshall notified that he has started to sink a shaft on a piece of land close to Fitzpatrick's old pit, East Maitland.

North Borehole Pit, East Maitland.

On 8th October, Mr. James Berry notified that he was about opening a new colliery, near Thornley colliery, to be known as the "North Borehole."

Stockton Colliery.

On 3rd November, Mr. D. M'Auliffe, colliery manager, notified having commenced to sink their third shaft at Stockton.

COAL-MINES ABANDONED DURING THE YEAR 1891.

Sunderland Colliery.

On 22nd February, Mr. Matthew Tulip notified that he had ceased to mine for coal at Sunderland colliery, Four-mile Creek, on the 3rd instant.

Cooerwull, Bowenfells.

On 28th March, Mr. W. Thompson notified that his lease having expired on the 28th February, he now has no further connection with the mine.

Liddle's Pit, Waratah.

On 20th May, Susan Liddle notified that the pit (Liddle's) was finished.

COAL-MINING OPERATIONS SUSPENDED DURING THE YEAR 1891.

Tickhole, Teralba.

On 13th July, Mr. Henry Harper notified that he had suspended operations pending the completion of some preliminary matters in forming a company.

Fassifern.

On 23rd July, Mr. Charles T. Starkey, accountant, of Sydney, on behalf of the Northumberland Land and Coal Company (Limited), notified that the working of the mine at Fassifern is now stopped, pending the reconstruction of the company.

Fern Valley Colliery.

On 26th October, Mr. Henry Evans notified having ceased operations at the above colliery for the present.

South Stockton Colliery, Lake Macquarie.

On 5th December, Mr. Thomas Afflick, colliery manager, notified that work had been temporarily discontinued at the above colliery, Fennell Bay.

Garrett's Tunnel, Seven-mile, Stroud Road.

On 11th December, Mr. A. Thomas notified that prospecting operations at Garrett's Tunnel, Seven-mile Creek, that were carried on by the Newcastle and Stockton Land and Coal Company have been discontinued since 30th November.

CHANGE IN COLLIERY MANAGEMENT.

Burwood Colliery.

On 2nd September, Mr. J. J. Weston notified a change in the colliery management, and that Mr. John L. C. Rae was appointed colliery manager on the 1st instant to this company, *vice* Mr. W. B. Pendleton.

The Northern Colliery.

On 20th November, Mr. Benjamin Chadwick notified, on behalf of the Northern Coal Company (Limited), that Mr. Morgan Jones had been appointed manager of the colliery at Teralba in place of Mr. W. D. Bedlington.

Changing Name of Colliery.

Dudley Colliery, late South Burwood.

On the 31st December, Mr. John M. Paxton, of Sydney, furnished the following notice :—

"Notice is hereby given that, by resolution passed at an extraordinary general meeting of shareholders held on the 16th November, 1891, confirmed as a special resolution at a like meeting on the 9th December, 1891, and approved of by His Excellency the Governor, with the advice of the Executive Council, in accordance with clause 12 of the "Companies Act," the name of the South Burwood Coal Company (Limited), has this day been changed to the Dudley Coal Company (Limited), and certificate of incorporation obtained accordingly."

Complaints made of Deficient Ventilation, &c.

I have as usual inquired into sundry complaints made with respect to deficient ventilation, and non-compliance with the requirements of the provisions of the Coal-mines Regulation Act, 1876.

Proceedings, where necessary, have been taken to enforce the requirements of the Act, and reports furnished thereon.

I have compiled for this report a southern district plan showing the position and area of lands now held by colliery-owners with the outcrops, thickness, and dip of the coal-seams where proved shown thereon ; also a vertical section of the coal-seams and strata from the Hawkesbury sandstones, at the Bulli Pass Road, to the bottom of the Bulli Company's recent borehole put down between the Government South Coast Railway and the Bulli Company's jetty.

On this section, I have shown the fossil flora (named by Mr. Etheridge, the Government Palæontologist) from the shale roof of the No. 1 coal-seam, collected by Mr. Evans, the Bulli Company's colliery manager, and myself, which plants I forwarded to the Government Geologist (Mr. Pittman) on 23rd November, 1891. It also shows the conformability of the strata from the Hawkesbury sandstones down to the No. 1 and other underlying coal-seams proved by adits, shafts, and boreholes. A similar conformability exists between the Coal Cliff, South Clifton, North Illawarra, Bellambi, South Bulli, Corrimal (Southern Coal Company) Mount Pleasant, Mount Keira and Kembla top (No. 1) seam of coal and its roof.

I have also visited numerous localities for the purpose of reporting, &c., upon applications to mine coal on Crown lands, work done thereon, and number of men employed, and checked and reported on coal royalties, as they became due by colliery proprietors, for coal wrought from under Crown lands.

In conclusion, I have only to add that there were 103 collieries and coal-mines in course of development, and four shale (Boghead mineral) mines under inspection, and that notices have been received of sixteen new mines opening out, or in course of development, sinking, reopening, or tunnelling; of three being abandoned, and five suspending operations; also that the year's returns show an increase in the Northern District of 733,205 tons of round and small coal raised, and £358,097 in value; in the south and south-western an increase of 240,275 tons, and £97,499 in value; and in the western an increase of 3,572 tons, and an increase of £8,109 in its value.

JOHN MACKENZIE, F.G.S.,
Examiner of Coal-fields.


DEPARTMENT OF MINES.
PLAN SHEWING
THE OUTCROP THICKNESS AND DIP,
OF THE COAL SEAMS IN THE
ILLAWARRA DISTRICT.
New South Wales.
Also the Area of Coal Land held by each Company and the Depth at which the Coal is wrought
Compiled by John Mackenzie, FGS, Examiner of Coal Fields
Scale of Chains
National Park
Coghlan and Company
Mount Westmacott
North Illawarra Coal Mining Company's Property
Coal Cliff
Long Pt
Bulli Pt
Woonona Pt
Bellambi Pt
Towradgi Pt
Wollongong Harbour
WOLLONGONG
Mount Keira
SOUTH PACIFIC OCEAN
CATARACT RIVER
HACKING RIVER

Section showing the position of the recently found Flora in the roof of the Bulli No. 1 coal seam & the strata and seams of coal proved to exist below the Hawkesbury sandstones on the Bulli Coal Companys property at Bulli

By John Mackenzie F.C.S.
Examiner of Coal Fields 1892.

(Sig 874.)

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE SYDNEY, NEW SOUTH WALES.

The Half yearly Report on the Collieries in the Northern District in New South Wales, and accidents investigated by the Inspectors of Collieries during the six months ending December 31st, 1891.

The Examiner of Coal-fields, Sydney,— Newcastle, 30 January, 1892.

Sir,

Pursuant to the provisions of clause 20 in the Coal-mines Regulation Act, 1876, we have the honor to transmit to you this our six-monthly report on the state of the various collieries in the Northern District, for the half-year ending, December 31st, 1891.

The total number of collieries and coal-mines in course of development under inspection in the Northern District during the time embraced in this report is seventy-three.

Two collieries, viz., Pride of Ferndale and Liddle's are not included as they are now finally abandoned.

The following collieries have been added, viz., Marshall's, Stanford (Greta), Coal Point, and North Borehole.

In addition to the above there is one shale mine.

Present State of Mines.

A. A. Co's., No. 2 Colliery.—There are about 300 men, &c., employed in this mine during the day, and the total quantity of air circulating in the mine is about 100,000 cubic feet per minute. The face workings are divided into seven separate and distinct districts none of which are overcrowded. The Act in other respects also is complied with.

A. A. Co's., New Winning.—About 240 men, &c., are employed in this mine during the day, and are supplied with about 80,000 cubic feet of air per minute in seven splits. The districts and number of men in each district are in compliance with the provisions of the Act. An adit has been driven from the surface to the workings of this mine, this adit is 415 yards in length and has an inclination of 6 inches to the yard, it is 7 feet high, and 9 feet wide, by means of this adit, which is a travelling road, persons can at all times pass in or or out of the mine. The Act is complied with in other respects also.

Newcastle Wallsend Colliery.—There are about 700 men, &c., employed in this mine during the day, and the total qnantity of air circulating in the mine is about 170,000 cubic feet per minute. The face workings are divided into fifteen separate and distinct districts. The districts and number of men in each district are in accordance with the provisions of the Act. The Act in other respects also is complied with.

Newcastle Company's Colliery.—About 430 men, &c., are employed in this mine during the day. The total quantity of air circulating in the mine is about 90,000 cubic feet per minute. The face workings are divided into eight separate and distinct districts none of which are overcrowded. A large ventilating furnace is being erected at the bottom of the new air-shaft which is now connected with the B pit workings, and when in operation the ventilation of this colliery will be equal to any in the Newcastle District. The provisions of the Act are complied with in other respects.

Co-operative Colliery.—There are about 300 men, &c., employed in this mine during the day, and the total qnantity of air circulating in the mine is about 60,000 cubic feet per minute. The face workings are divided into five separate and distinct districts and the number of men in each district is in accordance with the provisions of the Act. The Act in other respects also is complied with.

Lambton Colliery.—About 360 men, &c., are employed in this mine during the day, and are supplied with about 100,000 cubic feet of air per minute. The face workings are divided into eleven separate and distinct districts none of which are overcrowded. The Act is complied with in other respects also.

Burwood Colliery.—There are about 250 men, &c., employed in this mine during the day, and the total quantity of air circulating in the mine is about 70,000 cubic feet per minute. The face workings are divided into four separate and distinct districts none of which are overcrowded. The Act in other respects also is complied with.

Burwood Colliery (Third shaft.)—This shaft has reached the coal-seam and has now been connected with the old pit workings, and is now part of Burwood Colliery. The head-gear and other surface arrangements are being erected. The provisions of the Act are complied with.

Stockton Colliery.—About 170 men, &c., are employed in this mine, and the quantity of air circulating in the mine is about 60,000 cubic feet per minute. The face workings are divided into three separate and distinct districts, none of which are overcrowded. A third shaft has been commenced to connect with the workings of this colliery, and is now being proceeded with as quickly as possible. The provisions of the Act are complied with.

Wickham and Bullock Island Colliery.—There are about 340 men, &c., employed in this mine during the day. The total quantity of air circulating in the mine is about 50,000 cubic feet per minute. The face workings are divided into seven separate and distinct districts, none of which are overcrowded. The Act in other respects also is complied with.

Hetton Colliery.—About 280 men, &c., are employed in this mine during the day, and are supplied with about 70,000 cubic feet of air per minute. The face workings are divided into seven districts. The districts and number of men in each district are in compliance with the provisions of the Act. The Act is also complied with in other respects.

Ferndale Colliery.—About 30 men, &c., are employed in this mine during the day, and the quantity of air circulating in the mine is about 10,000 cubic feet per minute. The provisions of the Act are complied with.

Brown's Colliery.—There are about 300 men, &c., employed in this mine during the day, and they are supplied with about 40,000 cubic feet of air per minute. The districts are in accordance with the provisions of the Act. The Act in other respects also is complied with.

Duckenfield Colliery.—About 260 men, &c., are employed in this mine during the day. The total quantity of air circulating in the mine is about 40,000 cubic feet per minute. The face workings are divided into six separate and distinct districts, none of which are overcrowded. The provisions of the Act are complied with.

South

South Waratah Colliery.—There are about 220 men, &c., employed in this mine during the day, and they are supplied with about 40,000 cubic feet of air per minute. The districts and number of men in each district are in accordance with the provisions of the Act. The Act in other respects also is complied with.

Tickhole Colliery.—All work at this mine is temporarily suspended.

New Lambton C. Pit.—About 120 men, &c., are employed in this mine during the day. The quantity of air circulating in the mine is about 25,000 cubic feet per minute. The provisions of the Act are complied with.

Ebbw Vale Colliery.—About 30 men, &c., are employed in this mine during the day, and are supplied with about 12,000 cubic feet of air per minute. The Act in other respects also is complied with.

West Burwood Colliery.—About 20 men, &c., are employed in this mine, and are supplied with about 5,000 cubic feet of air per minute. The Act is complied with.

Hillside Colliery.—Only 2 men are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Fern Valley Colliery.—All work at this mine is temporarily suspended.

Rosehill Colliery.—All work at this mine is temporarily suspended.

East Lambton Colliery.—There are about 40 men, &c., employed in this mine during the day, and they are supplied with about 8,000 cubic feet of air per minute. The provisions of the Act are complied with.

Hill End Colliery.—This mine has been under inspection during a portion of the half-year, but is now finally abandoned.

Rotunda Colliery.—Two men are employed in this mine. The ventilation is satisfactory, and the Act complied with.

Enterprise Colliery.—All work at this mine is temporarily suspended.

Elemore Vale Colliery.—Ten men are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Summerhill Colliery.—About 15 men, &c., are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Dudley Colliery (formerly South Burwood Colliery).—There are about 110 men, &c., employed in this mine during the day. The quantity of air circulating in the mine is about 20,000 cubic feet per minute. The provisions of the Act are complied with.

Durham Colliery.—There are 30 men, &c., employed in connection with this mine. The quantity of air circulating in the mine is about 10,000 cubic feet per minute. The provisions of the Act are complied with.

Burwood Extended Colliery.—There are about 38 men, &c., employed in this mine during the day, and they are supplied with about 24,000 cubic feet of air per minute. The provisions of the Act are complied with.

Morisset Colliery.—Two men are employed in this mine. The ventilation is satisfactory, and the Act complied with.

Swansea Colliery.—One man is employed in this mine. The ventilation is satisfactory, and the Act complied with.

Wallarah Colliery.—There are about 80 men, &c., employed in this mine during the day. The quantity of air circulating in the mine is about 18,000 cubic feet per minute. The provisions of the Act are complied with.

Coal Point Colliery.—Four men are employed in this mine. The ventilation is satisfactory, and the Act complied with.

Northumberland Colliery.—All work at this mine is temporarily suspended.

Northern Colliery.—About 180 men, &c., are employed in this mine during the day. The quantity of air circulating in the mine is about 30,000 cubic feet per minute. The provisions of the Act are complied with.

South Stockton Colliery.—All work at this mine is temporarily suspended.

Gartlee Colliery.—About 10 men, &c., are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Teralba Colliery.—All work at this mine is temporarily suspended.

South Wallsend Colliery.—About 100 men, &c., are employed in this mine during the day, and are supplied with about 12,000 cubic feet of air per minute. The provisions of the Act are complied with.

West Wallsend Colliery.—There are about 220 men, &c., employed in this mine during the day. The quantity of air circulating in the mine is about 48,000 cubic feet per minute. The Act in other respects also is complied with.

Monkwearmouth Colliery.—All work at this mine is at present temporarily suspended.

Killingworth Colliery.—Boring operations have been carried on for some months, and at present a few men are employed in driving from the shaft to open up the seam.

Young Wallsend Colliery.—There are about 120 men, &c., employed in this mine during the day. The total quantity of air circulating in the mine is about 20,000 cubic feet per minute in two distinct currents. The provisions of the Act are complied with.

Seven-mile Creek Colliery.—All work at this colliery is at present temporarily suspended.

North Stockton Colliery.—There are 8 men, &c., employed in this mine during the day, and they are supplied with about 2,000 cubic feet of air per minute. The provisions of the Act are complied with.

Thornley Colliery.—Nine men are employed in this mine during the day. The ventilation is satisfactory, and the Act complied with.

Bloomfield Colliery.—Nine men are employed in this mine during the day. The ventilation is satisfactory, and the Act complied with.

Sunderland Colliery.—Six men are employed in connection with this new winning. The Act is complied with.

Marshall's Colliery.—Two men are employed in this mine. The ventilation is satisfactory, and the Act complied with.

Buttai Colliery.—All work at present suspended.

Shamrock Hill Colliery.—All work at this mine is at present temporarily suspended.

North Borehole Colliery.—Two men are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Richmond Vale Colliery.—A seam of coal has been reached in this new winning, but all work is at present temporarily suspended.

Stanford Greta Colliery.—This is a new mine. An adit is being driven, and a shaft being sunk to reach a seam of coal. Four men are at present employed. The Act is complied with.

Maitland Colliery.—About 30 men, &c., are employed in this colliery, and are supplied with about 4,000 cubic feet of air per minute. The provisions of the Act are complied with.

Homeville Greta Colliery.—Three men are at present employed in this mine. The ventilation is satisfactory, and the Act is complied with.

East Greta Colliery.—Ten men are employed in this mine during the day. The ventilation is satisfactory, and the Act in other respects also complied with.

Denton Park Colliery.—All work at this mine is at present temporarily suspended.

Dunmore Colliery.—All work at present suspended.

Greta Colliery.—There are about 300 men, &c., employed in this mine during the day. The quantity of air circulating in the mine is about 90,000 cubic feet per minute. The face workings are divided into six separate and distinct districts, none of which are overcrowded. The provisions of the Act are complied with.

Leconfield Colliery.—All operations at this mine are at present temporarily suspended.

New Anvil Creek Colliery.—All underground work at this colliery is at present temporarily suspended, owing to extensive alterations on the surface to facilitate the loading of coal.

Ellesmere Colliery.—About 25 men, &c., are employed in this mine, and are supplied with about 7,000 cubic feet of air per minute. The Act is complied with.

New Park Colliery.—There are about 20 men, &c., employed in this mine. The quantity of air circulating in the mine is about 5,000 cubic feet per minute. The provisions of the Act are complied with.

Elliott's Colliery.—Five men are employed in this mine. The ventilation is satisfactory, and the Act is complied with.

Rosedale Colliery.—Eleven men are employed in this mine. The ventilation is satisfactory, and the provisions of the Act complied with.

Dulwich Colliery.—Eight men are employed in this mine, and are supplied with about 3,000 cubic feet of air per minute. The Act is complied with.

Oakvale Colliery.—All work at this mine is at present temporarily suspended.

Morley Colliery.—Very little coal being sent away from here at present, as the trade is very slowly developing. When at work, 2 men and 1 boy are employed. The mine is well timbered. No cause of complaint.

Gladstone Colliery.—All work at this mine is at present temporarily suspended.

Centenary Colliery.—About 30 men, &c., are employed in this mine, and are supplied with about 9,900 cubic feet of air per minute. This air current is well sustained, and everything appeared to be in good order on last inspection. No cause of complaint.

Great Northern Shale Mine.—All work in this mine is at present suspended.

Accidents in Mines.

The accidents investigated by us in the Northern District during the six months ending December 31st, 1891, are 35 in number. Of this number 26 were fully reported on at the time, and 9 were found to be of a minor character, and full reports were not written thereon.

Of the 26 accidents in the annexed tabulated list, 8 proved fatal, 6 from falls of coal, 1 from fall of coal and stone, and 1 from injury by skip. Of the non-fatal accidents, 12 were caused by falls of coal, 3 from injury by skips, 2 from falls of stone, and 1 from fall of coal and stone.

The first of the fatal accidents occurred to a miner named John Ellwood, by a fall of coal in New Lambton C Pit, on July 7th. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Adamstown, on July 8th. The inquest was attended by Inspector Bates, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The second fatal accident occurred to a miner named Antoine Siedenkamp, by a fall of coal in the Burwood Colliery, on August 7th. The injured man died on August 18th. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Newcastle, on August 19th. The inquest was attended by Inspector Dixon, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The third fatal accident occurred to a miner named Edward William Disney, by a fall of coal in Burwood Colliery, on September 21st. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Merewether, on September 22nd. The inquest was attended by Inspector Dixon, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The fourth fatal accident occurred to a miner named Nathan Bannister, by a fall of coal in Stockton Colliery, on October 13th. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Stockton, on October 14th. The inquest was attended by Inspector Humble, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The fifth fatal accident occurred to a miner named James Watson, by a fall of coal and stone in the A.A. Co.'s No. 2 Pit, on November 10th. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Newcastle, on November 11th. The inquest was attended by Inspector Bates, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The sixth fatal accident occurred to a horse-driver named Herbert Hamilton Beaumont, by the upsetting of an empty skip in the A. A. Co's New Winning, on November 17th. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Merewether, on November 18th. The inquest was attended by Inspector Bates, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The seventh fatal accident occurred to a miner named Thomas William Parkes, by a fall of coal in Newcastle Wallsend Colliery, on 19th November. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Lambton, on November 20th. The inquest was attended by Inspector Humble, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The

The eighth fatal accident occurred to a miner named John Manning, by a fall of coal in the A A. Company's No. 2 Pit, on 23rd November. The District Coroner, G. C. Martin, Esq., held an inquest on the body of deceased at Newcastle. on November 24th. The inquest was attended by Inspector Humble, who heard all the evidence, and fully agrees with the verdict of "accidental death," as returned by the Jury.

The first of the non-fatal accidents occurred to a miner named Morris Chalmers, at Brown's Colliery, on July 21st, and resulted in fracture of collar-bone by fall of coal.

The second occurred to a wheeler named Luke Conn, at the Co-operative Colliery, on July 29th, and resulted in injury to hand by skips.

The third occurred to a miner named Walter Gough, by a fall of coal in South Wallsend Colliery, on August 4th, resulting in fracture of thigh.

The fourth occurred to a miner named Alfred Palmer, by a fall of coal in Greta Colliery on August 18th, resulting in severe injuries to back.

The fifth occurred to a miner named Henry Banfiell, by a fall of coal in South Waratah Colliery, on August 21st, resulting in fracture of leg.

The sixth occurred to a wheeler named Joseph Charles Williams, by injury from skips in Burwood Colliery, on September 3rd, resulting in fracture of thigh.

The seventh occurred to a miner named Robert M'Blane, by injury from skips in Brown's Colliery, on September 28th, resulting in fracture of ribs.

The eighth occurred to a miner named Richard Kelly, by fall of coal in Burwood Extended Colliery, on October 19th, resulting in severe scalp wound.

The ninth occurred to a miner named Thomas Lennox, by fall of coal in Burwood Colliery, on October 21st, resulting in injury to leg.

The tenth occurred to a miner named Samuel Hope, by fall of coal in the Co-operative Colliery, on October 22nd, resulting in injury to back.

The eleventh occurred to a miner named Alfred Pattison, by fall of coal and stone in the Co-operative Colliery, on November 2nd, resulting in fracture of ribs.

The twelfth occurred to a miner named Enoch Gould, by a fall of stone in South Waratah Colliery, on November 16th, resulting in fracture of thigh.

The thirteenth occurred to a miner named Thomas Rotherham, by a fall of coal in the A.A. Company's No. 2 Pit, on November 23rd, resulting in severe internal injuries.

The fourteenth occurred to a miner named Robert Mason, by a fall of coal in the Hetton Colliery, on November 25th, resulting in fracture of thigh.

The fifteenth occurred to a miner named George Clarke, by a fall of coal in the Young Wallsend Colliery, on November 27th. resulting in fracture of ribs.

The sixteenth occurred to a miner named John Potts, by a fall of coal in the New Lambton C Pit, on December 5th, resulting in fracture of leg.

The seventeenth occurred to a miner named Alex. Blair, by a fall of coal in Summerhill Colliery, on December 11th, resulting in fracture of ribs.

The eighteenth occurred to a miner named Thomas Phillips, by a fall of stone in East Lambton Colliery, on December 24th, resulting in fracture of leg.

There were no accidents on the surface.

The tabulated list of accidents is hereto appended.

We have, &c,
JOHN DIXON,
THOS. L. BATES,
WM. HUMBLE,
Inspectors of Collieries.

TABULATED LIST of fatal and non-fatal accidents in the Northern Collieries of New South Wales, investigated by the Inspectors of Collieries during the half-year ending 31st December, 1891.

No.	Date.	Name of Colliery.	Person killed or injured.	Occupation.	Remarks on nature and extent of injuries.	Non-fatal.				Fatal			Total.	
						Falls of coal.	Injury by skip.	Fall of coal & stone.	Fall of stone.	Fall of coal.	Fall of coal & stone.	Injury by skips.	Non-fatal.	Fatal.
	1891.													
1	July 7	New Lambton C Pit ...	John Ellwood	Miner .	Fatal injury by fall of coal					1				1
2	,, 21	Browns	Morris Chalmers . . .	,,	Collar bone broken by fall of coal .	1							1	
3	,, 29	Co operative .	Luke Conn . .	Wheeler	Hand crushed by skips		1						1	
4	Aug. 4	South Wallsend	Walter Gough . . .	Miner	Fracture of thigh by fall of coal	1							1	
5	,, 7	Burwood	Antoine Siederkamp . ..	,,	Fatal injury by fall of coal. Died Aug. 18					1				1
6	,, 18	Greta	Alfred Palmer	,, ..	Injury to back by fall of coal	1							1	
7	,, 21	South Waratah .	Henry Banfield .	,, ..	Fracture of leg by fall of coal	1							1	
8	Sept. 3	Burwood	Joseph Charles Williams .	Wheeler	Thigh fractured by skips		1						1	
9	,, 21	,, ...	Edward William Disney	Miner	Fatal injury by fall of coal					1				1
10	,, 28	Browns	Robert M'Blane	,,	Fracture of ribs by skips ..		1						1	
11	Oct. 12	Stockton	Nathan Bannister .. .	,, .	Fatal injury by fall of coal . . .					1				1
12	,, 19	Burwood Extended .. .	Richard Kelley	,, .	Severe scalp wound by fall of coal	1							1	
13	,, 21	Burwood	Thomas Lennox	,,	Injury to leg by fall of coal	1							1	
14	,, 22	Co-operative	Samuel Hope	,, . .	Injury to back by fall of coal .	1							1	
15	Nov. 2	,, ...	Alfred Pattison	,, ..	Fracture of ribs by fall of coal and stone			1					1	
16	,, 10	A A. Co.'s No. 2 Pit .	James Watson	,, ..	Fatal injury by fall of coal and stone .						1			1
17	,, 16	South Waratah	Enoch Gould	,, ...	Fracture of thigh by fall of stone . .				1				1	
18	,, 17	A. A. Co.'s New winning	Herbert Hamilton Beaumont	Driver .	Fatal injury by upsetting of empty skip.							1		1
19	,, 19	Newcastle Wallsend	Thomas William Parkes...	Miner .. .	Fatal injury by fall of coal .. .					1				1
20	,, 23	A. A. Co.'s No. 2 Pit .	John Manning	,, ..	,, . .					1				1
21	,, 23	,, ,, ..	Thomas Rotherham	,, .	Internal injuries by fall of coal . . .	1							1	
22	,, 25	Hetton	Robert Mason	,, .	Fracture of thigh by fall of coal	1							1	
23	,, 27	Young Wallsend . .	George Clarke	,, ..	Fracture of ribs by fall of coal	1							1	
24	Dec. 5	New Lambton C Pit ...	John Potts	,, ...	Fracture of leg by fall of coal	1							1	
25	,, 11	Summerhill	Alexr. Blair	,, .	Fracture of ribs by fall of coal	1							1	
26	,, 24	East Lambton	Thomas Phillips .	,, .	Fracture of leg by fall of stone				1				1	
						12	3	1	2	6	1	1	18	8

The half-yearly Report of the Inspectors of Collieries on the state of the Collieries in the Southern and Western Districts of the Colony of New South Wales, and Accidents for the half-year ending 31st December, 1891.

The Examiner of Coal-fields,— Wollongong, 2nd February, 1892.

Sir,

In compliance with the requirements of clause 26 in the Coal-mines Regulation Act, 1876, I have the honor to transmit to you this my six-monthly report on the state of the various collieries for the half-year ending 31st December, 1891.

During the last six months two new shale-mines have been added to the number, viz.:—Genowlan Shale-mine, about 7 miles from Capertee. The Australian Kerosene Oil and Mineral Company, about 6 miles west from Katoomba. The total number of collieries under inspection in the Southern and Western Districts during the last six months is: Western District, 14 coal-mines and 3 shale-mines; Berrima District, 2 coal-mines and 1 shale-mine; Southern District, 13 coal-mines; making in all 33 collieries.

PRESENT STATE OF MINES.

Western.

The Australian Kerosene Oil and Mineral Company's Coal and Shale Mines (Katoomba), Mort's Tunnel.—About 20 men are employed driving headings and making a connection to the shale-mines at Ruined Castle. When the main heading is driven through the mountain the shale will be conveyed about 3 miles along the mountain side, by a tram-railway, and thence hauled up the present surface incline, at Katoomba Colliery. Mort's Tunnel was opened out about twenty years ago but has of late been purchased and now worked by the Australian Kerosene Oil Company.

Ruined Castle Shale-mine.—About 20 men are employed underground and served with about 10,000 cubic feet of air per minute. The workings are on the Longwall system and substantial pack-walls built along the faces. The Act in all matters complied with.

Coal-mine.—About 26 men employed and served with about 12,000 cubic feet of air per minute. The Act complied with.

Genowlan Shale Company's Colliery.—This is a new colliery which is being opened out by Messrs. Tonkin, Wilson, and others, about 8 miles by road from Capertee Railway Station, in the county of Roxburgh, parish of Airly. About 8 men are employed underground driving headings to prove the thickness and quality of the shale. An air shaft has been sunk and when the headings are connected with the shaft the colliery will be opened out on the Longwall system. The Act complied with.

New South Wales Shale-mines (Hartley Vale).—About 100 men are employed underground and served with 14,000 cubic feet of air per minute. During the last six months several headings have been driven from different points of the workings. A shaft has also been sunk to prove the thickness and extent of the shale deposit. The workings are conducted on the Longwall system.

Retort Coal-mine, (Hartley).—About 5 men employed and served with about 4,000 cubic feet of air per minute. The Act in all respects complied with.

Oakey Park Colliery.—About 30 men are employed underground and served with about 18,000 cubic feet of air per minute. Second way to the day and other matters in connection with the Act have been complied with.

Zig Zag Colliery.—About 36 men are employed underground, and served with about 15,000 cubic feet of air per minute. The Act in all matters complied with.

Eskbank Pit.—About 45 men are employed underground, and served with about 18,000 cubic feet of air per minute. Old Tunnel—6 men employed, and served with 7,000 cubic feet of air per minute. The Act in all matters complied with.

Lithgow Valley Colliery.—About 65 men and horses employed underground, and served with about 21,000 cubic feet of air per minute. Intake and return air-ways and second-ways to the day, in good order. The Act in all respects complied with.

Hermitage Colliery.—About 45 men employed underground, and served with 20,000 cubic feet of air per minute. The Act complied with.

The Vale Colliery.—About 60 men employed underground, and served with 18,000 cubic feet of air per minute in one current. During the last six months coke ovens have been built close to the colliery, and the coke is now ready for the market. The Act complied with.

The Vale of Clwydd Colliery.—About 26 men employed underground, and served with about 5,000 cubic feet of air per minute. The Act complied with.

Mary Vale Colliery (near Wellington).—During the last six months a new shaft has been sunk. The No. 1 Pit has also been sunk about 40 feet below the top seam, where they struck the second seam, but owing to an increase of water sinking operations were suspended until pumping appliances were erected. The company intend to further test the field by shafts or bores before fixing the route of the tram-line from the colliery to the Mary Vale railway siding. The Act complied with.

Rawdon Colliery.—During the last six months very little work has been done on account of no sale for the coal. Two men are employed occasionally about the mine.

Cullen Bullen.—About 10 men are employed underground, and served with 13,000 cubic feet of air per miuute. The Act complied with.

Cooerwull Mine.—Only 1 man employed getting a few tons of coal weekly for Bowenfels factory.

Southern.

Metropolitan Colliery.—About 150 men, 22 wheelers and horses are employed underground, and served with about 230,000 cubic feet of air per minute in two separate currents. The miners and wheelers all work with locked safety-lamps. The mine is examined every morning by competent persons, and the condition of the ventilation and other matters signed daily by the persons who make the examination. Every care is taken by the management to ensure safety. The Act in all matters complied with.

Coal Cliff Colliery.—During the last six months very little work has been done; 2 men are employed keeping the colliery in general repair.

South

South Clifton Colliery.—About 50 men are employed underground, and served with 12,000 cubic feet of air per minute. Intakes, return air-ways, and second way to the day in good order, and all other matters of the Act complied with.

North Illawarra Colliery, No. 3 tunnel.—Twenty men employed and served with 10,000 cubic feet of air per minute. New tunnel: 40 men employed and served with 12,500 cubic feet of air per minute. The Act in all respects complied with.

Bulli Pass Colliery.—An average of 10 men have been employed during the last six months, and served with 12,000 cubic feet of air per minute. The Act in all matters complied with.

Bulli Colliery.—About 100 men and horses are employed underground, and served with about 50,000 cubic feet of air per minute. The ventilation is well conducted through every working part of the colliery, and the mine is examined every morning before the miners commence, and the condition of the colliery signed by the persons who make the examination. The Act in all matters complied with.

Bellambi Colliery.—About 70 men and horses employed underground, and served with 14,000 cubic feet of air per minute. The Act complied with.

South Bulli Colliery.—About 130 men are employed underground, and served with about 35,000 cubic feet of air per minute. During the last six months several return air-ways have been driven, which will shorten the whole course of the former return air-ways. Eighty-four new brick stoppings have been built along the main intake air-way. An air-shaft has been sunk and a large ventilating furnace built. These late improvements will be a great benefit to the future ventilation of the colliery. The Act in all respects complied with.

Corrimal Colliery.—About 66 men are employed underground, and served with about 18,000 cubic feet of air per minute in two separate currents. The Act in all matters complied with.

Mount Pleasant Colliery.—About 110 men and horses are employed underground, and served with 25,000 cubic feet of air per minute. During the last six months a new return air-way has been formed through the waste, which has shortened the former return and greatly improved the ventilation throughout the colliery. The Act in all matters complied with.

Osborne Wallsend Colliery.—About 130 men are employed underground, and served with about 33,000 cubic feet of air per minute. During the last six months a number of the men have been working on pillar work, great care is taken by the management to ensure safety. The Act in all respects complied with.

Mount Kembla Colliery.—About 180 men, 40 wheelers and horses employed underground, and served with 44,000 cubic feet of air per minute, in three separate splits. The ventilation is well conducted round the colliery. The intake return airways, and second way to the day in good order, and all matters in connection with the Act complied with.

Southern Colliery (Wollongong).—No work has been done at this colliery during the last six months, a portion of the plant has been removed.

Berrima District.

Australian Kerosene Oil Company's Shale-mines, Joadja.—About 65 men are employed underground in three separate adits, each adit is supplied with about 8,000 cubic feet of air per minute. The colliery is worked on the Longwall system and the ventilation brought in straight line along the working faces. The intake and return air-ways in good order, and the Act in all matters complied with.

Box Vale Colliery (late Mittagong).—During the last six months very little work has been done, on account of dull sales for the coal, only 2 men employed getting a few trucks of coal weekly for local purposes. The Act complied with.

Great Southern Colliery (late Berrima).—During the latter part of the six months very little work has been done on account of dull sale for the coal. About 6 men are occasionally employed. The ventilation and other matters in connection with the Act complied with.

Accidents in Mines.

During the last six months I have investigated thirteen accidents which have been fully reported upon, one of which was fatal.

The first non-fatal happened to a labourer named Samuel Shandly, at South Bulli Colliery, on July 10th, who had his head cut by the handle of a winch, on the surface incline.

The second non-fatal happened to a miner named T. Jones, at Bulli Colliery, on August 5th, who had his leg broken, and bruised about the back, by a fall of stone.

The third non-fatal happened to a miner named James Rowlison, at Bellambi Colliery, on August 20th, who had his leg broken by a fall of coal.

The fourth happened to a horse-driver named G. Cunninghame, at South Bulli, on August 28th, who had his jaw broken by a kick from a horse.

The fifth happened to a miner named William Burns, on September 10th, at Bellambi Colliery, who had two ribs broken by a fall of stone at his working face.

The sixth resulted fatally to a labourer named A. Hanner, on September 10th, at the Australian Kerosene Oil Company's surface incline, who had his leg severely crushed by a loaded waggon. He was removed to the Bowral Hospital, where he died, on the 15th of the same month. An inquiry was held at the hospital where the finding was returned "accidental death," with which finding I fully agree.

The seventh was non-fatal and happened to a miner named William Sharvey, at the Metropolitan Colliery, on September 22nd, who had his skull fractured by a prop being knocked out by a block of coal, at his working face.

The eight was non-fatal and happened to a miner named John Kerr, on October 12th, at the Metropolitan Colliery, who had his leg broken by a fall of stone at his working face.

The ninth non-fatal happened to a miner named A. M'Culloch, at the Metropolitan Colliery, on November 19th, leg broken by a fall of coal.

The tenth non-fatal happened to a miner named Samuel Rees, at the Metropolitan Colliery, November 19th, who had his leg broken by a fall of coal.

The eleventh non-fatal happened to a miner named John Ferguson, at the Metropolitan Colliery, on November 29th, who had his foot crushed by a fall of coal.

The

The twelfth non-fatal happened to a miner named Robert Kean, at Mount Kembla Colliery, on December 3rd, who had his leg broken by a fall of coal.

The thirteenth non-fatal happened to a miner named William Kelly, at Mount Kembla Colliery, on December 29th, who had his ankle dislocated by a fall of stone.

I have also examined several other accidents which were not of a serious nature, and are not included in this list.

The usual tabulated list of accidents is hereto appended.

I have, &c,
JAMES ROWAN,
Inspector of Collieries.

John Mackenzie, Esq., Examiner of Coal Fields, Newcastle.

TABULATED LIST of fatal and non-fatal accidents in the Southern and Western Districts of New South Wales Collieries investigated by the Inspector of Collieries during the half-year ending 31st December, 1891.

No.	Date.	Colliery.	Sufferer.	Occupation	Remarks, &c, on the nature and extent of injuries	Head cut by the handle of a winch	Leg broken by a fall of stone	Leg broken by a fall of coal	Jaw broken by a horse	Ribs broken by a fall of stone	Fatal injuries by a waggon.	Skull fractured by a prop	Leg broken by a fall of stone	Leg broken by a fall of coal	Leg broken by a fall of coal	Foot crushed by a fall of coal	Leg broken by a fall of coal	Ankle dislocated by a fall of stone	Fatal	Non-fatal.
1	July 10	South Bulli	Samuel Shandly	Labourer	Head cut by a handle of winch in the incline	1														
2	August 5	Bulli.....	T. Jones . ..	Miner .	Leg broken and bruised on the back by a fall of stone		1							.						
3	,, 20	Bellambi ...	James Rawlinson	,,	Leg broken by a fall of coal	.		1												
4	,, 28	South Bulli	G. Cunningham	Horse-driver.	Jaw broken by a kick from a horse				1											
5	Sept. 10	Bellambi ..	Wm Burns .	Miner	Two ribs broken by a fall of stone		.			1						.	.			
6	,, 10	Australian Kerosene Oil Company (Joadja)	A Hanner ...	Labourer	Fatal injuries by a waggon on the incline.						1									
7	,, 22	Metropolitan	Wm Sharvey	Miner	Skull fractured by a prop being knocked out							1						.		
8	Oct. 12	,, .	John Kerr	,,	Leg broken by a fall of stone.	.					.		1							
9	Nov. 19	,, .	A M'Culloch	,,	Leg broken by a fall of coal									1						
10	,, 19	,,	Samuel Rees	,,	do do										1					
11	,, 29	,, .	John Ferguson	,,	Foot crushed by a fall of coal											1				
12	Dec. 3	Mount Kembla	Robert Kean	,,	Leg broken by a fall of coal				.							..	1			
13	,, 29	,,	Wm Kelly .	,,	Ankle dislocated by a fall of stone				.						.			1		
																			1	12

GEOLOGICAL SURVEY OF NEW SOUTH WALES.

Report of Progress for 1891, by the Government Geologist.

Sir, Department of Mines, Sydney, 2 January, 1892.

In consequence of the death of Mr. C. S. Wilkinson, F.G.S., F.L.S., late Geological Surveyor-in-Charge, I was appointed Acting Government Geologist on the 23rd September last, and my appointment as Government Geologist was confirmed on the 21st December. My supervision of this Branch has therefore extended over a small portion of the year only, and my report is necessarily limited.

The loss sustained by the Department as well as by the public in the death of Mr. Wilkinson is one which can hardly be over estimated, and my personal knowledge of his high scientific attainments and sterling qualities caused me to feel no little diffidence in attempting to take up his official duties.

Previous to the death of Mr. Wilkinson, the Geological Survey Branch was so unfortunate as to lose the valuable services of Mr. T. W. E. David, Geological Surveyor, who was appointed to the chair of Geology at the Sydney University. It is a source of pleasure, however, to Professor David's many friends in the Department to know that he was chosen for such a high and honorable position, and there is satisfaction also in the assurance that he proposes to keep in touch with and continue to assist as far as possible in the work of the Department. Mr. David resigned on the 13th June, 1891, and on the 1st July the vacancy thus caused was filled by the promotion of Mr. Wm. Anderson, Geological Surveyor, Mr. G. A. Stonier being at the same time promoted to the position previously occupied by Mr. Anderson. On the 1st December, 1891, Mr. J. B. Jaquet, F.G.S., Assoc. Royal School of Mines, London, was appointed Geological Surveyor in succession to Mr. Stonier. There were fifteen applicants for the position, and it is believed that in selecting Mr. Jaquet, who possesses high qualifications, the Department has secured an enthusiastic and energetic officer.

A large proportion of the Geological Surveyors' time during the year has been consumed in the examination of mines for which aid has been applied for out of the Prospecting Vote, and in consequence of this the amount of geological work performed has been small. With your concurrence I propose in future to keep at least two geological surveyors regularly employed at detail survey, and with this object in view I have deputed Mr. Jaquet to make a geological examination of the Broken Hill Silver Mining District, that being one of the most important districts in the Colony, and he is at the present time

 engaged

engaged upon this work. I also propose that Mr. Anderson shall make a detail survey of the valley of the Shoalhaven River. It was originally suggested that the alluvial deposits of this valley should be defined in connection with an investigation to be made by Mr. M'Kinney, Chief Engineer of Water Conservation, as to the possibility of bringing water into the valley, for the purpose of sluicing the auriferous deposits. It appeared to me, however, to be a good opportunity for mapping in detail the geology of an important valley, and hence the work will probably be of a more extended nature than was at first proposed.

A number of reports, written by Mr. Wilkinson prior to his decease, and by Mr. David previous to his resignation, are appended.

Professor David has undertaken to complete, during the long vacation, the field work in connection with his geological survey of the Newcastle Coal-field, and it is therefore hoped that this very important work will be ready for publication before the expiration of the year.

Mr. Anderson has, since I took charge of the Branch, made an important report upon the practicability of obtaining a sub-artesian water supply at Broken Hill. This report, together with others by the geological surveyors, will be found herewith. Mr. Stonier has, since my appointment, been engaged in the northern district, chiefly in connection with applications for aid from the Prospecting Vote.

On the 25th September I, in company with yourself, visited Corowa, and was engaged until the 29th September in tracing the probable continuation of the Rutherglen deep leads from Victoria into New South Wales under the River Murray, an application having been made by the Corowa Progress Committee for aid to prospect for the deep leads in this Colony.

From the 5th to the 10th October I was at Gulgong inspecting mines for which aid was asked from the Prospecting Vote, and investigating the reported discovery of gold by means of the diamond drill in Rouse's Lagoon paddock. A copy of my report on this matter is appended. From October 29 to November 11 I was engaged in inspecting reefs and alluvial deposits in connection with the Prospecting Vote at Rockley, Cow Flat, Glanmire, Clear Creek, Cheshire Creek, Wyagdon, Wattle Flat, Orange, and Sunny Corner. On the 29th and 30th December I was engaged in similar work at Mount York and in the parish of Lowther.

It will be seen by the attached report of Mr. J. C. H. Mingaye, F.C.S., F.I.C., Analyst and Assayer to the Department, that a very large number of analyses and assays have been made during the year.

A considerable amount of information in regard to minerals has also been given to the public by Mr. J. E. Carne, F.G.S., Curator of the Museum.

Mr. Robert Etheridge, junr., F.G.S., Palæontologist and Librarian, has performed important work in the determination of fossils, and his arrangement and management of the library, to which numerous additions have been made, reflects great credit upon him. It affords me much pleasure to testify to the industry and enthusiasm exhibited by all the members of the staff, and I take this opportunity of thanking them for the assistance so freely accorded me upon my taking up the management of this branch of the Department.

I have, &c.,
EDWARD F. PITTMAN,
Government Geologist.

The Under Secretary for Mines.

APPENDIX A.

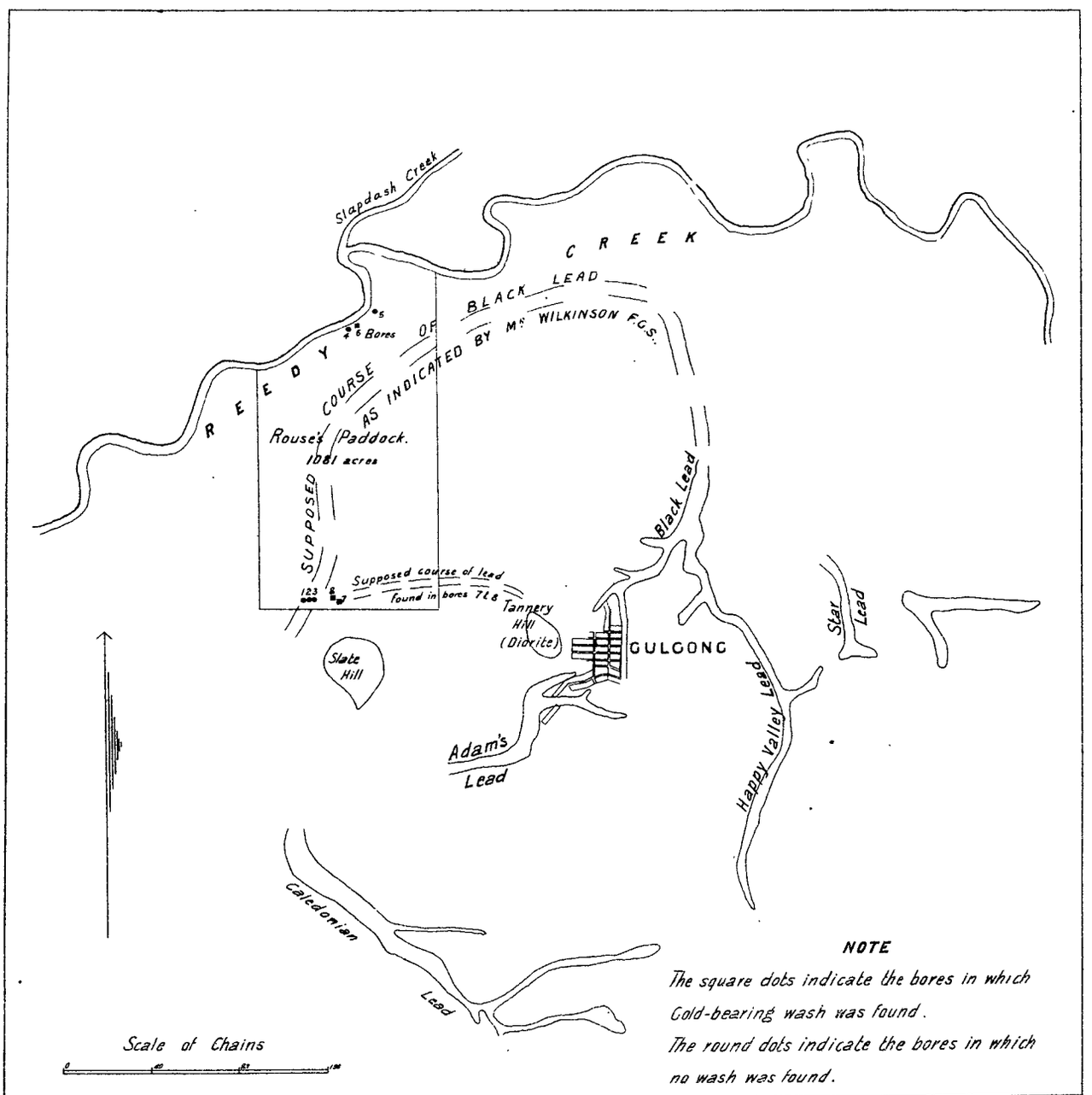
Geographical Survey, New South Wales,
Department of Mines, 26 October, 1891.

I HAVE the honor to report that I have examined the sites of the diamond drill bores put down in Rouse's Lagoon Paddock, Gulgong. The positions of the bores are shown approximately upon the accompanying tracing. In all eight bores were put down, three of which, viz., Nos. 4, 5, and 6, were on the bank of Reedy Creek, on the northern boundary of Rouse's Paddock, while five, viz., Nos. 1, 2, 3, 7, and 8, were put down close to the southern boundary of the paddock.

Of the eight bores put down, five bottomed without finding wash, but three penetrated wash-dirt containing gold, viz., No. 6 bore, on Reedy Creek, and Nos. 7 and 8 bores, near the southern boundary fence. The wash in No. 6 bore rested on a granite bottom, while that in bores Nos. 7 and 8, was found on a slate bottom. The presence of gold in bores 6, 7, and 8, was indicated by light colours, which were brought up to the surface by the flow of water, and according to Mr. Vey, the foreman in charge of the drill, about 2 gr. of gold were thus collected in each of the bores mentioned, the colours being observed to come from the top as well as from the bottom of the deposit of wash. The wash consisted of well-rounded pebbles of quartz, quartzite, altered slate, &c.

It is impossible to estimate, with anything like accuracy, from these data, what the probable yield of gold per load of wash would be. Taking the thickness of the wash at 3 ft. 6 in., and the diameter of the core at $3\frac{1}{2}$ in., there would be about $36\frac{1}{2}$ lb. of wash extracted in each bore, and if this contained only 2 gr. of gold, the yield would be about 5 dwt. per ton of 2,240 lb. But the probabilities are that the wash would contain some coarse gold, and it is evident that this would be too heavy to be brought up by the flow of water in the bore. It may be assumed that the gold which came to the surface was either fine float gold, or was detached from coarse fragments by the grinding action of the diamond drill, and the only inference to be drawn from it is that the drift is auriferous, and, in all reasonable probability, payably auriferous. The estimate of 2 oz. per ton, therefore, which was current at Gulgong at the time of my visit, is not founded on any reliable basis, and must be regarded purely as a guess.

The bores were all put down on what was supposed to be the continuation, in a westerly and southerly direction, of the Black Lead. On the geological map of Gulgong, prepared by the late Mr. C. S. Wilkinson, F.G.S., Geological Surveyor-in-Charge, the supposed course of this lead is shown by a dotted line running westerly along Reedy Creek, from where the lead was last worked in No. 44 claim, to about the position of No. 6 bore, and then southerly through the centre of Rouse's Paddock. The sites of the bores were chosen approximately, on the course indicated by Mr. Wilkinson, and as gold was found in one of the bores on the northern boundary of the paddock, and in two on the southern boundary, the inference might at first sight appear reasonable, that the one lead had been proved right through the paddock for a distance of over $1\frac{1}{2}$ mile. From an examination of the ground, however, I do not think that this assumption is warranted, for the following reasons :—Bore No. 8, on the southern boundary fence, bottomed at 148 feet 10 inches, while bore No. 6, on the northern boundary, bottomed at 150 feet 2 inches. The surface


Slapdash Creek
C R E E K
BLACK LEAD
OF
AS INDICATED BY Mr WILKINSON F.G.S.
COURSE
R E E D Y
Bores
Rouse's Paddock.
1061 acres
SUPPOSED
Supposed course of lead
Found in bores 7 & 8
Tannery Hill (Diorite)
Slate Hill
GULGONG
Black Lead
Star Lead
Happy Valley Lead
Adam's Lead
Caledonian Lead
Scale of Chains
0
40
80
120
NOTE
The square dots indicate the bores in which Gold-bearing wash was found.
The round dots indicate the bores in which no wash was found.

(Sig. 874)

surface of the ground, at No. 8 bore, is about 30 feet—as nearly as could be ascertained by aneroid observation—higher than the surface of No. 6 bore, therefore the wash-dirt in No. 6 bore is approximately 31 feet 4 inches lower than that in No. 8 bore, and the two bores cannot be on portions of one and the same lead, if flowing in a southerly direction. My opinion is that the wash in No. 6 bore may form part of the westerly extension of the Black Lead, and that the wash in bores Nos. 7 and 8 is part of a branch lead starting from the northern side of Tannery Hill—which is partly of diorite formation, and from the other side of which the old Adam's Lead took its rise—and running in a westerly direction through Rouse's Paddock to junction possibly with the Black Lead—if the course of the latter be really from Reedy Creek—or with the Caledonian, Adam's, and Moonlight Leads, if the latter run in a northerly direction from where they were abandoned; but it is impossible to state with certainty, until more prospecting has been done, which of these hypotheses is the correct one.

It is a matter of regret that the drill was not further employed to prove definitely the trend of the drifts which have been discovered by its means. The conclusions arrived at may be briefly summarised as follows:—

Auriferous wash-dirt, which may reasonably be expected to prove payable, has been discovered at a depth of about 150 feet on the northern as well on the southern boundary of Rouse's Lagoon Paddock. The wash found on the northern boundary is probably part of the continuation of the Black Lead, while that on the southerly boundary is probably part of a branch lead, heading from the northern side of Tannery Hill, and running westerly through Rouse's Paddock, to join the old main valley.

Great credit is due to Mr. James Fletcher for his energy and enterprise in prospecting these deep leads, which have been allowed to remain unproved for the last fifteen years, although everything pointed to the probability of their being payably auriferous.

EDWARD F. PITTMAN,
Acting Government Geologist.

The Under Secretary for Mines.

APPENDIX Ia.

Report on Mount Morgan Mine, by Mr. C. S. Wilkinson, F.G.S., F.L.S., Geological Surveyor-in-Charge.

DURING my inspection of the Mount Morgan Gold Mine, I collected samples of the rocks associated with the gold-bearing ore, with the view of determining the source of the gold. I entrusted the microscopical examination of the rocks to my able colleagues, Messrs. T. W. E. David, B.A., F.G.S., and W. Anderson, Geological Surveyors, and the result of their investigations has been published in Volume II Part III of the Records of the Geological Survey of New South Wales.

The conclusions arrived at afford important information regarding the nature of the auriferous formations of which Mount Morgan is composed, and while they throw some light on the probable origin and extent of the payable deposits, it is evident that further investigation is required for the elucidation of the subject.

The suggestion of Mr. R. L. Jack, F.G.S., Government Geologist of Queensland, that the auriferous deposit is of geyser origin, is supported as regards the deposition of the gold and its siliceous and ferruginous matrix from thermal aqueous solution, but it appears that the deposit accumulated in fissures and cavities in the rocks rather than as an overflow from the usual funnel-shaped geyser-crater.

Mount Morgan consists of highly metamorphosed sedimentary rocks, chiefly "greywacke" as Mr. Jack has termed them, which from the fossils found in the neighbourhood, the Palæontologist, Mr. R. Etheridge, junior, considers to be of lower Permo-Carboniferous age. These rocks contain auriferous iron pyrites disseminated more or less through them—in one instance, a mass of pyrites with a little silica was met with over 100 feet in diameter—and have been intruded by dykes of hornblende granite and porphyritic dolerite.

The intrusion of the granite was probably the older and induced the formation of the pyrites, and the siliceous induration of the argillaceous strata. Subsequently as water passed through the jointed pyritous strata near the intrusive dolerite dykes, chemical action set in, kaolinising the dolerite and oxidizing the pyrites, the gold in the latter being dissolved, possibly as sulphide, and re-deposited by itself, or with iron oxide, as the solution passed through the fissures and cavities in the rocks. Apart from the kaolinisation of the dolerite, the cavernous quartzite deprived of the pyrites, which its cavities once contained, and the deposition of siliceous sinter and of hydrous iron oxide with gold, there is also evidence of chemical re-action in the aluminous rocks, being highly charged with sulphate of alumina, and in the large and small segregated masses of basic sulphate of iron. The latter has yielded, on analysis by Mr. J. C. H. Mingaye, F.I.C., Analyst and Assayer, as much as 24·419 per cent. of sulphuric anhydride, and might possibly be hereafter utilised in the manufacture of sulphuric acid.

Until further observations have been made, no definite conclusion can be formed as to the source of the gold; but in my opinion the evidence so far tends to show that the gold has been derived in the manner above stated, and that the heat generated by the kaolinisation of the dolerite, may have largely contributed to the effects produced. If so, the payable gold-bearing ore will be found, as hitherto, chiefly within the region which has been effected by the decomposition of the dolerite. The intrusion of the dolerite dykes was probably the cause of the fracturing of the strata, and it appears to me that the principal line of disturbance is the fissure filled in with the ferruginous lode-stuff, which was cut through in the Freehold Tunnel. The other fissures in the Mount may be connected with this, such as the small ones containing the rich gossan, which has been worked at the summit of the Mount.

The water, which first set up the chemical changes in the pyritous strata and dolerite, may have permeated the fissured strata by infiltration from the surface, or it may have come up as thermal water, containing gold, &c., in solution, as Mr. Jack has suggested, through a fissure or pipe from below. Even should the latter have been the chief source of the gold, yet the gold derived from the decomposition of the pyrites, must have considerably enriched the deposit.

I am of opinion that the payable ore is confined to the region which has been thus effected or oxidised, and that the extent of the ore can be proved by sinking in or near the Freehold Tunnel lode, close to the kaolin dyke, and driving on either side until the undecomposed pyritous rocks be met with.

The principal gold-bearing deposits will, I think, be found in the vicinity of the kaolin dyke, descending not vertically but diagonally along the line of dyke in a south-easterly direction. From the examination of the rocks microscopically, Messrs. David and Anderson believe that the intrusions of dolerite are of two ages.

It

It is highly important that as the mine works extend the different varieties of rock met with should be collected, and their petrological characters determined, for such investigations will prove of considerable value in connection with the discovery of similar deposits in other localities.

The occurrence of gold that has evidently been deposited from an aqueous solution is not uncommon elsewhere; but the remarkable association of the different rocks in Mount Morgan have not as yet been observed in New South Wales. The Mount Morgan mine, therefore, both as regards the great extent and mode of occurrence of its rich auriferous deposits, may be recorded as unique in the history of gold-mining. The natural purity or high quality of the gold also has been stated by Dr. A. Leibius, M.A., F.G.S, Assayer to the Sydney Mint, to be unequalled by that of any other gold hitherto found.

C. S. WILKINSON,
Geological Surveyor-in-Charge.

APPENDIX Ib.

Report on the Iron Ore Deposits of New South Wales by C. S. Wilkinson, F.G.S., &c., Geological Surveyor-in-Charge.

The Under Secretary for Mines,— Department of Mines, Sydney, 30 January, 1891.

Sir,

In accordance with your instructions, I have the honor to submit the following particulars regarding the principal deposits of iron ore in New South Wales, and of the coal, limestone, manganese, wolfram, and chromite which would be available for working in connection with them. The position of these deposits is shown on the accompanying map of the Colony.

The chief iron ore deposits are situated near Mittagong and Picton townships, on the Great Southern Railway Line, and near the townships of Wallerawang and Rylstone, on the Great Western Railway. These are also the most favourable localities for the establishment of smelting works, for in them occur workable seams of coal suitable for iron-smelting, with unlimited supplies of limestone of good quality. Scattered through the outlying districts, and more or less accessible to the railway lines are numerous other deposits of iron ore, which would also be available for smelting-works in the above-mentioned localities. The different ore deposits in the Mittagong coal district are described in my previous report (*vide* Annual Report for 1890), which shows that they are estimated to contain in sight about 2,872,000 tons of brown hematite, yielding, according to the analysis, an average of 48·40 per cent. of metallic iron. The quantity of iron in sight in the different deposits throughout the Goulburn and other districts within from 45 to 100 miles by rail from Mittagong, has not been computed, but it may be roughly estimated at 4,000,000 tons.

The Picton deposits are situated 8 miles from that town, which is 53 miles from Sydney, and, therefore, 24 miles nearer than Mittagong. They consist of brown hematite, with a little magnetite, and are precisely similar in origin to those of Mittagong, having been formed at the surface by ferruginous springs; consequently they cannot be expected to extend deep below the surface. Taking 25 feet as the probable average depth, I have estimated that on "The Oaks" the estate of Mr. J. Mitchell, M.P., they, occupying an area of 5·7 acres, contain 562,590 tons of ore, and on "The Hermitage," the adjoining estate of Mr. W. G. Hayes, 799,470 tons within an area of 8·1 acres, or reckoned altogether, a total of 1,362,060 tons.

An average sample of ore, consisting chiefly of hard compact brown hematite from the largest deposit in Mr. Mitchell's estate, yielded the following results:—

Result on analysis by Mr. J. C. H. Mingaye, F.C.S., Analyst and Assayer to the Department of Mines:—

Brown hematite from near Picton:—

Moisture at 100° C.	1·77	Magnesia	·25
Combined water	11·88	Silica	4·10
Ferric Oxide	71·55*	Sulphuric Oxide	trace.
Ferrous Oxide	trace.	Phosphoric Oxide	trace.
Manganous Oxide	trace.		
Alumina	10·35		99·90
Lime	Nil.		

*Equal to metallic iron, 50·09 per cent. Insoluble in acids, 5 per cent.

An average sample of soft argillaceous brown hematite from another deposit on the same property yielded on analysis:—

	Metallic iron	40·35 per cent.
Insoluable in acid.	Silica	23·00 ,,
	Gangue	26·35 ,,

An average sample of mixed compact and soft argillaceous brown hematite from Mr. W. G. Hayes' estate, yielded on analysis:—

	Metallic iron	37·56 per cent.
Insoluable in acid.	Silica	23·80 ,,
	Gangue	28·95 ,,

From the above estimates it will been seen that the total quantity of iron ore in sight available for smelting works situated near the Great South Western Railway in the Mittagong coal-field, is about 8,234,060 tons including the 4,000,000 tons of ore from the brown hematite deposits, which are lodes, not spring deposits, in the Goulburn and adjacent districts outside the coal-field.

The existence of coal near Picton has not yet been proved, but seeing that the Hawkesbury sandstone formation occurs at the surface, it is probable that the Mittagong coal seams would be found at a depth of about 700 or 800 feet. In the event of the coal not proving workable the ore could be taken to Mittagong for treatment.

Besides the iron which was smelted some years ago at the old Fitzroy Smelting Works, Mittagong, Mr. W. Brazenall has recently produced from his small furnace excellent iron, smelted from local iron ores, with coal from the Mittagong coal mine. Mr. Brazenall exhibited, at the late Mining Exhibition in London, samples of the ore, coal, and limestone, with pig-iron and castings made therefrom, to which the jurors gave a first award.

The iron ore deposits in the districts traversed by the Great Western Railway Line, are also much scattered; in no one place does it occur extensively, but the deposits accessible to the railway taken collectively, probably contain sufficient ore to warrant the establishment of smelting works on the coal-fields, either near Wallerawang or Rylstone, where there is abundance of limestone.

Unlike

Unlike the spring deposits of Mittagong and Picton, the ores of the Western District occur in lodes, but they also consist chiefly of argillaceous brown hematite with magnetite in places.

Those near Wallerawang are in the parish of Falnash and are described on my geological map of that district. [*See Appendix* B.] Very little prospecting has been done to prove the lodes, one of the largest varies from 10 to over 50 feet wide and can be traced on the surface for about 750 feet.

A shaft had been sunk in the ore to a depth of 43 feet. An analysis of an average sample by Professor Liversidge, M.A., F.R.S., yielded 37·84 per cent. of metallic iron, while more solid masses in the lode yielded 51·52 per cent. of metallic iron. The different ores of this locality, brown hematite, magnetite, garnet rock, and clay-band ore, with analyses of them, are ably described by Professor Liversidge in his work "Minerals of New South Wales, 1888" [*See Appendix* C], and also in his report to the Wallerawang Iron and Coal Company, 1874. [*See Appendix* D.]

The clay band iron ore referred to occurs as irregular lenticular bands from a few inches to 18 inches in thickness in the coal measures, and though several thousand tons might be collected from the surface of the hills where the coal measures have been denuded, I do not think that owing to their varying thickness the bands in situ could at present be profitably mined.

Mr. J. E. Carne, F.G.S., Curator of the Mining and Geological Museum, refers in his report to some of these deposits. [*See Appendix* E.] As the lodes in the Wallerawang district have been but little exploited, the quantity of ore they contain is not known; but within a depth of 50 feet it probably does not exceed 400,000 tons. This quantity by itself would not warrant the establishment of smelting works; however, in the Blayney, Carcoar, Cowra, and Orange districts, in places within moderate distance from the railway lines, occur deposits of rich brown hematite and magnetite, the principal of which have been examined and described by Mr. Carne [*See Appendix* E.], who states that the three largest deposits are estimated to contain in sight about 1,080,000 tons of ore, yielding on analysis from 50·65 per cent. to 58·06 per cent. of metallic iron, with only a trace of phosphorous and no sulphur.

The remaining deposits scattered throughout the district do not probably contain more than 1,000,000 tons of ore in sight, therefore, the quantity of ore available for smelting works situated in the Wallerawang or Lithgow Coal-field may be approximately estimated at about 2,480,000 tons.

In reference to the deposits from which iron ore could be supplied to smelting works that may be established where the coal and limestone occur near Rylestone, the following report has been furnished by Mr. T. W. E. David, B.A., F.G.S., Geological Surveyor:—

The iron ore deposits convenient to the Wallerawang and Mudgee railway line other than those already described by you near Wallerawang are developed chiefly at—

1. Ilford.
2. At Cardwell Creek, near Rylestone.
3. At Cox's selection, in the parish of Dungaree.
4. At Lue, also in the parish of Dungaree, county Phillip.

Deposit 1, is stated to be of some extent, but has not yet been geologically examined. Deposits 2, 3, and 4 have been geologically examined, their contents estimated, and their average yield of metallic iron tested by analysis of a number of average samples taken by myself. All these deposits appear to represent the oxidised portions of pyritous veins, and there can be little doubt that at a depth they will pass from oxides into sulphides.

They appear to be developed:—

(*a*) Along lines of disturbance, such as anticlinal axes.

(*b*) Along contact lines between eruptive and sedimentary rocks.

They are usually situated either in or in close proximity to extensive beds of limestone. The sedimentary strata in which the deposits occur are probably of Siluro-Devonian age.

Your observation that near Wallerawang and elsewhere in the western districts these iron ores have resulted from the decomposition of pyritous lodes receives abundant confirmatory evidence in the case of the Lue deposit. Small kernels of pyrites were there observed by me in places where the siliceous nature of the ore material had arrested the decomposition of the sulphides. In places also the siliceous portions of this deposit were quite cellular from the decomposition and subsequent removal of cubical crystals of iron pyrites.

The iron deposits of Rylestone, Dungaree, and Lue consist in each case of (*a*) an oxidized capping of brown hematite, passing into poorer ore, containing more or less of alumina and silica as impurities, and below this of (*b*) a mass of ferruginous felspathic material, traversed by numerous small and large veins of hydrated oxides of iron and hematite, with in some cases, a little manganese. The greatest depth, as far as I am aware, to which any of these deposits have been sunk upon is 100 feet. I carefully examined the nature of the iron deposits at Lue, at the bottom of the 100 feet shaft, and found that the ore was still in the condition of a brown or red oxide, with a good deal of felspathic material intermixed with it.

In calculating the probable yield in iron of these deposits, I have therefore assumed that they will continue in each case in the condition of brown iron ore to a depth of not less than 100 feet. Possibly many of them will extend downwards in the same condition for 200 feet, or even more, before they pass into sulphides. In estimating the probable quantity of ore in each of these lodes I have considered separately (*a*) the yield of the cap and (*b*) of the portion of the lode below the cap from a depth of 6 feet below the surface (the average limit of the cap) down to 100 feet. The yield of the latter per foot downwards has been taken as only one-half that of the former, partly owing to the deposit being somewhat narrower below the cap, and partly owing to its being more intermixed with felspathic material. The latter, however, could for the most past probably be got rid of by picking the ore judiciously while it is being mined, so that the ore from the portion of the deposits below the cap, when so picked, would perhaps contain about the same percentage of metallic iron as the ore composing the cap.

The following is a summary of the ore estimated by me to be available on the conditions above stated, at the following localities, the specific gravity of the ore being assumed to be 3·25, and the weight per cubic yard about 2·44 tons.

(2.) At Cardwell Creek, near Rylstone, seventy thousand (70,000) tons of ore in deposits already partially explored which would contain on the average about 43 per cent. of metallic iron. 30,100 tons of metallic iron.

These deposits are three (3) miles distant in a westerly direction from the Mudgee railway line at Cumbor Melon, where there is a good workable ream of coal suitable for smelting purposes.

These

These deposits are either in or contiguous to extensive beds of limestone.

(3.) Deposit at Cox's selections, portions 42 and 97 parish of Dungaree, county Phillip.

The extent and shape of this deposit, is shown on the accompanying plan. The deposit as seen on the surface is evidently the cap of a large pyrites fissure vein. According to my estimates there are here in sight, in the cap of this lode, about 25,500 tons of ore from the surface to a depth of 6 feet equal, (at 43 per cent metallic iron) to about 11,000 tons of metallic iron. This will yield if the lode continues workable to a depth of 100 feet assuming the yield below the cap to be one-half that of the cap itself, about 260,000 tons of ore containing about 110,000 tons of metallic iron. Distance from Mudgee railway line at nearest point about 5 miles. Distance from Rawden Colliery, when there is a good seam of workable coal about 5½ miles. There is an extensive bed of good limestone about a quarter of a mile to the south-east of the southern extremity of the ironstone lode.

The following are analyses made from average samples, selected by myself, by Mr. J. C. H. Mingaye, F. C. S., &c.

Complete Analysis No. 110, (91.)

Moisture at 100° Centi	·95	Lime	trace
Combined water including organic matter	8.97	Magnesia	,,
Iron peroxide	66·79*	Phosphoric Anhydride ($P^2. O^5$.)	·49
Iron protoxide		Sulphur Trioxide (S. O^3.)	·48
Manganese protoxide	trace		
Silica	14 41		100·32
Alumina	8 23		

* Equal to metallic iron 46·75 %.

Partial Analyses.

No. 111. (91)	Gangue	25·60 per cent.	No. 114. (91)	Gangue	29·54 per cent.
	Silica	19·10 ,,		Silica	23·25 ,,
	Metallic Iron	43·19 ,,		Metallic Iron	38·85 ,,
No. 112. (91)	Gangue	24·44 ,,	No. 115. (91)	Gangue	5·01 ,,
	Silica	19·16 ,,		Silica	3·97 ,,
	Metallic Iron	42·74 ,,		Metallic Iron	55·43 ,,
No. 113. (91)	Gangue	25·94 ,,			
	Silica	19·55 ,,			
	Metallic Iron	41·18 ,,			

About 1½ mile to the south-east of the preceding are two contiguous ore deposits, with limestone on one side, and slate on the other. Their total contents of iron ore to a depth of 100 feet is estimated by me to be equal to about 44,000 tons, equal to about 19,000 tons metallic iron.

4. Lue deposit :—

This is a more siliceous deposit than any of the preceding. Has been sunk upon to a depth of 100 feet. Estimated total contents of ore to depth of 100 feet, about 152,000 tons—equal to about 65,400 tons of metallic iron. Distance from Mudgee railway line at nearest point about 2 miles. A small bed of limestone occurs within half a mile of this deposit, between it and the railway.

Besides the above deposit near the Mudgee railway line, I have examined two other similar deposits at Cooyal and Denison Town respectively. If these were ever worked for iron the ore would no doubt be carried along the Mudgee railway line.

The Cooyal deposit is estimated by me to contain to a depth of 100 feet about 300,000 tons of ore, and the Denison Town deposit at Mt. Stewart about 400,000 tons. An extensive deposit of iron-ore, as I am informed by yourself, exists at Tallawang, between Gulgong and Denison Town, but I believe no exact estimate has been made of its yield, nor of that of the Ilford deposits.

SUMMARY of quantity of iron-ore estimated to exist in or near the district traversed by the Mudgee Railway :—

Cardwell Creek, near Rylstone	70,000 tons	=30,100
Cox's, at Dungaree	260,000 ,,	=110,000
One and a half miles south-east of Dungaree	44,000 ,,	=19,000
Lue	152,000 ,,	=65,400
Total	526,000 ,,	=224,500

Outlying deposits	Cooyal	300,000
	Denison Town	400,000
	For other outlying deposits, such as those of Tallawang and Ilford, and continuations of the Cooyal &c., deposits, perhaps as much as 1,000,000 tons might be added	1,000,000
Grand total		2,226,000 tons.

Which would contain at an average composition of 43 per cent. metallic iron, about 957,180 tons, or in round numbers about 1,000,000 tons of metallic iron.

Coal.

The following is a section of the coal-seam, of which the lower 6 ft. 6 in. is now being worked at the Rawden Colliery, the coal being taken by the Government for use for locomotive purposes on the Mudgee railway line :—

Roof—Grey sandy shale.

ft.	in.	
2	7	*Coal*, clean hard splint, with a few layers of bituminous coal.
0	3	Band, fire-clay.
0	3	*Coal*, splint.
0	2	Band, grey fire-clay.
2	4	*Coal*, splint.
0	3	Band, coaly shale.
0	5	*Coal*, dirty splint.
0	0½	Band, brown clay.
2	4	*Coal*, splint, rather dirty.
0	7	Band, hard whitish grey clay shale.
0	5	*Coal*, splint.
0	1½	Band, grey fire-clay.
2	8	*Coal*, splinty, with ⅛-in. clay band at 9 in. from top of layer.

Portion of seam worked 6 feet 4 inches.

ft.	in.	
1	3	Band, hard whitish grey fire-clay.
2	9	*Coal*, splint.
0	2½	Band, hard whitish grey fireclay.
2	6	*Coal*, hard splint, with streaks of bituminous coal.
0	0½	"Penny" band, brown shale and coal mixed.
1	0½	*Coal*, chiefly splint, with 2 in. of bituminous coal at bottom.
0	0½	Band, grey fire-clay.
1	3½	*Coal*, upper half bituminous ; lower, splint.
0	3	Band, whitish grey fire-clay.
1	2	*Coal*, splint and bituminous.

Floor.

At

At Cumler Melon the following descending section was measured by me of a seam lately opened up by Mr. Joseph Mitchell, M.L.A.

Roof—sandy clay shale.

ft.	in.		ft.	in.	
0	4	*Coal*, splint and bituminous.	0	7	*Coal*, bituminous and splint.
0	1½	Band, clay shale.	0	4	Clay shale, dark grey.
1	7	*Coal*, brittle, very bituminous.	0	2	*Coal*, dirty splint.
0	6½	Band, dark grey clay shale.	1	2	Laminated sandy clay shale.
0	9½	*Coal*, bituminous.	1	5	*Coal*, splint.
2	4	Laminated, hard, carbonaceous clay shale.	4	6	Black laminated clay shale.
1	0	Dark grey, clay shale.			
0	9½	Whitish grey, fire-clay.			

Roof of workable seam.

	ft.	in.		ft.	in.	
Workable portion of seam	1	2	*Coal*, splint.	2	1	*Coal*, bituminous and splint, mixed.
	0	2½	Band, hard whitish grey fire-clay.	0	2	Band, laminated clay shale.
	1	10	*Coal*, hard splint.	2	1	*Coal*, chiefly bituminous.
	0	0½	Band, brown clay.			
			Total.....	7	7	

Average samples were taken by me from this seam, as well as from that at Rawden Colliery, for analyses, but these are not yet completed. The coal, however, at both these localities is, in my opinion, well suited for smelting purposes.

I have, &c.,
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

Coal.

The coal of the Mittagong field has been practically demonstrated to be suitable for iron smelting. The Mittagong Coal Company's Mine is situated about 3½ miles from the Great Southern Railway Line, with which it is connected by a branch line. As above-mentioned the coal from this mine was employed in Mr. Brazenall's furnaces. But the diamond drill bore put down near the iron ore deposits, proved the existence of a workable seam of coal 8 feet 8 inches thick, at a depth of 242 feet. This has been reported on by Mr. W. Anderson, Geological Surveyor, [*see analysis in Appendix* A] who states that:—"The low percentage of sulphur in the coal, together with the small amount of phosphoric and sulphuric anhydride in the ash, will enhance the value of the coal for smelting purpose."

At the old iron smelting works at Lithgow, on the Great Western Railway, the local coal was used successfully. Analyses of it made by Professor Liversidge are given in *Appendix* C. The coal from Rylestone has not yet been actually employed for iron smelting, but Mr. Geological Surveyor David reports that it is suitable for the purpose. Should the magnetic titaniferous iron ores near Port Stephens, described by Mr. David [*see Appendix* F] be made use of, the high class coals of the Newcastle or Northern coal-field are immediately available. Analyses of these and of the coals from the Southern or Illawarra coal-field are given in the "Mineral products of New South Wales," [*see Appendix* G], and in *Appendix* C. These would be the coals employed, if as has been suggested iron smelting works should be established at Sydney, Newcastle, or elsewhere, near the coast, and supplied with ores imported from the Bai du Süd, New Caledonia, where extensive deposits are reported to exist. *Appendix* H contains analyses by Mr. Mingaye of iron ores from New Caledonia.

Limestone.

Extensive beds of marble limestone of good quality occur in each of the above-mentioned districts. In the south-western district it would have to be conveyed by rail a distance of 37 miles from Marulan to Mittagong, or 24 miles further if taken to Picton; but in the Wallerawang and Rylstone Coal-fields it is closely associated with the coal and iron ore deposits.

Manganese, Chromite, and Wolfram.

These minerals have been found in various parts of the colony. Manganese ore of good quality is being raised near Rockley for export, and would be available for the smelting works on the Great Western Railway line. Another lode has been opened at Glanmire. A lode is said to occur also near the Rylstone iron deposits. Chromite exists in some quantity at Bowling Alley Point and at Gordon Brook in the northern districts. Tungstate of iron has been found, but not yet worked, in quartz lodes near Glen Innes and Emmaville, in the New England district. Analyses of some of these minerals are given in the annual reports of the Department of Mines and in the *Appendix* C.

Summary.

It is thus evident that in New South Wales there are important deposits of rich iron ores, together with unlimited supplies of coal and limestone suitable for smelting purposes; and that for the manufacture of steel of certain descriptions, abundance of manganese, chrome and tungsten ores are available. There are three localities favourably situated for the establishment of smelting works, viz.:—Near Mittagong or Picton, in the South-western Coal-field, on the Great Southern Railway Line; near Wallerawang or Lithgow, on the edge of the Western Coal-field, on the Great Western Railway; and near Rylstone also in the Western Coal-field, on the Wallerawang-Mudgee Railway line.

The ore in the latter localities might, if required, be worked together and smelted at some central works, near Wallerawang or other convenient site. The quantity of iron ore available for smelting works in the Mittagong or Picton district is estimated approximately at 8,234,000 tons containing 3,684,000 tons of metallic iron; in the Wallerawang district, 2,484,000 tons of ore, yielding 1,212,000 tons of metallic iron; and in the Rylstone district, 2,226,000 tons of ore containing 957,180 tons of metallic iron, or a total quantity of 12,944,000 tons of ore, containing 5,853,180 tons of metallic iron.

In reference to the Australasian imports of iron and iron manufactures, it may be of interest to quote the following remarks by Mr. T. A. Coghlan, A.M., C.E., Government Statistician, that—"The average yearly import for the four years (1885–1888) amounts to £1,740,412 for New South Wales, and 5,081,663 for Australasia, and the quantity of pig iron required to produce the material represented by these values was approximately 153,000 tons and 460,000 tons per annum, for New South Wales and the whole group of colonies respectively."

Therefore

Therefore at this rate the estimated quantity of iron capable of being produced in New South Wales, would meet the demand of the colony for over 35 years.

I have omitted reference to the iron ore deposits of the Illawarra district, for they are not considered sufficiently rich to be profitable worked by themselves; but in the event of smelting works being established on the coastal coal-fields they may be of value for smelting with imported richer ores.

I have, &c.,

C. S. WILKINSON,

Geological Surveyor-in-Charge.

APPENDIX Ic.

Report on the "Castelnan" Concentrator.

Sir, Department of Mines, 15 June, 1891.

When at the London Mining Exhibition I was invited to inspect the "Castelnan" Concentrator, at the works of the "Société Generale Française de Traitement des Minerais," 175 Rue-st., Honoré, Paris. I availed myself of the opportunity of doing so on my return journey overland to meet the steamer at Naples. One of the directors, Baron de Grandmaison, kindly met me in Paris and showed me over the works, where I saw the concentrator in operation. It somewhat resembles the "Frue Vauner," and its main feature is an endless India-rubber belt, travelling upon rollers on a frame which is about 20 feet long and 4 feet wide; but the belt instead of travelling up an incline and against a flow of water, as in the case of the "Frue Vauner," is tilted sideways and travels horizontally with water flowing across it—in other words, the sides of the belt are horizontal, but one side is at a lower level than the other. The angle of inclination of the belt may be readily adjusted to suit the ore to be operated upon. The belt has a smooth surface, and consists of thick canvas material coated with India-rubber.

The method of treatment of the ore is as follows:—The finely-crushed ore, after passing with water through a revolving screen of No. 60 mesh and over a spreader, falls upon the upper side of the belt at the left-hand end of the machine (the belt travelling from left to right), and immediately commences to roll down the inclined surface with the flow of water. The quartz, or lighter particles of the ore, are, of course, the first to be washed down, while the heavier minerals, blende, pyrites, galena, gold, &c., are less easily moved, owing to their greater specific gravity, by the flow of water and are carried further on by the belt before they reach its lower edge, from which they fall into a trough placed along the side of the machine. The distance, therefore, to which each mineral is carried before it falls into the trough depends upon its specific gravity, and the trough is accordingly partitioned off into certain lengths or divisions, to keep apart the different minerals that have been thus separated from each other, so that this machine acts as a separator as well as a concentrator at the same time.

The greater the difference in specific gravity between the minerals in the ore operated on, the more complete will be their separation, and were the particles of ore all of one size this process would give almost perfect results; but, as the particles of crushed ore vary in size from the finest dust to that of the holes in the screen or grating through which they have passed, such perfect separation of the different materials cannot be expected, and therefore some of the divisions in the trough may be arranged to receive the concentrates which may contain a little admixture of any two minerals, and these concentrates may, if required, be treated a second time. However, for ordinary practical purposes, such nicety of treatment may not be necessary, and a mixed ore of too low grade to be profitably worked in its natural state can by this process be readily concentrated, at a small cost, to a condition in which it would be valuable for treatment by another process.

I was shown in the Company's books the following results of samples treated by the "Castelnau" machine at the Paris works:—

A parcel of gold and silver-bearing ferruginous mispickel ore from Spain, gave on assay:—

		oz. dwt. gr.		
Before concentration	Gold	0 5 3	per ton.	
	Silver	1 0 14	„	
After concentration	Gold	1 12 3	per ton.	
	Silver	6 15 0	„	

A parcel of galena ore yielded:—

Before concentration	Lead, 1·3 per cent. Silver, 5·7 oz. 16 dwt. to 1 ton lead.
After concentration	Lead, 68·8 per cent. Silver, 86 oz. 13 dwt. per ton of lead.

A parcel of copper ore yielded:—

Before concentration	1·3 per cent. copper.
After concentration	12·0 per cent. copper.

The ore which was put through in my presence had been crushed and passed through a revolving screen of 60 mesh. It consisted of about one-third of gangue-quartz, &c., the remainder being chiefly carbonates of iron, zinc, and lead, with some sulphides of the same metals.

I took a sample of the screened ore (No. 1) before treatment, and others also after treatment—No. 2 being the richest concentrates from the last division in the trough; No. 3 the next richest or "seconds"; and No. 4 the "thirds." Unfortunately I have mislaid the sample which I took from the division into which the gangue, or "sterile" material was separated, so that I am unable to say whether any metallic mineral was lost in the tailings. However, if any did pass away it must have been insignificant in quantity judging from the following results of assays made in the laboratory of this department by Mr. J. C. H. Mingaye, Analyst and Assayer:—

	Zinc.	Lead.	Silver.
	per cent.	per cent.	per ton. oz. dwt. gr.
Sample No. 1, screened	6·66	1·53	3 15 3
„ „ 2, "Firsts"	15·04	14·64	12 6 1
„ „ 3, "Seconds"	17·62	5·28	9 0 17
„ „ 4, "Thirds"	2·61	0·21	3 5 8

These results are satisfactory as regards concentration, considering the nature of the ore, which consisted largely of carbonates of lead and zinc, which on crushing make much powder or slimes; therefore for more complete separation it is evident that the ore after crushing should be *sized* before passing over the belt, which is an essential condition for successful treatment in concentration and separation.

I was informed that this process is being successfully employed at several mines in the south of France, and that one machine is capable of treating about 1 ton per hour, at a cost of about 2½d. per ton. It is very simple in operation, and together with the revolving screen and ore elevator, requires only about 3-horse-power engine to drive it. One boy is sufficient to attend to two machines.

I append a photograph of the concentration, and also a pamphlet, in which are given a detailed description and diagrams.

The cost of one machine in Paris is said to be about £420, exclusive of patent right; but Baron Grandmaison informed me that his company, instead of parting with their right, would rather make terms for its use on payment of a royalty.

I am of opinion that this process might with much advantage be introduced into this Colony. It is not likely to supersede the "True Vauner" as a concentrator, but it has the additional capability of working as a separator, and as such, I think, it deserves attention, for the future development of mining in this country will largely depend upon the employment of efficient ore dressing appliances, especially for the treatment of low grade and mixed ores.

I have, &c.,
C. S. WILKINSON,
Geological Surveyor-in-Charge.

The Under Secretary

APPENDIX 1D.

Process for the Separation of Gold from Antimony by Electrolysis.

Sir, Geological Branch, Department of Mines, 26 June, 1891.

In the Spanish Court at the London Mining Exhibition, the Lixa Mining Company exhibited some auriferous antimony ores which much resembled those from the Hillgrove, Carangula, Razorback, and other reefs in New South Wales. As auriferous antimony-mining is likely to become extensive in our Colony, I made inquiry as to the method adopted for separating the gold from these ores. The secretary of the company, Mr. J. Foster, of 6, Great Saint Helens, London, E.C., informed me of Sanderson's Electrolysis process which was in course of being patented, and particulars of which he promised to send me. I have since received from Mr. Foster, the accompanying specification of the patent.

From this it appears that the ore is first smelted in the ordinary way, and the antimony containing the gold is cast into plates. One or more of these plates is placed in a bath of chloride of antimony diluted with a saturated solution of common salt, and then connected with one of the poles of a dynamo to serve as a positive electrode. To the other pole is connected a plate of carbon, or a sheet of copper to serve as a negative electrode. On the passage of an electric current through the bath the antimony is dissolved and electrolytically deposited upon the negative electrode, the gold thus set free falls as powder and is collected in a receptacle made of calico, or other suitable porous material, in which the antimony plate was enclosed in the bath. This sediment, which may also contain iron and other impurities from the antimony, is then treated by any of the well-known methods suitable for the recovery of the gold, and the antimony deposited upon the negative electrode may be melted down into ingots.

Mr. Foster informed me that the principal expense in the process is the cost of the electrolysis, and that this will very much depend upon whether there is water power in the vicinity to run the dynamo.

The separation of gold from antimony by electrolysis, was tried several years ago at the Eleanora Mine, Hillgrove, but I am not aware of the results obtained.

I have, &c.,
C. S. WILKINSON,
Geological Surveyor-in-Charge.

The Under Secretary.

APPENDIX 2.

Progress Report by Geological-Surveyor T. W. E. David.

Sir, 20 February, 1892.

I have the honor to furnish you with the following report of the work done by me for the Department of Mines from the commencement of the year 1891, up to the time of my receiving my present appointment at the University last June. In the early part of the year I was engaged in reporting on applications for aid out of the Prospecting Vote, and on new discoveries of various minerals in the New England District. In company with Mr. Kelly, one of the proprietors I inspected the newly-found cinnabar-bearing dyke, near the Solferino gold-field on the right bank of the Clarence River, a few miles below Yugilbah. A short account of this deposit has already been furnished by me in the papers in connection with an application for aid out of the Prospecting Vote to further test that deposit. At Solferino I dealt with a Prospecting Vote application, and then proceeded to inspect the deposits of chromite near Gordonbrook. My report upon the latter has already been furnished and forms Appendix 2A.

My instructions then took me, *via* Copmanhurst and Grafton, to Maclean (Rockymouth), where I inspected and reported on the tunnel, which had been driven on a seam of coal near the base of a hill behind the town. The seam was unworkable, although the tunnel had been driven sufficiently to admit of any coal, which might have thinned towards the outcrop through weathering, becoming solid and attaining its full normal thickness. As it appeared to me that this locality had already been sufficiently tested by means of shafts, tunnels, and bores, it seemed inexpedient to recommend the granting of further aid from the Prospecting Vote for continuing the coal-prospecting operations.

From Maclean, I went to Coraki where I was joined by Mr. Geological-Surveyor Stonier, and we made a joint inspection of the newly-discovered coal-seams at Moonenbar, near Coraki. Our report on these seams forms Appendix 2B.

From Coraki, we travelled to Drake, examining an extensive deposit of hæmatite between Tabulam and Drake, on the way. At Drake, Lunatic, and Pretty Gully, we made a number of inspections relating to Prospecting Vote applications, upon which our reports have already been furnished. We next proceeded to Vegetable Creek, and inspected the locality near Glen Creek, the scene of the discovery of emeralds a short time previous. Our report upon these emerald-mines forms Appendix 2C.

After dealing with some Prospecting Vote applications in the same district at the Gulf and at the Ninemile, we went to Inverell, and dealt with Prospecting Vote applications relating to the Malacca diamond-mine, and Brown's diamond-mine, and thence proceeded to Tingha, where we dealt with similar

applications respecting the further testing of tin at the latter locality. We then visited Bingara and inspected the newly-discovered deposit of cinnabar at Spring Creek, about 3 miles distant from the town. Our report thereon forms Appendix 2D.

We afterwards visited Barraba, dealing with a number of Prospecting Vote applications. I returned to Sydney about the middle of March, and, with the approval of the Honorable the Minister for Mines and Agriculture, I was allowed to deliver lectures at the University temporarily for two hours a week. From then until the date of my permanent appointment to my present position I was chiefly engaged in writing the reports, which form the above quoted appendices, and also in making some official inspections relating to Prospecting Vote applications. My formal resignation of my position as Geological Surveyor, consequent on my receiving my present appointment at the University, was submitted to the Department in June last, through the late head of the Geological Survey, Mr. C. S. Wilkinson, F.G.S. While reiterating my feelings of gratitude to my late chief, conveyed in the above formal resignation, I am forced to admit that it is impossible for me to express in words all that I owe to him. It was not only his skill as a field geologist, but also his large hearted love of humanity, his unselfishness, and unvarying courtesy, which endeared him to us, his colleagues, as well as to the whole mining community and people of New South Wales.

Obviously, no man's place can be exactly and entirely filled by his successor, owing to the differences in individual capabilities and characters; but I trust I may be allowed to state it as my opinion that by appointing you to your present position, in accordance with the last wishes expressed by Mr. C. S. Wilkinson, the Department has secured the services of one who is eminently capable of guiding the Geological Survey on that path of usefulness, along which our late chief would have had it travel.

I beg leave to wish you every success in your future administration of the Geological Survey.

I have, &c.,
T. W. EDGEWORTH DAVID, B.A., F.G.S.,
Professor of Geology, and Physical Geography,
University of Sydney.

The Government Geologist.

APPENDIX 2A.

Report on the deposits of chromite at Gordonbrook, near Copmanhurst, in the parish of Pucka, county Drake.

Sir, Geological Survey, Department of Mines, 10 June, 1891.

I have the honor to report that, in accordance with your instructions, I have inspected the deposits of chrome ore at Gordonbrook, about 30 miles north-west from Grafton. The deposits of chromite in this neighbourhood form two principal groups, as far as at present known, the position of which is shown on the accompanying plan.

They both occur in serpentine, at a short distance from the edge of the coal-measures of the Clarence Series.

I was unable to ascertain, owing to the limited time at my disposal, the exact relation of the serpentine to the latter formation.

The occurrence of the chromite, however, has not necessarily any geological relation to the boundary line of the coal-measures, which are perhaps altogether newer than the serpentine.

Besides these two formations a third is developed, which may be described as a fine-grained, greenish-black rock, slightly crystalline, and probably a highly altered rock, which might be termed epi-diorite.

This rock appears to have been intruded by the serpentine, and the deposits of chromite, marked "A" on the plans herewith, occur chiefly along the junction line of this rock with the serpentine.

The deposit "A," which I examined first, consists of two principal branches, with a few smaller intermediate ones.

They lie in a north-east and south-west direction.

The bunch at the north-east end occurs at the junction of the serpentine with the epi-diorite, and measures about 12 feet by 12 feet.

Taking the specific gravity of the ore in this bunch as 4·3, I should estimate that it would yield for every foot of sinking about 9½ tons of chrome ore.

The bunch at the south-west end of the string of smaller bunches measures about 8 yards by 6 yards, and has been sunk upon for a few feet.

The chromite in this bunch is a good deal mixed with serpentinous material. The bunch would yield, at the same specific gravity as above, about 52 tons of ore for every foot of sinking; but about one-third of this ore would probably have to be dressed in order to make it marketable, and perhaps even a larger portion than this, as owing to the surface of the bunch being more or less covered with soil, it is impossible to see its exact nature at present. A very little trenching would suffice to thoroughly prove this question.

This deposit is situated in portion 7, in the parish of Pucka.

The next deposit marked "B" on the accompanying plan is distant about 2 miles in a west-north-west direction from the one just described.

It forms a small bluff at the south-east corner of water reserve 97, on the left bank of Oakey Creek.

Owing to its comparatively exposed position a better section is obtainable of this than of "A" deposit.

It occurs in serpentine, and consists of one large and important bunch, and a much smaller one about 2½ chains south-easterly from the first.

The main bunch is about 30 yards long by 12 yards wide at its maximum width. The specific gravity of this one being taken as 4·3, this bunch might yield for every foot of sinking about 172 tons of chrome ore, of a somewhat better quality than that in the "A" deposit, though even this ore, to the extent of perhaps a quarter of its whole bulk, would require to be picked and dressed before it would be marketable.

As

As regards the downward extent of these deposits it is probable, in accordance with previous experience, that the individual bunches which are now visible at the surface will disappear at a comparatively shallow depth, or will thin out to a mere thread, but will be succeeded by other bunches of a greater depth. It is, however, impossible to estimate what extent of barren country rock will intervene between the bunches without actual prospecting.

The "A" deposit has been sunk upon to a depth of only a few feet, and the "B" deposit has not been sunk upon at all.

The latter, however, as is clear from the natural section afforded by the bank of the creek, will be permanent to at least 20 feet, and perhaps may extend downwards as far as it extends horizontally at the surface, viz., about 90 feet.

If therefore it continues to maintain its present size to a depth of 90 feet, it will contain about 15,480 tons of chrome ore.

This estimate may of course be much below or above the true quantity, but at any rate there are over 3,000 tons of ore here practically in sight.

The "A" deposit might yield about 3,000 tons of chrome ore if it maintains its present dimensions to a depth of 50 feet. If some of the smaller outlying bunches are taken into consideration, perhaps as much as 20,000 tons of chrome ore might be exploited from this neighbourhood, that is including all the deposits known at present, before the bunches now visible at the surface become exhausted; and then there is the probability that their place will be taken at a depth by other bunches. As regard the quality of the ore the following assays of it have been made by Mr. J. C. H. Mingaye, F.C.S., Analyst and Assayer to the Department:—

No. 1,320—Chrome iron yielding sesquioxide of chromium ....52·04 per cent.
No. 1,321— ,, ,, ,, ,, ...40·25 ,,
No. 1,322— ,, ,, ,, ,, ...55·27 ,,

Mr. A. Whyman has kindly placed at my disposal the results of two assays of samples of this ore, by Mr. W. A. Dixon, F.I.C., F.C.S., which are as follows:—

No. 1—Sesquioxide of chromium..... .....48·61 per cent.
No. 2— ,, ,, ...39·7 ,,

The latter of these two samples is described by Mr. Dixon as a reddish "burnt-looking" ore, so that it very likely had been damaged by surface exposure.

Another assay of similar ore from this locality by Mr. Dixon, yielding sesquioxide of chromium 48·5 per cent.

All these assays were made by samples selected by Mr. A. Whyman.

Any of this ore, which contains as much as 48 per cent. of the sesquioxide, should be marketable, and would be worth about from £3 to £4 per ton, if sold in Sydney, and perhaps as much as £5 per ton in England or Germany.

Mr. Whyman has supplied me with the following approximate estimates of the costs of mining the ore and carrying it to Sydney:—

	Per ton.
Land carriage from the mine to head of navigation of Clarence River, at Copmanhurst.....	£1 2 6
Freight, Copmanhurst to Sydney.....	0 7 0
Mining and bags.....	0 5 0
Total.....	£1 14 6

The above is a minimum estimate of the costs, as the freight is usually 10s. per ton and the land carriage in bad seasons would cost at least 30s. a ton.

Even, however, should the cost of mining the ore and bring it to Sydney, amount to £2 per ton, there would still be left a considerable margin for profit.

As soon as iron-smelting, and iron and steel manufacturing works are started in this country, on a fairly large scale, as there is every probability that they will be in the course of the next few years, there should be a fair local demand for chromite for the purpose of manufacturing chrome steel.

It is questionable, however, whether, with the present 30 miles of land carriage over somewhat indifferent roads, the chrome deposits of Gordonbrook could be exported to Europe at such a price as to compete successfully in European markets with the chrome ore of New Caledonia, which requires little or no land carriage. The freight on chromite from New Caledonia to Sydney is about from 7s. 6d. to 10s. per ton, and the total cost when landed in Sydney, about £1 per ton. Even, however, should there be no immediate prospect of profitably exploiting the Gordonbrook deposits, they will probably have a value in the immediate future, especially if a demand springs up for the ore at local iron and steel works, and it might even be possible to sell the ore profitably in European markets, in spite of the cost of carriage being much greater than in the case of the New Caledonian ore. It would, I think, be desirable to further test the extent of the deposit by a little trenching and sinking.

The geological evidence is very favourable, and shows, as already stated, that a quantity of about 20,000 tons might be obtained from the Gordonbrook deposits at depths not exceeding 90 feet. My best thanks are due to Mr. Samuel See, of Grafton, and to Mr. Harps, of the same city, for the kind assistance which they rendered me when making the inspection.

I have, &c.,
T. W. EDGEWORTH DAVID, B.A., F.G.S.,
Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX to Report on the occurrence of Chrome Ore at Gordonbrook, near Copmanhurst.

Sir, Geological Survey, Department of Mines, 27 July, 1891.

With reference to my recent report on the above subject I would beg to add a few explanatory notes.

1. As regards the distance of land carriage of the ore from the mine to the head of navigation at Copmanhurst, Mr. Whyman informs me that it is 21 miles instead of 30 miles, as stated in my report.

The cost of carriage, however, was correctly stated in my original report.

The road for the first 13 miles, from Copmanhurst towards the mine, is a "made" road, but for the remaining distance it is not made, and would be rather heavy for traffic in wet weather, but in dry weather it might be formed into a fair track.

As regards the statement in my original report that chrome ore at New Caledonia could be put on board ship for 10s. per ton, I intended this to represent the lowest rather than the average cost of mining the ore at New Caledonia, and putting it on board ship.

The actual cost, I am informed on excellent authority, varies from 10s. up to about 30s. per ton, and now that the more accessible portion of the ore bodies have been worked, the cost is nearer 30s. than 10s. per ton.

I am also informed that the standard of marketable chrome ore has recently been lowered from its original standard of 48 per cent. to a standard of 45 per cent. of chromic acid.

I have, &c.,

The Geological Surveyor-in-Charge. T. W. E. DAVID, B.A., F.G.S., Geological Surveyor.

APPENDIX 2B.

REPORT upon a portion of the Coal-measures of the Clarence Basin, with special reference to the occurrence of Coal in Coraki.

Sir, Geological Survey, Department of Mines, 25 May, 1891.

I have the honor to report that, in accordance with your instructions, I have inspected the seams of coal which have recently been opened out in the parish of Bungawalbyn, county of Richmond, near Coraki, and also some other localities in the Clarence district, where coal has previously been discovered. The district has already been examined and officially reported on by Mr. E. F. Pittman, Assoc., R.S.M., Chief Mining Surveyor, and by Mr. C. S. Wilkinson, F.G.S., the Government Geologist

Geological References by previous Authors.

1. *Mr. E. F. Pittman, Assoc., R.S.M.*—Mr. E. F. Pittman, Assoc. R.S.M., in a report furnished to the Department of Mines, dated 6th December, 1880,* gives a concise account of his geological examination of the Clarence Coal-basin, which is well summarised at the commencement of his report, as follows:—

"From a geological point of view, the Clarence and Richmond district is remarkable for the occurrence of a large carboniferous basin. The rocks forming this basin consist of pebble conglomerates and sandstones. The first or lowest are the conglomerates which are composed of coarse pebbles derived from Siluro-Devonian rocks which underlie the whole of the basin, and which flank it upon the south and west in high ranges. Above these conglomerates occur coarse sandstones, more or less impregnated with iron, and having interstratified beds of shale containing coal-seams. The fossils which I found with the coal from these beds show that they are much more recent than the Newcastle series. They are probably of Jurassic age, and therefore similar to the Mesozoic beds of Queensland and Victoria, as I found *Taniopteris Daintreei, Thinfeldia odontopteroides, Sphenopteris*, &c., which are characteristic of the latter beds.

I examined the outcrops of a good many seams in various parts of the district, but in no case did I find sufficient thickness or purity of coal to constitute a workable seam from a commercial point of view. As the rocks dip from all sides towards Grafton as a centre, I am of opinion that if a bore were put down there it would thoroughly test the district for coal."

Mr. Pittman measured the following sections of coal, the first to the left of the road from Grafton to Nymboida in Farquar's Creek:—

	ft.	in.
Sandstone	1	0
Inferior coal	1	0
Fire-clay	0	5
Coal	1	0
Shale with small seams of inferior coal separated by bands of sandstone	12	0

The

* Annual Report, Department of Mines, 1880, pp. 244 to 247.

The second at the head of Pulganbar Creek (on the Gordon Brook run), north of Smith's Flat :—

	ft.	in.
Black shale	0	2
Fair coal	1	2
Fire-clay	0	3
Inferior coal	2	0

2. *Mr. W. B. Henderson, Superintendent of Drills.*—In 1883 a bore was put down with a water auger (No. 5) at Grafton, which, after passing through about 112 feet of alluvials of recent geological age, struck the coal-measures, and penetrated a seam of coal 1 foot in thickness at a depth of 184 feet. This coal probably overlies the Hawkesbury or Middle Clarence sandstone to be described presently. [*See Appendix* C.]

3. *Mr. W. H. J. Slee, F.G.S., Superintendent of Drills.*—In 1885 a diamond-drill bore was put down by the Government at Maclean (Rockymouth), between Grafton and the entrance to the Clarence River. The bore attained a depth of 403 feet without striking coal of any thickness. [*See Appendix* A.]

Mr. C. S. Wilkinson, F.G.S., the Government Geologist.—The seams of coal exposed at Bungawalbyn are evidently identical with those already described by Mr. C. S. Wilkinson, F.G.S., at Coaldale and Copmanhurst, and at Maclean (Rockymouth), on the Clarence River, and near Wardell on the Richmond River, between Ballina and Woodburn, and at a place about 4 miles north-west of Chatsworth, on a branch of the Clarence River.*

Speaking of the section at Coaldale, Mr. Wilkinson states (*l.c.*, p. 204) :—"We next visited Mylne's Gap, near Coaldale, about 30 miles north-west from Grafton, where Mr. S. See and Mr. Whyman have had a shaft sunk, in which a seam of coal has been proved 37 feet thick, inclusive of numerous bands, but as the top was in coal *débris*, the actual thickness of the seam has not yet been ascertained.

"On account of bands, the coal, if worked, would yield much ash, but it might be useful for local purposes, where this would not be a serious disadvantage. It is of a bituminous character, and portions of the seam contain an inferior cannel coal. We have taken samples for analysis. The unproved upper portion of the seam, and two other seams which are seen outcropping at the surface higher up the range, should be prospected." At page 204, Mr. Wilkinson states :—"Near Copmanhurst, Messrs. Fisher, Hicks, and party are prospecting for coal. They have sunk 5 feet into a seam of coal of fair quality, but containing too many bands to be profitably worked. They intend to sink deeper, as coal of workable thickness may occur in the lower untried portion of the seam, which is probably the equivalent of the Coaldale seam, and also of that near Maclean. This being so the seam will pass under the city of Grafton at a depth of from 500 to 600 feet."

General Geological Considerations.

The key to the geology of the Clarence Coal-basin, as pointed out by Mr. C. S. Wilkinson, is the occurrence in it of extensive and thick beds of whitish sandstone, which Mr. Wilkinson suggests is probably the equivalent of Hawkesbury sandstone of the Sydney Basin.

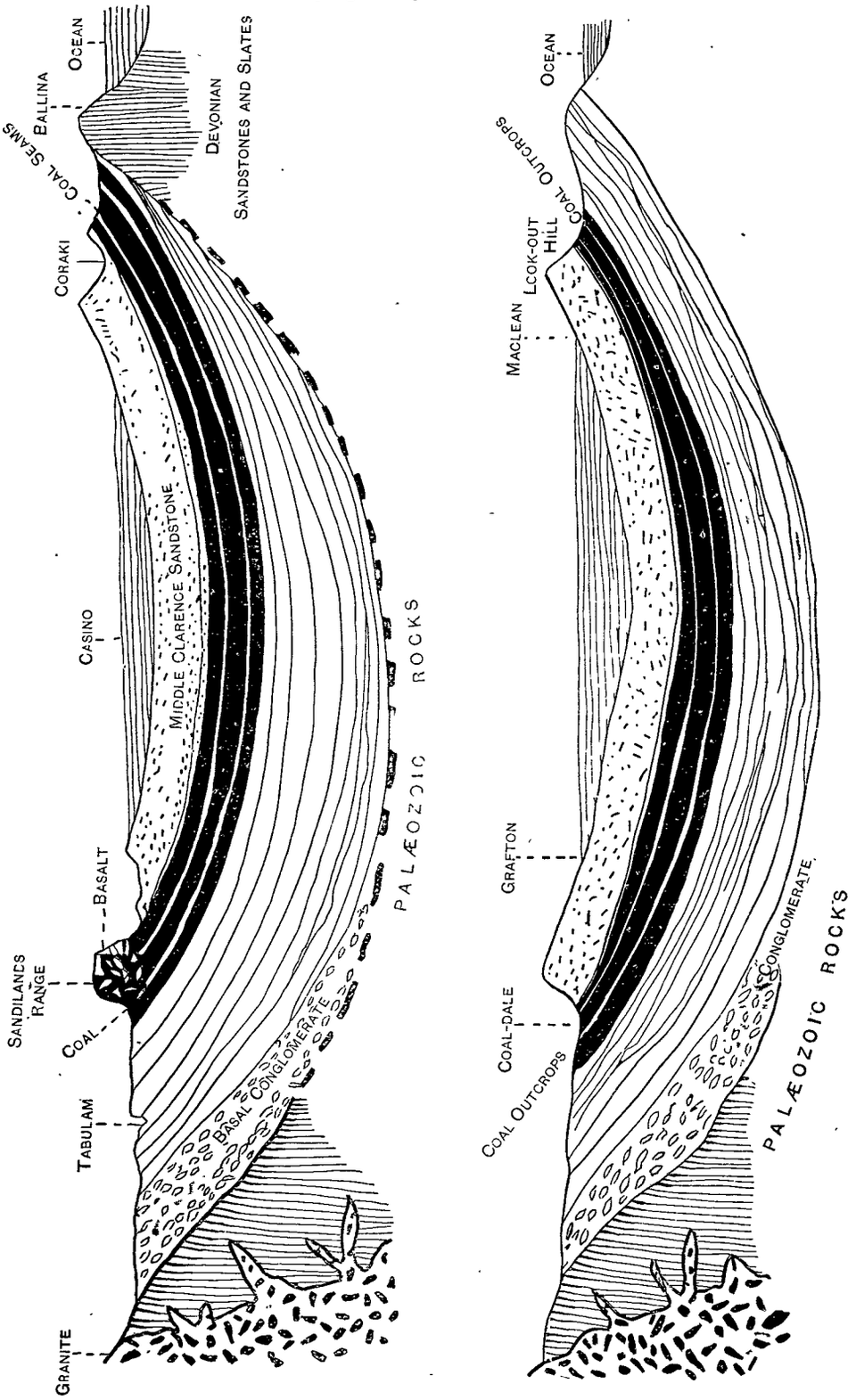
Mr. Wilkinson describes this massive sandstone series as occupying an intermediate position between the upper and lower coal-beds of the Clarence basin, so that it may not inappropriately be termed the Middle Clarence Series. Its strong outcrop, wherever it is developed, and its persistency will render it a very useful guide to future geological workers in this district, and it is an extremely valuable indication for localising the outcrops of the principal seams of coal which have been discovered in the north-eastern portion of New South Wales. If this sandstone series be found to be identical with the Hawkesbury sandstone, it may be possible to correlate the Upper Clarence Series with the Wianamatta Shales, which overlie the Hawkesbury sandstone at Sydney, and the Lower Clarence Series with, perhaps, portions of the Narrabeen Shales, which underlie the Hawkesbury sandstone. No equivalent of the Newcastle, Tomago, or Greta Coal-measures have ever been discovered in the Clarence district, nor, as far as I am aware, has a single specimen of *Glossopteris*, a fossil so prevalent and characteristic in the former coal-measures, ever been discovered in the strata of the Clarence Basin. All the fresh-water plant fossils hitherto discovered in the Clarence Coal-measures have Mesozoic rather than Palæozoic affinities, *Taniopteris Daintreei* being a specially characteristic form.

The Middle Clarence Series was observed by me to dip from Copmanhurst towards Grafton, as shown by Mr. Wilkinson, and then to reappear in the Look-out Hill, south of Maclean, and from here it was observed by me to extend in a northerly direction for a distance of about 30 miles to Coraki, and thence it apparently trends in a north-north-east direction, as I am informed by the Warden, Mr. Jones, to a point about 2 miles westerly from Wardell. Further north its outcrop is probably more or less hidden under the overlying sheets of basaltic lava.

This eastern line of outcrop of Middle Clarence Sandstone dips westerly, whereas the western line of outcrop of the same series dips easterly at Coaldale and Copmanhurst, and also to the east of the foot of the Sandilands Range, where it is strongly developed. There

* Annual Report, Department of Mines, 1889, pp. 202-204

There is thus a large and deep basin enclosed between these eastern and western outcrops, as shown on the following sections, Casino lying nearly over the centre of it.



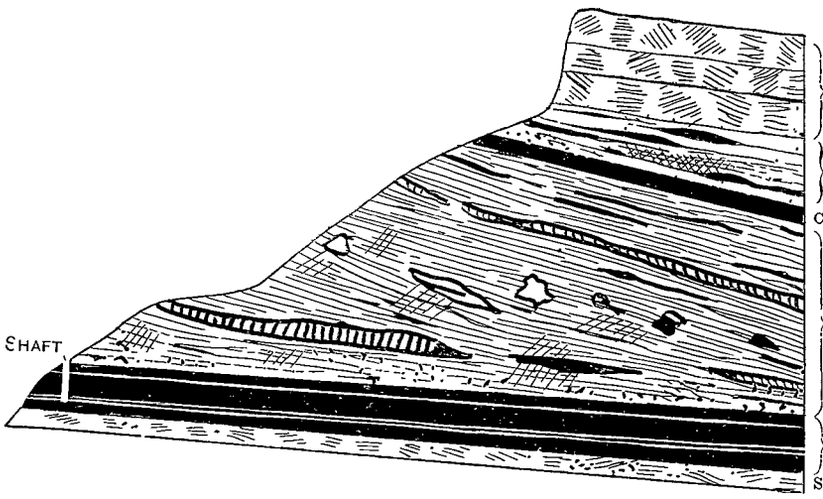
The width of the whole of the Clarence Coal-measures, from Ti-tree Creek, near Tabulam, to Ballina, is about 65 miles, and the width of that portion of it which contains the principal seams of coal as yet discovered, measured from Sandilands to Coraki, is about 66 miles. The length of that portion of the basin which contains these seams, from Maclean on the south to Wardell on the north, is 37 miles. But the Middle Clarence extends considerably to the south of Maclean, and probably for a still greater distance to the north of Wardell. Part, at any rate, or possibly the whole of the Clarence group of coal-measures, continue northwards into Queensland, and in the neighbourhood of Ipswich, and near Brisbane and Clifton, contain productive seams of coal. It is as yet, however, uncertain whether the coal-bearing strata at Ipswich should be correlated with the upper, Middle, or Lower Clarence Series. A very important point would be gained towards this correlation if the Middle Clarence (or Hawkesbury) sandstone could be identified near Ipswich, and its horizon, with regard to the Ipswich coal-seams, established. The question would then be settled as to whether the seams already proved in the Clarence Basin are identical with, or above or below the Ipswich coal-seams; and if a geological examination proves that they are not identical, then,

then, according as the geological evidence indicates, the Ipswich Coal-measures should be prospected for in the Clarence Basin, on a definite horizon, above or below the seams which are at present known to exist in the latter area.

The following section, by Mr. C. S. Wilkinson, shows the relation of the seams at present known in the Clarence district to the Middle Clarence (or Hawkesbury).

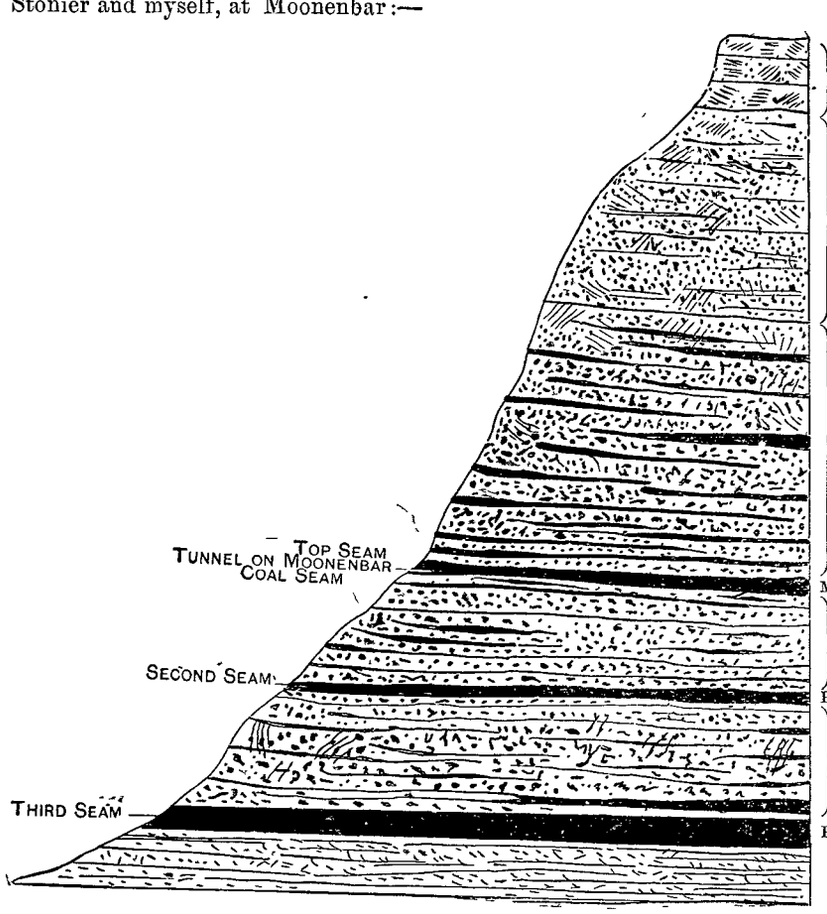
Sandstone:—

Section at Coaldale.



	ft.
Middle Clarence or Hawkesbury sandstone . .	100
Shales and sandstone	40
Coal seam (thickness not proved)	
Shales with ironstone, stems of trees, and *Tæniopteris Daintreei*	180
Coal, and bands	37
Sandstone, grey	10

Occurrence of coal at Coraki.—As already stated, the outcrop of the Middle Clarence, or Hawkesbury sandstone was observed by me to extend from Maclean on the south to Coraki on the north, and the outcrop of the seams of coal already proved at these two extremities could, no doubt, be easily proved at any intervening point, by prospecting a short distance below the base of the Hawkesbury sandstone. Mr. Wilkinson has already described some prospecting work done on one of these seams of coal along this line of outcrop, about 4 miles north-west of Chatsworth, and about 9 miles northerly from Maclean. Near Coraki the outcrop of these seams has been proved near both banks of the Richmond River, at a point about 4 miles south-south-east from Coraki, the locality being known as Swan Bay. From here the outcrop has been traced about 5 miles in a south-south-west direction, towards the Moonenbar Wharf. In company with Mr. Geological-Surveyor Stonier, Mr. Warden Jones, P M, Messrs. Yabsley, sen. and jun., and Mr. Colleary, the manager for the Moonanbar Coal Syndicate, and a number of local residents interested in the development of the coal resources, I inspected the various prospecting works along the line of outcrop, commencing at Moonenbar. The following is a section of the strata and coal-seams, as measured by Mr. Stonier and myself, at Moonenbar:—



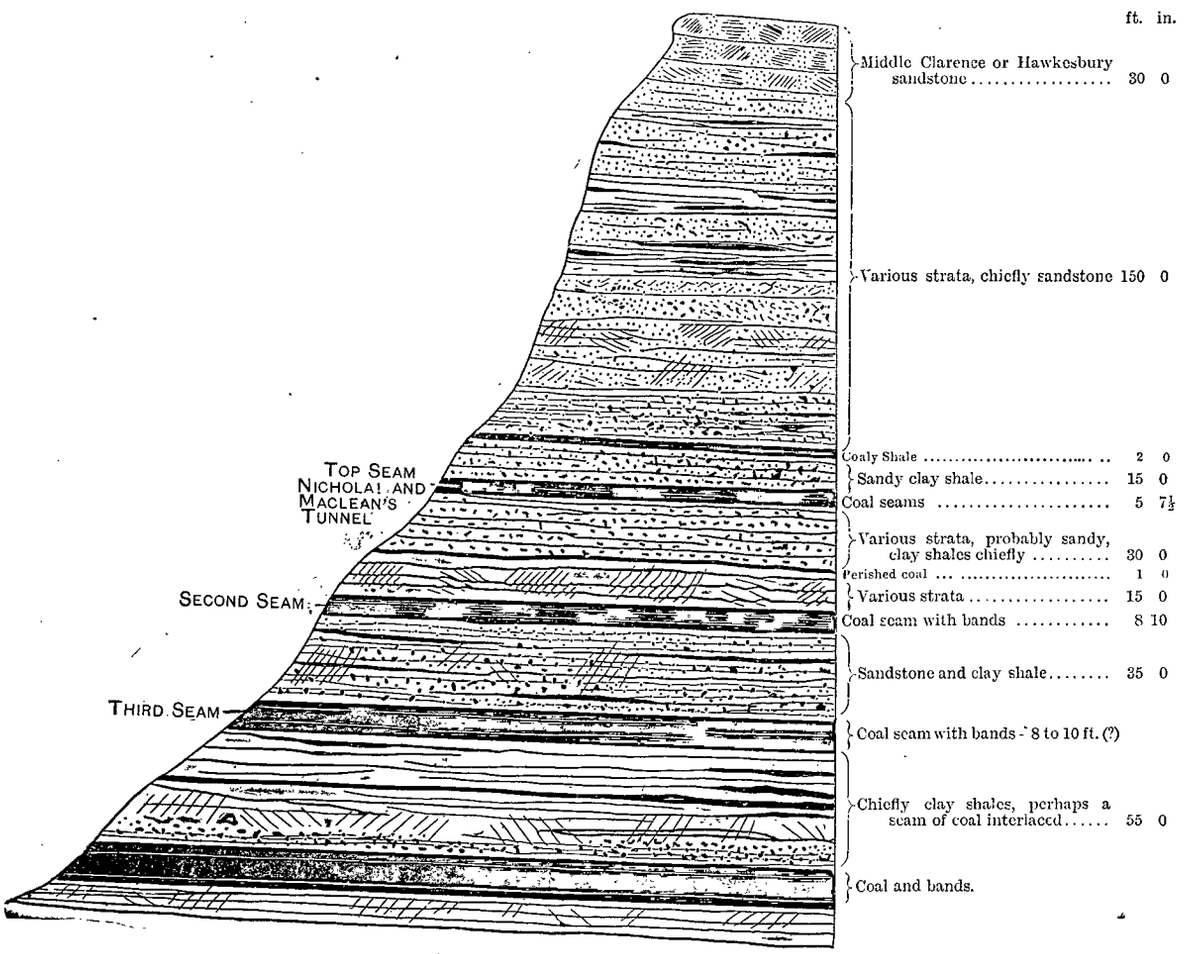
	ft.	in.
Current bedded middle Clarence or Hawkesbury sandstone ..	30	0
Chiefly brown sandstone	90	0
Chiefly sandstones with beds of clay shale	110	0
Moonenbar seam.....	5	5½
Various strata, chiefly sandstone and clay shale	44	0
Perished coal seam.....	3	0
Various strata, chiefly sandy clay shales	50	0
Perished coal seam	10	0
Total	342	5½

Of

Of the three coal-seams shown on the preceding section, only the top one has as yet been prospected. Aid, however, has been granted from the Prospecting Vote, to assist this syndicate to test the two lower seams also by tunnelling. At the time of our visit a tunnel had been driven here on the top seam, for a distance of 230 feet, in a direction N. 20° E, the dip of the seam being about 3° to 4° to the west-north-west. The following is a descending section of this top seam, as measured by me, at this tunnel:—

	ft.	in.	
	1	7	Brown and black sandy clay shale, with coaly partings.
	0	5	*Coal*, brittle, bituminous.
	0	6½	Brown clay shale.
Analysis 601.—	0	10	*Coal*, brittle, bituminous.
Roof.—	2	1	Clay shale, blackish (roof of drive).
	0	1½	*Coal*, soft, perished.
	0	3½	Brown clay shale.
	0	2	*Coal*, soft, perhaps from being perished.
	0	2	Stony Coal, dull, dirty.
	0	4	*Coal*.
	0	0½	Band brown shale.
	1	0	*Coal*, bituminous and splint, a trifle clayey.
	0	0½	Band brownish black clay, adhering firmly to coal.
	1	9	*Coal*, a trifle clayey, with ½ inch black band, 9 inches from bottom
	0	0½	Band, soft clayey coal.
Analysis 600.—	1	3	*Coal*, bituminous, rather clayey.
Total...	5	5½	

About one-third of a mile north-easterly from the Moonenbar tunnel another tunnel has been driven on Mr. P. Roslin's selection, and the outcrops of several seams have been partially tested by Nicholas Maclean and party. The following is a descending section, measured by Mr. Geological-Surveyor Stonier and myself, of the strata and coal-seams on Mr. Roslin's property:—



	ft.	in.
Middle Clarence or Hawkesbury sandstone	30	0
Various strata, chiefly sandstone	150	0
Coaly Shale	2	0
Sandy clay shale	15	0
Coal seams	5	7½
Various strata, probably sandy, clay shales chiefly	30	0
Perished coal	1	0
Various strata	15	0
Coal seam with bands	8	10
Sandstone and clay shale	35	0
Coal seam with bands 8 to 10 ft. (?)		
Chiefly clay shales, perhaps a seam of coal interlaced	55	0
Coal and bands.		

There is some doubt as to whether the seam which I have termed the "Third seam" in this section, is really in position or not, and also as to whether or not it is identical with a seam which has been opened up in a cutting on this property a short distance to the south-east of where the second seam has been exposed.

The

The following is a section (descending) of the seam which may be an equivalent to the "Third Seam," as seen in the first cutting we visited nearest to Mr. Roslin's house, and to the south-east of the other cutting, may also be on the same seam :—

	ft.	in.	
	3	0	Soil and subsoil.
	0	2	Blackish dirt.
	0	10	Clayey carbonaceous sandstone.
	0	3	Black dirt.
	1	0	Sandy clay shale.
	0	2	Black dirt.
	4	0	Dark-grey sandy clay shale.
	0	6	Black carbonaceous clay shale.
Roof.—	1	6	Soft brown clayey sandstone, and sandy clay shale.
	0	3	Black dirt and clay shale.
	0	0½	Grey clay shale.
	0	5	Laminated coaly clay shale.
	0	10	Perished coal, chiefly bituminous, with a little splint coal.
	0	3	Grey clay shale.
	0	2	Perished bituminous coal.
	0	4	Clay shale, dark grey.
	0	1	Bituminous coal.
	0	5	Clay shale, dark grey.
	0	1	*Coal*, bituminous.
	0	6	Clay shale, dark grey.
	0	2	*Coal*, perished, bituminous.
	0	8	Black coaly clay shale.
Total...	4	2½	

Floor.—Grey sandy clay shale. If this seam is not identical with the "Third Seam," it probably underlies it at a depth of about 30 feet, and may be intercalated somewhere in the 55 feet of strata shown on the section.

It is evident from the above section that the seam is not workable, but the coal is in too perished a condition, being close to the outcrop, to admit of a correct estimate being formed as to its quality and thickness. The following is a section of the outcrop of the second seam :—

ft.	in.	
1	6	Black dirt.
0	3	White fireclay.
0	7	Brown clay shale.
1	6	*Black dirt.*
5	0	Perished coal with bands.
Total	8	10

In the case of this seam also the only section obtainable was so close to the outcrop, that it was impossible to ascertain the exact nature of the coal, or the proportion of true coal to coaly shale in the black dirt.

A tunnel has been driven on the top seam on Mr. Roslin's property, in a direction W. 28° S., for a distance of 90 feet (including the cutting at the mouth, 130 feet). The following descending section of this seam was measured by me at the end of this tunnel :—

ft.	in.		
1	4	Brown clay shale.	
0	10	*Coal*, bituminous.	
1	3½	Band, brown clay shale.—*Roof.*	
ft.	in.		
0	5½	*Coal*, brittle, bituminous.	Analysis No. 598.
0	10	Band, stony, brown sandy clay shale.	
0	3½	*Coal*, very dirty.	
0	0½	Band, brown clay shale.	
0	6	*Coal*, stony, chittery.	
0	2	*Coal*, bituminous.	
0	1	Band, hard brown clay shale.	
0	4	*Coal*, splint and bituminious mixed.	
0	1	Band, brown clay shale.	
0	4	*Coal*, dull, black, inferior, streaked with bituminous coal.	
0	6	Black, coaly clay shale,	
0	7	*Coal*, chiefly inferior, dull clayey.	
0	0½	Band, black shale, adhering firmly to coal.	
1	6	*Coal*, splint and bituminous.....Analysis No. 599.	
5	7½	*Floor*—Black clay shale.	

About 3 miles north by east from Roslin's tunnel, Buchanan and Party were sinking in a coaly carbonaceous sandstone, with a view of striking some of the lower seams. Mr. Buchanan's Shaft was 46 feet deep at the time when I inspected it, and I am informed, was over 80 feet deep last month. Buchanan and Party have been granted aid to assist them to sink 100 feet deeper.

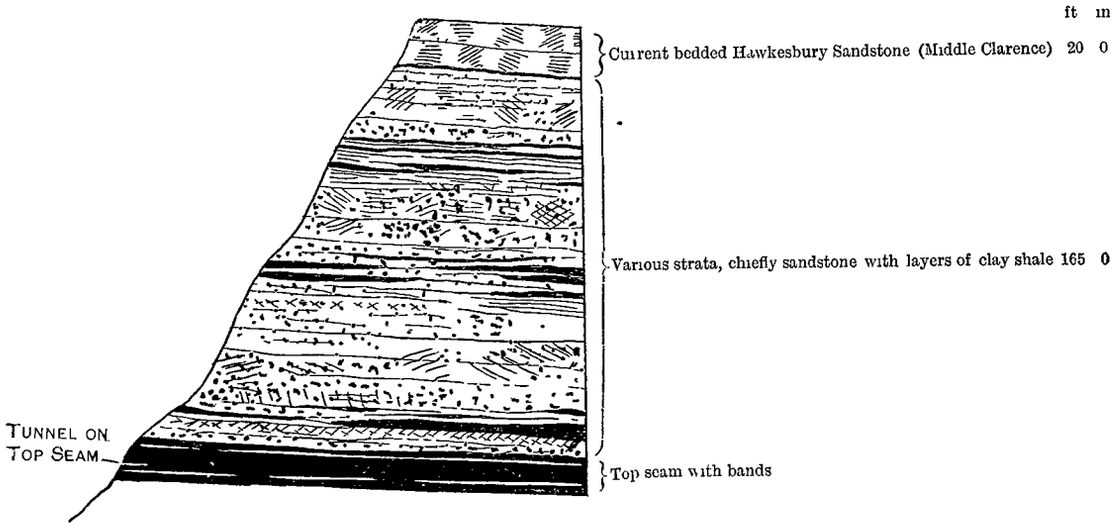
A little over 1 mile north-north-easterly from Buchanan's a tunnel has been driven into the hill-side on the property of Mrs. Robinson, distant only about 1 mile from the navigable water of the Richmond River. The tunnel had been driven in a direction W. 40° N. for a distance of about 90 feet. The seam

dips

dips in the same direction at 7,° which is an abnormally steep dip for the coal measures in the locality. The following section of this seam was measured by Mr Stonier and myself at the end of this tunnel.—

ft	in.	
0	5	*Coal* (top of jump-up)
0	3	Band, brown clay shale.
1	6	Dirty coal and bands
0	5	Black clay shale
0	3	*Coal*, bituminous
1	4	Black clay shale, with bands of coal.
0	5	*Coal*, bituminous
0	3½	Brownish grey clay shale
0	7	Strong black clay shale, with 1 inch of bituminous coal at top.
0	3	*Coal*, brittle, bituminous.
0	1	Brown clay shale
0	5	*Coal*, brittle, bituminous
0	3	Clay shale (roof of tunnel).
0	1	*Coal*, bituminous
0	3½	Clay shale, brown
0	6	Black shale, with coaly partings.
0	4	Coal and shale mixed
0	4	Brown shale with coaly partings at bottom.
0	3	*Coal*, brittle, bituminous.
0	3¼	Band, black coaly shale.
0	7	*Coal*, brittle, bituminous, rather dirty.
0	1½	Band, soft dull coaly shale
0	5½	*Coal*, brittle, bituminous.
0	2½	Band, soft black coaly clay shale
0	6	*Coal*, brittle, bituminous.
0	1	Band, inferior dirty coal.
0	6¼	*Coal*, soft splint, and bituminous, with 1 inch of inferior coal.
0	2¾	Inferior clayey coal
0	7½	*Coal*, brittle, bituminous.
0	0½	Band, brown clay shale
0	4	*Coal*, splinty, rather inferior.

It is evident from the above section that this seam is the top seam The following is a generalised section of the coal measures from this tunnel on Mrs. Robinson's property to the top of the hill to the north-west —



The outcrop of a seam which is probably a continuation of this top seam has, as I was informed, been proved on the north side of the Richmond River on private property The coal near Wardell is on the line of strike of these Coraki seams, and is probably a continuation of one of the seams already described

The following analyses have been made by Mr J C H Mingaye, F C S, Analyst and Assayer to the Department of Mines, from samples selected by Mr Stonier and myself —

No. 602 —Picked sample from Moonenbar Tunnel Proximate analysis

Hygroscopic moisture	0 48
Volatile hydrocarbons	14 33
Fixed carbon	74 13
Ash	11 06
	100 00

Coke —85 19 per cent
Sulphur —Nil

This sample represented only about from 3 to 4 inches in thickness of the best of the coal.

No 600 —Average sample from 1 foot next to floor of seam, Moonenbar Tunnel

Hygroscopic moisture	0 87
Volatile hydrocarbons	13 75
Fixed carbon	47 84
Ash	37 54
	100 00

Coke —85 38 per cent.
Sulphur —Nil

No.

No. 601.—Sample from 10 inches of coal next above the 2 feet 1 inch band forming roof of seam, Moonenbar Tunnel.

Hygroscopic moisture	0·69
Volatile hydrocarbons	14·03
Fixed carbon	69·69
Ash	15·59
	100·00

Coke :—85·28 per cent.
Sulphur :—Nil.

No 598.—Average sample from seam at Nicholai and Maclean's Tunnel, on Mr. Roslin's property.

Hygroscopic moisture	0·86
Volatile hydrocarbons	13·33
Fixed carbon	45·87
Ash	39·94
	100·00

Coke :—85·81 per cent.
Sulphur :—Nil.

No. 599.—Picked sample from 1 foot 4 inches, next above floor of the preceding seam.

Hygroscopic moisture	1·03
Volatile hydrocarbons	14·44
Fixed carbon	62·00
Ash	22·53
	100·00

Specific Gravity :—1·592.
Coke :—84·53 per cent.
Sulphur :—Nil.

No. 595.—Average sample from portion of coal seam on Mrs. Robinson's property, as specified in section.

Hygroscopic moisture	1·02
Volatile hydrocarbons	13·77
Fixed carbon	56·38
Ash	28·83
	100·00

Coke :—85·21 per cent.
Sulphur :—0·315 per cent.
Pounds of water convertible into steam by 1 lb. of the coal—9·90

No. 596.—Average sample from portion of above seam, as specified in section.

Hygroscopic moisture	0·95
Volatile hydrocarbons	14·08
Fixed carbon	54·89
Ash	30·08
	100·00

Coke :—84·97 per cent.
Sulphur :—Nil.

No. 597.—Picked sample from preceding seam.

Hygroscopic moisture	0·88
Volatile hydrocarbons	14·32
Fixed carbon	65·14
Ash	19·66
	100·00

Coke :—84·80 per cent.
Sulphur :—Nil.
Pounds of water convertible into steam by 1 lb. of the coal, 10·69.

Remarks.

The large percentage of ash present in these coals renders them of little value, excepting perhaps for local uses. No. 602 is marked "picked sample," and does not therefore represent a true average of the seam.

SUMMARY.

The percentage of ash in the average samples is so high that it is evident that the coal could not be used for steam or other purposes in its present state. On the other hand its richness in fixed carbon, freedom from sulphur, and its character of being almost smokeless during combustion should make it a useful coal for local purposes, if it could be cleaned by washing, so as to reduce the percentage of ash to about 15 per cent. Even this percentage would, however, be too high to admit of the coal being profitably exported, and its soft, friable nature would also unfit it for such a purpose.

The cost of picking and washing the coal would be but small, amounting probably to not more than 6d. per ton, inclusive of the cost of breaking up nearly all the coal into small, which would have to be done in order to clean it properly. The question next suggests itself, "What thickness of coal is there in the top seam, as far as can be judged from the sections at present obtainable of it, which might be marketable, if washed and cleaned?"

At the Moonenbar Tunnel, out of the thickness of 5 feet 5½ inches, perhaps from 1 foot 6 inches to 2 feet of coal might be extracted by means of a good coal-washing machine, sufficiently free from ash to be marketable.

At Nicholai's Tunnel, on Mr. Roslin's ground, from 1 foot 6 inches up to 2 feet of marketable coal might be extracted from the thickness of 5 feet 7½ inches, specified in the section.

At the tunnel on Mrs. Robinson's property, out of the lower portion of the seam, the thickness of which is given on my section as 5 feet 4¾ inches, about a similar thickness to that at the Moonenbar Tunnel and at Nicholai's Tunnel might be saved.

On

On the average, therefore, perhaps about 1 foot 9 inches in thickness out of the total coal contained in the "Top Seam," might be assumed to be the average amount of a quality sufficiently good for the local market.

This thickness of 1 foot 9 inches being taken as the basis of the calculation, and the specific gravity of the coal being assumed to be 1·6, the seam should contain a gross quantity per acre of about 3,400 tons of coal; and one-third being deducted for waste in getting, there would be about 2,267 tons of slack coal, consisting of nut coal and small coal, which might be sold in that state for use locally on the river steamers, or at the sugar mills, or possibly it might be made up into patent fuel briquettes, in which case it might perhaps come into use for locomotive purposes, when the railway from Lismore to the Tweed is completed.

The cost of hewing the coal, and separating out the principal bands roughly in the mine, would probably not exceed 7s. to 8s. per ton. That is of course on the assumption that about 1 foot 9 inches would be the average thickness of coal of fairly good quality, which could be obtained from the seam. The picking of the coal, and its cleaning in the coal-washing machine, would probably cost not less than 6d. per ton, as several of the bands adhere somewhat firmly to the coal. The total cost therefore of producing a mixture of nut and fine small coal would probably be between 7s. 6d. and 8s. per ton, without allowing for cost of timber for the mine, expenses of management, commission, depreciation in value of plant, rents, &c. It is very questionable, therefore, whether in the first case this "Top Seam" can be worked profitably independent of competition, and (2) whether it could be sold for local use at such a price as to compete with the superior coals of the Newcastle and Hunter River Coal Fields. The freight on coal from Newcastle to Lismore would be about 9s. to 10s., per ton, and the calorific value of the Newcastle coal compared with the Coraki coal would be as 13 to 11, which means that the Newcastle coal would do about 15 per cent. more work than the Coraki, and as it would contain at least 10 per cent. less ash than the washed and cleaned Coraki Coal, it would be 25 per cent. better than the latter.

As, however, there is already a considerable demand for coal in this district for local consumption, it would certainly, in my opinion, be well worth the experiment to ascertain whether or not the coal in the "Top Seam" can be profitably cleaned in a coal-washing machine. It is only by an actual experiment of this kind that the fact can be determined as to what thickness of the seam can be cleaned advantageously, and as to the percentage of ash which would be contained in the cleaned coal.

I would venture therefore to make the following suggestions with regard to future coal-mining in this district:—

1. That an experiment be made upon a parcel of from 10 to 20 tons of coal taken from the lower 5½ feet of the "Top Seam" (the principal bands having first been picked out) by cleaning it in a coal-washing machine.

For experimental purposes of this sort on so small a scale, it might be preferable for the proprietors of the Coraki coal to erect a temporary coal-washing plant on the bank of the Richmond River, convenient to the outcrop of the coal, or at any point convenient to water such as Swan Bay or South Arm. It might perhaps be possible for the proprietors to make arrangements with some working colliery in the northern or southern coal-field to test a parcel of their coal in one of the existing coal-washing plants.

In the latter case the cleaning of the coal might be done under the supervision of an officer from this department, and the freight on the parcel of coal would probably be defrayed out of the prospecting vote.

For a preliminary test, I would suggest that the proprietors of the Coraki coal mines may be invited to forward to this department, pillars of coal representing the lower 5½ feet of the "Top Seam" inclusive of bands. Such pillars to be 1 foot square by 5½ feet high, and to be taken from a typical section of the "Top Seam" in any one of the tunnels, and to be forwarded in one or more boxes to the department. where they will be weighed on arrival, and the bands will then be picked out of them and the remainder of the coal washed to separate out the impurities. The quantity of clean coal obtained as a result of the washing will then be weighed and a comparison of this weight with the original weight of the pillar will show the proportion of coal of fairly good quality in the seam. Analyses will then be made of bulk samples of the cleaned coal to determine the quality.

2. The lower seams, particularly those which I have called the second and third seams, should be further prospected. Aid has already been granted to assist in the further development of these seams near Moonenbar. As regards the prospect of finding workable seams below the three upper seams already proved, the fact should here be mentioned that a bore was put down at the base of the Look-out Hill near Maclean, to a depth of 403 feet, without striking any coal. This bore commenced certainly some distance below the level of the top seam, and possibly below the level of the second and third seams also. A section of this bore is given in the Annual Report of the Department of Mines, 1885, page 164. [*See Appendix* A.]

3. It would therefore be probably useless to bore or sink far below these three seams, unless the work were continued to a considerable depth, and in the present state of our knowledge such a work would probably prove of too speculative a character to warrant the expense. It would be desirable to further test the three seams at intervals along their outcrop between Maclean and Coraki, and to the north-north-east of Coraki towards Wardell.

It would, in my opinion, be very important to have a general geological examination made, as soon as practicable, of the Clarence Coal Basin, with the special object of correlating the Clarence Measures with Ipswich Measures in Queensland, and determining the exact horizon of the Ipswich coal-seams in the Clarence Basin, if they are developed there at all. It may be the case that the horizon of the Ipswich coal-seams lies immediately above the Middle Clarence (Hawkesbury) Sandstone, and not underneath the latter as do all the seams which have hitherto been discovered in the Clarence Basin.

The coal-seams on the west side of the Sandilands Range between Casino and Tabulam also probably underlie the Middle Clarence Sandstone, and are therefore probably identical with the Coraki, Maclean, and Coaldale Seams. In *Appendix* B, is a section of one of these seams in the Sandilands Range, near Ross' Hotel, as measured by Mr. Price, one of the examiners of the proposed lines of railways, to whose kindness I am indebted for the copy of his section.

Samples of coal were submitted by him to me for each of the layers of coal described by him in his section, and they all proved to be of a very inferior quality on account of the large proportion of ash present in the coal.

I also append a partial analyses by Mr. J. C. H. Mingaye, of a sample selected by me from the least inferior portion of this seam.

The plans to accompany this report and to form Appendices C and D will be furnished by me as soon as possible.

My best thanks are due to Mr. A. M'Intosh of Grafton, the Warden, Mr. Jones, P.M., to Mr. Yabsley, Senr., and Mr. Yabsley, Junr., to Mr. Colleary, Mr. Samuel See of Grafton, and Mr. David See of Maclean, and many others who assisted me in my cursory examination of the Clarence Coal-measures.

I have, &c.
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

APPENDIX 2C.

Report on the Discovery of Emeralds in the Vegetable Creek District

Sir, Geological Branch, Department of Mines, Sydney, April 25, 1891.

I have the honor to report that in company with Mr. Geological Surveyor Stonier, I recently inspected the locality in New England where emeralds were discovered in matrix last year.

The scene of the discovery is distant 7 miles in a direct line north by east from the township of Emmaville, which is 16 miles distant from the Deepwater Railway Station, the latter being 445 miles from Sydney, on the Great Northern Railway.

The spot where the emeralds were first discovered is an old shaft sunk many years ago on a vein of tin known as De Milhou's Reef.

The emeralds must obviously have been noticed by those who sank the shaft originally, but being familiar with this mineral under its form of green beryl, which occurs plentifully in the local tin gravels in small waterworn pebbles of little or no commercial value, they did not attach any importance to the discovery, not being aware of the fact that the deeper green colour of these gems in the vein at their shaft entitled the mineral to rank as emerald rather than green beryl. The occurrence of this mineral in matrix at this spot, although somewhat exceptional was not without a parallel, as it was known to exist under similar conditions at the Elsmore Tin Mine near Inverell, and in the tin lode belonging to the Gulf Tin Mining Company, on the Mole Table-land, in the Vegetable Creek District. Last year however, attention was drawn to the matter through Mr. J. E. Carne, F.G.S., Mineralogist to the Department of Mines and Curator of the Mining and Geological Museum, who when in London in charge of the New South Wales exhibits, under the direction of Mr. C. S. Wilkinson, informed Mr. Francis Abigail, M.P., in reply to his inquiry as to whether there were any localities in New South Wales, where true emeralds had been discovered, that he had been shown some emeralds which came from New England, by Mr. D. A. Porter, Inspector of Public School Buildings, who has long been well known throughout New England as a collector of various minerals, and as the author of several interesting mineralogical papers.

Communications were accordingly opened up with Mr. Porter and his friends, and seeing that there was an opportunity of finding a market for the gems, a small parcel of them was brought to me for examination with a view of obtaining an official report as to whether or not they were true emeralds.

The following report was furnished by the Department from myself:—

"The samples submitted have been examined by me, and the specific gravity of one of the stones has been taken by Mr. J. C. H. Mingaye, F.C.S., the Analyst and Assayer. The specific gravity of the stone tested is 2,670."

"It is evident from the hardness of these gem stones, the specific gravity, crystalline system, and characteristic longitudinal striations, that they are green beryls, of a colour sufficiently emerald green to entitle them to be termed emeralds. Inferior specimens of the Oriental emerald (green sapphire) have frequently been found in New South Wales, but this is the first reported occurrence in this Colony, as far as I am aware of the true emerald."

In making the last statement, I intended to convey that this was, as far as I knew, the first well authenticated occurrence of the true emerald in New South Wales, as its occurrence has frequently been reported from various localities, as recorded by Professor A. Liversidge, F.R.S., though as he justly remarks with regard to these reported occurrences, in some cases the beryl is probably meant. Mr. Carne, however, informs me that there is in the departmental collection now in London, a true emerald said to have been obtained at Kiandra by Mr. Bensusan.

The ground where Mr. Porter originally collected the specimens of emeralds was accordingly taken up, and the old shaft was further prospected and a fair sample of emeralds obtained from it. A parcel of these weighing 2,000 carats was then transmitted to London with the view of having the emeralds priced by competent authorities.

The result of the London valuations, as I am informed, proved satisfactory, and the proprietors are now confident that their enterprise will prove successful.

These 2,000 carats forwarded to London consisted of emeralds in the rough, and ten carats were forwarded at the same time of cut and polished gems.

Mention by previous Authors.

In the latest edition of his work* on the minerals of New South Wales, Professor A. Liversidge states that the emerald has been found at Bald Hill, Tumberumba, with other gems. The emerald is said to occur mixed with granite detritus in Paradise Creek, near Dundee, county Gough, and on the Mole Table-land; also in gneissiform dykes on the summit of Mount Tennant, and at Lanyon, to the west of that mountain; in the granite at Cooma, and in Mann's River and Kiandra, with other gems. In some cases the beryl is probably meant. The beryl is much more common; it is found at Elsmore in veins, associated with quartz and crystals of tin-stone. The beryl crystals which are often very thin and fragile, are seen interlaced with and seated upon the crystals of tin-stone; it also occurs *in situ* in a tin lode on the Gulf Stream Company's ground, Mole Tableland, associated with chalcedonic quartz.

At Ophir, county Wellington, the beryl occurs in white felspar with quartz and white mica; one crystal from Ophir, $\frac{5}{8}$ inch through, of a pale transparent yellow-green colour, and vitreous lustre had a specific gravity of 2·708. The beryl is found on Kangaroo Flat, Emmaville, at Tingha, Cope's Creek, and Scrubby Gully, in alluvial tin deposits.

A.

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* The Minerals of New South Wales, by A. Liversidge, M.A., F.R.S., &c. London, Trübner & Co., 1888, p. 199.

A greenish coloured opaque beryl, in small hexagonal prisms, has been found in the Shoalhaven River, east of Bungonia; the crystals are associated with mispickel, and in some cases they penetrate it.

Physical and Geological Features.

The country in the neighbourhood of the emeralds may be described as consisting chiefly of rocky hills attaining a moderate elevation from 100 to 200 feet above the level of the intervening gullies, all of which empty into the Glen Creek. It is thinly timbered and not heavily grassed, so that the task of tracing the continuation of the emerald vein has proved comparatively easy. At a distance of about ¾ of a mile from where the emeralds were first found, the foot of the Mole Table-land is reached, the whole surface of the country ascending rapidly to the north, and the scenery changing suddenly, huge bluffs of bare granite with rounded outlines, replacing the sharp rigid hills of clay-stone, which latter breaks up readily under the action of the weather into small square or cuboidal blocks.

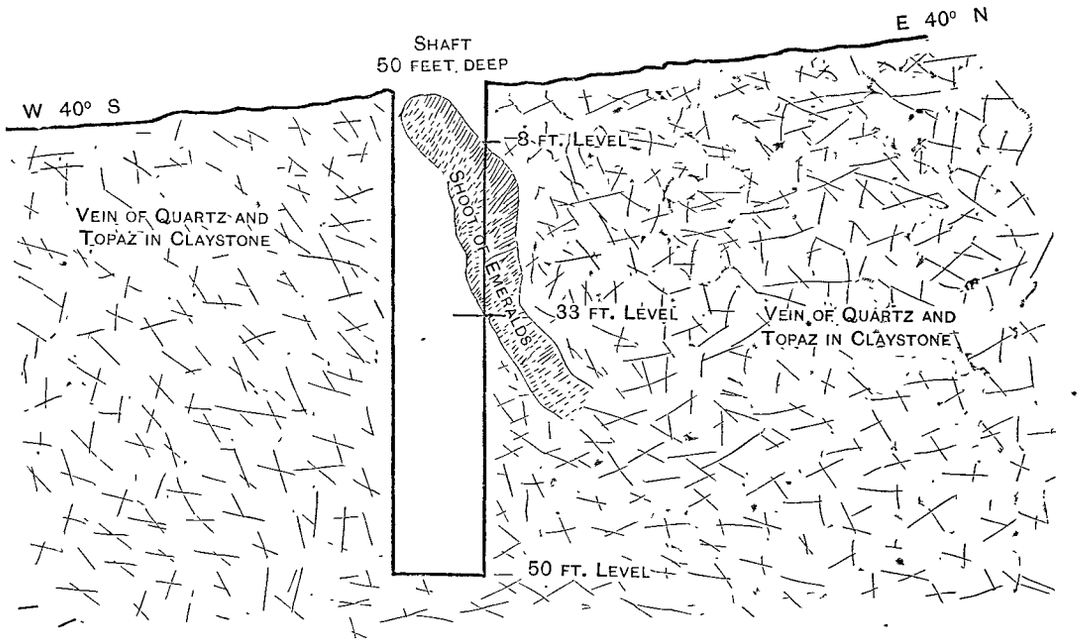
The granite of the Mole Table-land has strongly intruded the clay-stones, as is evident from the local alteration of the latter into a micaceous rock along their line of contact with the former, and also from the number of granite dykes, which are observable along the line of junction of these two formations. The granite is traversed by veins of quartz containing tin-stone, wolfram, and bismuth, while the veins in the clay-stone for the most part contain arsenical pyrites, copper pyrites, fahlerz, and a little tin stone, zinc blende, galena, &c.

Mode of Occurrence.

At the Proprietary Mine, and elsewhere in this locality, the emeralds occur in bunches or shoots, which dip obliquely along the plane of a vein of quartz and topaz rock, carrying mispickel, tin-stone, and fluorspar.

The point where the emeralds were first found, is situated in the Emerald Proprietary Company's Mine, near to the south-western limit of the main vein, as far as has at present been proved.

The vein trends from here in a direction about east, 40 degrees north, and dips at an angle of about 77 degrees to the south-east. A shaft has been sunk upon the vein at its south-western end, which at the time of our visit, had attained a depth of 50 feet. In sinking this shaft a shoot of emeralds was struck near the surface, pitching to the north-east. Its upper surface pitched out of the north-east side of the shaft at a depth of 8 feet, and its under surface pitched out of the same side of the shaft at a depth of 33 feet, in the manner shown on the following diagram :—



At the 33-foot level the shoot of emeralds has been followed in a drive along the vein for a distance of from 4 to 5 feet, and a patch of emeralds was still showing in the face at the time of our visit. The breadth of the shoot at the end of this drive was about 15 inches, measured, that is, at right angles to the walls of the vein. In width, measured along the course of the vein, the shoot at the same level was 6 to 7 feet. and its length towards its dip, from the point where it first started near the surface to the end of the drive at the 33-foot level, has already been proved to be at least about 30 feet, perhaps as much as 34 feet. The best section of the shoot is obtainable at the 33-foot level, as between it and the surface the shoot has been almost entirely removed by the sinking of the shaft, so that it is impossible to ascertain what its average measurements have been, and whether it consisted of a single bunch, or a succession of isolated bunches. A small off-shoot of the bunch is, however, still to be seen at the 20-foot level, where the vein is 8 inches wide, composed almost entirely of topaz crystals..

The latter are about ⅛ in diameter, and are embedded in a soft whitish decomposed felspathic material. A small patch of emeralds occurs here in the veinstone, which also carries tin at this point. This patch of emeralds is about 2 inches long and 1 inch wide.

At the bottom of the shaft, at the 50-foot level, the vein is from 4 inches to 6 inches wide, and is composed chiefly of topaz rock with arsenical pyrites and a litle quartz, the arsenical pyrites has permeated the joints of the clay-stone for a distance of from 2 to 3 feet away from the walls of the main vein.

The foot wall has also been saturated with the original solution of quartz and topaz for a distance of about a foot from the margin of the vein. No emeralds had been met with at the 50-foot level, the shaft having already, as stated, passed through and below the shoot at the 30-foot level, and not yet having struck a second shoot as it possibly will if continued deeper.

Fluorspar

Fluorspar is largely associated with the emeralds in the shoot at this shaft.

Adjoining the latter, at the surface, is a cutting ending in a tunnel, the latter being about 12 feet long, and the cutting about 50 feet long. These workings have followed the trend of the vein of topaz rock and quartz, in which the bunch of emeralds occurs at the 50-feet shaft; but as far as could be seen, no emeralds had been discovered in this portion of the vein.

About 30 yards in a direction east 30° north from the 50-feet shaft is a second shaft 20 feet deep, sunk upon a vein of topaz and arsenical pyrites, evidently a continuation of the vein at the first shaft, but not up to the present proved to contain any emeralds at this spot.

At 5½ chains north-easterly from the 50-feet shaft, a vein of topaz and quartz outcrops similar to the preceding, but also apparently devoid of emeralds.

About 25 chains from the 50-feet shaft, in a direction north-east, is a vein of white fluorspar and quartz with mispickel, striking east 30° north, and also in a clay-stone formation. No emeralds were visible here. About 35 chains distant from the previous fluorspar vein, and bearing about north-east, is a vein of rather lenticular character on the property of the Emerald Proprietary Extended, in portion 98.

This vein or shoot strikes east 42° north, and dips south 42° east at 78°.

It consists of quarts, mica, fluorspar, and topaz rock with a good deal of black mica and arsenical pyrites. A few beryls were observable here traversing flakes of mica. Within the last few days a large emerald weighing perhaps over 20 carats, has been discovered at this mine.

Wolfram also occurs here in small quantity. This lenticular vein is enclosed in a micaceous clay-stone; but the granite is only 50 yards distant. The vein had been sunk upon to a depth of 23 feet. The clay-stone there is much altered through its close proximity to the intrusive granite.

In the claim of Beveridge and Party, which adjoins the preceding on the north-east, veins of topaz and quartz were being prospected, traversing micaceous clay-stone and dykes of granite.

At the Colossal Mine, adjoining Beveridge and Party on the north-east, some small bunches of beryl in granite were being prospected. These appeared to occur at intervals following lines of joint in the granite.

The beryls there are very numerous, and so closely packed together as to form an almost pure beryl rock, the size of these aggregates being about from 1 foot to 2 feet in length, about the same in depth, and about 2 or 3 inches wide. None of these beryls, however, were of a sufficiently deep green colour to admit of their being classed as emeralds, most of the crystals being either nearly colourless or slightly tinged with green or bluish green.

To the north-west of the Emerald Extended Company's ground is Goggin's Claim, from which some good emeralds are stated to have been obtained at a few feet below the surface. A few emeralds, not of good quality, were seen by us in Goggin's vein at the surface, but we were unable to inspect the excavation from which the good emeralds are said to have been obtained owing to its having been filled up. This vein trends in a direction about east 40° north, like that at the Proprietary.

The emeralds, so far, therefore, have been proved chiefly at three spots in this locality, viz., at the Proprietary Company's 50-feet Shaft, at the Proprietary Extended No. 2 Shaft, and at Goggin's. The last two are both over half a mile distant from the one first mentioned.

By far the most important is obviously the bunch at the 50-feet shaft at the Proprietary Mine.

The total quantity of emeralds sent down to Sydney from this shaft is estimated by Messrs. Borchardt and Reid to be about 15,000 carats, but only a small proportion probably of this weight will prove to consist of marketable gems.

Probable origin.—There can be little doubt that the beryls and emeralds have been introduced into joints or fissures in the clay-stone by solutions emanating from the underlying intrusive granite, which has also supplied the fluorides of silicon and silicates of alumina and fluorides of lime simultaneously, which have crystallised in the veins respectively as topaz and fluorspar.

The Mole Table-land granite contains the beryl in some quantity in places, as proved at the Colossal Mine, and also at the Gulf Company's Mine, and by the gravels derived from the waste of this granite, which contain, besides beryl, topaz of various shades of colour in abundance. Fluorspar, owing to its comparative softness, is very rarely preserved in the gravels, but occurs *in situ* in veins in the granite associated with tin as at the Bark Hut tin lode, on the Mole Table-land, also called Reid and Crane's lode. It is therefore almost certain that the beryls and emeralds have crystallised out along with the topaz-quartz, tin-stone, mispickel, and fluorspar, from solutions derived from the granite.

This has an important bearing on the probable permanence of the bunch of emeralds at the Emerald Proprietary's Mine, as it is nearly certain that it will descend, not necessarily continuously, but in a more or less continuous string of bunches from the 50-feet shaft down to the line of junction of the granite with the claystone at a great depth below the level of the surface at the 50-feet shaft.

If the granite had an even and regular upper surface when it is in contact with the clay-stone, and if it dipped at a regular angle under the clay-stones, it would be as easy to calculate at what depth it should be struck in the Emerald Proprietary Company's 50-feet shaft (its distance and bearing being known from the line of outcrop of the granite and their respective levels), as to calculate at what depth a seam of coal should be struck under similar circumstances. The underground surface, however, of the granite being very uneven, only a very rough approximation can be formed from the following data:—

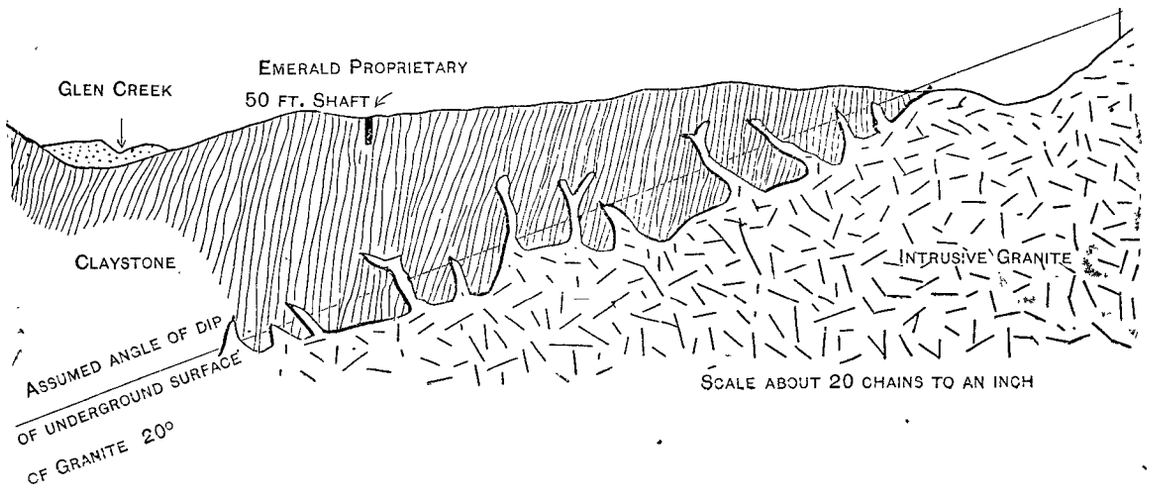
The 50-feet shaft on the Emerald Proprietary Company's ground is distant about 60 chains from the outcrop of the granite at the nearest point. The general angle at which the Mole Table-land granite dips under the clay-stone has been estimated by me elsewhere to be between 10 degrees and 20 degrees.*

This angle, however, is very low as compared with that of the junction line of similar formations as observed in Cornwall, England, where the granite has been calculated to dip under the *Killas* at an angle of 45°.

Assuming, however, that the underground surface of the granite in the neighbourhood of the Emerald Proprietary Company dips only at an angle of 20° the distance of the granite at its nearest point of outcrop being about 60 chains, and the surface level at the latter place about 200 feet above that of the Proprietary Company's 50-feet shaft, I might estimate that the bunches of emeralds, including those lower portions of them near the granite which would probably lose their colour so as to become beryls,

* Geology of the Vegetable Creek Tin-mining Field, p. 150. By T. W. Edgworth David, B.A., F.G.S., Mem. Geol. Survey, N.S. Wales, Geol. Series, No. 1.

beryls, might extend to a depth of approximately 1,200 feet. This estimate is, of course, subject to considerable modification dependent on the irregularities in the underlying surface of the granite. The method by which this depth is calculated is illustrated in the following diagram :—



It is evident that if this angle of dip be correct, the emeralds and beryls may extend to a depth of over 1,000 feet before reaching the surface of the granite. It is probable, however, that the surface of the granite will dip at a somewhat more rapid angle than the above, in which case the surface of the granite will lie much deeper. The question naturally suggests itself here, "To what depth will the emeralds continue as emeralds, and at what depth will they probably lose their colour and turn into beryls"? It is probable, I think, from the evidence obtainable at the Colossal Claim that when granite forms the rock in which the gems are enclosed they have the character of beryls rather than emeralds, but when they occur in the local clay-stones in conjunction with topaz, fluorspar, mispickel, and tin-stone, they are coloured more or less deeply with shades of green. From the circumstance that at the Emerald Proprietary Extended Mine, and also at Goggins' Claim, both of which are within only a few hundred feet of the underground surface of the granite, the beryls are decidedly green-coloured, some of them being true emeralds, it is probable, I think, that the emeralds at the Proprietary Mine will continue to maintain their colour to within 100 feet or so of the underground surface of the granite, which is perhaps, as already stated, at least 1,000 feet below the surface at the 50-feet shaft at the Proprietary Mine. It is not of course certain that the emeralds will lose their colour, and pass into beryls when they are traced at a depth into the granite. Much depends obviously on the question as to whether they have derived their colouring material from the clay-stones or from the granite. The intimate association of these emeralds with mispickel, as was the case with the opaque beryl, described by Professor Liversidge, from Bungonia, suggests the possibility that the colouring material in this case may be due to the formation of a silicate of iron and arsenic in minute proportion. The arsenical pyrites (mispickel) occurs frequently in the granite, as well as in the claystone, but in the Vegetable Creek District appears to be developed chiefly in the claystone. It is possible, therefore, that the emeralds will continue downwards into the granite, though on the whole I think they are likely to be better in quality as regards colour when they occur in that part of the vein which is enclosed between walls of claystone. As regards the horizontal extent of the emerald-bearing vein, it has now been proved at two points upwards of three-quarters of a mile apart, and intervening bunches will probably yet be discovered.

Proportion of Emeralds to Gangue.

With reference to the proportion of emeralds to the gangue, or matrix, of the shoot, in which they occur, sufficient data are not yet to hand to admit of even an approximate calculation being formed, I am informed, however, by the legal managers of the Company that an aggregate of about 15,000 carats have been obtained from the 50-feet shaft since their Company have worked it, and this represents perhaps half of the total beryls and emeralds obtained from the shaft. The total length of the shoot worked up to the present being about 30 feet, the 15,000 carats of beryls and emeralds may be said to represent the yield of about 15 feet of the shoot, or at the rate of about 1,000 carats per foot of the shoot. Out of these, perhaps about 10 to 20 in 1,000 may be assumed to be fairly good gems, suitable for being cut and polished. The deposits are, however, of too bunchy a nature to admit of anything approaching an accurate estimate being formed of the average rate of yield, which can only be ascertained after the bunches have been sunk upon to a depth of several hundred feet.

The Emeralds.

(A) *Associated Minerals.*—The emeralds may be observed inter-crystallised with the topaz, frequently penetrating crytals of flourspar, as delicate acicular prisms, sometimes embedded in a kaolinised felspathic rock, occasionally quite surrounded by a massive mispickel rarely encrusted with crystals of tin-stone, and in one case traversing plates of mica.

In some cases when the emeralds occur in the flourspar, they appear to conform partly to the octahedral lines of cleavage of the latter mineral, but in most cases run apparently irregularly through it. In one case a small emerald was noticeable enclosed partly in a crystal of topaz.

(B) *Form.*—The emeralds were invariably as far as could be seen, in a crystallised state, occurring in the form of hexagonal prisms longitudinally striated, but not so strongly so as beryl. A few of the crystals were evidently twinned along planes, parallel with the lateral faces of the prism. The basal cleavage is tolerably distinct in some of the crystals causing them to break in tabular pieces at right-angles to the principal axis of the crystals. Some of these crystals when examined on these lines of basal cleavage show strong zonal lines of growth.

(c) *Size.*—The largest emerald hitherto discovered at this locality is embedded in mispickel, and so has not yet been weighed. It was found at the Emerald Proprietary's Extended Mine, and is estimated by measurement to weigh about 23 carats. This crystal is 1¼ in. long, by about ⅜ of an inch in diameter. It was obtained at 14 feet below the surface, in a drive at the 30 feet shaft, in portion 98. The prism is divided by several transverse cracks following the places of basal cleavage. This is probably the largest emerald hitherto discovered in Australasia, in matrix.

The following are the weights of the largest gems from the mine, cut and polished up to date :—

Weights of gems when cut and polished—
2⅛ Carats. (£15 stated to have been offered for this gem.)
1½ „
1¼ „
1⅛ „ (£5 stated to have been offered for this.)
1⅛ „
1 „
1 „
¾ „

Altogether about 50 carats are stated to have been cut and polished, and Messrs. Borchardt and Reid inform me that they have been offered in Sydney £2 per carat for the 50 carats of cut and polished gems, and £2 2s. for 10 carats of the same cut and polished gems in England. These emeralds were cut and polished by Mr. D. Murfin, lapidary, of 276 Pitt-street, Sydney.

The largest emerald in the rough from the Proprietary Mine weighs 9 carats, another weighs 6½ carats, another weighs 6 carats, another weighs 5 carats.

(d) *Hardness.*—The emeralds scratch quartz, but with difficulty, and are almost of the same hardness as the white topazes with which they are associated.

(e) *Specific Gravity.*—As determined by Mr. Mingaye, the specific gravity of one of these emerald crystals tested by him was 2·67.

This is less than that of the Ophir beryl, tested by Professor Liversidge which was 2·708. The gravity, however, of beryls varies from 2·63 to 2·76.

(f) *Lustre.*—The lustre is vitreous on most of the specimens examined.

(g) *Colour.*—This varies from faint shades of green up to a moderately bright emerald green, but never showing a very deep shade of green.

In a few of the crystals the colouring material is unequally distributed, as in places there are colourless bands in the crystals, running at right angles to the principal axis. The colour of a great number of crystals is that of green beryl rather than of true emerald.

(h) *Matrix.*—As already stated, the matrix may be topaz-rock, fluor spar, arsenical pyrites, mica kaolinized felspar, and felspathic materal intermixed with quartz.

The last mentioned matrix will no doubt be hard at a depth, which will render the separation of emeralds from it a matter of some difficulty. When fluor spar or topaz rock forms the matrix, the emeralds can be separated out much more easily,

(i) *Chemical Composition.*—Up to the present, the Department of Mines have not received sufficient of the mineral for analysis.

In Professor Liversidge's work, however, already referred to (loc. cit. p. 199), he states :—

A specimen of beryl from Australia (probably New South Wales) was examined by Schneider ("Ramm., Min. Ch." p. 555, and quoted in Dana's "Descriptive Mineralogy" p. 247), and found to have the following composition :—

Analysis.

Silica	67·6
Alumina	18·8
Beryllia, or Glucina Be O	12·3
Iron Sesquioxide	·9
	99·6

Probable Value.

Assuming that the prices quoted to me as having been offered for the cut and polished stones are correct, viz., £2 per carat for a parcel of fifty carats, I should estimate that this mine should perhaps pay working expenses and leave a margin for profit, provided it be not floated with too large a capital; for if the property be encumbered with the charge of paying a heavy interest, it is not unlikely that the enterprise, which now promises to be a success, may end in failure.

There is every probability that the emeralds at the Proprietary Mine will extend to a considerable depth, perhaps over 1,000 ft. (at the Proprietary Company's 50-ft. shaft), before they reach the underground surface of the granite, and at all events to that depth at least they are likely to maintain their colour.

As regards the probable rate of yield, the fact should not be lost sight of that bunches, such as those in which the emerald occurs, are nearly certain to pinch out in places and be separated from deeper-lying bunches of similar gems by intervening portions of barren veinstone. The average interval between the bunches not yet being known, it is consequently impossible at present to form any idea as to what will be the average yield of emeralds below the present face of the shoot at the 33-ft. level.

Even however should it average only half my estimate of the actual probable yield up to the present, that is ½⁰ carats=5 carats per foot, of gems of sufficiently good quality for cutting and polishing for the market, the yield of emeralds would probably cover the cost of their winning and perhaps pay interest besides on a small capital, assuming of course that the price quoted to me by the managers of the Proprietary Company, as having been offered for their cut gems, may be taken as a reliable guide as to the actual value of them. With a view of assisting the company to test the deposit to a greater depth and in view also of the fact that up to the present the mine has not been proved for certain to be payable, aid has been given from the Prospecting Vote to enable them to sink their present 50-ft. shaft to a total depth of 150 ft.

As beryl is a mineral of such frequent occurrence in the granite of the Mole Tableland, it is more than probable that systematic prospecting will lead to the discovery of emeralds in matrix in other localities in this district, and the encouraging results so far attained by the Proprietary Company will no doubt induce others who have taken up leases in the neighbourhrod of the Proprietary Company to prospect

 their

their ground thoroughly. The alluvials of the Glen Creek, below where the gully junctions with it, which receives the drainage from the Proprietary Company's ground, are in my opinion well worthy of being tested for emeralds.

The topaz rock also might deserve attention, on account of its usefulness as an abrasive, as suggested by Mr. C. S. Wilkinson, F.G.S., topaz being only a trifle inferior in hardness to emery.

Mr. Stonier and I have to acknowledge our indebtedness to Mr. D. M. O'Donnell, of Emmaville, one of the owners of the Proprietary Mine, for kindly rendering us every possible assistance on the occasion of our visit, so as to enable us to make our inspection with the greatest facility.

I have, &c.,
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

Memo.—This explanatory note might be attached to my original report, and the Press might be allowed to see it, after the minister has read it, and then, perhaps, copies of it might be attached to the two copies of my original report asked for by Messrs. Borchardt and Reid, the secretaries to the Emerald Proprietary Company.—T. W. E. DAVID, 8/5/91. The Under Secretary.

Discovery of Emeralds, Vegetable Creek District.

Explanatory note.

Sir, Geological Branch, Department of Mines, 8 May, 1891.

With reference to the statement made by me in my report on the above subject, that out of the 15,000 carats of gem stones already extracted from the Emerald Proprietary Company's mine, "perhaps from ten to twenty in a thousand were fairly good gems, suitable for being cut and polished," I intended to convey the meaning that, in my opinion, as far as could be judged from the mine in its present state of development, that was approximately the proportion of gems of good colour and fairly free from flaws, as compared with those of a quality somewhat inferior to the preceding. I am still of opinion that this statement is approximately correct with regard to the proportion of good gems.

I might, however, venture to add that out of the remaining 97 per cent. perhaps about 3 per cent., more or less, might have some commercial value when cut and polished.

The proprietors of the mine are confident that even a very much higher proportion of gems of this latter quality can be cut and polished profitably, and it may be that this will prove to be the case. In making my first report, however, I omitted to mention this additional 3 per cent. of gems, of which the value appeared to me to be doubtful, because it seemed safer to base my estimates only on such as were unquestionably valuable.

I have, &c.,
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

APPENDIX 2D.

Report on the Discovery of Cinnabar at Bingara.

Sir, Geological Branch, Department of Mines, 16 May, 1891.

I have the honour to report that, in accordance with my instructions, I have recently, in company with Mr. Geological-Surveyor Stonier, inspected the ground where cinnabar has recently been found in a lode deposit near Bingara.

The scene of the discovery is distant about three miles in a south-easterly direction from Bingara, the locality being known as Spring Creek.

Alluvial cinnabar was discovered there many years ago by miners prospecting for gold, but it was only last year that this mineral was found at this spot, in matrix, in the form of a somewhat irregular lode deposit.

Mention by previous Authors.

The following account of the occurrence of mercury and cinnabar in New South Wales is given by Professor Liversidge, F.R.S., in the latest edition of his work on the minerals of New South Wales.*

"*Native Mercury.*"—The Rev. W. B. Clark stated that he received his first sample of native quicksilver in 1841, from near Carwell Creek, on the Cudgegong River, in County Phillip, where cinnabar occurs.

It has been found in the Mookerawa Creek and Great Waterhole of Ophir, in County Wellington, mentioned by Stutchbury; and in his report he stated that mercury had never been used in that creek.

Native mercury is said to occur in the casing of a reef at the Clifton Mine, Boorook. Mercury is also said to have been detected at Wagonga, County Dampier, in a bed some ten feet thick, and situated some ninety feet above the sea-level, and with cinnabar in a clay lode and the surface grit, at Calton Hill, Dungog.

Cinnabar.—Chem. Comp.: Mercury, 86·2; Sulphur, 13·8—Hg.S. Found near Rylstone, on the Cudgegong River, some twenty-five miles from Mudgee, County Phillip, in an argillaceous matrix, and in alluvial deposits associated with gold gems and similarly occurring minerals in the form of small-rounded masses of a brilliant red colour. * * * Reported also to occur at Moruya, County Dampier. Cinnabar is reported with gold, silver, and copper on Grove Creek, Abercrombie Mountains.

Mr. C. S. Wilkinson, F.G.S., the Government Geologist, furnished a report† on the occurrence of cinnabar in the Cudgegong.

The following are extracts from this report:—

"Mr. Waters * * * states that the cinnabar was found from the surface to a depth of 50 feet on to a false bottom, and that the deposit without cinnabar continued to 117 feet, when the true bed rock of Devonian schists was met with; but at 170 feet, when in black schist, he cut through a vein 4 in. thick, dipping to the south-west, and containing a little cinnabar. * * * Perhaps the most important feature connected

* The Minerals of New South Wales, &c., by A. Liversidge, M.A., F.R.S., London, Trübner and Co., 1888.
† Annual Report Department of Mines, 1884, p. 152

connected with the occurrence of the ore is that the solid cinnabar is sometimes seen to merge into or impregnate the clay or drift of the deposits in which it is found. This is then direct evidence that it has not been drifted by running water like the waterworn pebbles, and other material forming the old tertiary lead and that it has been probably derived from thermal water, which issued from the underlying Devonian rocks, and permeated the tertiary deposit."* * * "The cinnabar occurs usually in sharp angular pieces, from ½ inch in diameter down to the size of fine dust, and pieces have been obtained several pounds in weight."

I am informed by Mr. J. E. Carne, F.G.S., Mineralogist to the Department of Mines, that a rolled pebble of cinnabar, weighing over an ounce, was found by Mr. Dixon loose on a ridge near Scone.

General Geological Features.

At present cinnabar has been found in the Bingara District, chiefly at Spring Creek, (*a*) as waterworn cinnabar in the belt of alluvial shown in the accompanying plan, and (*b*) as lode cinnabar at Marsden and party's 25 feet and 40 feet shafts, the position of which is also shown on the plan. Three distinct geological formations are there represented, as follows :—

1. Claystones and limestones, probably of Siluro-Devonian age.
2. Serpentine, resulting from the alteration of an ultra-basic rock of a decidedly intrusive nature. The lode deposit of cinnabar belongs to this formation.
3. Alluvials, probably of recent geological age, derived from the breaking up of the claystones, &c., and serpentine by streams of fresh water and other natural denuding agents.

The claystones and limestone at Spring Creek strike in a N.N.W. and S.S.E. direction, and dip E.N.E. at from 60° to 75°. The limestone bed appears to have a thickness of at least 100 feet, probably more, and is evidently interstratified with the claystones. On account of the steep angle of dip of these altered sediments as compared with that of the *Lepidodendron beds* in the same district, which latter are for the most part undisturbed, it may be inferred that the former are older than the latter.

The age of the lepidodendron beds is usually regarded in this country as being *carboniferous* or *lower carboniferous*, so that the palæozoic sediments associated with the cinnabar, probably antedate the carboniferous period. The presence in them of such a thick bed of pure limestone suggests that perhaps they should be correlated provisionally with some of the Siluro-Devonian formations of this country, which are often characterised by the development in them of similar extensive beds of limestone.

The serpentine at Spring Creek occurs in the form of an eruptive dyke mass from three to five chains wide, striking either north-westerly or northerly.

In places its strike conforms with that of the palæozoic sedimentary rocks, while in others it intersects them at a slight angle.

Where the serpentine has come in contact with the claystones it has converted them into red or yellow jasperoid rocks, and shows everywhere signs of being intrusive.

Segregated masses of chrome iron are observable at intervals in the serpentine; the position of one of which is shown on the accompanying plan, at a point about 15 chains south-easterly from the lode cinnabar.

This mass of chromite measures about 6 feet by 7 feet. Where limestone forms one of the rocks in contact with the serpentine a remarkable compound rock has been formed from the combination of the serpentine with the limestone. The latter has probably acted like a flux on the intrusive ultra-basic rock which formed the serpentine, with the result that the two rocks have become completely fused together along their line of contact, a considerable amount of the serpentine having been dissolved in the limestone and so become absorbed into its mass.

This thorough blending of an eruptive rock with a sedimentary, owing to the two being fused together, is analogous to the phenomenon, which I have described elsewhere, observable at the Junction Mine, near Mandurama, where intrusive sheets of diorite have eaten up and assimilated thin beds of limestone, the original diorite becoming changed into a highly calcareous hornblendic rock, for which I have proposed the name of manduramite.

In Marsden and party's ground the serpentine in which the lode cinnabar occurs has a decided appearance of stratification, thin beds of decomposed serpentinous rock alternating with a soft reddish purple rock, which latter may have resulted from the partial solution or fusion of thin beds of calcareous clay shale in the serpentine.

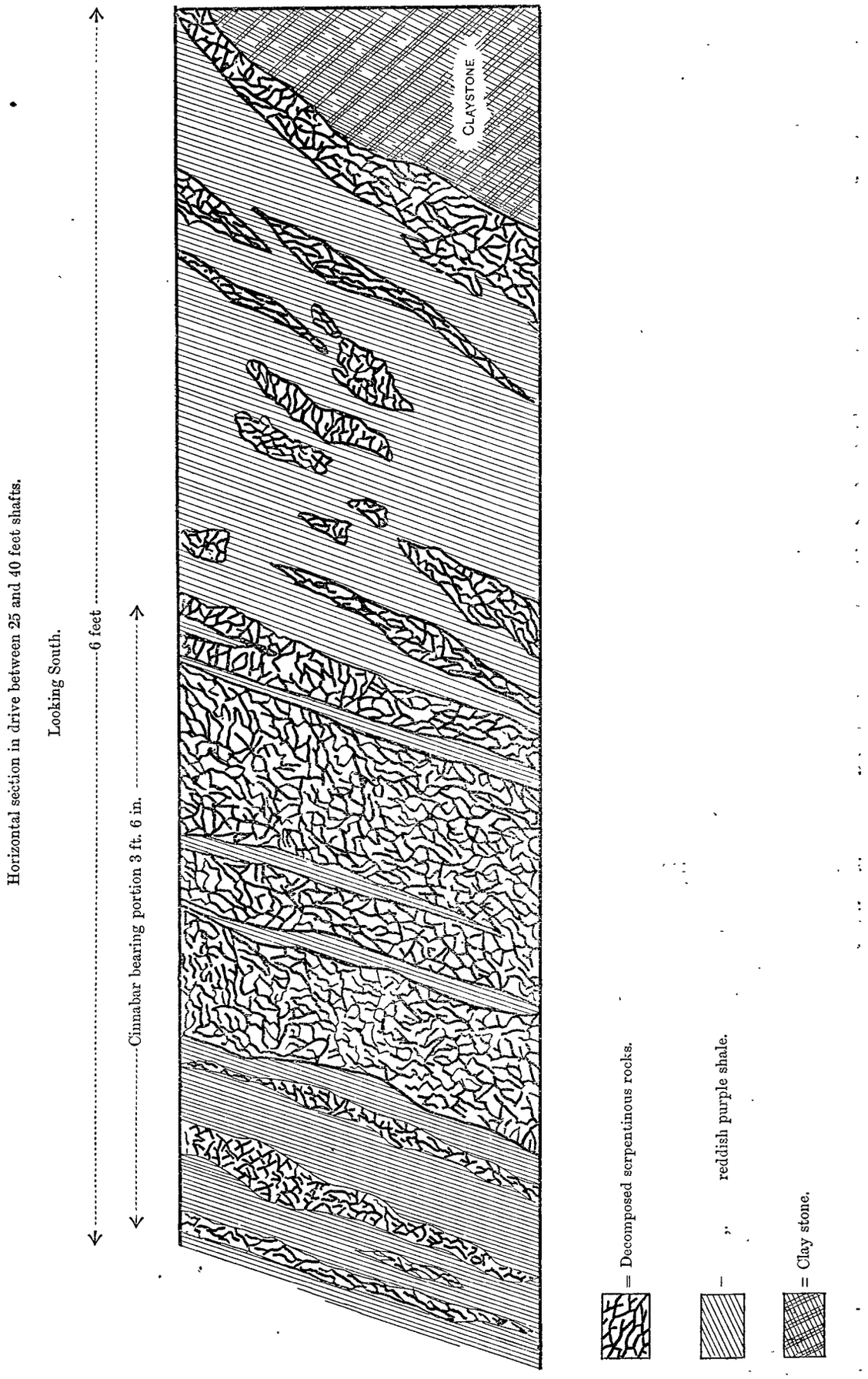
The Lode Cinnabar.—Cinnabar in this form at the time of our visit had been proved only in two shafts, both of which are situated on Marsden and party's ground. The first shaft was sunk to a depth of 40 feet, following the deposit of cinnabar on the underlie. The second shaft was 25 feet deep, about 15 feet from the first shaft in a direction about N. 12° W., and had been united with the 40-feet shaft by a drive at the 25-feet level, and had been driven at the same level for a distance of about 19 feet in a direction about N. 10° E.

The lower part of the 40-feet shaft was sunk chiefly in claystone, which forms the footwall of the deposit, or at any rate, its boundary on its under surface, as the deposit has no true walls. The deposit is essentially a dyke of decomposed serpentinous rock with interstratified layers of the soft purple clay shale already described. It shows no evidence of the existence in it of any true fissures, and has no clay flucan (or dig), as far as could be observed.

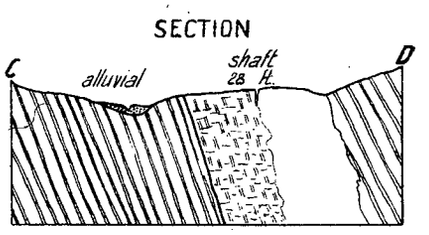
Traces, however, of slickensides were noticed by us running through the cinnabar-bearing portion of the dyke, and dipping about E 15° N. at 60°. The limits of the productive portion of the dyke can be proved only by constant testing, as the prospecting works are advanced, the dyke-stone being constantly crushed and washed for this purpose. The cinnabar is disseminated chiefly throughout the mass of the dyke in small spots from the size of a small pin's head up to that of a pistol bullet. It also occurs in thin films in joints in the dyke. The dyke has so far been proved to be cinnabar-bearing for a length of about 15 feet, a maximum width of about 3 feet 6 inches, and a depth of 40 feet, this last being the maximum depth attained by the shafts. Although the greater part of the dyke material comprised within these measurements carries traces of cinnabar, the greatest measurements of any portion of it which may be described as being decidediy cinnabar-bearing were represented to us as being about 5 feet high, 4 feet long, and 1½ feet wide.

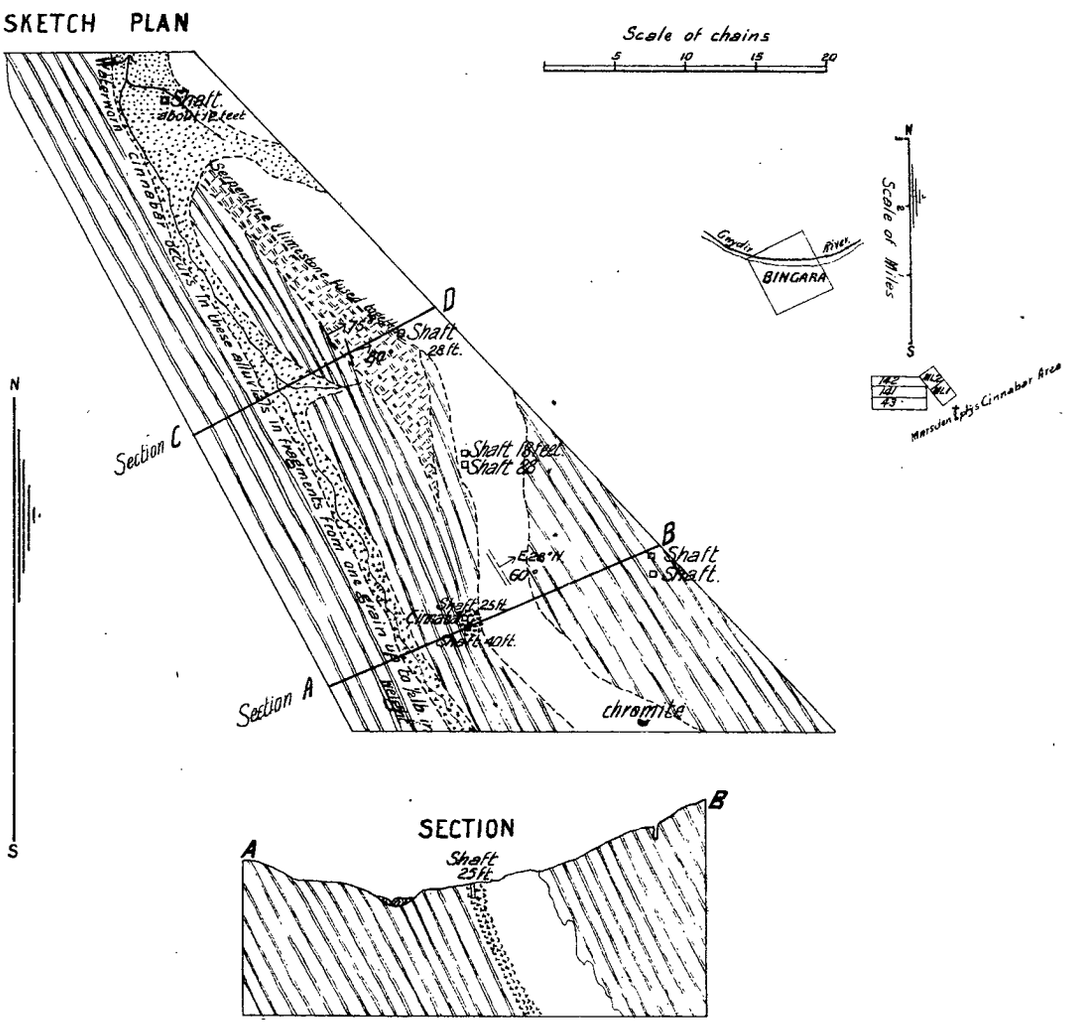
The

The structure of the portion of the dyke exposed in the shafts and drives on this ground is shown on the following diagram :—



Sketch Plan & Sections to accompany my Report on Bingara Cinnabar.





Alluvial clays & gravels containing waterworn cinnabar.

Siluro-Devonian (?) claystone.

" " " limestone.

Intrusive Serpentine

" " , intermixed with claystone and containing cinnabar.

(Sgd) T.W.E. David.
16.5.91.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES.

Proportion of Cinnabar to Gangue.

No bulk tests have as yet been made to afford reliable data on this subject.

Three assays, however, of this dyke-stone by the Department of Mines' Analyst and Assayer have given the following returns:—

No. 164.
I Metallic Mercury, ·63 in a hundredth part.
II " " ·65 " "

These two assays were made of a sample brought by Mr. T. H. Hassall, M.P.

The next assay was made from a large sample selected by myself from the bottom of the 25-feet shaft:—

Metallic mercury, ·01 in a hundredth part.

In making this assay, the sample, which weighed about ten pounds, was crushed up and divided into two parcels, one of which was treated by the dry method and the other by the wet method. The results of both agreed.

The chemical composition of pure cinnabar being—

Mercury, 86·2; Sulphur, 13·8.

The value of the cinnabar contained in the dykestone per ton, as indicated by these three assays, would be, respectively, the market value of cinnabar being assumed to be about £157 per ton:—

£	s.	d.	£	s.	d.	£	s.	d.
0	19	8	1	0	5	0	0	$3\frac{3}{4}$

Assuming the ore-bearing portion of the dyke, which would yield at the above rate, to measure about 2 feet in width by about 6 feet in length, the specific gravity of the stone being about 2·7, would yield about 18 cwt., or perhaps as much as 1 ton weight of cinnabar-bearing stone for every foot of sinking, and the value of this stone before concentration would vary according to the above assays between the wide limits of about fourpence and one pound sterling per ton. As already stated, the sample which contained cinnabar of the value of only about fourpence per ton was selected by myself, and appeared to me to be a fairly average sample of the cinnabar-bearing portion of the dyke stone. It may, however, have been that I was unfortunate in my selection of the samples, and that the returns which they gave are somewhat below what the average ore-bearing portion of the dyke will yield. On the other hand, it is quite evident that the two samples, No. 164, I, II, were picked samples which showed cinnabar freely, and did not represent a fair average of the ore.

It may, I think, be safely assumed, that the quantity of cinnabar per ton in the unconcentrated ore would not be worth more than from one to two shillings per ton, as taken from the mine in its present state of development. Unless, therefore, the ore could be concentrated by some cheap process it is obvious that its working will not pay expenses. A mineral so friable as cinnabar would probably have to be concentrated by a dry process, as otherwise it would be liable if water were employed to break up into a fine powder and form slime.

SUMMARY.

From the occurrence of the cinnabar along the line of contact of an eruptive dyke with a sedimentary rock, it is likely that the dyke will continue to be cinnabar-bearing to a considerable depth, as most contact deposits of this kind show great permanence when followed downwards; unless, however, the dyke-stone improves considerably at a depth in its yield of cinnabar, it is improbable that the deposit will prove payable. It is certainly, however, well worthy of being further prospected; and with this object in view, the Prospecting Board have already recommended that aid may be given to sink the present 25-feet shaft on Marsden and party's ground 100 feet deeper, and to drive 50 feet in each direction along the lode from the 125-feet level. It would, in my opinion, be very desirable, if, as the sinking proceeds, bulk samples of the ore were forwarded to this Department, either for assays of large samples of it, or for the treatment of the ore in bulk, at some works, such as the Clyde Works, under the supervision of some of the scientific staff attached to this Department. By this means reliable data might be obtained as to the average yield of the deposit. Cinnabar, however, is usually so very irregular, and apparently capricious in its distribution throughout the rock in which it occurs, that it is difficult even in the case of some cinnabar mines, which have been worked for considerable time, to form an estimate of their average yield. At the Cudgegong Cinnabar Mine, for example, as I am informed by Mr. C. S. Wilkinson, in places the deposit would entirely thin out, and then within a few feet would be found to thicken into masses of pure cinnabar.

In the case of the Spring Creek deposit near Bingara, the cinnabar, I think, has originally been contained in the serpentine from which it has become segregated and concentrated at certain spots, especially along the junction line of the serpentine, with the claystone.

There is also evidence of what may be termed a secondary deposition of cinnabar on a small scale, in the fact that here and there in that portion of the dyke which carries cinnabar, the mineral occurs in the form of films or narrow veins filling irregular cracks in the dykestone, such veins are not more than about one-tenth of an inch thick, and are of comparatively rare occurrence. Their existence, however, encourages the hope that they may lead into bunches of cinnabar here and there at a depth. All that can be said at present in favour of this Bingara cinnabar deposit is that it shows signs of being permanent to a considerable depth, and that although it has by no means been demonstrated to be payable as yet, it is, nevertheless, well worthy of being further prospected.

The thanks of Mr. Stonier and myself are due to the Warden (Mr. Lawson), the Warden's Clerk (Mr. Conolly), to Marsden and party, and several gentlemen interested in the Bingara Proprietary and Bingara Cinnabar Syndicates, for the kind assistance they have rendered us during our visit.

I have, &c.,

T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

APPENDIX 2E.

Third report on the Ironstone Mountain, Port Stephens.

Sir, Geological Branch, Department of Mines, 7 January, 1891.

I have the honor to report that I have lately re-inspected the Iron Stone Mountain, near Port Stephens, with a view of ascertaining what works had been carried out there by the proprietors, in the way of further testing this deposit with the help of the aid given them out of the Prospecting vote.

As stated in former reports, and shown in the plan which accompanied the second report, the further extension of the iron-ore bed to the north is intercepted by a dyke of felsite. The prospecting, however, lately instituted by Messrs. Watson and Breckenbridge has shown that the bed continues to the north of this dyke. The ore bed has been trenched across at several places here, and in one of the trenches has proved to be over two feet two inches (2 ft. 2 in.) thick. The dip here being about S. 10° W. at 18°. This point is about eight chains north-north-west of the felsite dyke. This dyke is about one chain only in width, and according to my aneroid levels has caused little, if any, displacement of the bed. Its strike is about E. 20° N. and W. 20° S. In accordance with the recommendations by the Prospecting Board, a number of trenches have been cut across the outcrop of the ore bed at right angles to its strike for a total distance of about thirty chains south easterly from the dyke, to test its quality and thickness.

These trenches have settled the question as to whether there were two distinct ore beds, or one bed only faulted in such a manner that the portion of bed on the down-throw side of the fault appeared to underlie that seen on the up-throw side. The trenching carried out under the direction of Mr. A. Gardiner has proved conclusively that the two outcrops of iron ore belong to one and the same bed, and their difference of level is due to a fault. About 30 or 40 feet below the floor of the iron-stone fine grained hard white silicious clay-shales, termed provisionally "gannister" by the proprietors, had been proved to exist and to have a thickness of not less than five feet.

The lower portion of these clay-shales is certainly very siliceous, and may fairly be termed gannister. The upper portion is somewhat softer, and appears to contain a good deal of finely-divided volcanic material. A small sack-full of this siliceous clay shale, taken chiefly from the upper portion of the bed, has been forwarded by Messrs. Watson and Breckenbridge to the Department, in order that it may be tested practically as to its suitability for making fire-bricks. The shale contains abundant well-preserved leaves of Rhacopteris, which prove the age of the formation to belong to some part of the carboniferous period.

The following is a detailed account of the thickness of the ore bed as proved at the most important trenches, commencing on the south side of the felsite dyke, and going south-easterly :—

	ft.	in.	
No. 1.	1	3	Calcareous sandstone, with a little magnetic iron.
	0	10	Siliceous magnetite, rich in iron.
	0	6	Siliceous magnetite, a trifle poorer.

At 14 yds. E. 30° S. from the preceding No. 2 trench showed the following descending section :—

	ft.	in.	
	0	9	Ironstone, inferior.
	0	7	„ good.
	1	6	„ very inferior.
	0	6	„ inferior.
Total	3	4	

At point S.E. about four chains from preceding is :—

No. 3. Section descending.

ft.	in.	
1	6	Magnetiferous sandstone, poor in iron.
0	4	Magnetite, fairly good.
1	0	„ a trifle inferior.
0	6	Band of pebbles.
0	9	Magnetite, fairly good.
Total 4	1	

At point S. 30° E. 15 yards is a large cutting showing the following descending section :—

ft.	in.	
1	9	Pebbly sandstone, slightly magnetiferous.
3	8	Siliceous ironstone, good, the bottom 6 in., a trifle inferior.
Total 5	5	

At 14 yards S. 20° E. is another large cutting.

No. 5 showing following descending section :—

ft.	in.	
4	6	Ironstone, chiefly magnetite, fairly good.
1	3	Inferior magnetiferous sandstone.
0	6	Band of soft clay, shale.
1	0	Ironstone, very good.
0	6	„ Good, with siliceous pebbles.
1	0	„ Inferior.
Total Thickness 8	9	

This is the greatest thickness of bed as measured by me in this locality.

At point S. 20° E. 20 yards, from, preceding—

No. 6 (A) Trench. Shows 4 ft. 9 in. in thickness of good ironstone.

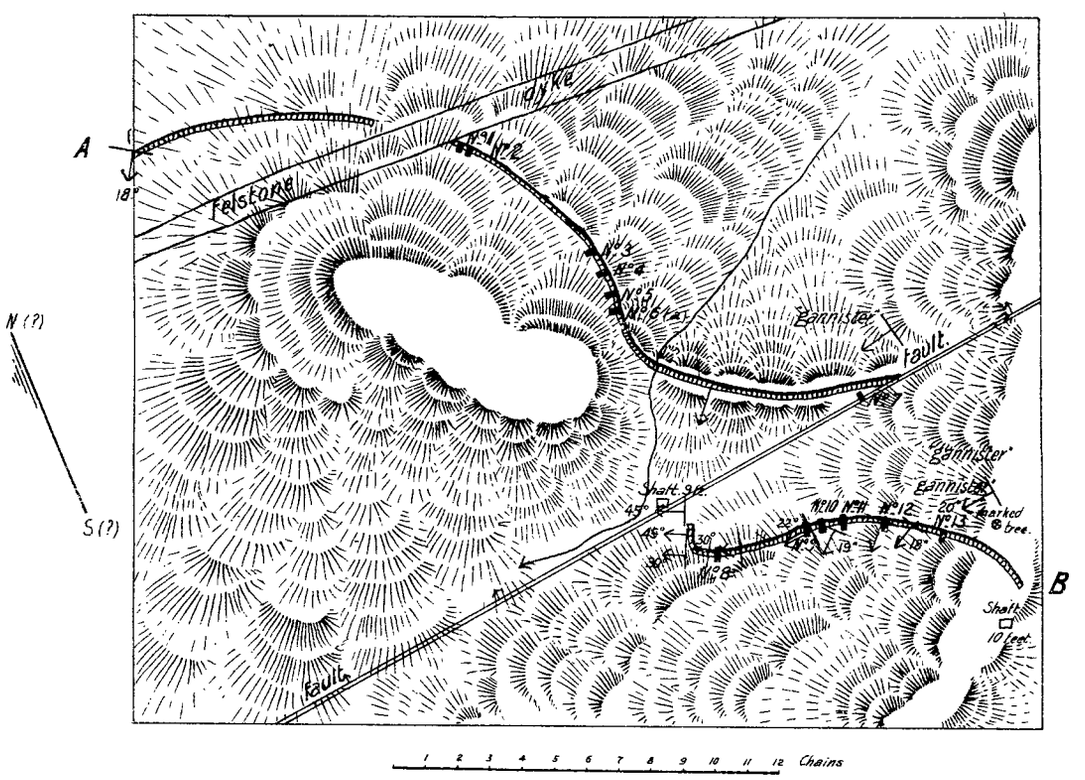
From here the ore-bed extends S. 10° E. 26 yds., then E. 20° S. 21 yds., at which point it outcrops strongly, and is of fair quality.

No. 6 (B.) At E. 10° S. 11 yds. is the old excavation where the bed is over 4 feet thick.

At E. 20° S. 26 yds., a trench on the ore-beds shows the dip to be S. 20° W.

At E 5° N. 132 yds., the ore-bed is shut off against the fault. The

Plan of the Ironstone Mountain, Port Stephens



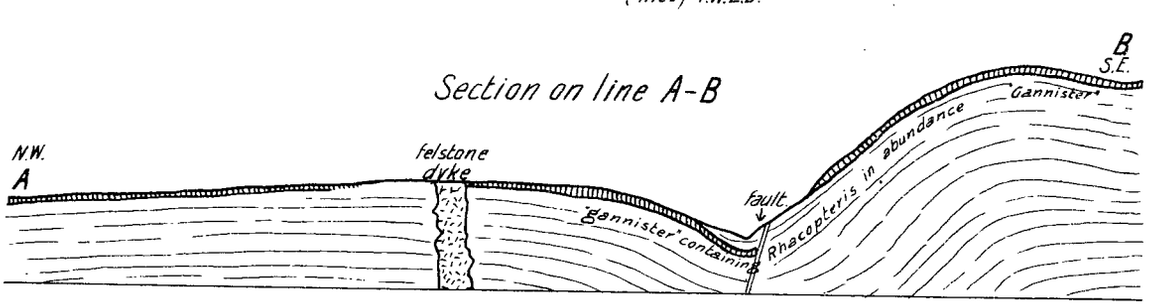
To accompany my Third Report on the Ironstone Mountain, Port Stephens.

NOTE. ▬ - Line of outcrop of ironstone bed.
▬ - Trenches on " " " "
20 - Direction & angle of dip of " "

The bearing of the ore bed as shown above is taken from magnetic bearings by me on the ground, but owing to the deflection of the compass by the magnetism of the ore bed the bearing is only very approximate.

(Int.d) T.W.E.D.

Section on line A-B



Horizontal Scale 1 2 3 4 5 6 7 8 9 10 11 12 Chains.
Vertical " 100 200 300 400 500 600 Feet.

(Signed) T.W.E. David,
Geological Surveyor.

(Sig. 874)

The fault trends about S. 30° W. and N. 30° E., and has thrown the bed down in a north-westerly direction to the extent of about (approximately) 50 ft. Next to the fault on the down-throw side, the following descending section was measured by me:—

	ft.	in.	
No. 7.	2	2	Ironstone—good.
	1	0	Band of pebbly sandstone.
	0	10	Ironstone, fairly good.
	0	6	Inferior ironstone.
Total	4	6	

At S. 5° W. 110 yds. from the old excavation on the ore-bed, (mentioned, previously No. 6 B), the ore-bed has been proved in the trenches to re-outcrop on the up-throw side of the fault. The dip here is first W. at 45°, then a trifle further in a direction S. 10° E. it is W. at 30°.

No. 8.—At 12 yards east from preceding is a cutting showing a thickness of about 4 feet of fairly good ore, resting on a greenish brown calcareous sandstone containing a little magnetite. The dip is W. at 30°.

No. 9.—At E. 5° N. 44 yards a large trench has been cut, showing a good section of the ore-bed dipping W. 30° S. at 22° giving the following descending section.

ft.	in.	
0	9	Fair ironstone.
0	8	Band soft sandston .
2	0	Ironstone, good.
0	3	,, ,, a trifle inferior.
Total 3	8	

Floor sandstone, slightly magnetiferous.

No 10.—At a point bearing E. 5° N. 17 yards distant from the preceding, is a good section of the ironstone bed, exposed at the face of a cutting, showing the following decending section:—

ft.	in.	
1	2	Ironstone, poor in iron.
0	6	Band sandstone, containing a little magnetic iron.
0	10	Ironstone of fair quality.
1	0	Band of conglomerate.
2	2	Ironstone, containing a good percentage of iron.
Total 5	8	

The ironstone bed here dips S. 30° W. at 19°.

No. 11.—At a point bearing E. 5° N., 28 yards from the preceding, a cutting across the outcrop of the ore-bed shows a thickness of over two feet of ironstone of fair quality, as regards the percentage of metallic iron, which it contains. The cutting, however, has not been sufficiently far advanced to prove the total thickness here of the ore-bed.

No. 12.—At a point bearing E. 10° S., 18 yards distant from the preceding, a cutting across the outcrop of the ore-bed shows it here to have a thickness of 4 feet 2 inches; the ironstone throughout being of good quality, as regards the proportion of metallic iron, which it contains. The floor here is a soft sandstone. The bed dips south-west at 18°.

No. 13.—At a point bearing E. 20° S., 18 yards distant from the preceding, the ore-bed as exposed in a cutting, has a thickness of 4 feet 5 inches, being throughout of fairly good quality as regards percentage of metallic iron.

At a point E. 15° S., 35 yards from the preceding, the ironstone bed has been cut by costeaning; and in a direction S.E., about 34 yards from the preceding point, it appears to thin out, perhaps completely, as far as has been found by the prospecting up to the time of my last visit.

The ore-bed here appears to dip about W. 15° S., at 20°.

Summary.

The outcrop of the ore-bed has been found more or less continuously, as shown on the accompanying plan, for a total distance of about thirty chains, of which about ten chains lie on the north-west side of the felstone dyke, and 20 chains on its south-east side. The trenching proves that the ore-bed has been thrown down by a fault to the extent of 40 or 50 feet, as suggested in my original report, in a north-westerly direction.

The average thickness of the portions of the bed which contain ore of fair quality, as relates to percentage of metallic iron, as proved in thirteen of the most important trenches, above described, is three feet four inches.

Assuming, therefore, that the average thickness of the ore-bed is three feet for a distance of thirty chains, and that it is continuous towards the dip (which averages 20°) for a distance of not less than 440 yards (at which limit the bed would probably be about 450 feet below the surface) the bed would contain over this area (60 acres), approximately 876,000 tons of ore, of which (on the assumption that on the average 45 per cent of the ore is metallic iron) about 400,000 tons in round numbers, would be composed of the same metal. There is, therefore, a considerable body of iron ore here, but it is evident from the character of the ore, as proved in all the prospecting work up to the time of my visit, that it still continues to contain probably nearly about the same proportion of silica alumina and titaniferous iron, as the portions of this same ore-bed previously selected by me for analysis. The results of these analyses may for convenience of reference be re-quoted here:—

Analysis of iron ore from Ironstone Mountain, Port Stephens, by Mr. J. C. H. Mingaye, F.C.S., Analyst and Assayer.

2860.—A, Sandy magnetic ironstone, from Ironstone Mountain, 20 miles from Raymond Terrace, yielding metallic iron, 44·79 per cent.
2861.—B, similar to A, from Ironstone Mountain, yielding metallic iron, 40·77 per cent.
2862.—C, ,, A, ,, ,, ,, ,, ,, ,, 44·99 ,,
2863.—E, ,, A, ,, ,, ,, ,, ,, ,, 48·33 ,,
2864.—F, ,, A, ,, ,, ,, ,, ,, ,, 44·57 ,,
2165.—G, ,, A, ,, ,, ,, ,, ,, ,, 37·71 ,,
2947.—D, ,, A, ,, ,, ,, ,, ,, ,, 42·35 ,,

An

An average sample of A, B, C, E, F, and G, was analysed with the following result:—

Moisture at 100° C.	·67
Combided moisture	3·31
Iron peroxide (Fe_2O_3)	52·86
Iron protoxide (Fe O)	7·79
Manganese protoxide	trace
Alumina	5·21
Silica	18·70
* Iron peroxide Fe_2O_3	·75
Lime	1 12
Magnesia	trace
Titanic acid	7·30
Carbonic acid	1·60
Phosphoric acid	trace
Sulphuric acid	trace
Organic matter	trace
	99·44
Gold	Nil
Silver	Nil

* Is insoluble in acids.

The high percentage of titanic acid and also the rather high percentage of silica and alumina will, when taken in conjunction with the steep angle of dip of the ore-bed probably preclude its being worked profitably, at all events, at present, until either some means are devised for eliminating the titanic acid, or some use, perhaps, be found for the titaniferous iron contained in the ore, the latter mineral amounting to from 16 to 17 per cent. of the whole. Mr. Ormiston, the iron expert, who visited this ore bed at Port Stephens, on his return after inspecting it, expressed to me his fear that the percentage of titanic acid would at present prove an almost insuperable objection to the working of this iron deposit to a profit, and I understand that similar opinions were expressed to yourself by competent men at the recent Mining Exhibition at Sydenham, where you were acting as Geological Director, and where a bulk sample of the Port Stephens ore was exhibited. It is doubtful probably also, whether a comparatively thin bed of ore like that at the Ironstone Mountain can compete successfully with the richer and more easily worked iron deposits of Mittagong, Picton, Rylstone, and several other localities in the western coal-field. The iron ores too of the south-western and western coal-fields are more easy of reduction than those of Port Stephens. The prospecting works at the Ironstone Mountain have been carried out in a thorough and scientific manner so that it is now possible to form a close estimate of the probable yield per acre of the ore bed, and should a demand at any future time spring up for titanic acid or titaniferous iron, the supply at the Ironstone Mountain is probably the most extensive which has yet been found to exist anywhere along the eastern coast of Australia. In my previous report, I accidentally omitted to mention that this iron ore-bed was originally discovered by Mr. Surveyor Herborn, when exploring the property of the Australian Agricultural Company in the neighbourhood of Stroud.

Besides proving the extent, thickness, and quality of the iron ore-bed, the prospecting works at the Ironstone Mountain have brought to light the extent of beds of siliceous white shales, which certainly in places nearly approach gannister in composition, and which consequently may be well suited for making fire-bricks. A further report will be furnished by me on this gannister as soon as the practical tests of it to be carried out under the supervision of this Department are completed.

Attached to this report is a plan and section of the ore-bed, showing the prospecting trenches and general nature and mode of occurrence of the deposit.

I have, &c.,

T. W. E. DAVID, B.A., F.G.S.,

The Geological Surveyor-in-Charge. Geological Surveyor.

APPENDIX No. 2F.

Preliminary Report.

Report on the Government Diamond Drill Bore for Coal, on the Moorebank Estate, near Liverpool.

Sir, Geological Branch, Department of Mines, 22 May, 1891.

In accordance with instructions herewith, I have the honour to furnish a short report on the Government Diamond Drill Bore at Moorebank.

Although not present when the coal seams were being bored through, I have subsequently examined the cores from the seams, and also the stone cores from the bore, and measured a careful section of them, and with Mr. J. E. Carne, F.G.S., Mineralogist and Curator to the Department, selected an average sample of the coal from the main seam for analysis by the Government Analyst and Assayer. I have also on two occasions examined geologically the country in the neighbourhood of the bore. Of the three formations which overlie the coal measures in the neighbourhood of Sydney, viz., (1) The Wianamatta shales, (2) the Hawkesbury sandstone, and (3) the Narrabeen shales, the two last were penetrated in this bore before the coal measures were reached, as the bore commenced at the base of the Wianamatta shales, and at the top of the Hawkesbury sandstone.

A complete official section of the bore having already been supplied, it will be unnecessary for me to quote it here. I have carefully examined the section of this bore, and compared it with the Holt-Sutherland and Metropolitan drill bore sections, and find that they all agree very closely with the exception that the Narrabeen shales thicken considerably towards Holt-Sutherland and Liverpool from the direction of the Illawarra coal-field. The depth at which the main seam was struck at Moorebank, as compared with that at which the same seam was proved at Holt-Sutherland, shows that the measures must be lying almost horizontal between these two points, and the disposition of the surface rocks on the Moorebank estate favours the supposition that the underlying coal-measures will be found to have probably only a very slight dip, if any, and to be tolerably free from disturbance. For the thickness of the seam of coal quoted in the above section, I have relied on the reports already furnished by Mr.

Mr. J. M'Kenzie, F.G.S., Government Examiner of Coal-fields, and by Mr. W. H. J. Slee, F.G.S., the Chief Inspector of Mines. The main seam was struck at a depth of 2,583 feet, and had a thickness of 6 feet 6½ inches, but of this total thickness about 3 feet were brought up in the core barrel, and the following analysis by Mr. J. C. H. Mingaye, F.C.S., Analyst and Assayer to the Department of Mines, was made from an average sample of the coal carefully selected from the core by Mr. Carne and myself :—

Hygroscopic Moisture	·85
Volatile Hydrocarbon	19·40
Fixed Carbon	67·40
Ash	12·35
	100·00
Coke	79·75
Sulphur	·44
Specific Gravity	1·410

Ash (grey).

Coke :—Well swollen up, lustrous, and firm.

This analysis shows the coal to be identical in character with that which is now being worked at the Bulli and other collieries in the Illawarra coal-field, and known as the No. 1 or top seam, or Bulli Seam.

The coal is a hard splint and bituminous coal, suitable for steam, smelting, blacksmith, and household purposes.

The calorific value of the Moorebank coal is probably identical with that of the Metropolitan Company's coal.

For comparison are given below, the calorific values of some of the principal coals of New South Wales, as quoted by Mr. R. Price Williams, Associate Member Institute C.E., &c.

Coal from the Great Northern Company	12 03
„ Metropolitan Coal Company	12·29
„ Fassifern	11·40
„ Waratah Colliery Company	13·92
„ Wallarah Colliery Company	12·60
„ Heddon Greta Company	12·98

The calorimetric value of the best Welsh coal is stated in the same report to be about 14·40.

The calorific value of the coal from the Bulli Seam, identical with the Moorebank Seam, is 12·21.

If the thickness of the main seam be taken at 6 feet 6 inches, and the specific gravity as 1·4, one third of the coal being deducted for waste in getting, faults, rolls, &c., and one quarter of the remainder being assumed to be small coal, it should be possible to exploit from this seam, in round numbers, 5,530 tons of large coal, and 1,840 tons of small coal per acre.

The approximate level at the surface of the bore-hole is 40 feet above sea level, owing, however, to the impervious nature of the strata which form the roof over this seam, it is improbable that water will at all interfere with the mining of the coal.

As regards the probable temperature of the rocks at the main seam, the mean surface temperature being about 63° Fahrenheit, and the downward rate of increase being assumed to be 1° Fahrenheit for every fifty feet, the temperature at the 2,583-foot level might be about 114° Fahrenheit. It is, of course, however, impossible to determine the exact temperature without actual experiment, but this I believe, has already been done by Professor Benton.

I have, &c.,

T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Under Secretary.

Appendix 2G.

Report *re* Wyee Bore.

Geological Branch, Department of Mines, 29 June, 1891.

Having compared the section of this bore with that of the Wyong, Wallarah, Dora Creek, L. T. Creek, and Fassifern bores, I am of opinion that the Wyee Bore reached the horizon where the Fassifern Bore commenced at a depth of about 557 feet. The Borehole Seam at Fassifern was struck at a total depth from the surface of 1,039 feet 4½ inches, and contained 4 feet 7¾ inches of good clean bituminous ceal. At Wyee, therefore, the same seam might be expected to be met with at a depth of approximately 557 × 1,039 = 1,596 feet. The Burwood Seam, the Dirty Seam, and Yard Seams might also be expected to be met with at depths varying respectively from 100 feet to about 300 feet shallower than the Borehole Seam. I would therefore strongly recommend that this bore, which is already 916 feet deep, may be continued.

T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Geological Surveyor-in-Charge.

Appendix 2H.

Report on the extended Coal Tunnel of the Newcastle and Stockton Land and Coal Company, at the Seven Mile, Raymond Terrace.

Sir, Geological Survey, Department of Mines.

I have the honor to report that on Nov. 29th I inspected the tunnel on Garrett's Coal Seam, at the Seven Mile, near Raymond Terrace. This tunnel has recently been considerably extended, so that now it has a total length of 396 feet. The tunnel dips in a south-easterly direction at an angle of 42° following the dip of the coal seam. The direction of dip of the seam is E. 32° S. At 381 feet from its

* Minerals of New South Wales, by A. Liversidge, M.A., F.R.S. London, 1888. Trübner & Co., p. 134.

its commencement, and 15 feet back from the end of the tunnel, a small drive has been put in for a distance of 8 feet 8 inches in a direction E. 18° S., and from it a cross-drive has been carried for a distance of over 8 feet into the roof of the seam, and in an opposite direction through the seam and into the floor for a distance of 30 feet. The direction of this cross-drive is N. 38° W. and S. 38° E. The following is a descending section of the strata measured by me in this cross-drive :—

	ft.	in.	
	5	0	Hard white tuff, with crystals of pink orthoclase felspar.
	3	0	Hard coarse diabase tuff, fragments averaging about ½ inch in diameter.
	0	10	Soft white fine tuff.
			Roof of Seam.
	1	4½	Coal seam.
			Details.
	0	9	*Coal*, clayey, hard splint, finely laminated.
	0	1	Band, brown clay shale.
	0	6½	*Coal*, inferior, stony, becoming more clayey downwards, with a little mother of coal.
Total ...	1	4½	
	0	1	Brown, clay shale.
	1	1	Hard, white tuffaceous shale, with fossil roots.
	0	0¼	Coaly black shale.
	1	0	White tuff, with three bands of coaly shale.
	0	6½	Tuffaceous clay shale, with ¼ in. of coaly shale.
	0	0½	Black coaly shale.
	0	6½	Coaly shale, with streaks of grey shale.
	0	4	Hard tuffaceous clay shale.
	0	5	Grey shale, with streaks of coaly black shale.
	0	4	Coaly clay shale and clayey coal.
	0	7	Black and brown clay shale alternating.
	0	3	Stony coal, very hard and dirty.
	0	4½	Whitish grey clay shale.
	0	5	Stony splint coal, very inferior.
	0	5	Brownish clay shale, streaked with black shale.
	1	2½	Tuff, soft, rather coarse.
	0	2½	Coaly stony shale.
	0	3	Grey shale.
	0	2	Coaly stony shale.
	0	6½	Grey shale, streaked with black.
	0	3	Stony coaly shale.
	3	5	Chiefly hard tuff, with crystals of felspar.
	2	11	Laminated grey clay shale.
	1	10	Hard tuffaceous clay shale, with small conchoidal fracture.
	2	0	Coarse shale, breccia of volcanic origin.
Total ...	29	5¼	

It is evident from the above section that the coal in this seam is quite unworkable at this locality, the total thickness of the seam being only 1 foot 4½ inches. Below the seam proper are alternating beds of coaly shale, coal, and tuff having an aggregate thickness of about 9 feet. Another section of the seam, which I measured at the extreme end of the tunnel, did not show any improvement in the coal as regards thickness or quality. If the section detailed above be compared with the one* previously measured by me near the mouth of the tunnel it will be seen that there is 1 foot 9 inches of coal in the latter as compared with 1 foot 3½ inches in the former, so that the seam at this tunnel has thinned towards the dip. In view of the inferiority and thinness of the coal in this seam, and of the very slight chance of its improving if followed towards the dip, at all events for at least half a mile beyond the end of the present tunnel, I would advise that the tunnel be discontinued. I would not recommend any further expenditure in trenching for the continuation of the outcrop of this seam either to the north-east or south-west of Garrett's tunnel, as the volcanic rocks, to the presence of which the thinness and inferiority of the coal is due, are continuous in these directions throughout the whole of the western portion of the company's property. The diamond drill bore recently completed near Saltash, to the east of the company's property, has penetrated over a thousand feet of diabasic lavas, with thin interstratified coal seams, exactly analagous to the lavas which overlie the tuff beds forming the roof of the coal at Garrett's tunnel. Evidently, therefore, the volcanic rocks have a considerable extent throughout a large portion of the company's property, and have probably interfered locally with the development of the Greta Coal Seams.

The question as to the likelihood of the Greta Coal Seams being sufficiently developed in any portion of the company's ground to admit of them being workable might be definitely determined towards the end of January next, when the Geological Survey of the Maitland District should be completed.

Meanwhile I would recommend the temporary cessation of all further prospecting operations.

I have, &c.,

The Government Geologist.

T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

APPENDIX 2I.

Progress Report, No. 5, Port Stephens District.

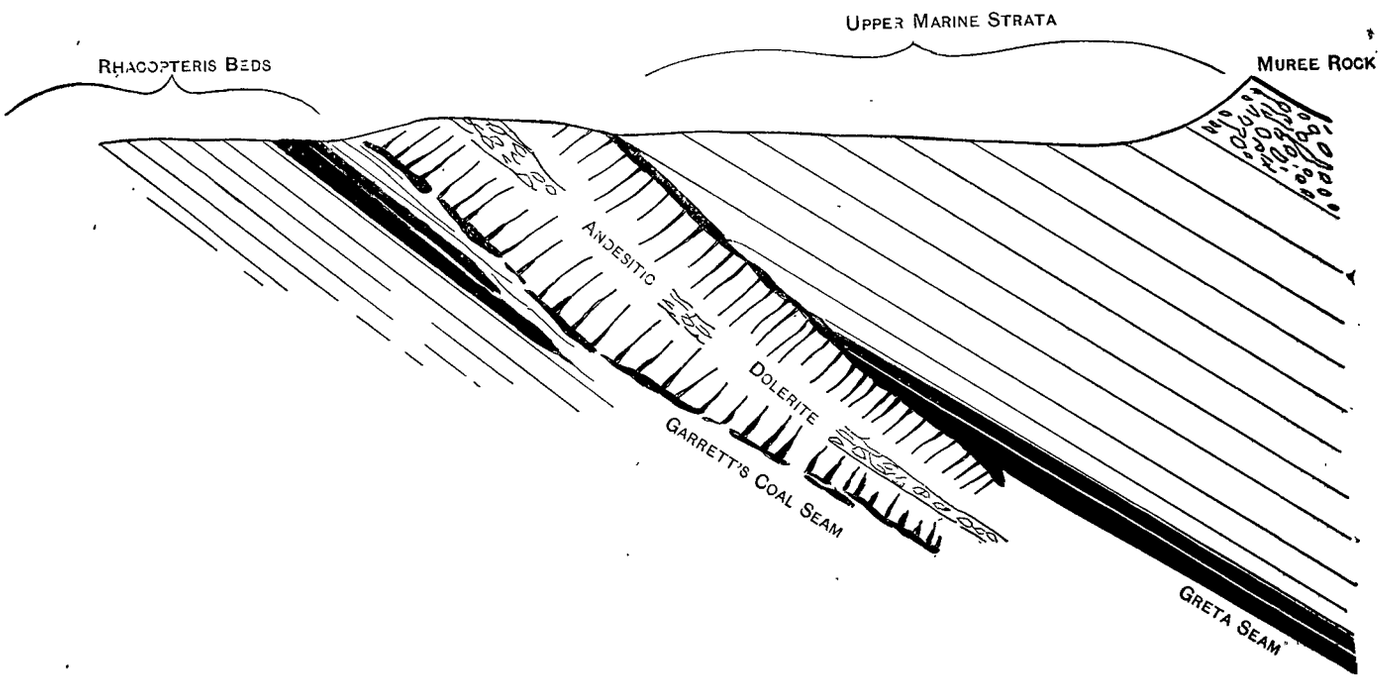
Sir,

I have the honor to report, in accordance with my instructions herewith, on recent developments in the Port Stephens district, with special reference to their bearing upon the sites recommended by me for boring for coal with the Government Diamond Drill on the property of the Port Stephens Coal-mining Company, in my former report furnished on December 2nd, 1889.†

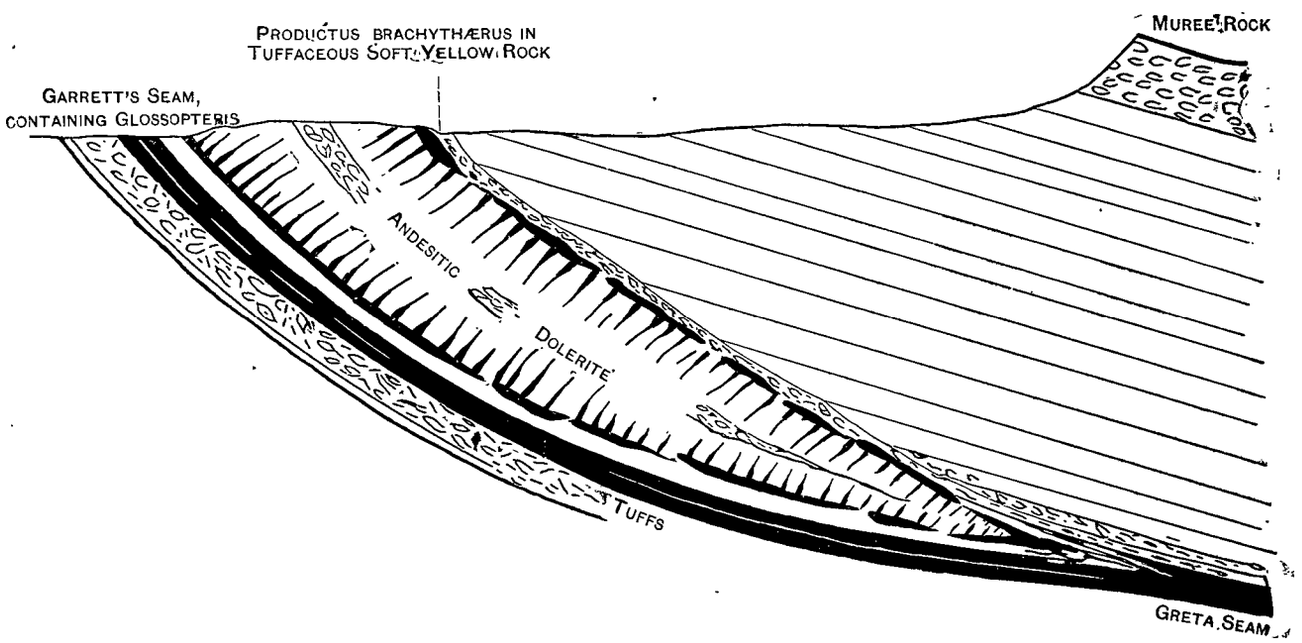
Subsequent observations and further prospecting operations have led me to the conclusion that it is possible that the Greta Coal-measures, or at any rate the lower portion of them, may outcrop in this property ; but it is very improbable that they will contain any workable seams within a reasonable depth below

* Annual Report, 1889.
† Annual Report of Department of Mines, 1889 p.p. 223-225.

below the surface. The apparent absence of outcrop of the Greta Coal-measures in this locality, I attributed in my former report to their possibly being overlapped by the strata of the Upper Marine Series in the manner shown in the following section :—



Subsequent observations, however, lead me to believe that this section is more as follows :—



My reasons for this conclusion are that *Glossopteris* has been found by me in clay bands in Garrett's seam, and *Productus brachythærus* in a tuffaceous rock, perhaps partly of detrital origin, which immediately overlies and passes downwards into the dolerite, so that it is possible that Garrett's seam may represent one of the Greta seams, somewhat deteriorated, and the dolerite may be the equivalent of the contemporaneous interbedded lava in the Marine Series of the coal-measures described by you as occurring at Kiama.* The bore lately put down by the Newcastle and Stockton Land and Coal Company on Mr. Richardson's property at Raymond Terrace, proves conclusively that this doleriteis an interbedded lava contemporaneous with the coal-measures, and is not an eruptic rock intruded subsequently to the deposition of the coal-measures. The dolerite will, therefore, probably have not injured the coal underlying it, provided at the time the dolerite flowed there was a bed of tuff or clay shale overlying the coal already formed so as to protect it from the heat of the lava as has been the case at Garrett's tunnel. This

*Annual Report Department of Mines, 1875, page 118.

This conclusion that Garrett's Seam may belong to the Greta Coal-measures will not materially alter my original recommendations, and although it shows that it is possible to reach a portion of the Greta Seam at a comparatively shallow depth, yet there is very little chance of its being workable, so long as it is associated with the volcanic rocks (dolerites.)

The only means of proving the Greta Seams (if they exist in this property and have not been burnt by the lava) would therefore be by boring to a depth of probably not less than 1,300 feet, so as to admit of the thinning out of the lava towards the dip.

SUMMARY.

The outcrop of Garrett's Seam, which may represent one of the Greta Seams, might be proved in this property by means of trenching along the western margin of the dolerite as shown on the plan accompanying my former report. Such work, however, would be rendered costly by the thickness of the alluvial deposits and drift sand, which for the most part cover the strata of the coal-measures at their line of junction with the western edge of the dolerite. As, therefore, Garrett's Seam, even if proved in this property, would most probably be unworkable, as it would be costly to prove it, and as there is the chance also of its having been burnt by the volcanic rock, and the certainty that the dip will be very high, (about 1 in 2) and the strata disturbed, I would not recommend this company to incur the expense of trenching.

In view also of the probable contemporaneity of the volcanic dolerites with the Greta Coal-measures at this locality it would, I think, at present at all events, be inexpedient to test the ground by boring or sinking. Appended is a section of Garrett's Seam as measured by me at Garrett's tunnel.

SECTION OF GARRETT'S SEAM.

ft.	in.		ft.	in.	
1	0	*Coal*, perished.	0	5	*Coal*, with two ½-inch bands.
0	1	Band, brown clay.	0	1¼	Band.
0	9	*Coal*, perished.	0	2	*Coal.*
0	3½	*Coal*, and bands.	0	0¼	Band.
0	3	Band, white clay.	0	3½	*Coal*, perished.
0	3½	*Coal*, and bands.	0	8	Coaly shale.
0	3	Band, with streaks of coal.	0	8	Band, white clay.
0	6	*Coal*, with ½-inch band.	0	1	*Coal.*
0	1½	Band.	0	9	White clay.
0	6	*Coal.*	0	4½	*Coal*, much perished.
0	7	Dirty coal.	0	6	White clay.
0	2	*Coal*, and bands.	0	2	*Coal.*
0	3	Band, white clay.			
0	2½	*Coal*, and bands.	Total, 9	5½	Coal, and Bands.

The best of the Coal in this seam is inferior, containing about 15 per cent. of ash, as I was informed by Mr. Garrett, and the seam is much split up with bands. As one of the centres of the volcanic outbursts has been probably the mountain called "Paddy's Mountain," near the southern boundary of the property of the Port Stephens Coal-mining Company, it is in my opinion improbable that Garrett's seam will improve in thickness or quality in the Company's property, and therefore I would not recommend the expenditure of any money at present as already stated with a view to prove its continuation through the Company's property.

I have, &c.,
T. W. E. DAVID, B.A., F.G.S.,
Geological Surveyor.

The Geological Surveyor in Charge.

APPENDIX 3.

Progress Report by Mr. William Anderson, Geological Surveyor.

Sir, Geological Survey, Department of Mines, Sydney, 27 January, 1892.

I have the honor to furnish you with my Progress Report for 1891, showing the work upon which I have been engaged during the past year. Until January 13th, I was engaged in office work. From that date, till February 16th, I was on leave of absence. On February 24th, I went to Orange and dealt with applications for aid out of the Prospecting Vote, in that neighbourhood, at Ophir, Mullion Creek, Kerr's Creek, and Cadia, returning to Sydney on February 29th. On March 9th, I left Sydney for Cooma, and with Mr. Leigh, Superintendent of Caves, visited the newly-discovered caves at Yarrangobilly. Our report thereon forms *Appendix* 3A.

During this trip I also dealt with a number of applications for aid out of the Prospecting Vote at Kiandra, Coolaman, Fiery Creek, Michelago, and Bungendore, returning to Sydney on March 23rd.

On April 15th, I travelled to Tarago, and from there visited the dam site, race and ground of the Golden Terrace Sluicing Company, at the Callen ford on the Shoalhaven River. I also dealt with other prospecting papers at Boro, Braidwood, Little River, Moruya, Bendithera, The Gulf, Wandellow, Coolagolite. I also visited the Currowan and Brimbermalla Gold-fields. The report on these fields forming *Appendix* 3B. I returned to Sydney on May 19th. On June 3rd, I visited the Bathurst district, and dealt with prospecting cases near Burraga, returning to town on June 8th. From June 22nd till June 30th, I was engaged in the neighbourhood of Grenfell, dealing with applications for aid from the Prospecting Vote.

From July 28th till August 8th, I was employed, with the assistance of Mr. Field-Assistant Hammond, mapping a small portion of the Dubbo Coal-Measures, some 10 miles north of Wellington. During the same period I dealt with several papers relating to the alienation of certain lands in the neighbourhood of Stuart Town.

On August 24th, accompanied by Mr. Field Assistant Jaquet, I visited Bowning, Binalong and Burrowa, dealing with various prospecting applications in these localities. The report upon the Wallah-Wallah Silver-mines forms *Appendix* 3C. I returned to Sydney on September 3rd.

On October 1st, I left Sydney for Broken Hill, travelling *via* Melbourne and Adelaide, and until the beginning of November, was engaged making an examination of the country to the south and east of the Barrier Range with the view of ascertaining the nearest points to Broken Hill at which artesian water might be expected to be met with. This Report forms *Appendix* 3D. As shown in this Report, there is certainly little doubt but that artesian water will be obtained by boring on the plains to the east, south-east, and south of the Barrier Range, and there is no doubt whatever that at least large quantities of good sub-artesian water will be met with over the same area. On

On December 10th, I again visited the South Coast, and dealt with numerous prospecting papers at Boro, Braidwood, Jembaicumbene, Mogo, Brimbermalla and Yalwal, returning to Sydney on December, 19th. On December 26th, I left Sydney for Pambula, returning on December 30th.

During the year I have contributed to the Records of the Geological Survey one paper conjointly with my late Colleague, Mr. T. W. E. David, "Notes on a Collection of Rocks and Minerals from Mount Morgan, near Rockhampton, collected by Mr. C. S. Wilkinson," and another "On the General Geology of the South Coast, with Petrological Notes on the Intrusive Granites and their Associated Rocks around Moruya, Mount Dromedary, and Cobargo."

In August and September, during the illness, and for some time after the death, of Mr. C. S. Wilkinson, the late Chief of the Geological Survey, I acted as Geological Surveyor-in-charge, until you were appointed Acting Government Geologist.

It will be seen from this Report that most of the Field-work upon which I was engaged during 1891 was as a member of the Prospecting Board. I have, &c.

WILLIAM ANDERSON,
Geological Surveyor.

The Government Geologist.

APPENDIX 3A.

Report on newly-discovered Caves at Yarrangobilly Creek.

Sir, 14 March, 1891.

We have the honor to report that according to your instructions we have visited and examined the newly-discovered caves at Yarrangobilly Creek. The entrance to the caves is upon the same hill-slope as the archway of the well-known Glory Hole Caves, from which it is distant about 3 chains in a northerly direction.

It is about 400 feet above their level, and from it a most extensive and picturesque view is obtained of the Yarrangobilly Valley, embracing in the foreground the ragged, rock-strewn, limestone slopes, from which the caves enter, at the foot of which glimpses are caught of the Yarrangobilly Creek, as it winds its sinuous course far down in the lowest depths of the valley, whose opposite slopes are formed of smoothly-rounded slate mountains, which, with their timbered surfaces, relieved here and there by grassy patches, make up the background to a most charming scene.

The new caves enter from the surface by a somewhat narrow opening, which passes downwards as a steeply-sloping and tortuous passage, averaging 6 ft. in width and 4 ft. in height, for a distance of 70 ft. Here it opens out into a wide chamber measuring 50 ft. in length by 19 ft. in width, and about 15 ft. in height, and lined on either side by masses of pure white stalagmite. The passage from this chamber into the main cave is through an irregular opening of no great size, from which there is a sheer drop of 40 ft., called "The Precipice."

The chamber which is entered over "The Precipice" is the largest yet discovered in the new caves. It measures about 100 ft. in length by 60 ft. in width, and is called "Chaos," from the fact that the floor is covered with enormous blocks of limestone, which are piled one upon another in the wildest confusion, the result of a widespread fall from the roof. Many of these blocks, since their fall, have had their upper surfaces covered with stalagmitic growth, while their fractured lateral surfaces appear almost fresh, showing that the fall had been of a comparatively recent date.

That portion of the side of the chamber forming "The Precipice" is covered with a terraced mass of opaque white deposit resembling a waterfall, while the roof is comparatively destitute of stalactitic growths. This chamber gradually narrows to the right, and ultimately forms the right-hand branch of the caves.

Nearing the entrance to the latter a very large and massive fringed canopy projects from the wall, and in close proximity to it, from the centre of the floor, rises a massive stalagmite 10 ft. in height by 2 ft. 6 in. in diameter, called "The Leaning Tower," whose appearance of inclination is due to the unsymmetrical development of the stalagmite on either side of a median line. As the chamber narrows, the floor rises considerably, but immediately dips again into a low, tortuous passage, from which you emerge into "The White Chamber," so called from the quantity of opaque, white calcareous deposit, covering its roof and sides. The white colour is relieved in places by the presence of a few massive ferruginous-stained stalactites, while the floor is almost entirely covered with black-tinted, terraced, and seemingly ripple-marked stalagmitic growths. From its extreme end an entrance is effected, by an irregular opening, into the next chamber, the sloping floor of which is formed of a talus of limestone *débris*, which has entered from above by a small hole in the roof, situated towards the right side of the cave. The appearance of this chamber is in marked contrast to that next to be described, and named "The Grotto," in the fact that it is entirely destitute of stalactitic growths in which the latter is extremely rich.

A sliding descent is made over the talus-heap into "The Grotto," which is about 60 feet long by 30 feet wide. The termination of this chamber, which is the extreme end of the Right-hand Branch, is formed by a gently sloping, irregular, ripple-marked surface, supporting numerous isolated stalagmites, and covered in part by earthy *débris*. The floor is formed entirely of the two sloping surfaces above mentioned, which meet in the centre of the chamber. Many of the boulders on the floor are coated with glistening, somewhat dark coloured stalagmite, from which spring curious irregularly-shaped papillated excresences. The roof is a mass of pendant stalactites, many of which are of a massive and bunchy description for a considerable distance from their bases, terminating in the most delicately white translucent pencils, and sometimes in fine shawl-like forms. Between the more massive stalactites the whole roof is thickly studded with delicate white needle-like pendants, some of which attain a length of over three feet. Many of the former assume the most grotesque and fantastic shapes, a noticeable feature of which is the angle at which they depend from the roof, which inclines them in a uniform direction towards the end of the cave. Shawl-like masses and fine pendants hang in some instances from their under-surfaces. A characteristic of the great majority of the stalactites is that their outlines are not straight lines; but, when viewed from a distance, they present irregular edges, produced by the unequal horizontal thickness of the form; the calcareous deposition during the formation of the stalactite having been periodically more rapid on one side than the other. The walls are covered with massive growths formed by coalescing pendants and ripple-marked surfaces. The different shades of colour, and the irregular shapes assumed by the various formations in this chamber, lend a pleasing variety to the whole. The predominating colours are white, intermingled with black, ferruginous and light fawn tints. The

The Left-hand Branch.—The Northern end of the chamber called "Chaos," forms a lofty dome, the height of which is estimated to be about 100 feet. In the centre of "The Dome" stand two isolated compound-fluted columns of considerable thickness rising from massive and extensive bases, which are coated with ripple-marked stalagmite. That part of the floor unoccupied by the upright columns, is strewn with broken stalactites which have fallen from the roof, where their former position as pendants is indicated by the still apparently fresh fractures. The bare surface of the limestone constitutes the greater portion of the roof and sides of "The Dome," the rest being covered with a mass of fringed canopies, which form a series of recesses designated "The Cloisters."

An entrance from "The Dome" into the Left-hand Branch is gained underneath "The Cloisters," through a low, tortuous, and intricate passage, bristling with sharp pointed stalactites of a rich brown colour, the interstices between them being white, thus producing a remarkable likeness to the pipes of an organ, and therefore called "The Organ." From its base hang another series of peculiar shawl-like stalactites reaching to within a few inches of the floor. The roof is very irregular, and covered chiefly with branches of small grey stalactites, intermingled here and there with long, tapering, ferruginous-stained pendants. To the right of "The Organ" the floor rises so rapidly as to produce with the roof, several small recesses, whose surfaces are completely concealed by the profusion of delicately white stalactites. On this slope stands a beautifully white stalagmite, about 5 feet in height, and from the centre of the chamber rises another about 7 feet in height, called "The Alabaster Column," its pure whiteness showing to great advantage against the dark-coloured ripple-marked surface which forms a background to it. To the right of the "Column" there occurs a small recess, from the centre of whose floor rises an isolated stout stalagmite, surmounted by another of a slender staturesque form called "The Madonna," enshrined in a beautiful little niche, chastily ornamented with a wonderful profusion of fine, delicate, white, stalactites. On the opposite side, near its termination, the chamber opens out into a large recess which passes upwards to a higher level roof, and is beautifully covered with numerous stalactites in great variety.

Looking through the passage into the next chamber, the view is partially obscured by a group of massive fluted stalactites, to the right of which is a pendant conical mass formed of innumerable pure white stalactites which are individually covered by fine specimens of the minutely contorted forms known as "Mysteries," while behind these a series of beautiful shawls appear hanging in graceful folds. These formations are flanked on the right by a stalagmitic mass reaching to the roof, and on the left by a mass of horizontal stalactites which have fallen from the roof, and from which perpendicular stalactites now hang, forming a natural archway, under which a passage has been formed into the next chambers.

This is the finest chamber of the whole series of caves, and has been called "The Grand Cave," because of its great length, the incomparable richness, multiplicity of form, and diversity of colour of its calcareous adornments. It is over 300 feet long, and presents an unique feature in the fact that, owing to its length, and the comparative straightness of its course, the most beautiful vistas are presented to the eye. The inequalities of the roof and floor, with the innumerable projections from the sides, no two of which are alike, and the wonderful diversity in size, shape, and colour of the calcareous depositions, make up a most enchanting scene. Every known form of stalactite growth is met with, the entire surface of the cave being obscured from view except for a few isolated patches of bare rock a few feet in area.

The roof has originally been exceedingly irregular, and its characteristic ornaments are the short, white, stalactites from which innumerable minute contorted forms spring in all directions, intermingling with larger, more massive, tapering forms, generally possessing a fawn colored tint; while near the sides these large pendants give place to shawl-like form, some of which present the most wonderfully natural foldings.

In places the roof is a dense mass of white conical excrescences, which terminate downwards in a short, slender, tapering stalactite, while other large conical masses occur, formed by aggregations of white stalactites, which are individually covered with small contorted forms.

The walls appear very irregular, but this irregularity is due to the unequal development of stalagmitic growth, which form massive buttresses, and large canopies edged with drapery-like hangings, beneath the folds of which innumerable recesses are formed, filled with beautiful specimens of miniature depositions.

Among the canopies, niches and recesses occur containing statue-like representations. In some portions of the cave massive stalagmites have reached the roof, and formed a series of isolated columns, which shut off small passages between them and the wall, resembling the aisles of a cathedral.

The floor, in many respects, equals, if it does not surpass, the roof and sides in beauty. It is wholly covered with stalagmitic growths. Impressions occur at intervals, some of them of considerable depth. One of these in the first part of this cave has formed a large basin in which a supersaturated solution of carbonate of lime has been slowly evaporated, producing within its terraced boundaries a curious resemblance to a garden. The terraces are studded with large composite masses of calcite crystals, each from 2 to 3 inches in length, projecting from the edges at different angles, while the bottom is covered with small protuberant crystals, from among which rise at intervals short stout stalagmites, upon whose ends large composite branches of calcite crystals have grown, producing a distant resemblance to flowering shrubs. The stalagmites which rise from the floor of the cave assume all sizes and shapes, from delicate white forms to massive bifurcate and fluted columns, generally possessing a ferruginous staining, and, where free, having their distant ends surmounted by tapering white stalagmites, which do not reach the roof in bulk, but are connected to it by a delicate white pencil stalactite, this being a peculiarity rarely seen in other caves. As a rule the floor rises towards the sides in gently-sloping, terraced, and ripple-marked surfaces. About 20 feet from the entrance to the "Grand Cave" a curiously-interesting stalagmite rises to within a foot of the roof. It is at least 18 feet in height, and has an average diameter of 4 inches. It possesses an irregular outline, is beautifully white, and is known as "Cleopatra's Needle." A short distance past this stalagmite is "The Garden" above mentioned; to the right of which one has to pick one's way among a miniature forest of long tapering stalactites. Emerging from the archway an immense fluted pillar reaching to the roof is seen to the right, called "Pompey's Pillar," which, at some distance from its base, shows a very recent fracture, without displacement, evidently the result of a slight movement either of the floor or roof. Additional evidence of a similar and uniform movement occurs in other parts of the cave, where individual stalactites and stalagmites have evidently been in opposition, but the free ends are now removed an inch or so in a lateral direction from each

each other. Just behind the "Pompey's Pillar" is a small depression; from the bottom of which projects a large fragment of a fallen stalactite resembling a cannon elevated for firing. This depression continues somewhat narrowed until it terminates a short distance ahead in a large oval hollow containing a few isolated, irregularly-fluted, massive stalagmites, the largest of which is called "The Hermit." The view across this depression is remarkably fine. On the left the hollow is overhung by wide fringe canopies of a brown colour, above which a series of smaller canopies are formed in terraces, while on the opposite side are numerous massive stalagmites. On the further edge of the hollow stands another massive fluted column, appropriately named "The Sentinel." The flutings of the pillars and columns are of a darker colour than the interstices between them, which greatly enhances their beauty.

To the right of "The Sentinel" among a number of other stalagmites, is one which is broken across about 2 feet from its base; the only displacement resulting from the fracture being that the apex of the upper portion has fallen on the wall, to which it has become connected in a leaning position, the two fractured surfaces remaining in apposition. This is known as "The Broken Column." A little further is another depression, upon the edge of which stands a very massive-fluted column with a digital apex, many of the individual species being united to the roof by fine white stalactites. A short distance beyond, further progress is apparently blocked by a series of massive stalagmites occupying the whole breadth of the cave, and barely allowing of a passage between them. Further on, although the general width of the cave remains much the same, such large stalagmitic masses project irregularly from the sides, that the passage is very winding. At the point of one of these projections, near the end of the cave, one of the most massive and highly ornamented columns in the cave occurs. Near this lies another very large fluted stalactite which has fallen from the roof. Near the extreme end of the cave occurs a beautifully white compound-fluted stalagmite, from the centre of which two tapering forms pass to the roof. Half-way up, they have come in contact with a ledge of rock projecting from the side of the cave, and from this contact a mass of pendant stalactites have formed, which bear a remarkable resemblance to the tentacles of a "Medusa," and for this reason the structure has been named "The Medusa." The end of the cave, as far as explored, is formed of rough-terraced and ripple-marked slopes, rising to a great height, the roof at this point being loftier than at any other part of the new caves. Many beautiful formations occur at the top of the terminal slope. The Left-hand Branch, inclusive of the common entrance passage, measures a total length of nearly 600 feet.

All through the cave calcareous depositions are coated with a black substance, which in places appears as if highly polished. This black colouring matter seems chiefly confined to the floors and the upper surfaces of the various formations, together with some of the pendants hanging from them. Many of the stalactites have a horizontally, banded appearance, dark-coloured bars alternating with the white or yellowish carbonate of lime. This black colouring matter is probably the exuviae of bats, which have evidently inhabited the caves in great numbers. The beauty of the caves is undoubtedly enhanced by the great variety of colours possessed by the various formations.

This is particularly the case with the black surfaces, which set off to perfection the many beautifully white isolated forms, while the intermingling of the stalactites and columns possessing various ferruginous tints, relieves to a wonderful extent the monotony there would otherwise be if the entire chambers were coated only with pure white calcareous growths.

A prominent feature in the "New Caves," particularly in those parts where the calcareous deposits are most beautifully and richly developed, is the enormous number of small contorted forms known as "Mysteries." They have grown upon the surfaces of the larger statactites, but differ altogether from them in the fact that they assume the most curious shapes, and protude in all directions from the surface on which they originated. They are almost always of small size, and of a pure white colour. During their development, the direction and form which they have ultimately assumed does not seem to have been governed by a common and inflexible law analogous to the law of gravitation, which indicated the perpendicular direction which the ordinary pendants assume. They appear hooked, sickle-shaped, straight, and curved horizontally with crenate and even distinctly toothed edges, the latter character presenting itself indifferently upon the upper or lower edge. It would seem probable that one of the factors which governed the ultimate shape these curiosities assumed was the periodical variation in the direction of the air current passing through the cave, producing an unequal evaporation in different directions on the surfaces of the stalactites. It is an undoubted fact that the inclination which many stalactites possess, particularly near the mouths of caves, is due to the dry air current passing into or out of the entrance, causing a more rapid evaporation, and consequently deposition on the one side of the stalactite. Where the air currents are not constant in one direction, but variable both in direction and strength, such as would be constantly produced in a chamber where numerous bats were flitting about, the smaller stalactites would be abnormally developed as regards shape and direction.

In many cases it is quite apparent from the position which numbers of these curiously-shaped forms occupy with regard to our hanging stalactites that the peculiar direction in which they have grown has been materially assisted by the drip from the forms above. The chief difficulty seems to be, to account for their origin from the sides of other stalactites, but once there has been the smallest deposit at the point from which they spring, the above causes would account, in a great measure, for their ultimate peculiarity of form. Granted that a drop of carbonated water remained stationary for any length of time at a certain point on the side of a stalactite, its evaporation would cause a crust of lime to form over the drop, and thus fix its position. The ultimate direction in which the form would develop from this point would chiefly depend upon the position at which the crust broke to allow of the escape of the water underneath, which would form another drop at the point of rupture. This process going on indefinitely would initiate the formation of these contorted forms, and after they had obtained sufficient length, the first-mentioned causes would come into operation to produce the complete forms as we now see them.

"The New Caves," occupying a higher position in the limestone than the old "Glory Hole Caves," are undoubtedly older in their formation as caves. This is one of the chief reasons why their interior is so profusely ornamented with stalatitic growths, and is also accountable, to a great degree, for the perfection of their beauty. Although the entrance and the passage forming the common approach to both branches have been known to a few local people for a considerable time, the fact that the communication with the more deeply situated caves could only be effected by passing down a precipice forty feet in height, has deterred visitors from exploring these caves further than about one hundred feet from the surface, and has thus been the means of protecting their stalactitic growth from ruthless destruction, and

preserved

preserved them in their pristine beauty. The first party to follow these caves to their present termination were a party of tourists under Messrs. Cunningham and Kerry, the latter of whom took numerous photographs of the interior, some of which have turned out very well. There can be no doubt, we think, in the minds of persons who have seen the various series of caves in this Colony, that the chamber in the "Left-hand Branch," known as the "Grand Cave," has no equal as regards extent and continuous beauty. From a spectacular point of view it surpasses any individual chamber, even in the Jenolan or Fish River Caves in the extent of surface ornamented with calcareous growths, in their variety of form and contrast of colours, and in their profusion and richness of development. In course of time a pathway will be constructed throughout their entire length, which can easily be carried through the various chambers, with a minimum destruction of the calcareous deposits on the floor, and so disposed that admirable views of the various noteworthy and beautiful formations can be seen to the best advantage from it. The improvements necessary for the protection of "The Caves," and the safety of the public, will take a considerable time to be carried out, so that it is improbable that they will be open to tourists until after the winter months.

The floors are so thickly coated with stalagmite, that as yet no fossil skeleton remains have been discovered. The only bones that were discovered were the skeleton of a small wallaby or kangaroo rat, which was found at a small water-hole in the "Grotto." It is evident that the animal had got over the precipice, been unable to return, and perished near the water. A few of the bones had a thin coating of carbonate of lime deposited upon them. In various places the remains of bats were noticed.

In conclusion we would recommend that an aboriginal name be given to the "New Caves," and would suggest the following. One of the chief pecularities of these caves is the amount of black-tinted stalagmite which covers the floors and sides. For this reason we would submit that they be known as the "Jillabenann Caves,"—"Jilla" being the words used by the Monaro tribes for black, and "benann" the word for hole or cave.

We have, &c.,

WILLIAM ANDERSON,
Geological Surveyor.

W. S. LEIGH;
Superintendent of Caves.

APPENDIX 3B.

Report on the Bendithera Silver-field and Currowan and Brimbermala Gold-field.

Sir, Geological Survey, Department of Mines, 22 January, 1891.

I have the honor to report that, in accordance with your instructions, I have visited the recently-discovered silver-lodes at Bendithera and Wyanbene, and also the Currowan and Brimbermala gold-fields. I now submit my Report thereon.

I visited these localities from Moruya. The former lies about 35 miles to the west of that town, near the source of the Dena and Shoalhaven Rivers, in the County of Dampier, and the latter lies to the north of Moruya, on the Clyde River, in the County of St. Vincent.

Bendithera and *Wyanbene.*

At Moruya there is an isolated patch of granite, whose outcrop is about 8 miles in diameter. This granite has been used for building and monumental purposes, and is of considerable economic value, as it takes a high polish, and is a very durable stone.

The track from Moruya to Bendithera passes for the most part through a wild and mountainous country, and has been used for a number of years by Mr. George, the discoverer of the caves and silver-lodes.

About a mile to the west of Moruya the granite junctions with the slates, and after crossing Burra Creek, about 8 miles out, the country becomes very mountainous and rugged. Shortly after crossing Diamond Creek, and near the half-way house, another outcrop of granite is crossed, which is a southern extension of the great granitic mass of Araluen and Major's Creek. The valley of the Dena River, in the neighbourhood of George's Station, is formed by Siluro-Devonian slates. On its western slope, among these are a series of lenticular beds of limestone of limited extent, in which the Bendithera Caves occur, and which in some parts are encrinital, and in others contain quantities of fossil corals. The tops of the mountains to the west of the valley are capped by a considerable thickness of Devonian conglomerates and shales, having a decided dip to the north-west; while still further to the west another mass of granite occurs, which is probably a southern extension of the Major's Creek granite.

The reefs known as the Bendithera silver-lodes are on the western slope of the Dena River Valley, in the belt of slates among which the limestones occur. Those reefs which have been discovered and partially prospected are in close relation to the limestones, and at the Bendithera Silver-mining Company's claim the lode occurs in the centre of the limestone, alongside a dyke of quartz porphyry, which has intruded the limestone in a north-westerly and south-easterly direction. This dyke mass evidently dips in an easterly direction, and the shaft which has been sunk upon the gossan lode, occurring, at its junction with the limestone, has passed through the lode into the dyke at a vertical distance of 25 feet.

The lode stuff consists of ferruginous gossan, showing a little galena and traces of zinc-blende with arsenical pyrites. Another shaft has been sunk on a blow of gossan ore, which occurs on the bedding planes between the limestone and the slates, but I do not think there is any evidence of a permanent lode of any great extent in this latter position; of the two places, the former is certainly that in which a permanent lode might reasonably be expected to occur, because of the presence of the porphyry dyke. There are, no doubt, great facilities for working this lode at a considerable depth by means of a tunnel carried in on the lode alongside the dyke, from the gully to the north, but to prospect and prove the lode to a depth, the best method would be to continue the shaft on its underlay, because the presence of the porphyry dyke would always be a guide to enable the prospectors to again pick up the lode if it should pinch out at any point. As is generally the case where lodes pass through limestone, the lateral extent of the lodestuff will be found to be very irregular locally, because of the fact that the lode and the edges of the dyke act as a vehicle for the downward percolation of the surface water, which, in its course, will have excavated cavities in the limestone, many of which have no doubt been subsequently filled with lodestuff, redeposited from the lode. So far as has been proved, the gossan lode is of no great width near the surface,

surface, and the assays have not given phenomenal returns of silver, still from all appearances the lode seems well worth prospecting to a depth. A bulk test of nearly one ton was made at the Clyde Works, the expense being defrayed by the Government out of the Prospecting Vote.

This ore was crushed and concentrated by Frue Vanner, and the assay of the concentrates yielded at the rate of 3 oz. 1 dwt. 9 gr. per ton.

Some distance to the north-east another gossan lode has been partially opened up by Mr. George, the prospector. This lode occurs in the slate rocks, a short distance to the east of the limestone. Its outcrop is traceable for a considerable distance through the 80-acre lease taken up by this party, and it is of considerable width. It has been driven upon for 25 feet, and two shafts have been sunk upon it, one 10 feet and the other 25 feet. The ore at the surface is in the form of a ferruginous gossan, showing galena and iron pyrites. The assays of this ore show returns of a few ounces of silver per ton, with traces of fine gold. The lode has all the characters of a permanent lode, and as the assays have only been taken from that portion of the outcrop on which the party have worked, they can hardly be said to give a reliable idea as to the payable nature of the lode.

Some 12 miles to the north of Bendithera another set of reefs have been partially prospected at Wyanbene. They also occur in connection with limestone. In this locality I did not observe any evidences of the presence of a dyke rock as was the case at Bendithera.

The lode occurs at the eastern edge of the limestone, and at one point it has been extensively prospected, but the returns were not sufficiently good to encourage the company to prosecute their work further.

At the present time one party are engaged prospecting the lode to the north of the old workings. Here they have driven a tunnel for a distance of 135 feet, of which 90 feet are in gossan, and the end of the tunnel has not yet passed through it. They are now engaged in sinking on the lode at the end of the tunnel. It appears to be of a permanent nature, and consists of a ferruginous gossan, showing in places a considerable amount of lead carbonates. The assays have returned a few ounces of silver to the ton and traces of gold.

In all three cases assistance has been granted out of the Prospecting Vote, to enable the parties to prove the lodes at a depth.

As far as these lodes have been proved silver in payable quantities has not been obtained, but with the exception of the Wyanbene lode, there has been little or no work done on them, and they can hardly be said to have been yet prospected. They occur in the same belt of slate rocks as the reefs at Nerrigundah, which have shed such large quantities of alluvial gold into the valleys at that place, but up to the present little or no gold has been discovered in them. So far as one can judge at present, they have certainly the appearance of being permanent, but until they have been more thoroughly prospected their payable character cannot be established.

The gold-fields of Currowan and Brimbermala lie to the north of Nelligen, in the county of St. Vincent. In the neighbourhood of Nelligen, the valley of the Clyde River consists of Silurian slates, which on the range between that place and Braidwood are capped by fossiliferous Devonian rocks. To the eastward, on the coast, the coal-measures form the surface rocks.

All up the valley of the Clyde River, there occur great numbers of made hills, which cover a large area of country in the immediate vicinity of the present river. They consist of Pleistocene drift which has been formed by the erosion of the river during the time it has taken to excavate the valley to its present depth. Portions of these alluvial drifts are at a considerable height above the present level of the river-bed, but these merely represent a period when the valley was not so deep, and the river ran at the level on which they now occur. The erosion of the Clyde Valley has taken place through auriferous formations during most of its course, and it is therefore reasonable to expect that the residue of that eroded material, represented by the drift which now occurs scattered over such large areas of the lower portions of the valley, will contain gold in a concentrated form.

From the widespread nature of these deposits it is not likely that gold in sufficiently rich quantities to pay when worked by the ordinary methods of sinking and driving will be found equally distributed through them, but in many places the whole deposits should furnish an average yield of gold sufficient to pay for sluicing, if water can be conveniently got on to it. Locally, there are probably portions of this drift where the gold has been concentrated to a greater degree than others, that is to say, in such positions where one of the old river channels has been in existence for some time, which would have had the result of concentrating the gold in the wash now occupying the position of that channel. As there are no well-defined channels traceable for any distance among these isolated hills of wash, such as we get in the Tertiary deep lead, it would be extremely difficult and expensive to prospect for such by sinking, because the old river altered its main courses so often over the whole breadth of the valley, that the made hills left undenuded at the present time only represent isolated portions of these old channels, and therefore sluicing is the only method by which these extensive deposits can be economically worked, unless by chance a prospector happens to strike one of these channels containing rich gold, when it can be followed up by driving.

There is no doubt that both in the Shoalhaven Valley where similar deposits occur, and in the Clyde River Valleys there is a wide field for a remunerative expenditure of capital. The chief difficulty to be contended with in working these deposits is that of getting a sufficient head of water with which to sluice them.

One company on the Shoalhaven River has, however, carried a head-race for 26 miles between their water supply and the ground they intend to sluice. From this case it is evident that to work these deposits by sluicing the initial outlay is necessarily considerable, and for this reason they do not hold out any inducement to individual miners or small working parties, but I have no doubt that in course of time most of these deposits will be worked with profit when capital can be introduced into these districts to work them.

Brimbermala is situated about 12 miles to the north of Nelligen. In this field a large number of claims have been taken up, and a good number of these are now being worked. The reefs are very numerous and occur in Silurian slate rocks. They are mostly parallel to one another, and in some cases seem to be of a permanent character. At the time of my visit, one shaft on the prospector's claim had been sunk on the reef to a depth of 70 feet, and although at the surface the reef was only 10 inches wide, at the bottom of the shaft it had increased to 2 feet, having bulged to 3 feet at the widest part.

Some very rich specimens of gold-bearing quartz have been obtained from the lower levels of some of the shafts. A small battery has been erected on a site convenient to the various claims, and there are certainly prospects that at least some of the reefs will be found to be payably workable. They seem to be somewhat variable in thickness, and seem likely to persist to a considerable depth. There were at the time of my visit large quantities of quartz at grass, the crushing of which should give a fairly good idea of the probable average yield of the various reefs.

At Currowan, which lies to the south of Brimbermala, and is about 6 miles from Nelligen, there are two parties at work. The reefs occur in the same series of slates as do those of Brimbermala. Hobb's reef is very wide and has a most irregular strike. The party have sunk upon it in various places, the deepest shaft being down 43 feet in the reef. In this shaft there were traces of gold all across the reef, but in the other positions where it was tested the gold-bearing stone seemed to be confined to one side of the reef only. A parcel of this stone was tested at the Clyde Works, and returned 4 dwts. per ton. The reef is of great extent and very easily worked, and there is no reason why a few pennyweights per ton should not pay the party to work it to a considerable depth.

The other party (Green's) at work at Currowan, have sunk a shaft 80 feet in depth in a vein of quartz, which seems to be a different reef from Hobb's. At the 50-foot level the country was much broken, and it was with difficulty that they could follow the reef. Traces of free gold had been found in the quartz down to this level, but when the reef was again struck a few feet lower down, it was found to contain nothing but pyrites, which had not been tested as to its auriferous character. At the lowest level the quartz was much mixed with crushed slate rock, although there seemed to be a well-marked line of fissure through this crushed rock. There is no doubt, I think, that if this reef makes into a body at a depth, the gold if present will be wholly confined to the pyrites, and therefore I think it is unwise to continue sinking on the lode until the pyritous ore, which has been already obtained, be treated, as a guide to future operations. Lately, there have been other reefs showing rich gold on their out-crops, discovered between Bateman's Bay and Nelligen, and from the general geological aspect of the country which forms the basin of the Clyde River I should think that there is every possibility of some rich and permanent reefs being yet discovered in the area.

I have &c.,
WILLIAM ANDERSON,
Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX 3D.

Report by Mr. W. Anderson, Geological Surveyor, on Water Supply for Broken Hill.

Geological Survey, N. S. Wales, Department of Mines, Sydney, 9 December, 1891.

In submitting Mr. Geological-Surveyor Anderson's valuable report, I beg to draw attention to the following conclusions arrived at by him, and which appear to be well founded.

1. It is probable that the present local water supply of Broken Hill could be to some extent supplemented if deep wells for sub-artesian water were sunk between Broken Hill and Silverton, in the centre of the syncline or trough in which (as pointed out by Mr. C. W. Marsh), the Palæozoic rocks there occur. It is also likely that the Acacia Dam supply might be increased by making a puddle dam below the present reservoir, as the source of supply is probably a spring, and if this be so a considerable quantity of water doubtless escapes down Umberumberka Creek under the surface of the alluvials.

2. Although the Cretaceous rocks do not outcrop within a reasonable distance of Broken Hill, there is a considerable expanse of Tertiary strata to the east and south of the Barrier Range, in which it may reasonably be expected that a permanent supply of artesian water would be discovered if bores were put down sufficiently deep to penetrate to the impervious rocks upon the surface of which the water would naturally be expected to accumulate.

3. A number of wells have been sunk within this Tertiary area, and in some of them both brackish and fresh water has been met with, but in no case has the sinking been sufficiently deep to prove or disprove the presence of artesian water, although the sub-artesian water met with at comparatively shallow depths is evidence in favour of the existence of artesian supplies below. As none of the wells hitherto sunk within this area have reached bed-rock, it is not yet known whether the Cretaceous rocks extend as far south as this underneath the Tertiary.

4. An old (Pre-Tertiary) valley appears to have existed between the Barrier Range and Scrope's Range, and this probably formed the channel through which the drainage of the surrounding country was carried southwards before the Tertiary strata were deposited. Mr. Anderson recommends that this valley be tested for artesian water by a series of bores across its course from the Gorge to Silistria Lake. He also recommends that a number of bores be put down within the area of the Tertiary basin to the east and south of Broken Hill, and at distances varying from 28 to 36 miles from it, *vide* map accompanying his report.

It is of great importance that the strata met with should in every case be submitted to this Department for examination, with a view of ensuring that the proper depths be attained, and that a geological record may be kept for future reference.

EDWARD F. PITTMAN,
Acting Government Geologist.

The Under Secretary.

Sir, Geological Survey, Department of Mines, Sydney, 21 November, 1891.

I have the honor to report that, in accordance with your instructions, I have traversed the country in various directions from Broken Hill, between the South Australian border and the Darling River, with the view of determining roughly the area of Cretaceo-Tertiary strata in which there is a possibility of obtaining supplies of artesian water which could be used as a water supply for Broken Hill. The examination necessary for this purpose was of a most general character, being, however, more minute in those portions of the district in which the Cretaceo-Tertiary strata are developed at the nearest points to Broken Hill. These positions are immediately to the east, south-east, and south of the Barrier Range.

In the vicinity of Broken Hill the outcrop of Palæozic rocks among which the silver-lodes occur is about 35 miles wide, in an east and west direction. It extends southwards on to Burta and Netley holdings, about 30 miles, and to the eastward about 16 miles to the Gorge. Northward it forms almost a continuous range as far as the Mount Brown and Mount Poole ranges. To the south-west of Thackaringa the

the older rocks are traceable almost as a continuous outcrop as far as Mount Lofty, near Adelaide. By the intervention of these ranges of Palæozoic rocks, the Tertiary basin of the Murray and Lachlan Rivers is entirely cut off from the Cretaceo-Tertiary basin of Central South Australia.

Further to the northward, in the region of the Grey Ranges, which chiefly consist of upper Cretaceous sandstone, there is a continuity between the Cretaceous plains of Queensland and the Upper Darling, and the Cretaceo-Tertiary plains of South Australia.

The age of the Palæozoic rocks forming the Barrier Ranges in the north-west corner of the Colony is still uncertain. It is, however, evident to anyone who has seen the upper Silurian strata in other parts of the Colony that these Barrier rocks are of much older date, not only because of the greater degree of local metamorphism which they have undergone from the intrusion among them of granitic and dioritic dykes, but from the general petrological characters of the less altered portions of the series. Crystalline limestones are sparingly developed in the various localities, and from Tarrawingie, near Poolamacca Station, the chief supply of lime is obtained which is used at the Broken Hill mines as a flux for smelting purposes. As shown by the deep sinking at the mines, these rocks do not carry much water. Locally, however, some good wells, containing a permanent supply of water, sufficient for the domestic uses of a homestead, or for stock purposes, have been met with. In the wells of this description that I have seen, the presence of the water has been chiefly due to the fact that the well had been sunk upon a fault, quartz-reef, or intrusive dyke, any one of which would act as a vehicle for the downward conveyance of surface waters. Many of the granitic dykes, which are very coarsely crystalline, even where the component minerals have not undergone much decomposition, seem to hold large quantities of water. As an instance of this, I might mention a shaft in a tin-bearing granitic dyke near Albion, to the north of Broken Hill, which contains a good supply of water. Such dykes would, I think, be very favourable positions in which to sink wells, particularly where they are decomposed.

None of the creeks whose courses drain the Barrier Range ever persist for any length of time as running streams. As a rule their valleys are silted up to a considerable depth with alluvial deposits of Pleistocene and Recent age. These silted-up water-courses are a very common source of water, for it frequently happens that underneath the alluvials there occur local water-holes, which, from the presence of a rocky bar in the bed of the creek, hold the water long after it has ceased to flow on the surface. When wells are sunk through the alluvials into such a concealed water-hole, supplies of water are obtained which last for considerable periods. These are known as soakage wells.

The rocks at the southern end of the Barrier Range, in the neighbourhood of Silverton and Broken Hill, have been stated by various writers to form a series of synclinal folds, the chief of which lies between Silverton and Broken Hill. This being the case, the disposition of the beds in the syncline, which forms a trough-shaped mass of strata, is favorable to the accumulation, in the lowest parts of the syncline, of surface waters which find their way downwards by percolating along the bedding or cleavage planes. When intrusive dykes occur, cutting at right angles to the direction of dip such inclined strata as forms the sides of a syncline, the percolating water is caught in its downward progress by the dyke, and accumulates there. Consequently the opposite side of the dyke, to the direction of the dip of the bed is a favourable place for well-sinking. Although there is a probability of water being naturally stored in the lower portions of the syncline above referred to, the fact that it is so near the highest point of the range would preclude the possibility of it being artesian, but it is quite likely to be sub-artesian, and therefore the centre of the syncline would be a good place for deep wells.

The question of securing a permanent water supply for the mines and population of Broken Hill is at present a very grave one, and is not only of local but of national importance, for without an adequate and permanent supply of water, a population of nearly 30,000 persons cannot exist in such a dry locality, nor can the ores from the mines be successfully treated, and upon the latter result depends the very existence of the town, and the circulation of an immense amount of capital. The ordinary methods of supplying small communities in this arid country, by surface tanks and soakage wells are quite inadequate in the present case. It is therefore necessary to look further afield and embrace some wider and more comprehensive scheme to supply the enormous amount of water which is necessary for the use of an ever increasing population, and for the large number of important mines which will be worked in this neighbourhood. At the present time entire dependence is placed upon the supply obtainable from a few surface tanks, soakage wells, and from the Acacia Dam, which is totally inadequate for the requirements of the place.

The bulk of the water used at the mines comes from the Acacia Dam, about 5 miles to the west of the town. At this place wells, from which the water is pumped and conveyed to the mines in pipes, have been sunk in a calcareo-siliceous deposit which overlies the palæozoic rocks. These latter, with their intruded dioritic dykes form almost a complete irregularly outlined basin in which the calcareo-siliceous deposit has been formed.

This deposit consists largely of siliceous and earthly material, but locally it was considered rich enough in lime to have been utilised as a flux. Embedded in it, chiefly in its lower layers, are great numbers of large-sized boulders of diorite and other rocks. From its general character it would seem to me to have been deposited from calcareo-siliceous waters of deep-seated origin, which came to the surface in the form of a spring, probably at the junction of the diorite dyke with the Palæozoic sedimentary rocks. The deposit itself forms a flat near the head of the present valley of the Umberumberka Creek, which flows from the Barrier Range, past Thackaringa, on to the South Australian Tertiary plains.

From this fact it is evident, I think, that the deposit is of Post Tertiary age, and was formed in the valley which persists to the present day.

I do not think it is an outlier of the Tertiary formation of the neighbouring plains. The large supply of water which has been continuously obtained for the use of the mines since the wells were sunk would indicate that the spring was still active, because it is improbable that the quantity of water capable of being held in the calcareo-siliceous deposit would have yielded the amount which has been taken out of the wells, unless there had been a constant renewal of water from some other source.

If the foregoing conclusions be correct, the supply of water from the wells at the Acacia Dam will certainly be of a permanent character, and it is equally certain that there is a maximum limit to the amount of water obtainable from this source, and therefore if a series of wells are sunk over the limited area of this basin and water taken from all of them, the possible supply in the present well will be correspondingly diminished in quantity. It is, however, just possible that the maximum supply has not been

obtained

obtained in the present well. It seems more than probable, from the fact that the soakages down the creek rarely or never dry up, that the supply in them is still kept up by the percolation of the spring water through the alluvials in the bed of the creek, and that a large quantity of the spring water passes away by this means. There is no doubt that this could be stopped by puddling and damning the valley at some convenient spot below the Acacia Dam.

This would certainly have the effect of increasing the supply of water held in the porous calcareo-siliceous deposit in which the wells are sunk, because there would then be no escape water, and the evaporation from this underground dam would be infinitesimal. The comparatively small amount of rain-fall which falls over this country at wide and irregular intervals, combined with the immensely rapid evaporation of large bodies of surface water, are rather against the prospects of obtaining a permanent water supply by means of surface tanks or reservoirs.

The extensive works just completed at Stephen's Creek by the Proprietary Company will no doubt in time prove the possibility or otherwise of conserving large bodies of surface water, for a sufficient length of time, to allow of their being useful in this dry country, in a neighbourhood where the demand is so great. It is sincerely to be hoped that, after the large outlay expended on the Stephen's Creek Dam, once it has been filled it will be a standby, and fulfil the great expectations of the most ardent of its promoters.

In the seeming impracticability of the above methods of securing an adequate and permanent water supply for Broken Hill, recourse will have to be had to other and as yet untried sources of water. The most important of these is no doubt artesian water, if it could be obtained at such a distance that it could be conveniently conveyed by piping to the town. With a view of ascertaining the nearest point to Broken Hill at which there is a possibility of obtaining artesian water, I have examined the district, and find that, although the Cretaceous formation in which most of the artesian water has been obtained in other parts of Australia does not extend within reasonable distance of Broken Hill as a surface outcrop, there is still present around the eastern and southern portions of the Barrier Range, a considerable development of Tertiary strata, which, in its mode of occurrence, fulfils the conditions necessary for the presence of artesian water. Its beds are approximately horizontal, consisting of alternating sands, gravels, and clays, and forming part of an immense basin, the superficial Tertiary strata of which extends over the lower portions of the basins of the Darling, Lachlan, and Murray Rivers. The presence of artesian water in its deeper portions has never yet been tested, although sub-artesian wells are frequently met with in the superficial beds. It is also at present unknown whether the Cretaceous formation is developed under any part of it. The exact northern limit of this Tertiary basin, on the east side of the Barrier Range has not yet been worked out, but so far as our present knowledge of the geology of the country to the north-west of the Darling goes, it can safely be said that it is certainly not entirely cut off from the great Cretaceous basin of Queensland by the intervention of any east and west ridges of Palæozoic rock. But between Bourke and the Barrier Range there occur at intervals series of isolated north and south ridges formed of Silurian and Devonian rocks, which crop out through the Cretaceo-Tertiary plains.

It is more than probable that somewhere in the area just mentioned the Tertiary beds overlie, and thin out northwards over the southern edges of the Cretaceous strata, because in a bore on Dunlop Station, between Bourke and Wilcannia, fossils have been identified by my colleague, Mr. R. Etheridge, jun., as being undoubted Cretaceous forms, while at Lake Speculation, near Menindie, fossiliferous beds occur from which fossil leaves have been obtained of Tertiary age. It is therefore reasonable to suppose that such an overlapping of the two formations occurs, the Tertiary plains being continuous in a northerly direction with the Cretaceous plains of Queensland; unless, indeed, Palæozoic rising ground having an east and west trend exists, which does not come to the surface, but which would produce a shoaling of the Tertiary formation on its southern side, and of the Cretaceous formation on the north of it. It is just possible, however, that the superficial clays met with in the Dunlop bores, and passed through before meeting with the Cretaceous beds in many wells towards the Queensland Border, may represent the thinning out northwards of the Tertiary formation. The main Tertiary basin, of which Wentworth is about the centre, extends to the southern limit of the Barrier Range in New South Wales. A northerly extension of it passes round the eastern side of the range and forms the plain which stretches northward from Menindie Lake towards Bencannya Lake, and from thence is continuous around the east of Mount Brown and Mount Poole, with the Queensland Cretaceous plains. East of Broken Hill this plain is about 30 miles wide to Scrope's Range, which chiefly consists of horizontally bedded sandstones and conglomerates, probably Devonian, resting in places upon Palæozoic slate rocks, an outcrop of which occurs on the eastern slope of the range on Glenlyon Station.

Some few miles to the eastward, on the boundary of Wenteriga holding, a considerable area is occupied by Devonian conglomerates, probably resting at no great depth upon Silurian slates, which crop out again in the Dolo Ranges. Passing northwards from these ranges, the eastern limits of the plain are marked by a succession of ranges composed of Silurian slates and Devonian conglomerates. These are Comarto Hill, Daunbeney Range, Nuntherungie Range, Kooringberry Range, and the Palæozoic outcrop on Turkey Creek. Further to the north of this the country opens out on to the main Cretaceous plains of Queensland. From the east of the Dolo Range the Cretaceo-Tertiary plains extend to Wilcannia, where conglomerates and sandstones occur of Devonian age, resting upon Silurian rocks, and it is therefore likely that we have here, between the Dolo Range and Wilcannia, another northward extension of the Tertiary basin. How far north it goes I am not in a position to state.

For the present purpose we have to deal particularly with that portion of the Tertiary basin which exists in the immediate vicinity of the southern and eastern limits of the Barrier Range, extending between the Barrier and the Darling River, and the northern extension which passes up the eastern side of the Range towards Bencannya Lake. By reference to the sketch map accompanying this report, an idea can be gained of the approximate extent and relations of this portion of the Tertiary basin to the outcrop of Palæozoic rocks.

Over the plain area no bores or wells have been sunk through the Tertiary formation deep enough to strike the Palæozoic bed-rock. The only bores put down on the plains belong to a series which were sunk by Government during 1884-85, on the old Travelling Stock Route between Wilcannia and Silverton. Between these two places no less than nine bores were put down. Of these only four were bottomed in the older rocks, two being between Silverton and "The Gorge," and two on the Dolo Range. In all four cases the bores were practically in the slate from the surface, and as is well known,

boring

boring for artesian water in the older Palæozoic formations is not of the slightest use, unless under peculiar circumstances, where the structure of the rocks, and their stratigraphical relations are favourable to the accumulation of underground waters, as has been previously stated in this report. The only position in which any one of these bores had any chance of success was on C.R. 612, about 12 miles E. of Silverton, where it was situated on the syncline above referred to.

The water obtained was brackish and sub-artesian, rising about 10 feet from a depth of 80 feet. The bore was only carried 9 feet further from this depth, and certainly did not get into the lower beds forming the syncline, where the most water would occur. As far as I can learn, the only bore put down in the Tertiary Plains, between the Barrier and Scrope's Range, was about 5 miles east of the "Gorge." It went to the depth of a little over 250 feet in sands and clays, but was not bottomed on the older rocks, although it is situated only 5 miles from the boundary of the formation.

None of the other four bores between this and Wilcannia, although sunk in the Tertiary formation were bottomed in the underlying Palæozoic rocks. It will thus be seen that the attempts made to test the presence of artesian water in this district have been failures, not because artesian water did not exist, but from a want of persistent effort, and of a recognition of the geological conditions which should alone warrant the stoppage of boring in the search for water.

A large number of wells have been sunk to various depths on those holdings which embrace portions of the Tertiary plains, and on these, locally, the same series of beds have been passed through. Immediately to the east and south of the Barrier, the wells were sunk in a clay, below which a fine sand occurred, in which water sometimes fresh and sometimes salt was obtained.

The depth at which this sand was met with varied according to the slope of the surface which falls gradually towards the Darling. At Redan Well, this sand bed was 56 feet thick, and was found to rest upon another clay bed which overlayed a second bed of sand, and in which a good supply of slightly brackish water was struck.

In all the neighbouring wells a similar series of beds were met with. All the available information relating to these wells, is given below in a tabular form, including a few of the wells in the Tertiary plains, between the Dolo Range and Wilcannia.

Name of Well.	Position.	Depth.	Strata passed through.	Depth water struck.	Character of water and observations.
Matappa Well ...	Sturt's Meadows, 12 miles north of Station.	320 feet...	Clay and drift at bottom.	320 feet in sand.	Fresh, sub-artesian, rose within 100ft. of surface.
Redan Well	Redan Station, 7 miles south-east of Homestead.	500 „ ... with bore.	270 feet clay, 56 feet drift clay, 30 feet drift.	270 feet, at 500 feet in sand.	Slightly brackish, passable for domestic use.
Aldborough Well.	Kinchega Station, 9 miles south-east of Redan Well.	180 feet...	Clays and drift sands.	180 feet in sand.	Slightly brackish, passable for domestic use.
Eaglehawk Well...	Netley Station, south of Redan Well.	240 „ ...	Clays and drift ...	240 feet in sand.	Salt.
Middle Camp Well	Netley Station.....	135 „	Clays and sand ...	130 feet...	Brackish, used for stock.
Wanga Well	Burta Station	270 „	.....	.....	Good enough for domestic use.
North Ita Well ...	Burta Station	160 „	.....	160 feet...	„ „
New Well	Netley Station.....	247 „	.....	.....	Good.
Silistria Well	Kinchega Station, 35 miles east of Broken Hill.	280 „	Clays and drift ...	.....	Slightly brackish, no great supply.
Kar's Well	Kinchega Station, 11 miles south of Silistria Well.	240 „	„ „ ...	.....	Good.
Inkerman Well ...	Topar Station, 5 miles east of Homestead.	370 „ with bore.	„ „ ...	.....	Good for domestic use, bottom on hard rock.
White Well	Topar Station, 10 miles east of the Gorge.	300 feet...	Sands and clays ...	No water	
Goldring's Well...	Topar Station, 15 miles north-east of Homestead.	350 „ with bore.	Clays and drifts ...	.....	Good.
Cawker's Well ..	Winteriga Station, 28 miles south-west of Wilcannia.	170 feet...	.....	.....	
Dolo Well	Winteriga Station, 6 miles west of Cawker's Well.	280 „	.....	.....	Bottom on slate.
Wilson's Well ...	Winteriga Station, 3 miles south of Cawker's Well.	.....	.....	.....	Salt.
Adelaide Well ...	Winteriga Station, 16 miles south-west of Cawker's Well.	200 feet...	.....	No water	
Glenlyon Well ...	Glenlyon Station.....	400 „	.....	.....	Brackish, for stock; small supply.

The presence of so many wells containing fairly good sub-artesian water at comparatively shallow depths in the area occupied by Tertiary strata, being to the south and east of the Barrier Range, is greatly in favour of the occurrence, at greater depths, of water, which there is every reason to believe may be artesian. Such water may be met with in two positions in this formation, 1st, in the Tertiary beds themselves, and 2nd, on the bed rock immediately below the Tertiary formation, chiefly in the lower parts of the depressions in the surface of the Palæozoic rocks. So far as is known there are at present no surface indications which would lead to the accurate selection of sites, except in a general way, where artesian water would be sure to be obtained in the first-mentioned position. In the absence of such surface evidences it is imperative, in order to facilitate the selection of sites for further bores, that an accurate geological record be obtained and kept of the various sections met with in bores and wells, as it is only from a knowledge of the superposition and stratigraphical relations of the various beds comprising the formation, as exhibited in bores and wells, that a definite knowledge can be obtained of the geological position of the actual water-bearing beds, and their probable distribution over the area occupied by the formation.

In

In the second position, chiefly towards the edges of the basin, the area from which sites for boring may be chosen is generally circumscribed by the outcrops of the older rocks, which had formed the boundaries of the Pre-Tertiary valleys. Such a valley existed on the eastern side of the Barrier Range and is now represented by the plain which stretches from the main basin northward between the Barrier and Scrope's Range, &c.

This valley in Pre-Tertiary times must have carried southward the main drainage from the eastern side of the Barrier Range, and consequently must have gravelly and sandy beds still flooring it, which we know to be now covered up by the Tertiary clays. As it is possible that this water-course, concealed under the Tertiary beds, which now fill the valley may still be a vehicle for the conveyance southwards of underground drainage waters, it is more than likely that if it were struck by boring a good supply of water might be obtained. Many of the bores and wells in this district have been stopped because salt water has been struck, although the Cretaceo-Tertiary beds have not been completely passed through.

From experience in other localities where boring for artesian water has been carried on, the waters obtained in the more superficial beds are usually salt, but it has been by no means an infrequent occurrence to pass through the saltwater-bearing strata and tap good drinkable water at greater depths in the same bore. It is therefore evident, I think, that we possess sufficient data to warrant a systematic prospecting for artesian water over a large area, in the neighbourhood of Broken Hill, outside the Barrier Range, on the plain country to the east as far as Scrope's Range, and to the south and south-east towards the Darling. There is certainly, as yet, no actual evidence of the presence of artesian water in this area, but this is due merely to the absence of prospecting, as no bores have been put down to completely pierce the Tertiary formation, and until this large area has been proved by such boring, the water-bearing capabilities of the district will remain unknown. And I think, when all the facts of the case relating to the water supply of Broken Hill are taken into account, it seems obvious that, before entering upon the more expensive methods of securing a water supply by conservation of surface waters which are entirely dependent upon a very limited and irregular rainfall, and other equally expensive means, that where there is in a district the smallest chance of tapping naturally accumulated bodies of underground waters, the presence or absence of these should first be demonstrated by actual boring before other or more precarious means of securing a supply are thought of. For years the lamented chief of the Geological Survey, the late Mr. C. S. Wilkinson, has persistently advocated the testing by boring, both of the Tertiary and Cretaceous basins in this part of the Colony, for artesian water. The result obtained from boring in the north and north-western districts of the Colony, have fully borne out the geological conclusions at which he arrived, and the views resulting therefrom which he so ably advocated. And to him is certainly due the credit of initiating on scientific grounds the boring for artesian water in this Colony, the results of which in many localities have been and will be an inestimable boon both to the local people and the Colony at large. Under the circumstances I would strongly recommend that the plain country between the Barrier and Scrope's Ranges, and also that lying to the south-east and south of the Barrier be tested by a series of bores which should not be stopped until they have passed for some distance into the Palæozoic bed-rock. In the first-mentioned locality it is unlikely that one bore alone will prove the presence or absence of artesian water, because if no water is met with in the Tertiary strata before the bed-rock is reached, the tapping of the water which may possibly exist as an underground drainage, passing along the eastern side of the Barrier Range, in the bottom of the Pre-Tertiary valley will necessitate the fact that the site of the bore had been fixed immediately over the deepest part of the whole valley, and taking into account the fact that at the surface this valley is about 30 miles wide, only a very lucky chance would make this possible. It is therefore necessary to prove this country between the Barrier and Scrope's Ranges that a series of bores be put down across the plain, at short distances from each other. These should be put down progressively from "The Gorge" eastwards. The sites which I would propose for bores to prove the the presence of artesian water to the east and south-east of the Barrier, in the interest of the Broken Hill water supply, are shown in crimson on the accompanying sketch map. They ought, I think, to be put down in the following order, and specimens of the various strata passed through, should be forwarded to this branch for identification, otherwise the bores will not furnish conclusive evidence that the area in question has been thoroughly tested for artesian water:—

(*a*) At the white well on T.S.R. No. 573.
(*b*) Five miles further east than (*a*) on T.S.R. 573.
(*c*) Four miles further east than (*b*) on T.S.R. 573, at boundary between Topar and Mount Gipps holdings.
(*d*) In north-west corner of C.R., No. 611.
(*e*) Five miles further east than (*d*) on T.S.R. 573.
(*f*) On C.R. 610, south of Silistria Lake.
(*g*) On new road, Broken Hill, to Wilcannia, at 88½-mile peg.
(*h*) On new road, Broken Hill, to Wilcannia, at 83-mile peg.
(*i*) On T.S.R. 701 from the Gorge to Menindie, two miles east of E. boundary of W.R. 695.
(*k*) On T.S.R., No. 700 from Thackaringa to Wilcannia, 5 miles E. from Chummy's Tank.
(*l*) On C. and W.R., 696 west side of Stephen's Creek.
(*m*) Five miles east of (*l*).
(*n*) In north-west corner of resumed area on Netley holding, outside Redan boundary.
(*o*) Five miles west of (*n*) on resumed area of Netley, outside Redan boundary.
(*p*) Five miles south-west from (*o*) on resumed area of Netley Holding.
(*q*) On T.S.R., No. 252, five miles S.W. from (*p*).
(*r*) On R. 253 south side of Dennis Creek.
(*s*) On T.S.R. No. 252, ten miles west of (*r*).

I have indicated this large number of sites for bores because of the great importance of obtaining artesian water in this neighbourhood, and also because a few bores over a large area are not of much use in testing the presence of artesian water, unless, by a lucky chance, the sites have been fixed over a portion of the basin where good artesian water exists. As previously stated, its presence in a basin is as a rule local, and as there are few surface evidences to guide one in discovering these localities in an untried area like the present, it is necessary, until water is struck, to have numbers of bores put down.

All

All the sites mentioned are fixed on reserves, with the exception of (*n*, *o*, *p*), which are upon the resumed area of Netley holding; but if these bores are to be put down in those positions, reserves can easily be made around them. In conclusion, I would state that there is every reason to believe that artesian water may be met with in the country between the Barrier and Scrope's Ranges, and between the Barrier and the Darling River. In the latter position there is no doubt a better chance of meeting with it towards the Darling than in the immediate neighbourhood of the boundary of the slates, composing the Barrier, because here the Tertiary beds shoal gradually towards the outcrop of the slates, and with increased thickness of horizontal strata the chances of getting artesian water are increased. There is no doubt that an artesian supply, if obtained within such a distance of Broken Hill as would allow of the water being easily conveyed to the town, would be the salvation of our greatest mining centre. It would, therefore, seem to be a matter of the greatest expediency and importance to have the facts proved whether or not such a water supply exists; but until this is done by actual boring, no amount of argument or discussion will facilitate matters. From a geological point of view, there is every chance of tapping, by boring, artesian water in the localities mentioned; and as geology can go no further, as a rule, than indicate the probable presence of water, it is necessary that the mechanical means be employed to finally prove its presence or absence. I would again express the opinion how important it is that the material obtained during the process of boring should always be submitted for geological examination, so that there may be conclusive evidence that the bore has completely proved the locality in which it is sunk before boring operations are stopped; otherwise the only result is a waste of money.

I would also again state that a single bore, or even a few bores, will not, unless under exceptionally favourable circumstances, be of the smallest utility. I would, therefore, strongly urge that such series of bores be put down as will conclusively prove whether artesian water is to be obtained or not. It is to be borne in mind that, as yet, not a single bore has been put down to completely pierce the horizontally-bedded strata in any position over the large area of this Tertiary basin; so that, if successful here, an impetus would undoubtedly be given to boring all over the basin, and an incalculable amount of good would result to the station-owners over the vast area of flat desert country in the lower portion of the Darling, Lachlan, and Murray Rivers. Even should boring prove a failure over this country, it will be satisfactory to know that no artesian water can be obtained, and this will enable people to give their entire attention to the development of other methods for securing a water supply, and will no doubt be the means of opening up large numbers of sub-artesian wells.

I have to record my sincere thanks to Mr. T. W. Barnes, Inspector of Public Watering-places for the North-Western portion of the Colony, for his great kindness during the examination of the country, and the ungrudging manner in which he put his wide knowledge of the district at my disposal.

I have, &c.,
WILLIAM ANDERSON,
Geological Surveyor.

The Acting Government Geologist.

APPENDIX 4D.

Report by Mr. W. Anderson, Geological Surveyor, on Wallah Wallah.

Geological Survey, New South Wales, Department of Mines, Sydney, 3 October, 1891.

Minute.

FROM Mr. Geological Surveyor Anderson's report it is evident that a considerable area of country in the neighbourhood of Wallah Wallah is favourable to the occurrence of argentiferous lodes. The question as to which of these are payable can only be satisfactorily settled by systematical prospecting.

The prospects of the Wallah Wallah Proprietary Mine appear to be good, 142 tons treated in Sydney having yielded an average of 37 oz. of silver per ton, besides a fair percentage of lead.

It is recommended that reserve 9,523 from conditional purchase be extended so as to embrace the Crown lands within the area shown by pink edging on the accompanying lithographs of the parishes of Blakney, Opton, Ware, and Rugby, county of King.

The Under Secretary. E.F.P., 3/10/91.

Geological Survey, New South Wales, Department of Mines, Sydney, 28 September, 1891.

Sir,

According to the verbal instructions received from the Under Secretary, I have, accompanied by Mr. Jaquet, Field Assistant, visited the Wallah Wallah Silver-field, and have now the honour to furnish you with a report thereon. From the Murrumbidgee River northward through Bookham and Binalong, past Burrowa, the country consists of granite. At various points over this granitic area iron ore and gossan lodes occur, in almost every one of which copper is abundant in the form of pyrites.

In the neighbourhood of Burrowa copper-bearing lodes have been worked for a number of years, and in one or two instances to great advantage. At Frogmore, about 17 miles to the north of Burrowa, a large amount of work has been done in connection with the raising of copper ores from a series of lenticular lodes, which occur on the strike of the slates near their junction with the granite, which seems to be intrusive over this large area. This mine has been extensively worked to a depth of 300 feet. The lenticular bodies of copper ore occurred among a belt of altered schistose slates in isolated patches, in the neighbourhood of which the slates were impregnated with copper pyrites, so that besides the true lode-stuff a large quantity of pyritous slates was raised and treated for the copper which it contained. There is also a certain percentage of silver present in the ore, and this, together with the fact that there are no impurities in the copper after smelting, has raised the price of this copper in the London market nearly to that of Chilian copper.

As in the case of other lodes occurring in the belt of metamorphic slate in close relation to the granitic junction, the bodies of ore will be found to be isolated and of limited individual extent; but there is no reason, judging from the returns of the lode-stuff already met with, why, with judicious prospecting, other bodies of ore should not be met with, which will return sufficient to keep the mine working for some time to come.

Another copper lode, called the Old Wallah lode, was opened some forty years ago, from which good copper was obtained. This mine was visited by Mr. Jaquet, who furnished the following particulars:—"The lode occurs in the granite about a mile and a half from its junction with the slates in the parish

parish of Ware. It has a general north and south strike, and in those portions where it can be seen shows a good deal of copper carbonates. Its outcrop can be traced for a considerable distance on the surface, and its width is about 4 feet, but it was impossible to get down through the old workings. No information could be obtained as to the yield or richness of the ore, as there has been nothing done on the lode for about 40 years."

Silver Lodes.—Another old mine which was examined by Mr. Jaquet is the "Everton," some miles to the south of Rye Park. It occurs on the actual line of junction between the granite and a small bed of limestone interbedded with the slates. A considerable amount of ore has been raised, consisting chiefly of galena with zinc-blende. This was said to have assayed 30 oz. of silver to the ton, but an assay lately made at the laboratory of this Department only returned 3 oz. per ton. The lodestuff occurred principally in pockets in water-worn cavities in the limestone, and, therefore, unless a well-defined contact lode be proved to exist, it is very questionable whether these pockets of ore would pay to work.

The eastern boundary of the granite in the vicinity of Burrowa extends from the Everton mine past Rye Park to Frogmore. In its course, which is almost north and south, it keeps in close relation to the road which connects these two latter places. The granite is undoubtedly intrusive, and has tilted the slates so that they dip off it at a high angle. For a short distance from the junction they have undergone considerable alteration, possessing in places quite a schistose structure.

The silver lodes occur chiefly in the slates beyond this metamorphic belt.

The Wallah Wallah Silver-field is near Rye Park, which is about 16 miles to the south-east of Burrowa. All the lodes yet opened out have an approximately north and south strike, corresponding to that of the slates, which are probably part of the Yass series or Upper Silurian. Locally, they contain small patches of limestone, from which, however, no fossils have yet been obtained. The principal lode, and that upon which most work has been done, is on the Wallah Wallah Proprietary's leases. It has already been opened out to a depth of 130 feet, by means of shafts and drives, at various levels. Near the bottom of the deepest shaft a slip occurs in the lode, which has thrown it a few feet to the west. The workings, which are of considerable extent, have been throughout on lodestuff, which averages about two and a-half feet in thickness, and consists, near the surface, of ferruginous gossan, and at lower levels of argentiferous galena ore, in which there occur local patches containing zinc-blende as the chief mineral. A bulk assay from the south end of the principal drive gave returns of 34 oz. of silver to the ton, with 32 per cent. of lead and 12½ per cent of zinc. Another assay from the bottom of the 130-feet shaft gave 43 oz. of silver to the ton, with 38 per cent. of lead. At the north end of the drive, at the 100-feet level, the lodestuff pinched out, but from the nature of its occurrence there is every probability that it will make again on the same line if the drive is carried far enough. The total amount of ore sent for treatment from this mine up to April, 1891, was 142 tons, which yielded 5,290 oz. of silver, averaging over 37 oz. to the ton.

Numerous other leases have been taken up on this field, and on most of them a little work has been done, chiefly in sinking. The lodes met with on these leases are similar in every respect to that on the Wallah Proprietary, but as yet their extent has not been proved by prospecting.

All the lodes yet discovered in the slates at Wallah Wallah and Frogmore are strike lodes, and occur on the lines of sedimentation of the slates. Their presence there is no doubt the result of the intrusion of the granite, which, owing to its contraction *en masse* during crystallization, has, in places, drawn the individual beds apart so as to produce fissures which were subsequently filled with argentiferous lodestuff. It is probable that the reason why similar fissures were not formed along the actual lines of contact is that the beds in that position underwent metamorphism to such a degree that on the release of pressure, consequent upon the consolidation of the granite, the fissures were found in the belt of more or less unaltered slate beyond the actual metamorphic contact zone. The inference to be drawn from these facts is that the lodes will not be be decidedly uniform in thickness, nor will there be single lodes continuous to a great depth, but they will occur in lenticular masses, some of which may persist to a sufficient depth to make it worth while to work them out. It is also probable that numbers of these lodes will occur on the same bedding plane, and may be met with by continuing the sinking or driving from one to the other. It will thus be readily understood that in the immediate neighbourhood of the junction lines of this intrusive granite with the slates there will be an extensive belt of slate rocks in which lodes may be expected to be found.

There is, therefore, in this district a good outlook for the discovery and development of silver-bearing lodes, many of which there is reason to believe would turn out of considerable value to the holders and the district at large.

I have, &c.,

WILLIAM ANDERSON,
Geological Surveyor.

The Acting Government Geologist.

APPENDIX 4.

Progress Report by Mr. G. A. Stonier, F.G.S., Geological Surveyor.

Newcastle, 8 February, 1892.

Sir,

I have the honor to hand you the report of my work for the year 1891.

From the 1st to 21st January I was engaged in the Southern District, witnessing chiefly the boring of the lower portion of the fresh-water beds of the coal-measures at Wandrawandian, the upper part of which had been seen by Professor David, B.A., F.G.S., &c.

The section has already been published in the annual report of the Department for 1890. Although the bore failed to prove a workable seam of coal, it is premature, as pointed out by Professor David, to conclude that a workable seam does not exist in the Nowra District, as it is likely that the coal will thicken in a northerly and easterly direction. When not required at the drill I was occupied in tracing out the relation of the Jervis Bay beds to those proved in the bore, but time did not permit the completion of the work.

From 20th January to 2nd February I was engaged assisting the late Mr. C. S. Wilkinson, F.G.S., &c., in the preparation of a report and map on the Iron Deposits of New South Wales.

On 3rd February I left Sydney for Walcha and reported on the Tia and Glen-Morrison Gold-fields, recommending the reservation of certain areas. I also visited the newly-discovered gold-fields at Niangala and Swamp Oak, and furnished a short report. I am about to visit both fields in order to deal with applications for aid from the Prospecting Vote, and a full report will be furnished on the latest developments.

On

On February 16th I joined Professor David at Coraki, and accompanied him during his examination of the Clarence River Coal-field. From Coraki we came on to Drake and dealt with a number of applications for Government assistance. The remainder of the trip comprised the examination of the Emerald Mine at Emmaville, Cinnabar at Bingera, the Malacca and Brown's Diamond-mines at Inverell, several tin lodes at Tingha, and reefs at Glen Elgin and Barraba. We returned to Sydney on the 17th March.

On 31st March I visited Mudgee, Rylstone, and Capertee to report upon the alienation of certain land. From Mudgee I went on to Hill End and inspected the gold-field, returning to Sydney *via* Sunny Corner.

From April 28th to May 27th I accompanied the late Mr. C. S. Wilkinson on a visit to the Northern District, and assisted him in dealing with Prospecting Vote applications. Boono Boono and Rivertree were the first districts inspected, and Mr. Wilkinson spoke favourably of the evidence for the permanency of the lodes. The lodestuff is silicious and requires special treatment, as smelting has been found to be too expensive a method of dealing with this ore. Mr. Edgar Hall, F.C.S., who has been associated with various silver-mines in New South Wales, is advising the Rivertree Proprietary Company, and has recently conducted experiments with a view of leaching the ore. He informs me that he is satisfied with the results obtained in the experimental trials, and convinced that leaching is suited to the Rivertree ores. I hope to refer more fully to the field generally in a subsequent report. On leaving Rivertree we proceeded, *via* Mingoola Station, to the Ashford Silver-field, which is situated about 50 miles to the north of Inverell, and at the time of our visit was causing local excitement. Various assays up to several hundred ozs. had been obtained from outcrops of mispickel, which are numerous in the locality, and occur in thinly-bedded mudstones near the junction of an intrusive granite. The veins discovered were not well defined, and, with the exception of the prospectors, very little work has been done.

The Borah Creek Silver-field, which was commencing to attract attention, was then visited, and various applications for aid from the Prospecting Vote dealt with. I re-visited the field later on and have furnished a short report (*Appendix* 4A). We proceeded next to Dalmorton and the Mann River, and Mr. Wilkinson expressed himself as convinced of the permanency of the veins and the future of the district His prediction has been partly borne out by the subsequent discovery of important reefs such as the Marvel. At Deepwater the new tin discovery was examined, and at Woolomumbi the new silver finds. At Bendemeer a well-defined vein, carrying sulphide of antimony, was also inspected.

From June 5th to June 25th I was occupied in a general geological examination of the Trunkey District. My report will be published in the next number of the Records.

On 13th July I commenced a line of levels in order to ascertain whether the alluvial deposits along the Mulgunnia Creek could be sluiced. I then examined a gold-bearing reef at Newbridge, and an iron deposit at Bungendore.

From 20th July to 30th August I attended Professor David's lectures on Petrology (microscopic and macroscopic) at the Sydney University, and during the term visited Captain's Flat, and reported upon the alienation of certain land and a barytes lode.

From September 3rd to December 24th, I was engaged in the northern district, dealing with Prospecting Vote applications, and land alienation cases, and making various geological inspections, which necessitated visits to Bingera, Barraba, Tamworth, Nundle, Hillgrove, Uralla, Armidale, Deepwater, Vegetable Creek, Tenterfield, Drake, Solferino, Dalmorton, Nana Creek, Murwillumbah, &c. In going generally over this portion of the Colony, I have been impressed with the large area which resembles lithologically the lower carboniferous (Lepidodendron) series, and although in many places the beds are highly altered, I believe that much which has been classed as Devonian will prove to be Carboniferous. At Somerton I had the opportunity of examining some Marine beds, and they appear to me to belong to two distinct series which are unconformable, and may perhaps be correlated with the Upper and Lower Marine. The evidence is not conclusive, nor are the sections sufficiently clear to establish the unconformity without a detailed survey. At Goonoo Goonoo a good general section is developed, which shows broadly the junction line of the Carboniferous and Permo-carboniferous beds.

At Anderson's Flat, Nundle, a shaft which was sunk for alluvial gold, bottomed on a carbonaceous shale, in which I found Glossopteris and other Permo-Carboniferous leaves. Whether this occurrence, as suggested by Mr. Robert Etheridge, jun., confirms the overlapping of Glossopteris and Lepidodendron noted by Professor McCoy, or whether there is a small outlier of the Gunnedah Beds, I was unable to determine. An interesting feature at Nundle is the occurrence of obsidian in a vesicular lava which overlies the drifts now being worked.

My report on the Borah Creek Silver-field forms Appendix 4A. The granites, which occur there, appear to be of two and perhaps three ages, and have been intruded by felsite dykes which carry galena, in some cases as a primary mineral. The felsite has been subject to fissuring, and veins have also formed carrying galena, zinc-blende, and mispickel. The formation itself is permanent, and the nature and extent of the silicious veins are well worth proving.

At Koreelah I inspected a seam of coal which is evidently in the Upper (or Cannel) portion of the Ipswich Series. With the object of this correlation, I visited Ipswich, and made a general examination of the coal-measures. My report will be furnished on the completion of analyses.

The rest of the time during the year I was employed in official work at the Geological Survey Office in Sydney.

I have, &c.,
G. A. STONIER, F.G.S.,
Geological Surveyor.

APPENDIX 4A.

Report on the Silver Finds near Inverell.

Sir, Tenterfield, 9 November, 1891.

I have the honor to report that in accordance with your instructions, and in dealing with Prospecting Vote applications, I have visited the silver finds recently made in the Inverell District, and situated at:—

(1) Borah Creek
(2) The Brothers
(3) Swanbrook.

(1.) Borah Creek is 14 miles from Inverell, in a sou-sou-westerly direction. A large area of ground has been taken up partly under lease and partly as prospecting areas. The deepest shaft is at the prospector's claim (Gordon and Potter), and is 37 feet deep, disclosing three veins, and from one of these, which varies up to 10 inches in width, 6 tons of ore sent to the Clyde Works yielded 117 ounces of silver per ton, and 47 per cent. of lead. The ore consists of galena, zinc-blende, and mispickel, which in many of the lodes is associated with quartz, but is also found disseminated as isolated crystals scattered throughout an aplitic and chloritic lodestuff, and the assays made show that there is a fair percentage of silver present.

(2.) The Brothers themselves are a group of rather high peaks, between which the Macintyre River flows, and distant from Inverell 15 miles, in a east-north-easterly direction. Several veins have been discovered on the western side of the group, the most promising of which varies from 8 inches to 1 foot 9 inches in thickness, and has been sunk upon for 15 feet. I have taken samples for assay, but these have not yet been completed; the prospectors informed me that an assay of the "dig" yielded 40 ounces of silver. The ore consists of galena, zinc-blende, and mispickel in quartz.

(3.) Swanbrook is a stream which joins the Macintyre below Inverell, and crosses the Glen Innes Road half-way between the two towns. The silver discovery is situated 13 miles from Inverell in a east-north-east direction. Up to the present the veins discovered have been small, not exceeding a a few inches in thickness, one of which occurs at the junction of felsite, and a series of thinly-bedded mudstones, altered in places into ribbed quartzites, and the other veins are in the sediments not far from their junction with the felsite. Assays up to 300 ounces to the ton have been obtained.

Viewing the Inverell District as a whole, it is evident that there is a large area which is silver-bearing, and, if properly worked, I believe that a large amount of silver will be profitably extracted. The deposits discovered are of a character to justify their being tested in depth, and also to encourage the prospecting of other parts of the district which have not received any attention.

The services of a local assayer are much needed.

A detailed report will be furnished on my return to Sydney.

I have, &c.,

G. A. STONIER,
Geological Surveyor.

The Geological Surveyor-in-Charge.

APPENDIX 5.

Progress Report by Mr. John B. Jaquet, Geological Surveyor.

Sir, Broken Hill, 7th February, 1892.

I have the honor to forward you herewith a report of the work done by me from 20th July, the date on which I joined the Department, until the end of the year 1891.

I was engaged from the 20th of July until the 23rd of the following month, partly in assisting Mr. W. Anderson in classifying the survey rock specimens, and partly in assisting Mr. J. E. Carne in arranging mineral specimens, which had been returned from various exhibitions. On 2nd August I left Sydney as Assistant to Mr. Geological-Surveyor W. Anderson for Bookham. We travelled from Bookham on to Binalong, and from Binalong to Bowna and Rye Park, dealing with Prospecting Vote business in each of these places. Mr. Anderson after visiting the chief mines, and completing the Prospecting Vote business in the Rye Park District, returned to Sydney leaving me behind, to examine several smaller mines and mineral discoveries, trace and map out the chief lodes in the Wallah-Wallah District, and map out the line of junction between the Silurian slates and a large intrusive mass of granite from Rye Park to Frogmore, a distance of 20 miles.

I returned to Sydney on the 21st of September, and was engaged from this date until the 5th of October preparing maps in connection with my work at Rye Park, and looking up information in reference to Broken Hill.

I left Sydney on the 5th of October for Broken Hill, arriving at this latter place on the 8th. Soon after my arrival, I was seized with "Influenza," and was incapacitated from work for ten days. I was occupied until the end of November in making a rough geological examination of Broken Hill and the surrounding country. For this purpose I visited the mineral districts of Thackaringa, Umberumberka, Silverton, Apollyon Valley, Purnamoota, Euriowie, Tarawingee, Pinnacles, &c. At the end of November I received instructions to proceed to Cauker's Well, 40 miles from Wilcannia, and attend to some Prospecting Vote business, I was away from Broken Hill a week engaged in this work.

During the month of December I was engaged in mapping out the outcrops of various rocks, &c., for the purpose of preparing a geological map of Broken Hill.

I have, &c.,

JOHN B. JAQUET.

APPENDIX 6A.

Report by Mr. P. T. Hammond, Field Assistant, on Cessnock Diamond Drill Bore.

Sir, Mines Department, Geological Survey Branch, 20 April, 1891.

In accordance with your instructions, I proceeded to Cessnock on Monday 2nd of February, and was present at the boring through of the coal-seam struck by No. 7 diamond drill on Mr. Scholie's, M.L., and remained at that place till the 10th of February, when the floor of the second seam was reached. I then returned to East Maitland, proceeding again to Cessnock on the 14th of the same month in receipt of your telegram, in order to measure the third seam, which I found on my arrival had been bored through. On my arrival I was informed by Mr. Fryer, who had charge of the drill, that over 3 feet of the top seam had been bored (some of which was not represented in the core-boxes, as owing to the unsuitability of the ordinary bit for boring and bringing up coal, much has been ground away and floated off by the water pumped through the bore). Mr. Fryer also informed me that the depth of soil and subsoil through which a shaft had been sunk before the hard strata were reached was 29 feet 1 inch.

I then measured the core in the bore which gives the following general section:—

ft.	in.	
29	1	Soil and subsoil.
1,092	4	Hard strata, consisting of hard and shaly sandstones, with (in some cases, marine shells, grey sandy shales and occasional bands of conglomerate), which also forms the roof of the coal-seam.
7	0	*Coal-seam* (1st or A. seam).
2	4	Band of shale.
14	10	*Coal-seam* (2nd or B. seam).
20	7	Hard strata consisting principally of conglomerate, with shale bands and sandstone.
2	3	*Coal-seam* (3rd or C. seam).

Floor of black shale with coaly partings. I selected samples for analysis from seams A. and B, the results of which furnished by Mr. J. C. H. Mingaye will be found attached.

Seam C. is of a somewhat inferior quality to seams A and B, but contains over 1 foot of good hard bituminous coal in the upper part, the lower part consisting of softer coal, and being too far below the larger seams to be worked in conjunction with them, will not I think prove a workable seam.

Seams A. and B. have throughout the hardness and cleanness so characteristic of the Greta seams, as proved at Richmond Vale, Homeville, and other localities, and consist for the most part of a hard bituminous coal, with a fracture inclining to the conchoidal, characteristic of the cannel coals.

These two seams being separated only by a band of shale, 2 feet 4 inches in thickness, will be worked together with advantage, and no doubt represent the two seams which outcrop at the Wollombi Road, at a place known as "The Pinch," to which you directed my attention, and one of which is also seen at a point about a mile on the eastern side of Cessnock, on the Maitland Road, the seams which at the first-named locality are separated by about a chain in thickness of conglomerate, have evidently, I think, made into one, as has been found to be the case with the Greta seams in other localities.

The following are the analyses of the samples selected by me from the A and B seams:—

A. Seam.

Proximate Analysis.

Hygroscopic moisture	1·47	
Volatile hydro-carbons	43·48	
Fixed carbon	46·53	Coke
Ash	8·52	55·05 per cent.
	100·00	
Specific gravity	1·290	
Sulphur in coal	3·74 per cent.	

Coke:—Fairly well swollen, firm, and lustrous.
Ash:—Reddish tinge.

Tests made with Thomson's Calorimeter show that 1 lb. of this coal will convert 13·1 lb. of water into steam.

B. Seam.

Proximate Analysis.

Hygroscopic moisture	2·01	
Volatile Hydro-carbons	39·87	
Fixed carbon	53·19	Coke
Ash	4·93	58·12 per cent.
	100·00	
Specific gravity	1·276	
Sulphur in coal	·68 per cent.	

Coke:—Well swollen, firm, and bright.
Ash:—Reddish tinge.

Tests with Thomson's Calorimeter show that 1 lb. of this coal will convert 13·3 lb. of water into steam.

It will be seen from these analyses that seam B is of a very superior quality, the percentages of sulphur and ash both being remarkably low; and being for the most part a hard bright coal, should prove an excellent coal for shipment.

The A seam is also of good quality, but owing to the somewhat high percentage of sulphur, cannot compare favourably with the last-mentioned seam.

The following are detailed sections of the seams bored through:—

Generalised Detailed Section of Seams A. and B.

Seam A.

Section.	ft.	in.		ft.	in.	
Brassy Coal	0	7	.....	0	7	Brass and Coal, not represented in core-boxes, being too soft to bring up.
Band...	0	5	.....	0	5	Clay Band.
Coal	3	6½	.....	0	8¼	*Coal*, hard, bituminous.
				1	3	*Coal*, bright, bituminous.
				1	4¾	*Coal* (not saved).
				0	2¾	*Coal*, hard, bituminous.
Band	0	0½	.....	0	0½	Clay band.
Coal	1	11¾	.....	0	8¼	*Coal*, bituminous.
				1	3½	*Coal*, bright, bituminous.
Band	0	0¾	.....	0	0¾	Shaley and pyritous band.
Coal	0	4½	.....	0	4½	*Coal*, bituminous.
Band	2	4	.....	2	4	Band of dark brown and white banded shale represented by 1ft. 11½ in. in core-box.

Seam B.

SEAM B.

Coal	0	5		0	5	*Coal*, bituminous.
Band	0	2		0	2	Band.
Coal	0	10		0	10	*Coal*, bituminous.
Band	0	1		0	1	Band inferior coal.
Coal	2	6		1	3¾	*Coal*, shaley, bituminous.
				1	2¼	*Coal*, hard, bright, bituminous.
Band	0	2¼		0	2¼	Band.
Coal	3	9½		0	4¼	*Coal*, bituminous.
				1	9½	*Coal*, fairly hard, bright, bituminous (much broken up.)
				0	5¼	*Coal*, bituminous.
				1	2½	*Coal*, bright, bituminous.
Band	0	1¼		0	1¼	Inferior Coal.
Coal	1	7¾		1	7¾	*Coal*, hard, bright, bituminous.
Shaley Coal	3	2		3	2	Shaley *Coal*.
Coal	0	8		0	4½	*Coal*, bituminous (much broken) with a nodule of pyrites.
				0	3½	*Coal*, bituminous.
Band	0	1¾		0	1¾	Band, and pyritous nodules.
Coal	1	1½		1	1½	*Coal*, bright, bituminous (represented by 9¾ inches in core-boxes.
		Total		24	2	

DETAILED SECTION OF 3RD OR C. SEAM.

	ft.	in.	
	0	3	Coal and pyrites.
	0	10	*Coal*, hard, bright, bituminous.
	0	3½	*Coal*, somewhat shaley, softer bituminous, with a little pyrites.
	0	2½	*Coal*, rather soft bituminous.
	0	8	*Coal*, bright, bituminous, a trifle soft, but averaging fairly hard
Total	2	3	

I have, &c.,
P. T. HAMMOND.

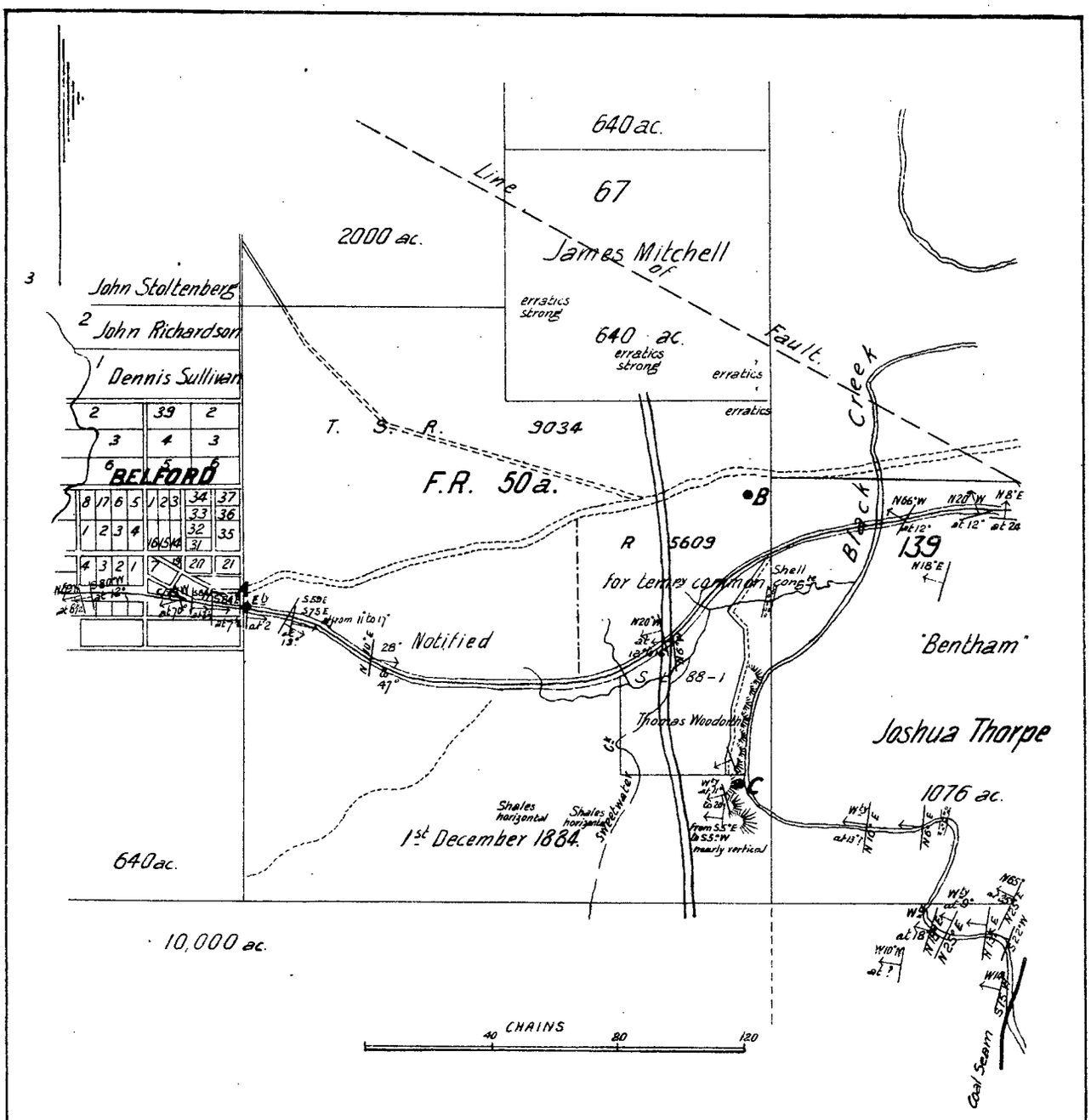
APPENDIX 6B.

Sir, Mines Department, Geological Survey Branch, 10 July, 1891.

In accordance with your instructions I proceeded to Belford on June 30th, and examined geologically the land contained within the boundary of Forest Reserve, No. 50a, Parish of Belford, County Northumberland, as also the section exposed in the railway cutting between Belford and Branxton, with a view to ascertaining the most suitable locality at which to bore for the Greta seams with the diamond drill, and also their probable depth. After measuring carefully the railway section, I travelled both north and south along Black Creek, taking dip and strike wherever obtainable, traced the outcrop of the Muree Beds from north to south through the reserve, and examined other localities in the neighbourhood.

It will be seen by referring to the accompanying tracing and section that an anticline exists where the railway line passes through the village of Belford, at the spot marked A on tracing, and as a suggestion was made by Mr. David that the Muree Beds, which dip at an angle of about 16 degrees in the first cutting on the line westerly from Black Creek might reappear at this point (in which case a bore put down here might reach the coal at a shallower level than elsewhere on the reserve). I made a very close examination of the anticline, and found that the Muree Beds do not again come to the surface, but from an examination of the overlying strata I conclude that they cannot be at any great depth.

As I have endeavoured to show on the accompanying section, the curves indicated by the varying dips of strata would, if produced, bring these beds within from 50 to 100 feet from the surface, but as even the lowest computation, allowing that the Muree Beds came within 50 feet of the surface, would give a probable depth of 2,650 feet I would not recommend boring at this spot. I have marked on the tracing two places at which the coal would be reached at a more workable depth, one of which (marked B on tracing), is on the south side of the Maitland to Singleton Road, and close to the eastern boundary of the reserve and this site has the advantage of being close to the road, by which it would be only a little over a mile and a half from Branxton Railway Station, and there is also a good bridge over Black Creek; here the minimum depth at which the coal might be expected would be about 2,175 feet, the only drawback being the want of a good supply of water for the working of the diamond drill. As there are several small gullies about this part the difficulty could probably be overcome by damming back the water in one of these. The other site which I would suggest as an alternative is situated at about a mile south of the railway, at the foot of a very precipitous range of hills, bounding the western side of Black Creek, and locally known as the "Terrace" (marked C on tracing). This site has the advantage of an almost unlimited supply of water, but as Branxton would be the nearest railway station, a bridge would be required over Black Creek, the range being impracticable for loaded waggons. The minimum depth to the coal here would be about 2,090 feet from the surface. Some slight evidence of disturbance of the strata is observable here, and may possibly indicate a fault junctioning with the main one which is shown by a blue line on the tracing, but it is probable that if the bore was put down close to the boundary of T. Woodorth's S. L., the fault, if one does exist, would be avoided. It would be desirable to have a bore put down at each of these localities if it is required to prove the coal underlying this land. The seams which may be expected in this area are the Greta seams, of which the two uppermost will probably be the only workable ones, and will very likely not be separated by any great thickness of strata, or may even have come together at this point, as they have done in other localities, as at the Cessnock bore, which however, is situated further from the crop of the seam, being about three miles from it in a direct line. These seams have been proved on either side of this property, though at some distance, and samples taken by


640 ac.
67
James Mitchell
of
640 ac.
erratics strong
2000 ac.
John Stoltenberg
John Richardson
Dennis Sullivan
BELFORD
T. S. R. 9034
F.R. 50a.
Line
Fault.
Black Creek
R 5609
for tenure common coal
Shell
139
"Bentham"
Joshua Thorpe
1076 ac.
Notified
1st December 1884.
Thomas Woodonthe
Shales horizontal
640 ac.
10,000 ac.
40 CHAINS
80
120
Coal Seam

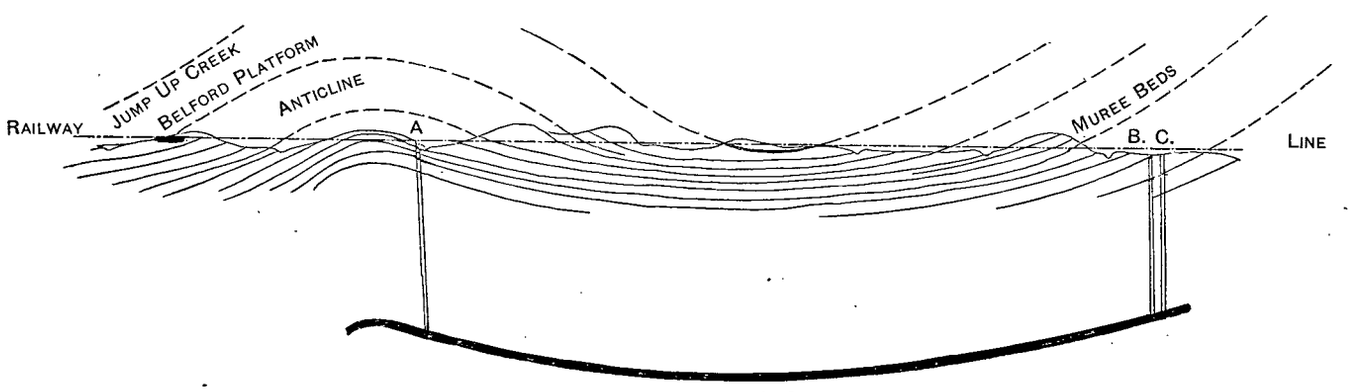
(Sig. 874).

by myself for analysis from the Cessnock bore show them both to be of excellent quality. An analysis was also made at the instance of Mr. David, of a sample taken from the outcrop of the seam in Black Creek, Parish of Rothbury, which yielded similar results. The upper seam is not equal in quality to the second, having a high percentage of sulphur, from which the lower is particularly free.

I have, &c.,

P. T. HAMMOND.

The Geological Surveyor-in-Charge.



Section along railway lines between Branxton and Belford.
A, B, and C show the relative positions of the proposed lines with regard to the coal-seam.

Appendix 7.

Progress Report for 1891, by Robert Etheridge, jun., Palæontologist.

Sir,

I have the honor to hand you herewith a Progress Report of the Palæontological work done during the past year, 1891.

Memoirs.—The following Memoir of the Palæontological Series has been published :—

No. 5.—A Monograph of the Carboniferous and Permo-Carboniferous Invertebrata of New South Wales, Part 1. Cœlenterata, pp. 64, 11 plates (4to Sydney, 1891).

This was reported in last year's statement of work, as handed in for printing, &c. It has now been published. The second part of this Memoir, comprising the Echinodermata, Annelida, and Crustacea has been completed, and is now ready for printing.

No. 8.—Contributions towards a Catalogue of Works, Papers, and Reports on the Anthropology, Ethnology, and Geological History of the Australian Aborigines. Part 2. The Second Part of this Catalogue has been completed, printed, and published, and will be distributed as soon as possible.

Records.—Part 3 of Vol. II. of the *Records of the Geological Survey of New South Wales* has been published, and Part 4 is in course of printing. These contain the following official papers by myself, viz. :—

(*a.*) On the occurrence of Microscopic Fungi, allied to the Genus *Palæachlya*, Duncan, in the Permo-Carboniferous Rocks of New South Wales and Queensland ; Part 3, pp. 95-99, t. 7.

(*b.*) *Lepidodendron australe*, McCoy : Its Synonyms and Range in Eastern Australia ; Part 3, pp, 119-134.

(*c.*) Descriptions of four Madreporaria Rugosa—Species of the Genera *Phillipsastræa*, *Heliophyllum*, and *Cyathophyllum* : Part 4. (*in litt.*)

Miscellaneous Determinations.

The following are the more important Miscellaneous Determinations made during 1891 :—

1. Sub-fossil Shells from the Shell-Heaps or Kitchen-Middens of the Pambula District, collected by Mr. Geological-Surveyor Anderson ; all living specimens. Two localities were represented—(*a*) Mouth of Pambula River ; (*b*) Shell Point, Forster's Bay, Wagonga River.
2. Silurian fossils from the Bungonia Caves, collected by the Caretaker. These were chiefly the large *Pentamerus*, so characteristic of many of our cave limestones, and which, in consequence, I intend to shortly describe as *P. index*.
3. Silurian Corals from the Jenolan Caves, collected by one of the Guides, J. C. Wybund.
4. A series of fossil fruits from the deep heads of Gulgong, viz. :—

   Phymatocaryon bivalve, F.v.M.
   „ angulare, F.v.M.
   „ Mackayi, F.v.M.
   Penteune Clarkei, F.v.M.
   Eisothecaryon semiseptatum, F.v.M.
   Spondylostrobus Smythii, F.v.M.
   ? New seed.

5. Coal-measure plants, collected at Curlewis by Mr. Geological-Surveyor Stonier, chiefly consisting of *Glossopteris*.
6. Permo-Carboniferous Fossils, collected at Mount Rivers, eight miles north-west of Gosford, and presented by Mr. J. Waterhouse, M.A.

7. Mesozoic plants from near Mudgee, forwarded by Mr. J. Bartlett—*Glossopteris and Brachyphyllum australe.*
8. Sub-fossil Shells from Kitchen-Middens on the Richmond River, forwarded by Mr. G. S. Wilkins. [*See Miscellaneous Contributions*, No. 19.]
9. Sub-fossil Shells from a Kitchen-Midden, five miles south of Moruya. Collected by Mr. Geological-Surveyor Anderson in a marsh at least four feet above high water mark; all living species.
10. A large collection of Silurian and Devonian fossils forwarded for determination by Mr. Arthur Lowe, of Wilbertree, near Mudgee, and obtained near there. These were named and returned. The examination clearly showed the development of an area near Mudgee of what I believe to be Upper Silurian, probably near the horizon of the Bowning Series of Mitchell.
11. Tertiary leaves collected by Mr. Geological-Surveyor Stonier from 1½ miles south-east of Trunkey. The leaves appeared to be:—

    Apocynophyllum Etheridgei, Ett.
    Ficus Burkei, Ett.
    Trachyphyllum obtusum, Ett.

    The first was previously known from the Eocene Beds of Dalton, and the two others from the Old Rose Valley Lead, a tributary of the Vegetable Creek Stanniferous Lead proper.
12. Silurian corals from Wellington and Gurie, collected by Mr. Geological-Surveyor Anderson and Field-Assistant Hammond.
13. Silurian fossils collected at the Yarrangobilly Caves by the Inspector, Mr. W. S. Leigh. Amongst them is the same *Pentamerus* (*P. index*, m.s.), previously mentioned.
14. Eocene leaves collected at Dalton by Mr. Geological-Surveyor Jaquet.
15. Plant remains collected at Bingara and presented by Mr. T. Mercer. The leaves from portion 155, Parish of Durra Durra, are those of a *Eucalyptus*, apparently allied to *E. Hartmanni*, Ett.; from the Vegetable Creek Deep Leads, portions of leaves of an *Artocarpidium*, one of the Artocarpæ or Bread-fruit family. With these occurs a small *Unio*, allied to, but probably distinct from the, Gulgong species (*Unio Wilkinsoni*, Eth. fil.) These are from a depth of 140 feet in diamond drift. From a similar deposit on Portion 47 of the same Parish Mr. Mercer obtained the seeds *Ptesiocapparis leptocelyphis*, F.v.M., a doubtful member of the Caper family, and *Phymatocaryon Mackayi*, F.v.M., one of the Sapindaceæ or Soap-tree family.
16. Portions of broken up bore-core from the Nyngan bore, with plant remains, the latter proved to be fragments of the fern *Tæniopteris*, indicating a new area of Mesozoic rocks. [*See Contributions*, No. 20.]
17. Plants from the roof of No. 7 seam, Bulli Colliery, the top seam of the Upper Coal-measures. The plants are Mesozoic, and are of very considerable interest. [*See Contributions*, No. 21.]
18. The skeleton of a Thylacine encrusted with stalagmite found by Mr. Jeremiah Wilson in one of the Jenolan Caves. [*See Contributions*, No. 22.]

In addition to the determinations represented by the above Memoranda, a small collection of Silurian corals from the Yass District were named for the Curator of the Technological Museum, Sydney, and a small lot of Silurian and Mesozoic fossils for Mr. H. Y. L. Brown, Government Geologist of South Australia.

Field Work.—Visits were paid to a Rock-shelter, on Weeny's Creek, Colo River, with Messrs. Collins and Musson; and Idiographic Carvings at Point Piper, Port Jackson and Mossman's Bay. The notes taken at the two former are ready for printing, those at the latter are ready for publication.

Mr. W. S. Dun, the Assistant, has rendered me very efficient assistance in every way, both in miscellaneous determinations, label writing, &c. During the last part of the year he sorted the Carboniferous Brachiopoda, previous to my taking them up for description and has lately been going systematically through our collection of Post Tertiary bones.

Appendix 7A.

Contributions to the Palæontology of Australasia.

No. 19. *Shells from the Kitchen-middens near Ballina.*

According to the information supplied by Mr. G. L. Wilkins, the Kitchen-middens occur at the Ballina and Byron Bay Road-crossing, on North Creek; the Pilot Station and Racecourse, Ballina. At the first of these places the lowest stratum of shells occurs at low-water mark, and varies from a few inches thick to fifteen feet. A few small marsupial bones were met with, and some human remains, presumedly aboriginal are said to have been found. A tranverse section of ten feet in height was cut through. The shells met with were as follows:—

Ostrea cucullata, *Born.*
Anomalocardia trapezia, *Desh.*
Tapes turgida, *Lamk.*
Lampania australis, *Q. and G.*
Potamides ebininus, *Brug.*
Risella lutea, *Quoy.*

The shell heap at the Pilot Station near the Breakwater Works, has a covering of red soil eighteen inches thick. Mr. Wilkins furnishes the accompanying section:—

Red soil	1 ft. 6 in.
Shells and wood-ashes	7 „ 0 „
Clay and sand	3 „ 0 „
Columnar basalt	4 „ 0 „
(Highwater)	15 ft. 6 in.

The

The layer of shells and wood ashes contained stones used by the blacks as shell-openers and crushers. This deposit appears to be much richer in species than the former as the following list will show:—

Ostrea cucullata, *Born.*
Ostrea mytiloides, *Lamk.*
Donax epidermia, *Lamk.*
Anomalocardia trapezia, *Desh.*
Nassa mangelloides.
Potamides ebininus, *Brug.*
Risella lutea, *Quoy.*
Acmæa conæoidea, *Quoy.*
Lampania australis, *Q. and G.*
Trochocochlea zebra, *Menke.*

Appendix 7B.

No. 20.—*An additional Mesozoic Area in N. S. Wales.*

The dark shale submitted by the Water Conservation Branch from the bore at Nyngan, County Oxley, has plant remains plentifully distributed through it. These are portions of fronds of *Tæniopteris*, a fern, characteristic in Australia, of the Lower Mesozoic beds; and in N. S. Wales in particular, of that section known as the Clarence Series. The latter is probably the equivalent of some part of the Ipswich Coal-measures in Queensland, where the fern also occurs.

It is likewise found in the typical Clarence District, and in the "Carbonaceous" Coal-measures of Victoria. The species appears to be the characteristic *Tæniopteris Daintreei*, McCoy.

I may point out that the occurrence of this *Tæniopteris* shale in Nyngan Bore is a matter of very considerable importance, because in the absence of any negative evidence, it appears to indicate the presence of an additional Mesozoic area in N.S. Wales, which might prove coal-bearing. The nearest other Mesozoic area is that of the Ballimore Series, near Dubbo.

Appendix 7C.

No. 21.—*Plant remains from the Bulli Coal-measures.*

The plants from the shale-roof of the No. 1 Seam at the Bulli Colliery, Bulli, forwarded by Mr. J. Mackenzie, Examiner of Coal-fields are Mesozoic, and indicate the presence of the Lower Clarence Series (below the Hawkesbury Sandstone). The species are:—

1. Podozamites lanceolatus, *L. and H.*—a Cycad.
2. Zeugophyllites elongatus, *Morris*—a supposed Cycad.
3. Equisetum, sp.
4. Fern at present undetermined, probably new.

No. 1 has been previously recorded from the Ipswich Coal-basin by the late Rev. J. E. T. Woods; and from the Wianamatta Shale by the late Government Geologist.

No. 2 is a characteristic fossil (in detached leaflets only) in the Mesozoic Coal-measures of the Mersey River, Tasmania; and has been recorded as a typical Clarence River plant, also by the late Government Geologist.

The fossils are of particular interest, especially the *Zeugophyllites*, for I am now in a position to illustrate the method of attachment of the leaflets to the stem in that genus, hitherto unknown, and demonstrate its separation from *Podozamites* on the one hand, and a supposed Indian ally known as *Schizoneura.*

The fern I have been quite unable to identify. It is probably new.

The occurrence of these Mesozoic plants in the immediate roof of the Bulli top seam is accounted for by the unconformability that has been shown to exist by Prof. T. W. E. David between the Upper Coal Measure and bed above.

Appendix D.

No. 22.—*The discovery of the skeleton of a Thylacine in the Jenolan Caves.*

The bones discovered and forwarded from the Jenolan Caves by Mr. Jeremiah Wilson, the Keeper, comprise the more or less perfect skeleton of a Thylacine, an animal now quite extinct in Australia, but still living, and inhabiting the wild rocky mountainous districts of Tasmania. It is known as the "Tasmanian Wolf," or "Hyena" (*Thylacinus cynocephalus*), and is the largest and most ferocious of the carniverous marsupials of the Australian region.

The first intimation of the existence of the Thylacine in Australia was made by Sir R. Owen, C.B., F.R.S., who recognised portions of a jaw, to which he gave the name *Thylacinus spelæus*, obtained by the late Sir T. L. Mitchell, from the Wellington Caves. Other bones, which confirmed this determination, were obtained from the same locality Count Paul de Strzelecki. These originals are now in the Museum of the Royal College of Surgeons, London. Subsequently other Thylacine bones were found in the Wellington Caves, that the same high authority ascribed to the species living in Tasmania, the "Tasmanian Wolf." The extinct Thylacine (*T. spelæus*), so far as its remains have yielded decided results, must have been much larger than its living representative, and with a more massive frame work.

The preliminary examination, I have, as yet been able to give these bones leads me to regard them as those of *Thylacinus cynocepahalus*, or the "Tasmanian Wolf."

I have, &c.,
R. ETHERIDGE, Jun.

APPENDIX 8.

Annual Report of the Librarian for Year 1891.

Sir, Geological Survey Branch, Department of Mines, 20 January, 1892.

I have the honor to herewith report on the work performed in the Departmental Library since January 1st, 1891, when charge of the books was handed over to me.

The whole of the works contained in the Library have been sorted, duplicates eliminated, press-marked, and placed on the shelves and grouped in the following general order:—

A.—Authors' Works—1, Geology, Mineralogy; 2, Mining Metallurgy and Chemistry; 3, Zoology, Palæontology and Botany; 4, Miscellaneous Works of Travel, &c.

B.—Proceedings of Learned Societies—1, Australasian; 2, Extra-Australasia.

C.—Reports and Publications of Official Bodies and Institutions. (Museums, Surveys, &c.)

During the year 197 vols. and pamphlets have been received, of which 82 were purchased, and the remainder, 115, presented. Of Society's Proceedings 1,051 parts have been acquired, 118 by purchase and 933 as presentations, giving a total of 200 purchases, and 1,048 presentations; or a grand total of 1,248 Books throughout the year.

The Library is now in correspondence with 133 Institutions, from 118 of which exchanges have been received.

An exchange of duplicates was effected with the Library of the Australian Museum, and several very desirable works were acquired for this Library.

All presentations have been suitably acknowledged. This was immediately done on receipt of the present.

A General Register, Register of Periodical Publications, Letter Book, and Invoice Ledger have been regularly kept up to date.

Satisfactory progress has been made with a General Library Catalogue, 890 Catalogue-slips having been written.

During the year the following Departmental publications were distributed through the medium of the Library:—

1. Records of the Geological Survey of New South Wales, vol. ii., parts 2 and 3.
2. Memoirs of ditto. Pal. series. No. 5. (Permo-Carboniferous Corals).
3. Annual Report of the Department of Mines (a portion for 1890).

I have in conclusion to acknowledge the very cordial and efficient assistance rendered to me by Mr. W. S. Dun, who was deputed by the Minister for Mines and Agriculture to act as Assistant Librarian.

I have, &c.,
R. ETHERIDGE, JUN.
Librarian.

The Government Geologist.

APPENDIX 8.

Sir, Geological Survey Branch, Curator's Room.

I have the honor to hand you herewith the following report on the work performed during 1891 under my supervision; also for incorporation in the Annual Report of the Under Secretary for Mines, the attached analytical lists of assays and analyses carried out in the Laboratory of the Department under Mr. J. C. H. Mingaye, F.C.S., Assayer and Analyst.

The Laboratory.

During the year the work of examination and assaying of samples from all parts of the Colony was carried on continuously, the public interest in this source of practical information showing no abatement, notwithstanding that there have been no special "rushes" or "booms" in any particular ores. The number of samples selected for assay and forwarded to the laboratory for treatment amounted to 4,082 as against 3,323 for the previous year.

The following is a summary of the work performed in connection therewith at the Departmental Laboratory:—

Separate test for Metals.

Gold	3,694
Silver	3,698
Lead	62
Copper	62
Tin	50
Antimony	45
Zinc	12
Manganese	19
Cobalt and Nickel	5
Tungsten	15
Mercury	6
Platinum	14
Bismuth	28
	7,710

Complete and partial Analyses.

Coal	47
Shale	26
Coke	2
Iron	59
Water	9
Limestone	9
Miscellaneous	43
Total	195

Detailed particulars of the treatment of these samples, and the best results obtained, will be found in the report of the Under Secretary for Mines.

Prospecting Board—Bulk Tests.

From time to time the Prospecting Board, in the prosecution of its duties, recommended bulk tests of certain ores for the purpose of determining the advisability of granting aid in particular cases, in others to ascertain the nature and richness of new discoveries, or fresh developments at lower levels. Arrangements were made during the previous year with the Clyde Smelting and Chlorination Company, near Granville,

Granville, whereby such tests as were required should be made under the supervision of an officer of the Department. Early in the year I was instructed by the late Mr. C. S. Wilkinson, Government Geologist, to undertake the latter duty which had hitherto been performed by such officers as could be spared from time to time.

From the following list it will be seen that twenty-four bulk tests were made during the year at the Clyde Works, and one at the Ore Crushing Company's Works at Mort's Dock; in the latter case a parcel of tailings from the first-named was further treated in the "Fraser Improved Grinding and Amalgamating Pan" at the latter works.

A considerable amount of time was occupied in supervising the above tests, as in each case the ore was closely examined as it went to the stone-breaker and reference samples selected. After treatment check assay samples were taken from the sampling floor or from the milling machine; in the latter case, samples of the tailings, slimes, and concentrates were carefully chosen. The check assays were made in the Departmental laboratory under Mr. J. C. H. Mingaye, F.C.S., and it is worthy of note that the agreement between the assays made by the Clyde Company and the Department of Mines check has been throughout both close and satisfactory.

Attempts were made with the concentrating appliances available—Frue Vanners—to concentrate the platiniferous ore from the Broken Hill District, but without success. The proportion of the metals of the platinum group present in the ore is too small to allow of payable treatment without some efficient process of concentration. It is probable, too, that owing to the extreme fineness of the particles of the metals, as revealed by Mr. Mingaye's investigations, great difficulty will be experienced in mechanical treatment.

An attempt was also made to concentrate the particles of platinum, which occur in the beach sand on the north-east coast in the vicinity of the Richmond and Tweed Rivers, but without success.

In these localities, after north-east gales, patches of black sand have been worked for gold for years past, and during such operations a little platinum has been obtained from time to time. The "black" sand consists largely of ilmenite (titanic iron) and coloured and colourless zircons. A small sample concentrated, I believe, during cradling for gold, was forwarded by this Department to Messrs. Johnston, Mathey, & Co., London,—who are the largest dealers in platinum—and was reported by them to be worth at the then market price, £1,000 per ton. It is probable that these deposits may yet be profitably worked; though separation from the sand will be difficult, owing to the excessive fineness of the platinum grains, and the high specific gravity of the ilmenite and zircon as compared with ordinary quartz sand.

In September, I was appointed a member of the Prospecting Board, and attended its meetings at frequent intervals, and in connection with applications for aid from the prospecting vote I visited the Bungonia, Marulan, Parkes, and Forbes Districts. Personal observation during the prosecution of such work enables me to obtain a thoroughly practical knowledge of the occurrence of the mineral resources of the Colony, which will greatly enhance the value of the information at my command, whether in the office or at exhibitions.

The following bulk tests were made at the Clyde Smelting and Chlorination Works, on behalf of the Prospecting Board during 1891:—

		tons.	cwt.	qr.
1.	Bendithera Silver Mine, Southern District	1	0	0
2.	J. Bertram, Glen Elgin, near Glen Innes	5	7	0
3.	,, ,, ,,	5	9	0
4.	Canning and Gibson, Captain's Flat	0	15	0
5.	,, ,,	1	0	0
6.	,, ,,	0	18	0
7.	,, ,,	1	0	0
8.	Bryce and Potter, Borah Creek Silver Mine, near Inverell	2	18	0
9.	W. M'Grogan, Captain's Flat	2	1	0
10.	Wandella Gold Mining Company, Southern District	2	0	0
11.	,, ,, ,, ,,	1	0	0
12.	J. V. Wareham, Windellema ,,	2	0	0
13.	J. T. Walsh, Captain's Flat ,,	1	12	1
14.	,, ,, ,,	1	1	2
15.	,, ,, ,,	1	12	1
16.	Falls and party, Oberon	1	18	1
17.	Hetherington and party, Kangaroo Valley, Southern District	0	19	0
18.	Rutherford and party, Burnt Yards	2	0	0
19.	J. Ginns, Cobargo	1	18	3
20.	T. C. Cullen, Oberon	1	8	0
21.	A. J. Bullock, Yalwal	1	18	3
22.	Dr. Belgrave, Broken Hill Platinum Mines	1	1	0
23.	,, ,, ,,	0	17	2
24.	F. G. Crofton, Lismore (Beach Sand)	0	4	0
	Ore Crushing Company, Mort's Dock.—			
25.	Wandella G. M. Co's Tailings—in "Fraser Pan"	1	13	0
		43	11	3

Mining and Geological Museum.

THE condition of the Mining and Geological Museum building has not improved during the year; owing to the increasing leakage in the roof and sides, the attempt to keep a display of mining and geological maps, sections, photos, &c., has had to be practically abandoned; a portion of the western wall being the only weather-tight space on which to display maps, has been reserved for the large geological map of the Colony. The rest of the maps, &c., now remaining on the walls show the combined ravages of wet, dust, and heat. At every rainfall, too, the show-cases have to be protected by waterproof covers to prevent the leakage water from soaking in and destroying their contents. Very few, if any, of the show-cases are safe from damage during heavy rain accompanied with wind. The urgent necessity for a suitable building for the display of the mineral and geological collections has been so frequently and strongly pointed out, that further reference is not necessary here.

About

About the end of April, the collector, Mr. C. Cullen, was sent to the Broken Hill District for the purpose of making a thoroughly representative collection of the economic ores of the district for museum, exhibition, and other purposes; the various mining companies were liberal in their donations; and the success which attended his efforts was due in no small measure to the co-operation and assistance rendered by the manager of the Umberumberka Silver-mine, Mr. Uriah Dudley, who accompanied and introduced him to many of the mine managers, Mr. Dudley being also secretary to the Barrier Range Mine Managers' Association.

Early in the year it became necessary to arrange for increased storage space for the bulk exhibits of the Department, and for proper sorting room. Tenders were invited of suitable stores, and from numerous offers, three stores situated in Nicholson-street, Woolloomooloo, were selected; the area of space thus secured doubles that previously occupied in Loftus-street, whilst the rental is lower. Into the new stores the bulk and duplicate specimens from the basement of the Geological Survey Office and the Loftus-street stores were removed under the direction of the Government Architect's Office. The upper floor of one of the stores is being fitted up as a sorting and storage room. A large number of wooden trays sliding into light rack frames have been made by the carpenter, M. Hemme; the racks being in section can be removed when required. Sorting has been commenced and when completed the different groups of ores will be readily available in their proper order, thus facilitating preparation of collections, &c., as well as economising room.

Towards the end of the year the exhibits from the late London Mining Exhibition were returned to the Colony, and duly sorted into two of the new stores; these will now be available for the Departmental display at the forthcoming Chicago Exhibition.

In the beginning of November it was definitely decided by the Government that this Colony should be represented at the Launceston Exhibition; and in connection therewith Mr. Thomas Ford was appointed by the Honourable the Minister for Mines and Agriculture to take charge of and arrange the New South Wales mineral exhibits at the exhibition. A fairly representative exhibit was prepared from specimens in hand, chiefly from those recently collected in the Broken Hill District. The splendid gold specimens of the Department, which have done duty at several exhibitions, are a special feature in the New South Wales Court, being artistically arranged in an upright show-case. Since the display of these specimens the Departmental collection has been further enriched by the purchase of nearly 7½ oz. of beautifully crystallised gold from Nundle; also by about 5½ oz. of water-worn gold from Brummy's Hill, Gundagai.

The Ballarat Industrial Exhibition closed about the middle of the year, and the mineral exhibits of this colony, which formed its sole display, were carefully packed and returned by Mr. Ford, who was sent over for the purpose on account of his large experience in such work.

Small collections were shown at the Newtown, Marrickville, and Y.M.C. Association Industrial Exhibitions.

Twenty-eight collections of New South Wales minerals were prepared for the following institutions and individuals at home and abroad:—

America, American correspondent, per Dr. Ramsay, F.L.S.
Belgium, Brussels Museum, per Belgian Consul.
Belgium, Belgian Government, per Belgian Consul.
Hawaii, Hawaiian Government, per Dr. Ramsay, F.L.S.
India, Presidency College, per Prof. Wilson, Madras.
Italy, Signor Giorza, per Pisoni Bros., Milan.
New Caledonia, Chief of Survey Department, per Mr. N. Joubert.
New Zealand, Mr. W. Dall (exchange).
Norfolk Island, Chief Magistrate.
Switzerland, per G. Stanley Nixon, C.E.
Victoria, School of Mines, Stawell.
Ashfield, Hurlstone Training College.
Bega, School of Arts.
Burwood, Wesleyan Ladies' College.
Cooma, Warden's Office.
Hamilton, Mechanic's Institute.
Kookabooka, Warden's Office.
Mittagong, Mr. R. Hudspeth.
Parramatta, Rev. Brother Claudius.
Picton, School of Arts.
Sydney, Honble. W. J. Lyne, for transmission to England.
Sydney, Public Instruction Department (six collections).
Tumbarumba, Warden's Office.

In the performance of the duties pertaining to the office of Curator, I have been greatly aided by my assistant, Mr. E. Whittel, who has, during my absence at the Clyde Smelting Works, and on prospecting work, successfully carried on the office duties, and has for a considerable time performed the work connected with the correspondence and entry of assay work, together with a large proportion of the examinations of specimens submitted. The temporary assistant, Mr. M. Morrison, has been most regular and energetic in his duties, which are chiefly connected with the assay work. Mr. Allen, the assistant collector, has helped in the preparation of the collections of minerals dispatched from the office, also in keeping the museum in order, which during rainy weather requires watchful care to prevent damage to the contents. The polisher, Mr. W. H. Gilding, has been engaged during the year polishing specimens for the museum, working out specimens for the Palæontologist, and assisting the lapidary, Mr. C. Murton, as well as rendering other general assistance.

Mr. Cullen, in addition to the field work, as collector, has been occupied largely with the sorting and arrangement of the bulk collections in the Woolloomooloo stores, in making covers for specimen-trays, packing exhibits, &c.

I have, &c.,
JOSEPH E. CARNE, F.G.S.,
Curator and Mineralogist.

Appendix 8A

Donations to the Mining and Geological Museum during 1891

Donor	Donation	Locality
Mr J Armstrong	Glossopteris	Teralba Coal Mines, Newcastle
Mr J W Archibald	Silver Ores	Rivertiee
,,	do	Tooloom
,,	do	,,
Mr J Ackermann	Cuprite with malachite	16 miles from Cargo
Mr Booth	Native copper in slate	South Chesney Gold mine, Cobar
Mr Barker	Iron ore containing 3½ to 5% chromium	Tamar River, Tasmania
Mr J Bartlett	Plant remains	20 miles from Mudgee
Mr M Bruce	Gold in quartz	Cunglebung, Dalmorton
Mr M F Bacon	Lode tin ore	9 miles from Castle Wellington, New England.
Mr J Beedle	Marble	Moonbi, near Tamworth
,,	Fossils	do
,,	Carved soapstone	do
Mr J Bertram	Crystalline auriferous pyrites	Glen Elgin, near Glen Innes
,,	Sapphires	Mann River
Mr S R Baker	Hollow ironstone concretions	Back Creek, near Rockley
Mr A Cochrane	Stibnite	Carangula, Macleay River
,,	Auriferous mispickel and country rock	Nambucca Gold mine
Mr Cooke	Rock specimens	Coolongolook
Mr J Conlon	Argentiferous quartz	Boonoo Boonoo
Dr Cox	7 tomahawks and *Inoceramus*	Yilgarn Gold field West Australia
Mr J R M Cooper	Teeth of *Diprotodon australis*	Near Glen Innes
Mr C Darley	Pyrrhotite with calcite	Prospect, near Fairfield
Mr D Donaldson	Portions of jaws of large extinct marsupial	Near Currabubula
Mr H Dawson, M P	Fossil wood	Near Cooma
Mr D J Donnelly, M P	Magnetic iron with iron pyrites	Broula, near Cowra
,, ,	Jasper and magnesite	Illunia, 16 miles from Cowra
Mr Ellershausen	Cryolite	Greenland
Mr J Engler	Cobalt ore	New Caledonia
,,	Nickel ore	,,
,,	do	,,
Mr J Eason	Wolfram in quartz	Mt Hope
Mr J Featon	Stibnite	Nelson, New Zealand
,,	Auriferous quartz	Mercury Bay, New Zealand
Mr Gordon	Stream tin	Tantawanglo, Monaro
Mr J G Gough	Auriferous lodestuff	Peak Hill
Mr J Hume	Silver ore	Wallah Wallah
Mr T W Harris	Gypsum	9 miles from Suez, Arabia
The Hon P G King	Auriferous pyritous lodestuff	Major's Creek Gold mine, near Braidwood
Mr T Kerr	Silicified wood	Mt Amby
Mr H E Kennedy	Silver ore	Wollomombi, New England
Mr A Knox, Secretary Broken Hill P S M Co	1 ton of silver ore	Proprietary Mine, Broken Hill.
Mr Mitchell	Rock specimens	Upper Richmond River
Mr P Mathers	Silicified wood	Beefwood, Mt Brown Road
Mr T F O'Keep	Wolfram	Mole Tableland, New England
Mr W M O'Donnell	Wolfram in quartz	18 miles from Vegetable Creek
Mr J Parker	Crystalline galena	Shoalhaven River
Mr J Pearson	Cast of Hill End nugget	Hill End
Mr G Robertson	Quartz with antimony	Wollomombi
,,	Silver sulphide	,,
Mr Saddington	Auriferous lodestuff	Yalwal
Mr J Sales	Cobalt ore	Carcoar
Mr H Stephenson	Stibnite and cervantite in quartz	Bay of Islands, New Zealand
Dr Storer	Cobalt ore	Ravenswood Gold field, Queensland
,,	do	Carcoar
,,	Silver ore	Ravenswood Gold field, Queensland
,	Tin ore	Herberton Gold field
,,	Realgar, orpiment, and arsenious oxide	Sunny Corner
,,	Tin sulphide (artificial)	Pyrmont Tin smelting Works
Captn Smith	Hematite	Dubbo
Mr E D Weener	Quartz crystals	Webb's mine, near Emmaville
,,	Animal excrement	Near Boggabri
,,	Glossopteris	Burburgate Station, near Gunnedah
Mr W Wakefield	Rock specimens with calcite	Prospect
Mr J Williams	Stalactic limonite	Peak Hill
Mr R N Williams	Coke, Coal, and associated rocks	Kulhurbarie Colliery, 200 miles from Calcutta
Mr J Wright	Chromite	Gundagai
Mr H Wyndham	Sulphur with native antimony	Razorback mine, near Ashford

Appendix 9

Progress Report by Mr J C H Mingaye, F C S, M A I M E, Analyst and Assayer

Department of Mines, Geological Survey Branch Laboratory,
Sydney, 9 February, 1892

Sir,

I have the honor to furnish you with the following general report on the work performed in the Laboratory under my charge during the year 1891 —

Four thousand and eighty two numbered samples, were received for analysis and assay, 128 ultimate and proximate analyses were furnished, and seventeen qualitative analyses and examinations made

The following analyses were made during the year —

Coal —Forty nine samples
Shale —Twenty six samples
Iron Ore —Seven samples
Gypsum —Two samples
Water —Ten samples
Miscellaneous —Five samples.
Firclays —Nine samples
Limestone —Twelve samples
Coke —Three samples
Coke and Coal Ashes —Three samples
Guano —One sample

The

The following assays were made during the year:—

ANTIMONY.—Forty-seven samples.
BISMUTH.—Thirty-one samples.
CHROMIUM.—Eight samples.
COPPER.—Sixty-six samples.
MANGANESE.—Twenty-nine samples.
MERCURY.—Eight samples.
COBALT.—Four samples.
NICKEL.—Four samples.
SILVER.—3,698 samples.
LEAD.—Sixty-nine samples.
GOLD.—3,694 samples.
PLATINUM.—Eighteen samples.
SILICA.—Thirty-six samples.
MISCELLANEOUS.—Thirty-three samples.
TIN.—Fifty-one samples.
ZINC.—Eleven samples.
IRON.—Fifty-nine samples.
TITANIC ACID.—Five samples.
TUNGSTIC ACID.—Fifteen samples.
VANADIUM.—Two samples.
URANIUM.—Two samples.
LIME.—Four samples.
MAGNESIA.—Five samples.
SULPHUR.—Six samples.
PHOSPHORIC ACID.—Sixteen samples.
PHOSPHORUS.—One sample.
GANGUE.—Thirty-three samples.

Total number of assays and examinations made, exclusive of those made for gold and silver, equals 563.

From 1883 to 1891, the following figures show the number of samples received in the Laboratory for examination, assay, analysis, and report:—

Year 1883	242 samples	Year 1887	2,222 samples.
,, 1884	664 ,,	,, *1888	5,245 ,,
,, 1885	1,428 ,,	,, 1889	3,287 ,,
,, 1886	1,807 ,,	,, 1890	3,323 ,,
		,, 1891	4,082 ,,

Full information and particulars of most of these analyses and assays are furnished in the annual report supplied by the Under Secretary for Mines and Agriculture to the Honorable the Minister for Mines and Agriculture.

Seven hundred and fifty-nine samples were received in excess of those sent for last year, and a very large amount of check samples assayed for gold, silver, and other metals. The assays for various metals, otherwise than gold or silver, have largely increased over all previous years; over 563 assays being made against 185 for last year. The analyses have slightly decreased in number, 145 being performed this year, against 151 for last year; but many of them have been very tedious and complicated, thus taking up a large amount of time, especially as regards the analyses made of the mineral waters.

The following are some of the samples of water examined and reported on:—

No. 3,322. Water taken from a trial shaft 17 miles from Wilcannia.
No. 736. Water from a trial shaft near Bendigo, Lossville. Both these samples were found to be largely impregnated with saline matters, and very unsuitable for stock or irrigation purposes.
No. 806. Water taken from a Government tank at Byrock was submitted to a sanitary analysis with a view of ascertaining its suitability for domestic purposes; also a sample marked No. 910, obtained from Barrigan, near Mudgee.
No. 3,345. Spring-water obtained from the base of a high mountain near Dubbo, reported to possess medicinal qualities. The sample was found to be an ordinary spring-water possessing no medicinal properties, and reported as suitable for domestic purposes, watering stock, and irrigation.
No. 3,627. Spring-water from the Jenolan Caves—analyses made with a view of ascertaining if suitable for domestic uses.
No. 3,716. Water from Youngarina Bore, for the Conservation of Water Branch; also sample marked No. 3,717, from bore at Native Dog—the analyses being made with a view of ascertaining their suitability for irrigation purposes.
No. 3,857. Mineral water from Jarvisfield, near Picton, reported to possess medicinal properties.

The following is the analysis:—

Analysis of total solids.	Grains per gallon.
Chloride of sodium (NaCl)	100·620
Chloride of magnesium ($MgCl_2$)	26·211
Bicarbonate of calcium ($CaH_2C_2O_6$)	19·340
Bicarbonate of magnesium ($MgH_2C_2O_6$)	50·390
Sulphate of potash (K_2SO_4)	12·172
Sulphate of lime ($CaSO_4$)	1·985
Silica, and silicates (SiO_2, &c.)	8·12
Alumina (Al_2O_3)	trace
Oxide of iron (FeO)	,,
Organic matter	,,
	211·212

Free ammonia	trace	per 100,000 parts.
Organic, or albuminoid ammonia	·012	,, ,,
Oxygen absorbed in 15 minutes	·019	,, ,,
,, ,, 4 hours	·064	,, ,,
Nitrogen as nitrates	trace	,, ,,
,, nitrites	,,	,, ,,
Reaction with litmus-paper	slightly alkaline	
Taste	saline	
Odour when heated to 40° C.	organic	
Colour in 2 foot standard tube	pale green	
Poisonous metals	nil.	
Iodine, bromine, and phosphoric acid	absent.	

A number of samples of beach sand, obtained from the Richmond and Clarence Rivers, were examined for platinum and gold. The sands from the Richmond River were found to yield small quantities of platinum (under 5 grains per ton). A sample of highly concentrated sand from the latter place yielded 1·21 per cent. of platinum, the composition of the concentrates being as follows:—Consists largely of cassiterite, magnetite, osmiridium, ilmenite, zircons, quartz, &c. A second sample of concentrates from the same district yielded 0·43 per cent. of platinum, and 13·58 per cent. of metallic tin. These samples had evidently been worked for gold by the presence of metallic mercury in them.

A large number of assays were made of the Broken Hill platinum-bearing minerals, and several reports furnished. [*See Appendix* 9A.]

The platinum exists probably combined with iridium, a small quantity of rhodium being detected. Bulk samples of this mineral were crushed and concentrated at the Clyde Works, and the concentrates furnished for analyses and report. [*See Appendix* 9B.] Numerous

* The large increase this year due to the mining boom.

Numerous samples of fire clays have been examined, and analyses furnished with a view of ascertaining their suitability for the manufacture of fire-bricks, &c. [*See Appendix* 9C.]

A sample of crushed arsenical pyrites reported to contain a natural sulphide of gold was examined, and experiments conducted. For results of which [*see Appendix* 9D.]

Coke manufactured from coal obtained at the Mount Pleasant Colliery, near Wollongong, was examined and analyses of the coke and ash furnished. [*See Appendix* 9E.]

A fire-brick was examined which had been let into a smelting furnace, some 4 inches of which had been acted on. For analyses and report [*see Appendix* 9F.]

A report was furnished on a sample of stone which it was stated contained gold which was very difficult to extract. [*See Appendix* 9G.]

Analyses were made of coal obtained for a bore put down at Cremorne. Analyses of the ash also were furnished.

Analyses were furnished of the following rocks:—Hornblende-biotite granite, olivine-basalt, and hornblende-andesite, the two former being obtained from the Bathurst District, and the latter from Tilba Tilba Lake, near Mount Dromedary.

The following are the analyses:—

	Hornblende-biotite Granite.	Olivine Basalt.	Hornblende-andesite.
Silica	66·69	44·67	52·12
Alumina	17·03	21·38	18·47
Ferric oxide	3·15	2·82	3·40
Ferrous	·69	5·99	4·77
Manganous	trace	.....	trace
Lime	1·82	10·24	8·71
Magnesia	2·50	9·58	5·11
Potash	6·26	1·03	3·29
Soda	1·21	2·70	3·07
Phosphoric anhydride	trace	·22	·25
Sulphuric anhydride	,,	trace	trace
Titanic acid	,,	,,	strong trace
Moisture	·48	·79	·46
	99·83	99·42	99·65

Two samples marked "Guano," obtained from Lord Howe's Island, were examined, with a view of ascertaining their value as manures. The following are the results obtained:—

No. 2,467.

	Analysis.
Moisture and organic matter	6·49 per cent.
Insoluble in acids (sand)	2·16 ,,
Phosphoric andydride (P_2O_5)	·396 ,,

The bulk of this sample consists of carbonate of lime, and a small percentage of carbonate of magnesia.

No. 2,648.

	Analysis.
Moisture and organic matter	7·15
Insoluble in acids (sand)	7·15
Oxide of iron and alumina	3·35
Carbonate of lime	79·20
Carbonate of magnesia	2·59
Phosphoric andydride (P_2O_5)	·24
	99·68

This sample is of no value, consisting chiefly of broken pieces of coral. At various times a large number of similar samples have been examined, and in no case were they of sufficient value for export purposes as a fertiliser.

The following is the analysis of a sample of alunogen or alum-stone.

No. 3,009.

	Analysis.
Alumina (Al_2O_3)	15·44
Ferrous oxide (FeO)	3·71
Ferric oxide (Fe_2O_3)	trace
Lime (CaO)	Nil
Magnesia (MgO)	·39
Moisture (By diff)	40·10
Sand	1·88
Sulphuric Anhydride (SO_3)	38·48
Titanic Acid (TiO_2)	trace
	100·00

The following analysis was made of a sample of altered coal, with calcite bands, from a bore put down at Cremorne—

	Proximate analysis.
Hygroscopic Moisture	1·40
Volatile hydrocarbons, &c.	7·60
Fixed carbon	62·20
Ash	28·80
	100·00

Specific gravity of coal 1·773.
Sulphur ·287 per cent.
No coke formed.
Ash—Reddish tinge, loose.

Analysis of Ash.

Silica	41·55
Alumina	19·46
Oxide of Iron	5·40
,, Manganese	0·36
,, Lime	24·38
,, Magnesia	1·84
,, Potash	2·84
,, Soda	0·05
Phosphoric Acid	2·84
Sulphuric Acid	1·42
Titanic Acid	trace
Carbonic Acid	nil
	100·14

A second sample received on the 23rd December, yielded as follows:—

	Proximate Analysis.
Hygroscopic Moisture	1·55
Volatile Hydrocarbons, &c.	12·50
Fixed Carbon	43·05
Ash	42·90
	100·00

Sample taken from a depth of 2,920 ft., seams 12 in. thick. A very inferior quality of coal, of no commercial value.

I have much pleasure in reporting the arrival from England and Germany of the chemical apparatus ordered, which reached here in excellent condition. The Laboratory is thoroughly stocked with pure chemicals, acids, &c., this being very necessary in a place where so much analytical work is performed.

The new apparatus comprises a new set of Oertling's chemical balance, a Thompson's Calorimeter, and a large quantity of porcelain and glassware.

In order to cope with the largely increasing work in the Laboratory, various necessary improvements have been suggested by me. I venture to hope that authority will be given for these to be carried under the direction of the Colonial Architect's Department.

Before closing the report, I have to express my thanks for the assistance rendered by the Assistant Analyst, Mr. H. P. White, Mr. Neilson and C. Hilderbrant, and the other hands in the Laboratory in carrying out the large amount of work performed, which has largely increased over the previous year.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,

E. F. Pittman, Esq., A.R.S.M., &c., Government Geologist. Analyst and Assayer.

Appendix 9a.

Report on the Platinum-bearing Minerals at Broken Hill.

Sir, 25 June, 1891.

I have the honor to again report the presence of Platinum in a felsite and granite rock, obtained from the Broken Hill District. A bulk assay of the mineral yielded Platinum at the rate of 4 dwt. per ton. No gold detected.

The mineral is very similar in appearance to two of the specimens first received in which Platinum was detected, and the sample is probably taken from the same workings.

In an article which appeared in the mining columns of the Sydney *Daily Telegraph*, of the 25th inst., and under the heading of Broken Hill, it is stated that Mr. C. Newberry, of Melbourne, obtained excellent results from material supplied. Mr. Goyder (Govt. Assayer for South Australia), also made some tests, and obtained Platinum at the rate of 1 oz. per ton; and local assayers also gave a result of over 1 oz. per ton. It is also stated that about a quarter of a ton of the mineral has been consigned to Messrs. Johnston, Matthey and Co., of London, for examination and report.

In my first report drawing attention to the occurrence of Platinum and its associated metals in lode formation, at Broken Hill, the value of the metal is given at 28s. to 30s. per troy oz.; but during the year the demand has been so great that the price has risen up as high as 85s. per oz. for manufactured platinum.

I would suggest as an experiment, that a sample, say two or three tons of the mineral, be very finely ground and carefully concentrated, with a view of ascertaining if it is possible to save the Platinum.

At the present value of the metal, and if the bulk yielded anything like 1 oz. per ton, it should be a payable concern, providing the mineral will concentrate. The platinum should be readily extracted by smelting the concentrates with lead, and Cupellation should leave the metal associated with any platinum metals, gold and silver present. If the Department acts on this suggestion, I should like very much to be furnished with a sample of the concentrates for analysis, with a view of ascertaining its composition, also if it exists as metal, or otherwise combined. (?)

The quantity extracted from the mineral at my disposal was so small that I am unable to form any opinion as to its composition.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,

Analyst and Assayer.

Appendix 9b.

Department of Mines, Geological Survey Branch Laboratory.

Sir, 8 December, 1891.

I have the honor to report as follows, respecting a bulk assay made of a ferruginous felspathic mineral; also two bulk assays of concentrates containing platinum, and its associated metals, obtained from the Broken Hill District, the samples being furnished with a view of ascertaining in the first case if the platinum present was in a sufficient quantity to pay to extract. In the second place, if it were possible by concentration to save the metals.

The

The experiments of crushing and concentrating the samples were conducted at the Clyde Works, Granville, an average sample of the crushed mineral and the concentrates being sent to the Laboratory for assay, examination, and report. The following are the assays, 10,000 grain assays being made in duplicate :—

Mark "K," 26 bags (No. 3,619), average sample of dry crushed ore :—Total weight of ore treated, 1 ton 1 cwt, yielding 54 lb. of concentrates, less 25 per cent. moisture = 26 lb. concentrates ; metallic platinum, 1 dwt. 15 gr. per ton.

Mark K (No. 3,692), concentrates from above :—metallic platinum, 9 dwt. 18 gr. per ton.

Mark "M +" (No. 3,693), concentrates :—

	cwt.	qr.	lb.
Total weight of ore treated	17	3	12
Less weigh of bags	0	1	12
Net weight or ore	17	2	0

yielding 88 lb. of concentrates, less 25 per cent moisture = 66 lb. of concentrates ; metallic platinum, 16 dwt. 7 gr. per ton of concentrates.

A qualitative analysis was made of each sample of concentrates, with a view of ascertaining the metals present, and the following detected :—Lead, zinc, antimony, arsenic, gold, silver, bismuth a trace, silica, alumina, oxide of iron, lime, magnesia, sulphuric acid, carbonic acid, &c.

The amount of platinum present in the average sample of dry crushed ore is too small to pay to extract, the value of the quantity present being about 4s. per ton.

No platinum, or its associated metals, could be detected by concentrating the concentrates, and treating with acid to remove the large quantity of pyrites, &c., present, the residue being examined microscopically. I am unable to state for certain in what form the platinum exists, as the amount present is so very small, and the metals associated with it so complicated; but from the presence of iridium and a small quantity of rhodium, which were found present in every case, it is probable that the platinum exists in the metallic state, in a very fine state of division, combined largely with iridium. I am informed that Messrs. Johnston, Matthey, and Co. of London, found platinum in every sample furnished to them by Dr. Belgrave, of Broken Hill, in amounts varying from a few pennyweights to 2½ oz. per ton, and report that its metallic associations appear to be such, and the form in which it is found, so unprecedented, that the cost of its isolation and treatment appear to be at present too great to yield a profit.

My opinion is that it will be a very difficult matter to treat these Broken Hill ores, as on referring to the qualitative analyses made of the concentrates, it will be seen that their composition is complicated, and the platinum which is largely associated with other metals, small. It will certainly not pay to extract, unless the ore before concentrating contains a much larger quantity of platinum then found present than either of the samples treated in the Laboratory.

I have, &c ,

JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,

The Geological Surveyor in Charge. Analyst and Assayer.

APPENDIX 9c.

Sir, Analyses and Report on three samples of Clay.

I have the honor to report as follows respecting the various samples of white clay received from you for examination and report on the 15th instant :—

	No. 1,727.	No. 1,863.	No. 1,864.
Moisture	6·07	8·21	10·04
Oxide of iron	·05	1·02	2·04
Silica	77·11	73·35	65·13
Alumina	14·26	14·23	22·05
Lime (CaO)	·25	trace	trace
Magnesia (MgO)	·71	·65	trace
Potash (K_2O) / Soda (Na_2O)	1·55	·79 / 1·30	.74
Titanic acid (TO_2)	strong trace	trace	trace
Sulphinic acid (SO_3)	.....	trace	.....
	100·00	99·55	100·00

The samples were furnished with a view of ascertaining their suitability for the manufacture of fire-bricks. Experiments were conducted by finely grinding the clay and moulding some into bricks with sharp edges, these being carefully dried and submitted to the highest heat obtainable in the coke assay furnace, the bricks being protected from the action of the fuel by placing them in a covered crucible.

The appearance of each brick after the experiments were conducted was noted, and the following are the results obtained :—

No. 1,727.—On treatment by the above method, this clay formed a porcelain of a milk-white colour. This sample may be described as a porcelain clay, and could, no doubt, be utilised for the manufacture of tiles, ornaments, cups and saucers, &c. Of no value for the manufacture of fire-bricks.

No. 1,863.—Bricks made of this clay when carefully dried and heated split to pieces ; this, no doubt, being due to the contraction of the clay. The sharp edges, however, were retained and no fusion had taken place. The experiments made were not however very satisfactory, and as the sample received was small, it was impossible to repeat the experiment.

No. 1,864.—This clay behaved somewhat similarly, the bricks flying to pieces when heated, though the sharp edges were retained and no fusion had taken place.

A large number of fire-clays which have come under my notice during the last few years have proved themselves from experiments made to be of an excellent quality for the manufacture of fire-bricks, and some of the clays of which analyses were made, proved themselves to be of a very superior quality. Two or three porcelain clays received in the Laboratory were of excellent quality, and should prove useful for the manufacture of a good description of porcelain ware. One in particular, reported upon, analysis of which will be found among the miscellaneous analyses in the Annual Report for 1888, compares favourably with the best English and China clays used in the manufacture of porcelain.

It is proposed when a few more analyses have been made, and more experiments conducted, to furnish a report dealing with the New South Wales fire and porcelain clays, and their probable uses. I would suggest that samples be obtained of the various clays in and around Sydney as specimens, and that

that in each case a brick should be manufactured from the clay and burnt. These samples should prove a valuable addition to the museum, and would serve to illustrate the material in the raw state, the manufactured bricks being exhibited with each sample, and information given as to their value, &c.

In nearly every case a small quantity of titanic acid has been detected in the fire-clays examined in the laboratory, and most of the clays contain a very small amount of vanadium. The presence of this metal, which probably occurs as an alkaline vanadate in the clays around Sydney was first pointed out by Professor Rennie, in a paper read before the Royal Society of New South Wales on the 5th September, 1883.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,
Analyst and Assayer.

Appendix 9e.

Analyses and report on a sample of coke manufactured from coal at the Mount Pleasant Colliery, near Wollongong.

Sir,

I have the honor to report as follows, respecting a sample of coke manufactured from coal obtained from the Mount Pleasant Colliery, near Wollongong, and furnished for analysis with a view of ascertaining its suitability for metallurgical purposes :—

Analysis of Coke.

	Proximate Analysis.
Moisture at 100° C.	·20
Volatile matter	·50
Fixed carbon	85·85
Ash	13·45
	100·00

Sp. gravity, 1·565.
Sulphur in coke, 0·25 per cent.
Ash—White in colour.

Analysis of Ash.

Silica	51·10
Alumina	40·20
Ferric oxide	2·80
Manganous oxide	.....
Lime	3·19
Magnesia	·64
Potash	1·76
Soda	.....
Phosphoric anhydride	.....
Sulphuric ,,	·85
	100·54

*Analyses of Cokes from the Southern District.

Locality.	Sp. gr.	Moisture.	Vol. matter.	Fixed carbon.	Ash.	Sulphur.
Bulli Coke Works (washed coal)	1·469	1·53	·79	83·77	13·45	·40
Wollongong Coke Works	1·566	·26	·29	87.75	11·27	·43
Unanderra ,, ,,	1·471	1·35	·73	83·92	13·41	·59
Coke from Moss Vale	1·400	.....	1·35	79·20	19·00	·45
,, Wollongong	1·503	·52	... ..	84·60	14·36	·53
,, ,,	1·454	·53	.....	86·05	12·83	·59
Mount Pleasant, ,,	1·564	·20	·50	85·85	13·45	·25

*Southern Coke—(Analyses of Ashes).

Locality.	Silica.	Alumina.	Oxide of Iron.	Oxide of Manganese.	Lime.	Magnesia.	Potash (K_2O.)	Soda (Na_2O.)	Phosphoric acid.	Sulphuric acid.	Total.
Bulli Coke Works (washed coal)	53·34	36·79	2·53	Strong trace.	2·29	1·62	1·44	·02	·30	·68	99·51
Wollongong Coke Works	56·34	39·67	1·75	,,	1·28	Trace.	·97	·38	·67	·29	100·25
Uranderra ,,	55·49	39·60	1·11	,,	1·72	·15	1·09	·46	·51	·24	100·37
Coke fron Moss Vale	69·75	33·83	3·17	,,	1·00	·45	·33	·45	Trace.	·31	99·29
Mount Pleasant Colliery	51·10	40·20	2·80	...	3·19	·64	1·76	...	.....	·85	100·54

*Report on some of the cokes of New South Wales (Department of Mines).

Remarks.—Coke blackish-grey in colour, very dense, well made in fairly long lengths. From its hardness the coke should be readily handled without much breakage, and is equal to standing the weight of a heavy burden of ore and flux. A minute trace of copper was detected in the ash.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,
Analyst and Assayer.

APPENDIX 9F.

Report and Analysis of a sample taken from a fire-brick which had been in use in a smelting furnace.

Sir, 17 September, 1891.

I have the honor to report as follows, respecting an analysis made of a portion of a fire-brick manufactured from clay obtained in the neighbourhood of Sydney, the sample being submitted for analysis and report, with a view of ascertaining its composition:—

	No. 2,684. Analysis.
Silica	89·45
Alumina	10·40
Oxide of Iron	trace
Lime	,,
Magnesia	,,
Potash	·32
Soda	·36
Titanic Acid	trace
	100·53

A minute trace of Vanadium detected.

For comparison the analysis of eight samples of English and Foreign Fire-bricks are given.

Composition.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.
Silica	63·09	84·65	88·10	84·00	88·43	69·30	77·60	75·05
Alumina	29·09	8·85	4·50	14·10	6·90	28·50	19·00	21·25
Lime	·42	1·90	1·20	·70	3·40	.. ..	.....	1·95
Magnesia	·66	·35	.....	.....	trace	..... .	2·80	·41
Oxide of Iron	2·88	4·25	6·10	·50	1·50	2·00	·30	·37
Potash	1·92	.....	.....	.....	.....	.....	.....	·83
Soda	·31	.....	.....	.....	.....	.....	....	·08
Titanic Acid	2·21	.....	.....	.....	.....	.....	.....	....

Remarks.—Some 4 inches of this brick which had evidently been exposed in a smelting furnace to the action of fluxes had been eaten away. The analysis of the fire-brick, from a chemical point of view, and in comparisons made with other analyses, shows it to be of an excellent description for resisting high temperature in furnaces, the percentage of silica being high, and the sample nearly free from oxide of iron. As regards its mechanical composition, I am of opinion that in its present state it is not a suitable brick for smelting purposes for the following reasons:—

1st. That the ingredients used in making the brick are not properly mixed, or the brick sufficiently burnt, a section taken showing it to be porous, and to contain numerous air-holes. [*See Specimen* A].

2nd. That by burning at a higher temperature a better class of brick can be manufactured.

3rd. That in my opinion this brick would not stand where a pressure is required, *i.e.*, the building of arches in a furnace.

4th. That the particles are in much too fine a state of division, and the clay should be mixed with a much coarser material before being made up into bricks. [*See Sect.* C, cut from off a best English Stourbridge fire-brick.

In the manufacture of the best description of fire-bricks in Great Britain, and on the Continent, the clay is used as a binding material only, and mixed with coarse particles of quartz, flint, and other siliceous material which have been passed through a sieve of about 60 meshes to the square inch.

The action of the fluxes on the brick is due in my opinion to the porosity and fineness of the particles which will cause it to more readily enter into combination with the fluxing material than if coarse.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,
Analyst and Assayer.

APPENDIX 9G.

Sir,

I have the honor to report that a qualitative analysis has been made of a sample of mineral marked No. 298, and the following result obtained:—

A large amount of insoluble matter was left on the treatment of the stone with acids, consisting of quartz.

The part soluble in acids contained a large proportion of iron, with lesser quantities of copper, lead, arsenic, zinc, silver, gold, lime, and magnesia, and a trace of manganese. On concentrating some of the crushed stone by washing, the various minerals existing as sulphides (pyrites) were left, also some fine gold which on examination under the microscope had the appearance of being coated in places with iron, oxide, and pyrites. It is stated that "No gold or silver is visible in the raw stone, but on heating shows out on the surface in the form of small globules."

The silvery coloured globules are due to the lead, which has become reduced on heating, and the gold visible, is most probably a moss-gold formed from the pyrites present which contains that metal. A careful examination was made for the presence of tellurium and selenium, with the result that neither of these metals were detected. I would suggest that a few tons of the stone be crushed and concentrated; assays being made of an average sample of the crushed stone, concentrates, tailings, and slimes, with a view of ascertaining if the gold, silver, lead, copper, &c., can be saved, when experiments can be made as to the best means of treatment for the separation of the precious metals.

I have, &c.,
JOHN C. H. MINGAYE, F.C.S., M.A.I.M.E.,
Analyst and Assayer.

APPENDIX 10.

Progress Report by Mr. W. S. Leigh, Superintendent of Caves.

Sir, Department of Mines, Geological Survey, 9 February, 1892.

I have the honor to submit the following progress report on the caves for the year 1891.

During the year I have made visits of inspection to the following caves, and supervised the carrying out of improvements both in the old and newly discovered caves, viz.:—Jenolan, Wombeyan, Yarrangobilly, Wellington, Bungonia, and Abercrombie.

New and important discoveries have been made at the following cave centres, viz.:—At Jenolan, a comparatively small but very pretty addition to the Imperial Cave, discovered by Mr. J. Wilson, keeper, on the 17th January, about the time of the arrival of the Governor, the Earl of Jersey, after whom the cave was named. It is situated between the Imperial and Elder Caves, and forms a branch of the former, the passage leading to the "Jersey" intersecting the Right Imperial Passage at Ridley's short-cut, distant about 300 yards from the main entrance in the grand arch. The cave is in the form of a passage about 200 feet in length, having a circular dome—shaped chamber 100 feet from entrance. It is rich in all classes of stalactitic growths, their general structure being similar to those of the "Imperial," but in proportion to the size of the cave far more numerous. In this cave was found the more or less complete skeleton of a thylacine, an animal now quite extinct in Australia, but still living in Tasmania. It is known as the Tasmanian Wolf or Hyæna (*thylacinus cynocephalus*). The fossil remains are described by Mr. R. Etheridge Palæontologist. [*See Appendix.*]

At Yarrangobilly the most important discoveries of the year have been made. The first of these also named the Jersey Cave is unsurpassed for the richness and variety of its dripstone formations. [*See Appendix.*]

The others, four in number, were discovered subsequently by Messrs. Murray (keeper), Elphick, and Bradley.

Two of these, yet unnamed, are quite as spacious, and, though different in form, just as interesting and attractive as the Jersey Cave. The other two "The River" and "Grotto" caves are much smaller, but being conveniently situated as regards the larger caves, are well worth an inspection; more especially the former, on account of the subterranean river which flows through the cave, and disappearing again, emerges from the limestone, and joins the Yarrangobilly River 100 feet below the mouth of the cave. [*See Appendix.*]

At Bungonia, a cave, the largest and best of the present known series, was discovered by Mr. L. Guymer, keeper. [*See Appendix.*]

The total amount collected at the different caves for the use of the magnesium light was £172 4s. 4d., and the expenditure in connection therewith, purchase of magnesium wire, £80; purchase of lamps and repairs, £30; total, £110 10s.—leaving a balance for the year of £61 14s. 4d.

The total number of visitors to the different caves, inclusive of those to the Kowmung Walls, was 4,074.

Following are particulars, showing number of visitors, improvements, &c., at the different caves for the year 1891.

Jenolan Caves.

Number of visitors, 1,575. The most extensive operations as regards improvements have been carried out in connection with the Jersey Cave. On account of the circuitous and intricate nature of the passage by means of which this cave was first entered, no small amount of scheming and labour was required before the present passage, giving free access to the cave, was cut through the immense solid boulders, piled up and wedged together in such a manner that to remove one would apparently cause a general displacement. The cave itself has been protected by standards and wire netting erected on each side of the track.

Other improvements have been effected in the Imperial and Lucas Caves. Old wooden staircases have been replaced where necessary with iron ones and extra guard rails erected.

The Cave House surroundings have been vastly improved by the removal of some old wooden buildings which formerly did duty as a stable and buggy shed, the land thus occupied having been added to the plantation.

Wombeyan Caves.

Number of visitors, 293. The recently discovered caves have been thoroughly improved and protected, and opened to the public. An extention to the Caves Reserve of about 1,000 acres, for the purpose of a water supply and motive power has been recommended and notified. The land runs parallel with, and embraces an area 20 chains wide on each side of the Wombeyan Creek.

The proposed extension from the Wollondilly River to the caves of the Bowral-Caves Road, has been surveyed, but further operations have been stopped for the present.

Yarrangobilly Caves.

Number of visitors, 352. There is certain to be a large increase in the number of visitors to these caves now that the new road and the improvements in the Jersey Cave are completed, especially so when the latest discoveries there before referred to have been opened up. It is intended to undertake this work at the earliest opportunity.

Wellington Caves.

Number of visitors, 1,269. The keeper, Mr. J. Sibbald, reports the discovery of another fossil bone cave, which will be examined at an early date.

Bungonia Caves.

Number of visitors, 95. It is intended to provide facilities for the public to inspect the recently discovered cave as early as possible. A guard rail, for which the necessary ironwork has been ordered, is about to be erected along the edge of the precipice at the "Look Down" and "Cooing Point," two places of interest in the vicinity of the caves which command extensive views of mountain scenery and attract a large number of sight-seers.

Abercrombie Caves.

Number of visitors, 317. A horse-paddock has been fenced in and other necessary improvements carried out at these caves.

Benditherа Caves.

Number of visitors, 81.

Kybean

Kybean Caves

After thoroughly exploring these caves, and obtaining a collection of fossil bones therefrom, it was thought advisable on account of their small extent to remove the man placed temporarily in charge. An area of land embracing the limestone has been reserved.

Kowmung Walls and Waterfall.

The Kowmung Walls, situated 15 miles east of the Jenolan Caves, are fast becoming a popular resort for sightseers.

During the year, in addition to these who visited the "Walls" without a guide, ninety two (92) persons availed themselves of Mr. Whalan's conductorship. Mr. Whalan, a selector, who resides on the road, has permission from the department to act as guide to tourists and others visiting the Kowmung Walls.

An area of land, 3,840 acres in extent embracing the "Walls" and Waterfall has been reserved, and notices have been posted up cautioning the public against interfering with the vegetation, &c., on the reserve.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

The Government Geologist.

APPENDIX 10B.

Report on new cave, Bungonia Caves.

Sir, Department of Mines, Geological Branch, 28 October, 1891.

I have the honor to report, as requested, on the newly discovered cave at Bungonia Caves. The entrance to the cave is at the bottom of one of the largest of the numerous depressions met with on the surface of the limestone in which this series of caves occurs, and, as in the case of most of the others, a considerable amount of surface drainage of the immediate vicinity finds its way during times of storm through the orifice and into the cave. Its existence has been long known, but on account of the dangerous nature of the undertaking, and the want of proper appliances, no one ventured until quite recently to explore it beyond the first chamber, 50 feet from the month. This chamber, which runs up to a height of about 80 feet, is conical in form, and averages about 30 feet in width on the floor, and 10 feet at its highest point. It resembles very much a belfry, after which it has been named. From this chamber the cave proper is reached by descending an almost circular shaft of an average diameter of 20 feet, and at least 150 feet in depth, the descent being accomplished by the aid of a windlass and rope. The surface of the limestone forming the side of the shaft is much water-worn and polished, bearing evidence to this chasm having been periodically, at no distant date, the scene of an immense subterranean waterfall. At the bottom of the shaft two passages resembling drives branch off, one running south-west, which might be termed the left branch, and the other north-west, the right or main branch of the cave.

The left branch is comparatively easy of access, and little time is taken up in inspecting the same. After traversing a passage or fissure in the limestone, about 12 feet in width, for a distance of 40 feet, a chamber, 60 feet in length, by about 50 feet in height and 30 feet in width is entered. Although not rich in the pure white dripstone formations met with and forming the principal attraction of other caves, this chamber possesses most interesting stalagmitic basin-like growths which have formed in a series of terraces, on the lower portions of the walls and floor, and, as would appear to be very frequently the case, each row of basins is filled with pure water, which, dripping over into the next series and so on till it reaches the lower depths, presents a very pretty and interesting sight.

The first portion of the right or main branch passage for a distance of 50 feet is very low and tortuous, not averaging more than 2 feet in height. Emerging from this the cave widens out considerably, the passage having an average width of 15 to 30 feet in height, following which for a distance of about 150 feet, you find yourself on the brink of an almost perpendicular fall of about 40 feet. From this point a good general view is obtained of the next part of the cave, or rather large chamber, the roof of which is ornamented with clusters of white and ferruginous-stained stalactites averaging 3 feet in length, with one exceptionally large, 12 feet long by 2 feet in diameter. Passing through this chamber the passage is still followed for a further distance of 200 feet, two chambers, similar to that just referred to, and containing some rather fine specimens of stalactitic growth, being passed through in that distance. Beyond this the cave opens out into what might be termed an immense natural tunnel, at least 300 feet in length, and in places 100 feet in height, and 50 feet in width. The side walls are vertical, and the roof semicircular, the whole, on account of the smooth and true surfaces everywhere presented, bearing the appearance of having been chiselled out by man.

The sloping floor of this chamber is partly covered with stalagmitic basins, semi-circular in form, and rising one above the other in terraces. They are similar to those of the left branch, but on the whole much larger, some measuring 4 feet in diameter, and the same in depth.

The sombre walls of this immense cavity are relieved with white markings, being the outlines of marine fossils in section, some of which measure 12 inches across. These white tracings, covering such a large area, produce a novel and pretty effect. I think if the same were examined minutely, the result would prove both interesting and beneficial to science.

Entering a passage leading from this chamber, and following same about 30 yards, further progress was then stopped, owing to the presence of large pools of water. The cave has not been explored beyond this point. Still, I am of opinion that spacious openings will yet be discovered on still lower levels, the floor all through from the entrance having an average fall of 1 in 10. Being an old subterranean watercourse, it is quite evident the channel extends right through the limestone, and has an outlet on a level with the Bungonia Creek, bounding same, which joins the Shoalhaven River, 2 miles distant.

As the providing of proper means of descent in the shaft leading to the cave will prove to be rather an expensive item, I estimate that it will cost, inclusive of material and labour, at least £250 to improve and open up the whole cave, in order that visitors may inspect same with safety. I may add that it is the best cave yet discovered at Bungonia Caves.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

APPENDIX 10A.

Report on the newly-discovered caves at Yarrangobilly.

Sir, Department of Mines, Geological Survey Branch, 14 September, 1891.

I have the honor to report having, in accordance with your instructions, inspected the newly-discovered caves at Yarrangobilly.

The caves are three in number, and are situated north-west of the Glory Hole Caves, and comparatively close to the Yarrangobilly River. The general out-look from the track leading to the new discoveries, which runs along the bank of the river, is most picturesque, a splendid bird's-eye view of the sinuous course of the stream, from which rise thickly-timbered ranges, relieved here and there by lofty limestone cliffs, being obtained.

The first, or River Cave, so named on account of the underground stream running through it, is on the same hillside as the Glory Hole Caves, from which it is distant about 14 chains, and about 1 chain above the river. The entrance is at the bottom of a circular depression, through which the surface soil has fallen, forming inside the caves a talus heap, over which an entrance is easily effected, the descent being at an angle of about 60 degrees.

The first chamber entered averages 120 feet in length by 30 feet in width, and 20 feet in height. About half the surface of the roof and sides is covered with white calcareous deposit, from which depended a number of stunted stalactites, the collection forming, as far as beauty is concerned, the most attractive portion of the whole cave. On account of the soft sandy nature of the floor few stalagmitic growths are met with, these only occurring on a few isolated boulders.

From the end of this chamber a winding irregular shaped passage, forming the main portion of the caves, branches off to the right. It is about 300 feet in length, by an average width of 10 feet, and 15 feet in height, and follows generally a south-easterly course. Over the whole surface of roof and sides only the bare rock meets the view, the projecting portions of which are much water-worn, and in some cases highly polished, exhibiting a large number of massive fossils, which prove the lime-stone in the immediate vicinity to be highly fossiliferous. The entire floor of the cave has a thick coating of black river sand, which gives it the appearance of having, at no distant date, been under water. This theory is fully borne out after proceeding a little distance along the passage, when a distant rumbling of flowing water is heard, the sound increasing as you proceed, until reaching the extreme end of the cave you find yourself on the brink of a stream of rapidly flowing water, 10 feet in width, and of considerable volume. The water emerges from a circular arched tunnel and taking a course due south, disappears again through a similar opening, 50 feet from point of ingress.

At the end of a short passage, branching off to the right at this point, another view of the subterranean river is obtained through a circular opening in the floor, 10 feet in diameter, the bed of the stream being about 12 feet below the floor of the cave. By means of this opening the general direction of the watercourse is obtained, running almost due north and south, or very nearly parallel with the Yarrangobilly River, which it enters 100 feet below the cave mouth, after emerging from the lime-stone and flowing a few feet on the surface.

This cave on account of the novelty of the subterranean river, is sure to prove a great attraction to visitors. It can be opened up and improved at a very trifling cost, the principal item being the gate for entrance.

Grotto Cave.—The second cave known as the Grotto Cave is situated 21 chains north 10 degrees west of the River Cave. The entrance is at the foot of a peak of limestone rocks, which rises perpendicularly from the grassy slope about 1 chain above the Yarrangobilly River at a point where it forms a horseshoe bend. After passing beneath what might be termed a natural Gothic portal, 6 feet high and 4-feet wide, formed in the face of the rock, a platform 3-feet high is ascended. The main portion of the cave is reached through a tunnel-like passage 50 feet in length by 2 feet in width running off to the left of entrance from platform..

On emerging from the passage the whole of the main cave, which consists of one chamber, 65 feet in length, be an average width of 30 feet, can almost be seen at a glance. The height varies greatly on first entering, the roof is hardly of sufficient height to allow one to stand upright, proceeding further, it breaks abruptly, and in some places takes a sheer rise of 30 feet, although by no means a large cave, what is wanting in this respect is more than compensated for by its beauty. Its whole surface, the floor, roof, and sides has a coating of pure white calcareous deposit, resembling in this respect the "White Chamber" of the Jersey Cave. This surface, as also that of the innumerable small dripstone, growths studding the roof and floor, is more or less covered with spherical sponge-like excresences, which in addition to being rather an unusual occurence, greatly add to the beauty of the whole. The stalactites which are fairly evenly distributed over the whole of the roof do not average more than 12 inches in length. The stalagmitic growths comprise columns of various thicknesses, but in few cases do they exceed 3 feet in height. About the centre of the floor of the cave is a large mound, the surface of which is broken with ridges and depressions, the whole being covered with the white deposit before alluded to, giving it the appearance of a miniature snow clad mountain.

The cave on the whole forms a beautiful grotto, and might very appropriately be designated the Grotto Cave.

No. 3 Cave.—The situation of this cave is south 60 degrees east of the Grotto Cave, distance 12 chains. The entrance is on the face of a steep hill having a northerly aspect, and about 2½ chains above the bottom of a gully, running in the direction of, and at right angles to the river. From the mouth of the cave a splendid panoramic view is obtained of the Yarrangobilly River, backed up on each side by immense limestone bluffs and lofty thickly timbered mountains. The present opening of the cave is about 8 feet by 5 feet, which narrows considerably a little distance within, when a descent is made at an angle of about 30 degrees between rugged rocks for a distance of 30 feet. Having forced an entrance through this intricate passage, in which there are in its present state narrow openings through which none but those of ordinary size could possibly pass, the threshold of the first of a series of large chambers is reached The cave may be divided into three main chambers, from which as is usually the case smaller openings branch off in different directions, forming grottos, bowers, and other fantastic nooks and recesses.

The

The first chamber or division, the largest, is about 100 feet in length and 90 feet in width. The floor, as indeed that of the whole cave, which runs generally in a southerly direction, dips at an angle of about 60 degrees, the shelving roof, 10 feet above, running almost parallel with it for a considerable distance through the cave. The first sight to attract attention on entering this chamber is a row of alabaster like columns, ranged in a straight line across the cave, with one particularly large, about 10 feet in diameter, in the middle, on each side of which is a larger space than separate the others, thus giving the whole the appearance of a grand gateway. Passing this portal, and following a smooth undulating rocky floor through the middle of the cave, on the right is seen a chaotic mass of fallen boulders, on which stalagmites have formed in great profusion. To the left of the track, and near the centre of the chamber, is an immense stalagmitic column, apparently supporting the roof at this point, which in other places has a clear and unbroken space of 80 or 90 feet. At the lower side of this column is a splendid circular canopy, overhanging and hiding from view the base of the column.

The lower you descend in this chamber, the more numerous become the calcarious formations. Standing near the lower end, one is surrounded by masses of fluted columns, large and gracefully overhanging canopies, crystalized terraced embankments, and long tapering stalactites too numerous to particularise. Some of the larger of these are completely covered with the parasitic-looking growths known as " mysteries," which sprout from the main body in all directions, and at different angles, taking the form of scythes, corkscrews, and other contorted shapes.

In the joint report by Mr. Anderson, Geological Surveyor, and myself, on the Jersey Cave, in which the " Mysteries" are so numerous, a description is given as to how this peculiar growth is formed. Turning to the right at the lower end of this chamber, and taking up a position on a pulpit-shaped platform, named " The Pulpit," a good bird's-eye view of the second chamber is obtained, which being about the same width, and taking the same direction, is really a continuation of the first, on a lower level. The floor, 20 feet below, is reached over a gradually-sloping embankment of fallen rocks. The calcareous deposits in this part of the cave are quite as plentiful, and much the same in structure as those already described, with the exception that from the roof in places depend a number of fine drapery-like hangings resembling and known as " Shawls." Some of these are 6 feet in length, and hang in graceful folds, their outer edges being bordered with different tints of colouring, this giving them the exact appearance of the article of apparel after which they are named. About the centre of the floor is one immense fine specimen of a fluted column, supported on three sides by other and smaller columns similarly constructed, all of which rise from a solid base of what might be mistaken for iron ore, the dark surface of which is highly polished, the whole much resembling a grand mineral trophy.

On the extreme right of this chamber an entrance is effected between a number of long stalactites into the " Dome Cave."

This chamber is almost circular in form, and is about 25 feet in diameter by 20 feet in height, the roof being dome-shaped, after which it was named. The upper portion is draped with curtain-like hangings, in different shades of colour, and although averaging 12 inches in width, are in most instances less than $\frac{1}{8}$th of an inch in thickness. The lower points of some of these " curtains" swell out abruptly to a thickness of 2 inches, and terminating in long slender stalactites, producing a form of dripstone growth not often met with. A stalagmitic deposit on the lower side of this cave, projecting a little distance from the main wall, much resembles a church altar with the usual sacramental vessels, &c.

Immediately to the left of " The Altar," is an opening which leads into a cellar-like cavity named the " Grand Grotto."

This grotto is the present terminal chamber, and forms perhaps the prettiest sight of the whole caves. It is not more than 12 feet in length by 6 feet in width, but one can descend at least 15 feet into its lower depths.

It is thickly packed with pure white calcareous growths of various designs, the rocky flooring and a portion of the walls being coated with a sparkling crystalised formation.

From the centre of the roof depend a pair of twin stalactites, each 10 feet in length, by 15 inches in diameter, every inch of their surface being covered with a type of " Mysteries" similar to those before described.

" The Twins," flanked by a number of large cream-coloured stalactitic growths of exquisite beauty, gracefully pendent in a commanding position above the grotto, combine to form a grand finale to one of the best caves, from a spectacular point of view, yet discovered at Yarrangobilly. The greater portion of the floor of the whole cave is made up of detached lime-stone blocks, coated in most instances with a black substance apparently highly polished, similar to the black coating so general in the Jersey Cave, and supposed to be the exuviæ of bats. It is relieved here and there by sparkling beds of crystals, forming in some instances terraced and ripple-marked embankments which, taken in conjunction with the snowy white, and in some cases ferruginous-stained calcareous depositions, make a striking contrast, which, beside breaking the monotony, adds greatly to the beauty of the cave as a whole.

In view of the present state of the Caves Vote for the current year, and the expense attendant on properly improving and opening up this cave, and in order that the innumerable delicate formations therein may be preserved intact, I would recommend that the entrance be securely blocked for the present, or until such time as the Vote for next year is available.

I have, &c.,
W. S. LEIGH,
Superintendent of Caves.

WATER CONSERVATION REPORT.

Sir, Water Conservation, Department of Mines, Sydney, 28 March, 1892.

I have the honor to furnish a report upon the public watering-places of the Colony, and as I believe no report upon them has been submitted of late years, it is perhaps necessary that the report should be a somewhat lengthy one.

Public watering-places are established upon the main stock routes of the Colony for the convenience of travelling stock, and they have done much towards opening up the country, enabling both stock and teams to move in seasons, when without them the roads would be impassable. They are also provided for the supply of minor townships for domestic and other purposes. At each public watering-place two areas of land are set apart and dedicated, one as a tenant's lease, which is fenced wholly or in part, and with a cottage erected enables the Department to offer inducements to people to lease. The other, the public watering-place area is set apart wholly for the use of travelling stock when available. The maximum area permitted by the Crown Lands Act, viz., 640 acres, is in each case gazetted as a public watering-place. The actual works themselves consist of tanks, dams, or reservoirs, wells, and artesian bores, of each class, the following are the numbers :—

Tanks	135
Dams or reservoirs	15
Wells	35
Artesian bores	12
Total	207

and of this total again, 54 are worked by steam, 93 by horse-power, 1 by windmill, the balance being served by hand-power, and being open watering-places without caretakers.

The tanks are large open excavations, varying in size up to a capacity of 5,000,000 gallons of water, and from 15 to 20 feet deep, rectangular or prismoidal in form, into which the surface water during rain, gravitates by means of catchwater drains. The spoil from the excavation being embanked at a suitable distance surrounding it, acts as a breakwind, reducing the wave action, erosion, and evaporation, which in the Western District is very great, and serving in cases to provide a large additional supply above the surface. A strong post and rail fence, rabbit-proof netted in thickly infested districts, surrounds the whole, and prevents direct access by stock to the water, which is raised and delivered into a service tank, and from thence into troughs, the means for this purpose varying, steam, horse, and hand-power being used, in accordance with the importance of the work and demands upon it, and its proximity or otherwise to firewood. The water is first pumped into a service tank or reservoir, mostly constructed of buckled plate iron, elevated above the ground surface, and of a capacity of 20,000 gallons, which is always kept full of water, providing a reserve supply sufficient for about 10,000 sheep, from which the water is run into steel troughing, varying in length up to 300 feet, this was protected in most cases by a railing, to prevent stock from fouling the water, but the railing owing to its inconvenience is gradually being dispensed with. At the dams and reservoirs that are of large extent and capacity, the appliances referred to are in cases dispensed with, and stock are admitted to the main supply. From the wells the water is mostly drawn by the ordinary whim and self acting buckets delivering into a service tank and troughing as provided for the tanks. The wells have been only fairly successful, and all yield fair stock water, one alone being entirely undrinkable. It is, however, proposed now to bore those which yield a low class water, or a limited supply, with a view of obtaining an artesian supply.

The administration and construction of the public watering-places is vested in the Honorable the Secretary for Mines and Agriculture, and is carried out by the Water Conservation Branch of the Department, the officers consisting of the Officer-in-Charge of Water Conservation, a Chief Inspector, 5 inspectors, 15 inspectors of stock, who act as overseers, and 68 caretakers are at present employed on wages, 3 without wages, at public watering-places yet unleased.

When leased, the tenant either lives himself at the public watering-place, or provides a constantly resident caretaker, and is answerable for the good order and repair of the work and its appliances. He holds the tenants lease area under a five years lease, and is permitted by the terms of it to take stock on agistment, to depasture his own within a certain limit as to numbers or to cultivate the land, which he is encouraged to improve. He is further permitted to retain the fees charged for the watering of stock as laid down by regulation.

There are now eighty-three public watering-places under lease, returning an aggregate rental of £3,022 11s. per annum. When public watering-places are open for lease they are advertised in the *Government Gazette*, and in the local papers, as open to lease by public tender. Tenders are sent in, accompanied in each case by a deposit of £5, and the names of two persons are submitted as sureties to the amount of two years of the rental offered, and are dealt with by the Tender Board of the Department, after investigation as to the suitability of the tenant and the sureties proposed, a lease is issued. The public watering-place and the prescribed books kept by the tenant are open to inspection by the officers of the Department, who at each visit record the same, and direct such repairs, &c., as they may consider necessary to be carried out.

At those public watering-places unleased, the work is kept in repair, and the revenue is collected and forwarded to the Treasury by a caretaker, who prevents trespass, loafing, and pollution or misuse of the water, and who may demand the drover's permit or travelling statement before watering his stock or admitting

QUEENSLAND

POOLE

TONGOWOKO

DELALAH

ULARARA

YANTARA

EVELYN

FITZGERALD

YUNGNULGRA

MOOTWINGEE

FARNELL

YANCOWINNA

TANDORA

YOUNG

MENINDEE

AUSTRALIA

SOUTH

Mt McDonalds Peak
Pinaroo L.
Fromes Ck
Bullow Overflow
Whittabrannah Ck
Tongowoko Ck
Berawinnia Ck
Prospect Ck
Tilcha Ck
Paradise Ck
Mt Poole
Mt Stuart
Evelyn Creek
Milparinka
Mt Brown
Yandaminta Ck
Rinnakunyara N hole
Tadamunta N hole
Lake Boulka
Mt Arrowsmith
Pack Saddle Ck
Yantara L.
Cara L.
Yantara Ck
Yantabulla Well
Well
The Salt Lake
Green L.
Gnurntah L.
Patterson L.
Tabita Ck
Burt Ck
Queen Well
Kings Well
Well 260 ft.
Well 40 ft.
Pack Saddle Well 120 ft.
Well
Well 364 ft.
Cret. shells
Well 2141 ft.
Cret. shells
Well 1316
Well 30 ft.
Junction Well 80 ft.
Myamyamba Well 301 ft.
Cret. shells
Nucha L.
Mooracoppa Well 320 ft.
Woodstock Well
Well
Mootwingee Well
Mt Wrichie
Christmas Well
Well 245 ft.
Mandelman Well
Five Mile Well
Well
The Bayonne Well
Papi Well
Mt Murchison
Mt Arthur Well
Woolaman Well
Nitre Well
Mirage Well
Camerta Hill
Mulga Well
Well 130 ft.
Wilcannia
Hennescad Well
Well 400 ft.
Well 400 ft.
Dole Hill
Gawkers Well 170 ft.
Wilson's Well
Little Finger Well
Goldrings Well 360 ft.
Barrenpole Well
Inkerman Well
Well 300 ft. 340 ft.
White Well 300 ft.
Oberon Well 400 ft.
Adelaide Well 250 ft.
Herowie Well 165 ft.
Silistria L.
Silistria Well 280 ft.
Horse L.
Shaft
Canadian Well 160 ft.
Malta L.
Balekah L.
Bijie L.
Kars Well 240 ft.
Redan Well 380 ft.
Speculation Lake
Wennidee L.
Pamamaroo L.
Emuy
Nettlegone L.
New L.
Cawndilla L.
Kangaroo L.
Tandou L.
Wangea Well 270 ft.
North Ita Well 240 ft.
Euriowie
Gnadenhas Well 220 ft.
Mt Oering
Wonwaste Well
Albion
Moorkai
Broken Hills
Pinnacles
Thackaringa Mines Well 336 feet
Nundorobangee Ck
Sandy Ck
Tekum Ck
Kunjo Ck
Nanga Well 2141 ft. Cr.
Bunkers Ck
Williams Ck
Runnymede Ck
Scopes Range
Floods Ck
Fowlers Ck
Morphetts Ck
Barrenpole Ck
Tarrawingee Ck
Yantara Ck
Stephens Ck
Tramway
Silverton
Willyamma
Old Tacks Workings
Yantabulla Ck
Gnalta Ck
Mt Wrichie Ck
Bancannia Ck
Gum Ck
Nicholas Ck
Pandora Ck
Yarrawinga Ck
Mt Wrightson
Yantara Ck
Tarrawingee
Pooncarie
Yanga Lake
Lake Victoria
Lake Tandou
Lake Kenyon
Lake Menindee
Lake Cawndilla
Lake Pamamaroo
Lake Wennidee
Lake Speculation
Lake Emuy
Lake Nettlegone
Lake Kangaroo
Lake Bijie
Lake Balekah
Lake Malta
Lake Gnalta
Lake Yantara
Lake Cara
Lake Green
Lake Gnurntah
Lake Patterson
Lake Silistria
Lake Horse
Lake Kars
Lake Redan
Lake Wangea
Lake North Ita
Lake Nettlegone
Lake New
Lake Cawndilla
Lake Kangaroo
Lake Tandou
Lake Malta
Lake Balekah
Lake Bijie
Lake Pamamaroo
Lake Wennidee
Lake Speculation
Lake Emuy
Lake Nucha
Lake Mootwingee
Lake Christmas
Lake Five Mile
Lake Mandelman
Lake Papi
Lake Woolaman
Lake Camerta
Lake Mulga
Lake Hennescad
Lake Dole
Lake Gawkers
Lake Wilson
Lake Adelaide
Lake Herowie
Lake Oberon
Lake Inkerman
Lake Goldrings
Lake Little Finger
Lake Barrenpole
Lake Albion
Lake Moorkai
Lake Euriowie
Lake Gnadenhas
Lake Mt Oering
Lake Wonwaste
Lake Tarrawingee
Lake Poolamacca
Lake One Tree Hill
Lake Mt Arthur
Lake Nitre
Lake Mirage
Lake Mt Murchison
Lake Five Mile
Lake Nanga
Lake Myamyamba
Lake Junction
Lake Gnadenhas
Lake Mt Oering
Lake Wonwaste
Lake Tarrawingee
Lake Poolamacca
Lake One Tree Hill
Lake Albion
Lake Moorkai
Lake Euriowie
Lake Broken Hills
Lake Pinnacles
Lake Thackaringa Mines
Lake Willyamma
Lake Silverton
Lake Old Tacks Workings
Lake Tramway
Lake Stephens Ck
Lake Yantabulla Ck
Lake Gnalta Ck
Lake Mt Wrichie Ck
Lake Bancannia Ck
Lake Gum Ck
Lake Nicholas Ck
Lake Pandora Ck
Lake Yarrawinga Ck
Lake Mt Wrightson
Lake Yantara Ck
Lake Tarrawingee
Lake Pooncarie
Lake Yanga Lake
Lake Victoria
Lake Tandou
Lake Kenyon
Lake Menindee
Lake Cawndilla
Lake Pamamaroo
Lake Wennidee
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Lake Mt Oering
Lake Wonwaste
Lake Tarrawingee
Lake Poolamacca
Lake One Tree Hill
Lake Mt Arthur
Lake Nitre
Lake Mirage
Lake Mt Murchison
Lake Five Mile
Lake Nanga
Lake Myamyamba
Lake Junction

GEOLOGICAL SKETCH MAP
OF THE
N.W. CORNER OF N.S.WALES.

1 2 3 4 5 6 7 8 16 24 Miles

- Tertiary
- Cretaceous
- Granite
- Volcanic
- Devonian
- Silurian
- Proposed sites for bores

(Sig 874).

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE SYDNEY, NEW SOUTH WALES.

PLAN

of the Parishes of

PARADISE-NORTH
WELLINGTON-NORTH

and

BUNDAR

COUNTY OF GOUGH

Scale of Chains

Compiled in the Surveyor Branch of the Department of Mines Sydney 1881

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES

NOTE. These Parishes are in the Wellington Vale Run and are included in Reserve № 833 notified 14th October 1879 for Mining Purposes.

All available information given to date

Chief Draftsman
14th Oct 1881

(874-)

FLAGSTONE

HIGHLAND HOME

PARADISE NORTH

WELLINGTON NORTH

BUNDAR

GALSWORTHY

BOGGENORTH

TRACHAN

TENTHILL

to Wellington Vale

Boundaries
Parish
Reserve
Cancelled Leases

admitting to agistment. Where a steam pump is provided the caretaker is required to work it within stated intervals, and keep it in good order. Where horse-gear, pumps, and whims are used, the caretaker provides a horse and harness for the service, receiving a larger weekly wage to cover the expense. He is allowed the use of the paddock for his horse, cow, or ration sheep, and is in most cases provided with a two-roomed residence. The caretaker or tenant is required to furnish a weekly return, showing the state of the water and pasture and rainfall at the public watering-place. The caretakers further supply monthly a return showing their daily occupation, stock watered, agisted, &c., and they also furnish quarterly to the Auditor-General an attested account of the revenue, which is paid direct to the Colonial Treasurer. The tenant, in addition to the weekly return, furnishes also a monthly one showing the stock watered. The information contained in the before-mentioned weekly reports is collated in the branch every week, and published in the form of a list showing the depth of water, state of pasture, &c., at every public watering-place in the Colony. This information, which is of great value to drovers and others, is supplied weekly to the Press and those stock and station agents who apply for it. A copy is also posted. in every stock inspector's office in the Colony.

In addition to the foregoing modes of administration, those public watering-places upon which the minor townships are relying for their water supply, are vested in trustees, and such administered Trustees, either three or five in number, as the Minister may decide, are nominated from the residents of a township; and after approval, are appointed for a period of three years. The trust is required to fix the rates to be charged for water supplied, subject to the approval of the Minister, to employ a caretaker if required, to keep work in repair, and to collect the revenue, which is to be devoted to the payment of caretaker's wages, cost of repairs, &c., and any surplus is to be paid to the Consolidated Revenue.

Caretakers are authorised to make the following charges for the watering and agistment of stock :—

	s.	d.
Horses, per head	0	2
Cattle, per head	0	1
Sheep, per 100 or portion of 100	1	0
Goats and pigs, per head	0	0¼
Water in bulk, or for domestic purposes, per 100 gallons	1	0

Any other animals according to agreement between tenant, or caretaker, and the owner, or drover.
Horses may be taken in for agistment and water, at 1s. (one shilling) per head per night, or 2s. 6d. (two shillings and sixpence) per head by the week.
When feed is plentiful, small lots of quiet cattle may, by instructions of the District Inspector, be agisted and watered for one night at 4d. per night. Sheep are not to be taken in for agistment.

I may add that the regulations under the Act have been carefully revised, and many alterations which it is trusted will be beneficial have been made.

When the operations for watering the dry roads of the Colony were commenced some twenty-six years ago by the Survey Department, and subsequently enlarged by the Roads and Bridges Branch of the Public Works Department, the question of any return for the outlay was not considered, and it was not until the maintenance of these works was vested in the Secretary for Mines that it was raised, and the suggestion made that by setting apart a special area of 200 acres it would be possible to lease them and so reduce the expenditure of caretakers' wages. It has at no time been anticipated that they could become self supporting, more especially as the revenue is for the most part entirely dependent upon the season. Experience showed that the special area of 200 acres, since the revenue from watering charges was a precarious one, was insufficient to induce people to lease the area, has consequently been enlarged to 640 acres in all cases where the land is available and not required for other public purposes.

The following return will show that while the numbers of the tenants have been steadily on the increase, there has been also a proportionate increase in the numbers of public watering-places, and will also show by the revenue return for 1888, the utility of these works in a dry season :—

Works leased	83
Works under caretakers	71
Works open to all stock (no caretakers employed)	53
(This return is up to the 31st December, 1891.) Total	207

1886.

Total number of revenue-producing public watering-places			106
	£	s.	d.
Wages paid	8,922	4	0
Total revenue	3,443	5	3
Public watering-places leased, 36 ; average rental, £49 7s. 2d., producing	1,777	10	0

1887.

Total number of revenue-producing public watering-places			107
	£	s.	d.
Wages paid	9,319	1	5
Total revenue	2,971	16	8½
Public watering-places leased, 38; average rental, £49 0s. 8d. per annum, producing	1,863	0	0

1888.

Total number of revenue-producing public watering-places			119
	£	s.	d.
Wages paid	9,658	10	6
Total revenue (dry season)	7,186	17	3
Public watering-places leased, 59; average rental, £47 1s. 10d. per annum, producing	2,778	10	0

1889.

Total number of revenue-producing public watering-places			132
	£	s.	d.
Wages paid	8,324	15	0
Total revenue	3,842	3	5½
Public watering-places leased, 68 ; average rental, £44 5s. 9d. producing	3,011	10	0

1890.

	£	s.	d.
Total number of revenue-producing public watering-places	139		
Wages paid	8,317	2	11
Total revenue	4,640	15	6½
Public watering-places leased, 83; average rental, £40 4s. 1d. per annum, producing	3,337	0	0

1891.

	£	s.	d.
Total number of revenue-producing public watering-places	150		
Wages paid	8,756	16	5
Total revenue	4,671	2	9
Public watering-places leased, 83; average rental, £36 8s. 4d. per annum, producing	3,022	11	0

During 1891 some of the existing leases terminating through effluxion of time were again offered by public tender, with the result that lower rentals were obtained.

The construction of public watering-places was, until the year 1890, carried out by the Roads and Bridges Branch of the Public Works Department; the inconvenience of having them constructed by one Department and maintained by another was greatly felt, and it was ultimately, after a consultation between the respective Departments, decided that the construction should be handed over to the newly-arranged Water Conservation Branch (in which was embodied the Public Watering-places Branch) of the Mines Department. Since the date of that transfer this branch has received application for the construction of over 100 public watering-places, irrespective of artesian bores. To examine into the whole of these and report upon them has overtaxed the power of the existing staff; but this may be easily understood when the vast extent of the districts apportioned to each Inspector, their duties in respect to the maintenance of existing works, the supervision of the construction of new works, the distances to be travelled, and the fact that during the greater part of 1890, there were only three inspectors, are taken into consideration; but in the face of these difficulties great progress has been made. Many of these applications have been finally disposed of either by a refusal or by the construction of the works asked for, or by taking the necessary steps for their construction. The remainder of the applications, although a preliminary report has in most cases been obtained, have still to be finally dealt with. The following have been completed or contracts let for them :—

RETURN of Contracts for Works, &c., Department of Mines, Water Conservation Branch.

No. of Contract.	Name.	Cost of Excavation, &c.	Cost of Fencing	Payment to Contractors.	
		£ s. d.	£ s. d	£ s. d.	
1	Yanco Creek Improvements	2,021 8 0		2,021 8 0	Completed.
2	Emmaville Tank	586 2 6		586 2 6	,,
4	Little Bumble Tank	928 18 9		928 18 9	,,
5	Willandra Weir	4,284 18 4		4,284 18 4	,,
6	Buckle Plate Tanks			2,786 0 0	,, 20 tanks.
7	Hanging Rock Tank	756 8 4	18 0 0	774 8 4	Completed.
8	Tycannah Tank	276 12 3		276 12 3	In progress.
9	Grong Grong Tank	176 10 6	15 0 0	191 10 6	Completed.
10	Milparinka Dam	444 9 4		444 9 4	,,
10A	J. K. Tank	527 9 9		527 9 9	In progress.
11	Hobby's Yard Tank	169 4 4	5 10 0	174 16 6	Completed.
12	Urana Dam Byewash	1,057 3 10		1,057 3 10	In progress.
13	Jerilderie Dam, repairs			7 13 0	Completed.
14	Rolled Steel Troughing			1,850 1 9	Completed 6,000 ft.
16	Peak Hill Tank	1,727 18 4		1,727 18 4	,,
16A	,, appliances		253 3 7	535 8 7	,,
17	Stockinbingal Dam	206 18 0	7 17 0	214 15 0	,,
18	Wrought Iron Pipes and Buoys			414 4 3	,,
19	Waddell Tank	907 19 3	172 2 1	1,140 1 4	In progress.
21	Berrigan Well				,,
22	Hillgrove W. S., excavations	3,058 10 6	812 0 0	3,870 10 6	Completed.
23A	,, ,,	1,629 15 2		1,629 15 2	,,
24E	,, appliances			2,718 14 5	,,
25	Coolabah Tank	385 8 6		385 8 6	In progress.
26	Old Gunbar Tank	656 2 0	56 7 0	682 9 0	Completed.
26E	Sunny Corner W. S.	1,184 13 10		1,184 13 10	In progress.
27	Byerock Tank	242 7 8		242 7 8	,,
27E	Sunny Corner, appliances			329 12 4	,,
	Sundry Contracts.				
	Moama Pump			59 5 11	Completed.
	Clay-pan Tank	1,059 14 0	46 10 5	1,106 4 5	,,
	Little Topar	1,164 13 3		1,164 13 3	,,
	Dolo Tank	947 17 4		947 17 4	,,
	Myala Tank	290 10 4		290 10 4	In progress.
	Bulla Bulla Tank, appliances		282 8 10	666 7 9	Completed.
	Boonoona Tank, cleaning			68 1 2	,,
	Tibooburra W. S. (Allpress Dam)			410 0 0	Purchased.
		£24,751 14 1	868 18 11	35,710 11 11	

RETURN

RETURN of contracts for fencing and erecting huts, &c., and cost of wire netting for tanks and wells.

Name of Tank.	Cost of Fencing.	Cost of Huts.	Cost of Netting.	Name of Tank.	Cost of Fencing.	Cost of Huts.	Cost of Netting.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d	£ s. d.
Polygonum Hut Well	16 4 0	.....	6 15 0	One Tree Tank ...	.....	.....	18 5
Borundarra Tank ...	12 0 0	.....	.....	Quondong ,, ...	.....	.....	16 19 11
Keighran's ,, ...	114 8 11	.....	.....	Tom's Lake ,, ...	.....	.....	19 10 4
Brolgan Creek ,, ...	182 7 3	.....	.....	Mossgiel ,, ...	.....	.....	22 8 10
Babinda ,, ...	97 14 5	.....	.....	Cowrowra ,, ...	.....	.....	15 13 10
Booroomugga ,, ...	98 18 4	.....	.....	Twelve-mile ,, ...	.....	.....	22 18 10
Hermitage ,, ...	71 16 1	.....	.....	Mount Manara ,, ...	.....	.....	18 16 9
Thorndale ,, ...	107 19 5	.....	.....	Boonoona ,, ...	.....	.....	23 10 4
Nullamut ,, ...	108 5 8	.....	.....	48-mile ,, ...	.....	.....	21 10 7
Rat-hole ,, ...	.....	.....	24 16 1	35-mile ,, ...	.....	.....	17 13 11
Thakaringa ,, ...	.....	.....	29 6 1	Hillston District	.....	.....	265 15 0
Girilambone ,, ...	11 0 0	.....	.....	Priory Tank	.....	.....	16 9 10
Mount Hope ,, ...	.....	.....	163 2 6	Waratta ,, ...	.....	.....	34 0 6
Gilgaii ,, ...	105 19 10	.....	.....	Milparinka ,, ...	.....	.....	115 2 0
Bendemere ,, ...	184 10 0	53 10 0	.....	Ford's Bridge ,, ...	.....	50 0 0	.....
Brocklesby ,, ...	170 10 3	.....	.....	Grass Hut ,, ...	.....	50 0 0	.....
Paka ,, ...	248 4 6	50 0 0	.....	Eighteen-mile ,, ...	.....	53 10 0	.....
Helman's ,, ...	212 12 10	53 10 0	.....	Lightning Ridge Tank	.....	25 0 0	.....
Lake ,, ...	21 16 1	.....	.....	Berrigan Well	.....	48 15 0	.....
Tara ,, ...	.....	55 0 0	24 9 8	J. Plains Tank ...	.....	50 0 0	.....
Purnamoota ,, ...	.....	.....	19 1 4	Boro ,, ...	.....	20 0 0	.....
Day Dream ,, ...	.....	.....	32 14 5	Glendon ,, ...	.....	48 0 0	.....
Peak ,, ...	.....	.....	20 8 6	Limestone ,, ...	.....	120 16 4	.....
Til Til ,, ...	.....	.....	10 9 2	Merri Merriwa ,, ...	.....	56 0 0	.....
Penarie ,, ...	.....	.....	13 10 0	Wagga ,, ...	.....	56 0 0	.....
Box Creek ,, ...	.....	.....	11 17 8	Nymagee ,, ...	.....	22 15 0	.....
Clare ,, ...	.....	.....	12 18 2	Claypan ,, ...	.....	20 0 0	.....
Gunnamby ,, ...	.....	.....	15 7 6	Waterman's ,, ...	.....	54 0 0	.....
Youhl Plains ,, ...	.....	.....	16 13 6	Normanstone Well ...	.....	56 0 0	.....
Booroondarra ,, ...	.....	.....	17 17 2	Cowowra Swamp Tank	189 3 9	.....	.....
Mulga ,, ...	.....	50 0 0	15 11 4	Crows Nest Well	.....	30 0 0	.....
Kerrigundi ,, ...	.....	.....	15 3 10	Ledknapper Tank	.....	85 0 0	.....
Ulong ,, ...	.....	.....	18 15 4	Big Plain Well	.....	60 0 0	.....
Mount Elliott ,, ...	.....	.....	16 8 11				
Pul'etop ,, ...	.....	.....	16 8 10		1,953 11 4	1,167 16 4	1,132 12 4
Woolloondool ,, ...	.....	.....	2 1 4				

AND in two additional cases sources of water supply have been acquired by resumption, and in one additional case a small grant was made to the Progress Committee, Woodstock, to carry out a work themselves. In several additional cases where tenders have been invited the high rates tendered have prohibited the carrying out of the works for the time being, but it is hoped that eventually reasonable offers will be received. In two cases the necessity for the works asked for has been obviated by a reference to the Public Works Department, which has resulted in the construction of a dam, which acts both as an impounding reservoir for water and a causeway, thus serving the double purpose of providing a water supply and obviating the necessity for a bridge. Ministerial sanction has now been given for several others.

In addition to these, contracts have been let and completed for the construction and supply of appliances required for the completion of the works, such as buckled plate iron service tanks, rolled steel troughing, wrought-iron inlet piping, buoys, retaining valves, &c., and by the adoption of a standard form of these appliances it is anticipated that expense will be saved.

It is a well-known fact that the rates paid for this particular class of Government work have been higher than those paid by private individuals, and the endeavour the Department has been as far as possible to remove the causes which are alleged to account for the difference, and to that end the services of thoroughly practical men, who have had ample bush experience in station management and improvements, have been as far as possible secured, to fill the positions of Inspectors of Public Watering-places, and so far the appointments have proved very satisfactory.

The plans, specifications, and general conditions have been simplified and curtailed as far as is consistent with safety, and arrangements have been made with the Treasury for a fixed advance for each Inspector to operate upon for the purpose of making progress payments on the ground to contractors, thus obviating the unavoidable delay which occurs when the payment by voucher in the ordinary way is resorted to. These arrangements are only recently completed, but when these facts become known among contractors it is considered that they will have an important effect upon the rates for this class of work, and will result in a diminution in cost of 2d. or 3d. per yard.

The duties of the field officers are apportioned in the following way:—The Chief Inspector being the responsible officer for all field work, examines and endorses the selection of every site made before operations are commenced, and supervises the preparation of plans and specifications. The Inspectors, now five in number, attend to the maintenance and repair in every detail of existing works, they examine and report upon all applications for water supply; they take the necessary levels and make such connections with survey marks as may be requisite; they prepare sketch plans and specifications of works recommended; and inspect works periodically during progress and make progress payments. The districts apportioned to each are very large, and necessitate a great amount of travelling. I find the distances travelled by the several inspectors during the different years to be as follows:—

1889.

Mr. Inspector Low ..... 5,445 miles.
Average—453 miles per month.

Mr. Inspector Trench ..... 7,953 miles,
Average—662 miles per month.

Mr. Inspector Barnes ..... 5,082 miles,
Average—423 miles per month.

Mr. Inspector Makinson ..... 4,645 miles,
Average 387 miles per month,

1890.

Mr. Inspector Low (to July, when appointed Chief Inspector, Water Conservation) 4,576 miles.
Average—653 miles per month.

Mr. Inspector Trench ..... 3,369 miles.
Average—264 miles per month.

Mr. Inspector Barnes ..... 6,044 miles.
Average—503 miles per month.

Mr. Inspector Makinson ..... 5,719 miles.
Average—476 miles per month.

Mr. Inspector Donaldson (from the date of his appointment, September, 1890) ... 4,105 miles.
Average—1,026 miles per month.

Mr. Inspector M'Dougall (from the date of his appointment, October, 1890) ..... 1,607 miles.
Average—585 miles per month.

DISTANCES travelled by Inspectors of Public Watering-Places during 1891.

Inspectors.	By Road for the year.	Average per month.	By Rail for the year.	Average for month.	Total.	Total average per month.
	miles.	miles.	miles.	miles.	miles.	miles.
T. W. Barnes	4,418	368$\frac{1}{6}$	920	76$\frac{2}{3}$	5,338	444$\frac{5}{6}$
R. Le poer Trench.....	2,942 (10 mths. only.)	245$\frac{1}{6}$ (10 mths. only.)	2,404 (10 mths. only.)	200$\frac{1}{3}$ (10 mths. only.)	5,346 (10 mths. only.)	445$\frac{1}{2}$ (10 mths. only.)
P. J. Makinson	2,839 (8 mths. only.)	236$\frac{7}{12}$	721	60$\frac{1}{12}$	3,560	296$\frac{2}{3}$
W. Donaldson	4,492	374$\frac{1}{3}$	344	28$\frac{2}{3}$	4,836	403
O. C. Macdougall	5,222	435$\frac{1}{6}$	30	2$\frac{1}{2}$	5,252	437$\frac{2}{3}$

These gentlemen also carry out the field work incidental to the artesian boring operations.

There are sixty-eight caretakers employed at wages varying according to locality and circumstances from 3s. to 10s. per diem, the ruling rates being 7s. 6d. per diem where steam-pumps are used, and 8s. per diem where horse-gear; the maximum rate mentioned being for outlying localities, where neither residence nor paddock is provided, and where the necessaries of life are high in price. In seasons of drought it sometimes becomes necessary to supplement the wages by a small forage allowance, which is withdrawn when the season improves. Three caretakers receive no wages.

The importance and utility of these works I think far exceeds the anticipations and limit of their earlier designers and constructors.

Years ago, as before mentioned, these works were initiated by the Survey Department by the excavation of small supply tanks. The enlightened policy of the various administrations in extending these at regular intervals upon the dry track of the Western and Central Divisions has been the means of saving the lives of many human beings and incalculable numbers of stock, and has been the means of bringing the outlying portion of the Colony in touch with the Metropolitan markets. Teams now travelling in almost any season, and wool is no longer left stored season after season for the want of transit. The work is far from ended. These works although only reproductive to a certain extent, still form a most valuable asset to the Colony, and an asset always increasing in value by reason of their growing usefulness.

I append a list of the caretakers employed, their position and wages, also a list of tenants and rental paid by them; also a return showing the cost of the tanks and wells from the commencement, constructed by the Department of Public Works, and the cost of each. The list is, I regret, incomplete as we have been unable, owing, I understand, to the pressure of other work, to get the return completed to the date on which the transfer of the construction was made to this Branch.

JAMES W. BOULTBEE,
Officer-in-charge, Water Conservation Branch.

LIST of Caretakers employed on 31st December, 1891.

Name.	Public Watering-place.	Post Town.	Wages.	Date of Appointment.
			£ s. d.	
Ash Wm.....	Carowra Tank	Mossgiel	0 8 0 per diem	22 April,1888.
Ashcroft J.	Ivanhoe Tank	Ivanhoe.....	0 8 0 „	22 Jan., 1888.
Allan F.	Penarie Tank	Balranald	0 8 0 „	9 Mar., 1889.
Alexander P.	*Kilberoo Tank.....	Bourke	0 7 6 „	1 Mar., 1891.
Bennett A.	Coolaman Tank	Coolaman	0 6 0 „	25 Mar., 1886.
Bridges H.	Booroondarra Tank.....	Cobar.....	0 7 0 „	1 Oct., 1891.
Briscoe H. H.	*The Rock Tank	The Rock	0 8 6 „	19 June, 1891.
Corbett P.	*Dolo Tank.....	Wilcannia.....	0 8 0 „	6 July, 1891.
Crichton C.	Nymagee Tank.....	Nymagee	0 7 6 „	22 July, 1885.
Carne T. W.	Thirty-five Mile Tank.....	Wilcannia.....	0 8 0 „	1 Mar., 1886.
Cameron M.	Thackaringa Tank	Thackaringa.....	0 9 0 „	27 Dec., 1887.
Converst A.....	Wicklow Tank.....	Condobolin	0 7 0 „	13 July, 1885.
Duff R. J.	Ford's Bridge Tank.....	Bourke	0 8 0 „	14 July, 1891.
Daly J. D.	Walla Walla Tank	Walla Walla.....	0 7 0 „	1 Oct., 1891.
Dunne E. N.	Mowabla Tank.....	Condobolin	0 7 0 „	9 Aug., 1885.
Doolity E.	Til Til Tank.....	Balranald	0 8 0 „	17 Jan., 1887.
Emslie Wm.	*Tibooburra Well and	Tibooburra	0 8 0 „	2 Feb., 1889.
Emslie T. W. (Assistant) ...	* „ Dam 2).....	do	1 0 0 per week	2 Feb., 1889.
Francis C.	*Peak Hill Tank	Peak Hill	0 7 0 per diem	28 Sept., 1891.
Ganly B.	Dry Lake Tank	Wilcannia	0 8 0 „	1 June, 1890.
Garvan D.	*Old Gunbar Tank	Gunbar.....	0 7 0 „	13 Dec., 1891.
Gilmore H. J.....	Sandy Creek Tank	Cobar.....	0 7 0 „	6 Oct., 1891.
Griffin M.	Amphitheatre Tank	do	0 7 0 „	4 June, 1891.
Greene G. A.	Twenty-six Mile Tank.....	Wilcannia	0 8 0 „	1 May, 1888.
Goodie I. H.	Tara Tank	Gorge, Broken Hill.....	0 8 0 „	24 Oct., 1889.

*New works.

Name.	Public Watering-place.	Post Town.	Wages.	Date of Appointment.
			£ s. d.	
Hewitt F. J.	Forty-eight Mile Tank	Wilcannia	0 7 6 per diem	15 July, 1891.
Hudson Chas.	Boonoona Tank	Ivanhoe	0 8 0 „	21 April, 1889.
Hook Thos.	Mannum Well	Coonabarabran	0 3 0 „	5 Mar., 1886.
Harlowe Thos.	*Native Dog Artesian Well	Bourke	0 7 6 „	9 Aug., 1891.
Hayward J.	Waterman's Tank	Whitton	0 7 0 „	21 Mar., 1889.
Hudson H. (Assistant)	Nymagee Water Supply Works	Nymagee	Nil	3 Sept., 1891.
Jewell H.	Boro Tank	Walgett	0 8 0 per diem	15 April, 1888.
Kelly M. W.	Goonery Artesian Well	Bourke	0 6 6 „	3 Nov., 1890.
Kevan E.	Bulla Bulla Tank	Cobar	0 7 6 „	1 Jan., 1891.
Kerr R. O.	Springfield Tank	do	0 7 0 „	3 June, 1891.
Keegan Geo.	Boona Tank	Condobolin	0 7 0 „	19 July, 1885.
Kellick F.	Normanstone Well	Gunnedah	0 8 0 „	28 May, 1890.
Kelly D.	Wagga Tank	Hillston	0 7 0 „	1 Feb., 1886.
Murphy John	Cuttygullyroo Tank	Cobar	0 7 0 „	20 July, 1885.
Mulvay P.	Cobar Stock Tank	do	0 6 6 „	30 Aug., 1890.
M'Kenzie K.	Eighteen-mile Tank	Eungonia	0 7 0 „	15 Mar., 1888.
Mahon John (Constable)	Tambar Springs	Tambar Springs	Nil	1 Nov., 1889.
Malarkey F.	Muriel Tank	Nyngan	0 7 6 per diem	1 July, 1891.
Mortimer W.	Merri Merriwa Tank	Hillston	0 7 0 „	8 July, 1885.
Murray John	Mossgiel Tank	Mossgiel	0 8 0 „	13 Feb., 1891.
Murphy J.	Yantabangee Tank	Paroo Road, Wilcannia	1 0 0 per week	1 Oct., 1890.
Mitchell H.	Mulga Tank	Byerock	0 7 0 per diem	1 July, 1891.
Norman G.	Polygonum Hut Well	Booligal	0 7 0 „	20 Oct., 1887.
Pollard T.	Jumping Sandhill Well	do	0 8 0 „	15 Feb., 1889.
Penrose S.	Warratta Tank	Milparinka	0 8 0 „	1 July, 1890.
Preston H.	Rock Holes Tank	Nyngan	0 7 0 „	8 July, 1885.
Perry F.	Rat Hole Tank	Silverton	0 10 0 „	1 April, 1889.
Redman W. W.	*Little Bumble Tank	Millie	0 7 0 „	16 Dec., 1891.
Roods Thos.	Big Plain Well	Warialda	0 8 0 „	25 Feb., 1891.
Richards S.	The Meadows Tank	Cobar	0 7 0 „	1 Sept., 1889.
Sheridan R. (Senior Constable. No salary, but allowed to obtain horse and harness at 10s. per diem when water is required.	Baradine Well	Baradine	Nil	1 Sept., 1891.
Smith W. H.	Bunghill Tank	Walgett	0 8 0 per diem	1 June, 1891.
Stirton Wm.	Mulya Tank	Cobar	0 7 0 „	28 Nov., 1891.
Scott W.	Beefwood Well	Wilcannia	0 8 0 „	14 Dec., 1890.
Shepherd J.	Lightning Ridge Tank	Walgett	0 8 0 „	1 May, 1884.
Smith Joshua	Claypan Tank	Wilcannia	0 8 0 „	1 June, 1890.
Spiller J.	Silverton Well	Silverton	0 9 0 „	19 Aug., 1888.
Smith H. B.	Helman's Tank	Bourke	0 8 0 „	6 Dec., 1890.
Satterthwaite T.	Shearlegs Tank	Cobar	0 7 0 „	19 May, 1890.
Trewella J.	Barnato Tank	do	0 7 0 „	6 Sept., 1889.
Turnbull J.	Beloura Tank	Nymagee	0 7 0 „	21 July, 1885.
Walshe P. J.	Harman's Tank	Merool Creek, Temora	0 8 0 „	15 Mar., 1889.
Woolley J.	Mombill Tank	Condobolin	0 7 0 „	1 April, 1888.
Ward J.	Glendon Tank	Walgett	0 8 0 „	10 Jan., 1887.
Welsh P.	Mount Manara Tank	Ivanhoe	0 7 0 „	9 Feb., 1891.
Young W. S.	Mount Hope Tank	Mount Hope	0 7 0 „	7 Sept., 1885.

* New works.

Watering-places, Lessees, and Rentals during the year 1891.

Watering-place.	Lessee.	Rental.	Remarks.
		£ s. d.	
Booroorban Tank	Samuel Porter	31 0 0	
Corilla Tank	D. W. F. Hatton	30 0 0	
Two Water-holes Tank	E. Charlton	20 0 0	Lease commenced 1st July, 1891.
The Lake Tank	N. Morrison	26 0 0	
Grass Hut Tank	Cobb & Co.	53 0 0	
Boggy Creek Tank	E. Tudor	100 0 0	
Twelve-mile Tank	G. Williamson	40 0 0	Lease commenced 1st July, 1891.
Galathera Tank	Wm. Wall	126 0 0	
Crow's Nest Well	Robertson and Wagner	20 0 0	
Tom's Lake Tank	M. Charters	20 0 0	
Murray Hut Well	Geo. Jones	20 0 0	
Goomboolara Tank	D. Brown	1 0 0	Lease commenced 1st July, 1891.
Warramurtie Tank	„	1 0 0	„ „
Berrigan Well	Peterson and Sargood	20 0 0	
One-tree Tank	Robertson and Wagner	76 0 0	
Quondong Tank	„ „	64 0 0	
Sixteen-mile Gums Tank	„ „	20 0 0	
Woolandool Well	„ „	32 0 0	
Ford's Bridge Tank	Cobb & Co.	80 0 0	Lease expired 30th June, 1891.
Leaknapper Tank	R. H. Fetherstonhaugh	100 0 0	
Roto Well	A. Smith	5 0 0	
North Roto Well	„	10 0 0	
Pretty Pine Well	F. Turin	30 0 0	
Wangonella Well	Robertson and Wagner	54 0 0	
Nullamut Tank	W. Eltringham	35 0 0	
Bullagreen Tank	H. J. M'Culloch	75 0 0	
Muriel Tank	Smith, Jones, and Finlayson	50 0 0	

Watering-place.	Lessee.	Rental.	Remarks
		£ s. d.	
Gilgai Tank	John Byrum	15 0 0	
Black Swamp Tank	Robertson and Wagner	30 0 0	
Forty-eight-mile Tank	M. Charters	50 0 0	Lease expired 31st May, 1891.
Dry Lake Well	Robertson and Wagner	22 0 0	
Hovell's Dam	Geo. Young	30 0 0	
Walla Walla Tank	Douglas Bros.	50 0 0	Lease expired 30th September, 1891.
Youhl Plain Tank	M. Guerin	25 0 0	
Booroondara Tank	J. Ramsay	50 0 0	" "
Kerrigundi Tank	"	50 0 0	" "
Pulletop Tank	D. M'Lean	40 0 0	
Thorndale Tank	J. Hall	32 0 0	
Girilambone Tank	H. Bell	20 0 0	
Nevertire Tank	G. Reynolds	22 0 0	
Colombo Dam	D. R. Bradford	50 0 0	
Booroomugga Tank	Harris Bros.	20 0 0	
Babinda Tank	G. Morris	40 0 0	
Lowesdale Tank	R. Edols	52 0 0	
Ulong Tank	E. Grepinet	40 0 0	
Tinderra Tank	S. A. Lintern	27 0 0	
Amphitheatre Tank	Geo. Knight	41 0 0	Lease cancelled 23rd May, 1891.
Brura Tank	T. A. D. Matthews	20 0 0	
Derribong Tank	J. E. Edmonds	40 0 0	
Daysdale Tank	Wm. Wilson	55 0 0	
Hermitage Tank	E. H. Smith	50 0 0	
Holy Box Well	M. Charters	72 0 0	
Jindera Tank	F. Krautz	25 0 0	
Keighrans Tank	G. Perry	30 0 0	
Priory Tank	T. Efford	25 0 0	
The Peak Tank	Peter Riley	52 0 0	
Mount Elliot Tank	F. Blann	26 0 0	
Mulga Tank	J. R. Barrett	52 0 0	Lease ncelled 30th June, 1891.
Baradine Well	R. Head	25 0 0	
Curraweena Tank	H. Boran	20 0 0	
Day Dream Tank	P. Thornton	20 0 0	
Mena Murtie Well	Binnie Bros	5 0 0	
Carson's Swamp Tank	W. L. Lumby	6 0 0	
Box Creek Tank	Robertson and Wagner	30 0 0	
Gunnaramby Tank	" "	30 0 0	
Tinda Tank	John Bell	20 0 0	
Junee Dam	T. S. Egan	75 0 0	
Tarella Tank	Cobb & Co.	10 0 0	
Bendermere Tank	Lindsay Bros.	50 0 0	
Tomingly Tank	J. Lynch	35 0 0	
Murlippa Tank	Cobb & Co.	10 0 0	
Illabo Dam	H. Truelove	26 0 0	
Tinchelooka Artesian Well	E. Mandelson	78 0 0	
Myall Plains Dam	J. O'Brien	41 10 0	
Hurley's Dam	P. Heffermann	26 0 0	
Wallace Town Dam	A. M'Kenzie	50 0 0	
Purnamoota Tank	J. B. Davidson	52 0 0	
Horselake Tank	H. B. Hughes	10 1 0	Lease commenced 1st October, 1891.
Dolmoreve Well	Robertson and Wagner	20 0 0	
Clare Tank	" "	20 0 0	
Old Gunbar Well	" "	10 0 0	Lease expired 2nd September, 1891.
Paka Tank	Wm. Doyle	30 0 0	Lease commenced 1st July, 1891.
Brocklesby Tank	W. H. Easterby	31 0 0	Lease commenced 1st October, 1891.
	Total	3,022 11 0	

Total aggregate rental £3,022 11 0
Number of Public Watering-places leased 83
Average rental 36 8 4

RETURN showing cost of Tanks, Wells and Dams, and Machinery for working same, constructed by Public Works Department.

Road.	Watering place.	Earthwork, Shoot, Fencing, &c.	S. tanks, Troughing, Machinery.	Total.
		£ s. d.	£ s. d.	£ s. d.
Deniliquin to Hay	Pretty Pine well Wangonilla well	.....	.....	1,672 0 5
	Pine Ridge tank	2,155 9 1	515 7 4	2,670 16 5
	Black Swamp tank	1,420 10 8	414 1 4	1,834 12 0
	16-Mile Gums tank	1,186 7 8	571 1 4	1,757 9 0
Tocumwall to Jerilderie	Murray Hut well Berrigan well	.....	.....	2,225 15 3
Hay to Booligal	Woolloondool well	.....	.....	1 756 5 7
	One Tree tank	2,398 14 10	743 2 4	3 144 17 2
	Quandong tank	1,742 11 2	639 1 1	2,381 12 3

Road.	Watering-place.	Earthwork, Shoot, Fencing, &c.	S. tanks, Troughing, Machinery.	Tanks.
		£ s. d.	£ s. d.	£ s. d.
Booligal to Wilcannia	Tom's Lake tank	2,149 6 1	614 1 8	2,763 7 9
	Jumping Sandhill well	.....	.....	1,124 12 1
	Polygonum Hut well	613 5 3	597 16 7	1,211 1 10
	Mossgiel tank	1,764 13 7	776 0 10	2,540 14 5
	Holy Box well	.....	.....	1,064 9 9
	Ivanhoe tank	2,011 15 11	699 7 0	2,711 3 5
	Boonoona tank	.....	587 4 2	.....
	Ward's tank	1,413 11 9	637 0 9	2,050 12 6
	12-mile tank	.....	.....	3,333 4 3
	26-mile tank	1,387 17 10	469 5 11	1,857 3 9
	35-mile tank	2,931 3 10	667 6 0	3,598 9 10
	48-mile tank	2,590 9 1	435 4 2	3,025 13 3
Mossgiel to Paddington	Carowra Swamp tank	1,926 19 3	568 15 5	2,495 14 8
Balranald to Ivanhoe	Penarie tank	.....	.....	1,066 19 9
	Box Creek tank	1,866 19 2	623 16 4	2,490 15 6
	Youhl Plains tank	2,253 8 7	516 16 3	2,770 4 10
	Til Til tank	2,164 16 3	593 7 4	2,758 3 7
	Dolmoreve well	1,219 9 10	.....	1,219 9 10
	Clare tank	2,019 4 10	630 9 6	2,649 14 4
	Gunnaramby tank	1,818 14 0	578 11 0	2,395 5 0
	Willandra well	.....	.....	1,087 5 8
Carathool to Hillston	Dry Lake well	.....	.....	794 4 0
	Gunbar well	.....	.....	1,555 1 11
	Crow's Nest	.....	.....	1,130 7 2
Whitton to Euabalong	Ulong tank	1,440 14 4	504 11 0	1,945 5 4
	Mount Elliott tank	1,185 5 3	515 17 2	1,701 2 5
	Pulletop tank	1,511 1 6	557 6 10	2,068 8 4
	Waterman's tank	.....	.....	40 16 4
Narrandera to Grenfell	Harman's tank	.....	.....	360 0 0
Hillston to Cobar	Roto well	.....	.....	1,181 4 0
	North Roto well	.....	.....	1,266 16 3
	Merri Merriwa tank	2,530 12 6	723 17 11	3,254 10 5
	Wagga tank	2,602 11 6	587 18 9	3,189 10 3
	Rock Holes tank	2,585 5 0	382 3 8	2,947 8 8
	Sandy Creek Tank	2,240 16 6	565 9 3	2,806 5 9
	Priory tank	2,252 13 7	476 14 9	2,729 8 4
	Shearlegs tank	2,538 16 5	407 9 8	2,946 6 1
	Brura tank	2,281 16 6	552 14 9	2,834 11 3
Condobolin to Cobar	Mowabla tank	2,061 6 11	550 19 3	2,612 6 2
	Boona tank	2,285 9 4	574 14 8	2,860 4 0
	Tinda tank	2,456 5 9	600 0 11	3,056 6 8
	Mombil tank	1,960 5 0	598 7 0	2,558 12 0
	Wicklow tank	2,221 11 8	527 2 6	2,748 14 2
	Beloura tank	2,290 0 9	539 2 1	2,829 2 10
	Nymagee tank	2,418 6 8	522 5 7	2,940 12 3
	Keighran's tank	2,498 0 0	567 15 2	3,065 15 2
Nyngan to Cobar	Hermitage tank	3,038 1 7	660 14 11	3,698 16 6
	Muriel tank	1,456 13 2	505 14 2	1,962 7 4
	Booroomugga tank	979 4 3	481 12 0	1,460 16 3
Nyngan to Nymagee	Thorndale tank	2,051 15 7	484 8 0	2,536 4 7
	Gilgai tank	1,514 19 6	495 19 4	2,010 18 10
	Babinda tank	2,309 14 1	537 9 1	2,847 3 2
Cobar to Wilcannia	Amphitheatre tank	1,674 1 3	512 11 11	2,186 13 2
	Meadows tank	.....	.....	958 11 7
	Springfield tank	.....	.....	1,206 3 4
	Barnato tank	.....	.....	786 12 11
Cobar to Louth	Cuttygullyaroo tank	1,200 9 11	598 3 3	1,798 13 2
	Booroondarra tank	2,233 19 5	569 16 0	2,803 15 5
	Kerrigundi tank	2,202 15 0	725 8 7	2,928 3 7
	Mulya tank	1,222 0 3	584 10 0	1,806 10 3
Cobar to Bourke	Cobar (stock) tank	880 5 5	.....	880 5 5
	Cobar (town) 2nd tank	8,743 16 3	.....	8,743 16 3
	Nullimut tank	966 11 0	461 1 9	1,427 12 9
	Tindarie tank	977 8 8	472 4 3	1,449 12 11
	Hellman's tank	1,620 15 10	550 2 9	2,170 18 7
	Curraweena tank	1,118 14 1	463 0 8	1,581 14 9
	Corilla tank	1,303 12 0	520 12 4	1,824 4 4
	Two Waterholes tank	1,075 4 6	651 15 11	1,727 0 5
Bourke to Enngonia	The Lake tank	2,129 15 5	437 17 4	2,567 12 9
	Clay Pan Hollow tank	2,033 16 3	470 17 1	2,554 13 4
Enngonia to Brewarrina	18-mile tank	1,599 13 9	582 13 2	2,182 6 11
	Lednapper tank	2,127 16 7	576 18 3	2,704 14 10
Bourke to Hungerford	Ford's Bridge tank	2,662 14 4	580 7 10	3,243 2 2
	Yantabella tank	.....	.....	756 10 10
Bourke to Wanaaring	18-Mile tank	.....	.....	.....
	Kulkine tank	Purchased for	.....	850 0 0
Byrock to Brewarrina	Mulga No. 5 tank	1,586 15 1	488 12 9	2,375 7 10
	Nellie's Paddock tank	1,545 19 0	551 6 10	2,097 5 10
Trangie to Dandoloo	Derribong	2,212 11 6	442 1 2	2,654 12 8
Nevertire to Coonamble	Nevertire	1,872 15 10	510 12 5	2,383 8 3
	Bullagreen	1,281 14 2	813 7 10	2,095 2 0
Dubbo District	Girilambone	1,646 7 7	879 18 9	2,526 6 4
	Tomilgley	.....	.....	837 11 0
Wilcannia to Hungerford	Seaville's	1,151 17 4	.....	1,151 17 4
	Copago	1,741 11 9	.....	1,741 11 9
	Peri Springs	1,549 7 6	.....	1,549 7 6
	Yentabangee	.....	.....	.....
	Warramurtee	1,536 8 0	.....	1,536 8 0
	Goomboolara	.....	.....	1,407 8

Road.	Watering-place.	Earthwork, Shoot, Fencing, &c.	S. tanks, Troughing, Machinery.	Total.
		£ s. d.	£ s. d.	£ s. d.
Wilcannia to Tibbooburra	Mulga Valley well			920 7 9
	Dry Lake tank			1,004 17 11
	Beefwood well			1,230 8 4
	Menamurtie well			967 3 1
	Tarella tank	1,101 13 4	378 9 10	1,480 3 2
	The Peak tank	1,635 11 10	377 7 9	2,012 19 7
	Murlippa tank	1,865 10 11	344 5 4	2,209 16 3
	Cobham tank	1,251 8 6		1,251 8 6
	Milparinka well	1,185 9 11	341 8 9	1,526 18 8
	Warratta tank	1,587 17 8	414 12 6	2,002 10 2
	Tibbooburra well			1,238 17 6
Silverton District	Silverton tank			5,749 2 1
	Silverton well			
	Rathole tank		510 7 5	
	Thackaringa tank	1,656 5 10	403 5 9	2,059 11 7
	Purnamoota tank	1,968 1 7	413 19 3	2,382 0 10
	Wilson's dam	1,533 19 9	387 15 6	1,921 15 3
	Broken Hill tanks			1,181 3 4
Walgett to Bangate	Boro Waterholes tank			2,379 18 6
	Lightning Range tank			2,729 7 10
	Narran tank	1,912 11 0	397 2 4	2,309 13 4
Barwon to Narran	Cumborah tank			2,518 3 1
Narrabri to Moree	Galathera tank	1,665 15 5	481 8 0	2,147 3 5
	Boggy Creek tank	2,058 9 0	570 17 7	2,629 6 7
Gunnedah to Coonabarabran	Normanstone well			1,090 15 3
	Baloola well			1,024 0 6
	Mannum well			828 8 6
Coonabarabran to Pilliga	Baradine well			1,001 16 1
Albury District	Jindera tank	1,023 2 0	379 18 4	1,403 0 4
	Walla Walla tank	1,336 2 3	239 7 10	1,575 10 1
	Carson's Swamp tank	819 11 6		819 11 6
	Brocklesby tank	948 0 0	528 12 4	1,476 12 4
	Lowesdale tank	1,215 15 9	471 16 11	1,687 12 8
	Daysdale tank	1,305 12 1	271 18 6	1,577 10 7
	Wallacetown dam	609 15 0		609 15 0
	Junee dam			
	Hurley's dam	511 4 6		511 4 6
	Major's waterhole	1,219 15 2		1,219 15 2
Wagga District	Coolaman tank	1,533 1 8	314 19 0	1,848 0 8
Warialda to Inverell	Whiteoaks well			620 1 11
Mount Hope	Mount Hope tank	1,845 2 0	486 4 4	2,331 6 4
Parkes to Bogan	Brolgan tank	1,283 2 10	567 5 9	1,850 8 7
Bourke to Wanaaring	Goonery well			450 8 7
Wilcannia to Tibbooburra	J. K. Watehole well	1,095 6 0	390 0 0	1,485 6 0
	Coally dam	546 1 0		546 1 0

Public Watering-places.

Return showing Wages paid and Revenue received for the Year 1886.

Name of Watering-place.	Wages paid to Caretakers in 1886.	Revenue received.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees.	Total Receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Amphitheatre Tank	111 17 6	11 18 9		11 18 9	
Babinda Tank	127 15 0	30 6 10		30 6 10	
Baradine Well	54 15 0	9 5 0		9 5 0	
Beloura Tank	127 15 0	3 16 2		3 16 2	
Berrigan Well			20 0 0	20 0 0	
Black Swamp Tank	49 1 6	84 14 10	16 13 4	101 8 2	Leased 1/9/86, £50 per ann.
Boggy Creek Tank			78 0 0	78 0 0	
Boona Tank	127 15 0	14 11 0		14 11 0	
Boonoona Tank	231 3 0	60 13 6		60 13 6	
Booroomugga	118 12 6	39 15 1		39 15 1	
Booroondara Tank	70 14 0	29 19 6	16 5 0	46 4 6	Leased 4/9/86, £50 per ann.
Booroorban Tank			85 0 0	85 0 0	
Boro Tank	109 10 0	9 10 4		9 10 4	
Box Creek Tank	132 0 0	24 0 2		24 0 2	
Brocklesby Tank	130 8 0	0 0 6		0 0 6	
Brolgan Creek Tank	86 9 0	1 4 0		1 4 0	
Brura Creek Tank	127 15 0	90 6 7		90 6 7	
Bullagreen Tank	28 2 6	0 6 0		0 6 0	
Bunghill Tank	118 12 6	1 10 8		1 10 8	
Carson's Swamp Tank	70 0 0				
Clare Tank	153 0 0	5 0 4		5 0 4	
Claypan (Grass Hut) Tank			53 0 0	53 0 0	
Cobar Stock Tank	118 12 6	133 7 9		133 7 9	
Colombo Dam	135 1 0	5 0 5		5 0 5	
Coolaman Tank	84 6 0	0 6 2		0 6 2	
Corilla Tank			40 0 0	40 0 0	
Corowra Swamp Tank	185 12 0	9 3 0		9 3 0	
Crow's Nest Well	9 10 0		40 0 0	40 0 0	Leased 1/12/85, £40 per ann.
Curraweena Tank	146 0 0	54 7 0		54 7 0	

Name of Watering-place.	Wages paid to Caretakers in 1886.	Revenue received.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees.	Total receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Cuttygullyaroo Tank	127 15 0	62 11 9	.....	62 11 9	
Daysdale Tank	116 18 0	1 5 8	.....	1 5 8	
Dolmoreve Well	76 10 0	4 6 6	.....	4 6 6	
Dry Lake Well	103 12 0	26 6 10	11 13 4	38 0 2	Leased 1/9/86, £35 per ann.
Eighteen-mile Tank	.....	.....	36 8 7	36 8 7	,, 1/9/86, £52 ,,
Ford's Bridge Tank	17 14 0	.....	56 15 6	56 15 6	,, 15/3/86, £80 ,,
Forty-eight-mile Tank	110 17 0	30 9 11	4 3 4	34 13 3	,, 1/12/86, £50 ,,
Galathera Tank	.....	.....	126 0 0	126 0 0	
Gilgaii Tank	91 14 0	50 9 9	35 0 0	85 9 9	,, 1/6/86, £60 ,,
Girilambone Tank	78 10 0	0 7 8	.....	0 7 8	
Goonery Artesian Well	.....	.....	60 0 0	60 0 0	
Gunnaramby Tank	71 18 0	0 4 4	.....	0 4 4	
Helman's Tank	128 8 0	95 14 8	.....	95 14 8	
Hermitage Tank	139 5 0	87 9 8	.....	87 9 8	
Holy Box Well	170 6 0	39 8 0	.....	39 8 0	
Hovell's Dam	75 8 0	11 5 9	7 10 0	18 15 9	Leased 1/10/86, £30 per ann.
Hulong Tank	59 3 0	10 9 5	.....	10 9 5	
Ivanhoe Tank	29 12 0	9 19 4	.....	9 19 4	
Jindera Tank	130 8 0	5 2 10	.....	5 2 10	
Jumping Sand Hill Well	101 0 4	41 1 8	.....	41 1 8	
Junee Dam	104 18 9	.....	.....	.....	Stock water gratis.
Keighran's Tank	71 8 0	11 7 0	.....	11 7 0	
Kerrigundi Tank	70 0 0	27 1 6	16 7 10	43 9 4	Leased 3/9/86, £50 per ann.
Ledknapper Tank	.....	.....	78 1 4	78 1 4	,, £110 ,,
Lightning Range Tank	118 12 6	16 1 8	.....	16 1 8	
Mannum Well	45 3 0	4 1 0	.....	4 1 0	
Merri Merriwa Tank	127 15 0	8 16 7	.....	8 16 7	
Mombil Tank	127 15 0	18 15 10	.....	18 15 10	
Mossgiel Tank	174 3 6	67 11 2	.....	67 11 2	
Mena Murtee Well	12 8 0	.....	.....	.....	
Mount Elliot Tank	64 8 0	7 7 10	.....	7 7 10	
Mount Hope Tank	127 15 0	7 11 4	.....	7 11 4	
Mount Manara Tank	129 2 7	25 4 1	.....	25 4 1	
Mowabla Tank	127 15 0	12 19 3	.....	12 19 3	
Muriel Tank	61 4 0	82 6 2	32 1 8	114 7 10	Leased 1/6/86, £55 per ann.
Murray Hut Well	.....	.....	20 0 0	20 0 0	
North Roto Well	110 10 0	4 6 5	14 0 0	18 6 5	,, 1/5/86, £21 ,,
Nullamut Tank	54 6 0	72 19 8	30 12 6	103 12 2	,, 1/6/86, £52 10s. ,,
Nymagee Tank	127 15 0	2 17 0	.....	2 17 0	
Old Gunbar Well	146 0 0	.....	.....	.....	Water bad.
One Tree Tank	223 12 0	87 10 0	.....	87 10 0	
Polygonum Hut Well	130 14 0	40 18 8	.....	40 18 8	
Pretty Pine Well	135 0 0	15 8 7	23 6 8	38 15 3	Leased 1/6/86, £40 per ann.
Priory Tank	93 16 0	33 12 9	.....	33 12 9	
Pulletop Tank	85 15 0	13 3 8	15 0 0	28 3 8	,, 1/10/86, £60 ,,
Purnamoota Tank	55 4 0	.....	.....	.....	
Quondong Tank	38 14 10	60 19 0	.....	60 19 0	
Rat Hole Tank	76 16 0	50 10 1	.....	50 10 1	
Rock Holes Tank	127 15 0	29 0 0	.....	29 0 0	
Roto Well	126 10 0	0 0 4	15 6 8	15 7 0	Leased 1/5/86, £23 per ann.
Sandy Creek Tank	127 15 0	20 13 9	.....	20 13 9	
Shearlegs Tank	.....	.....	50 0 0	50 0 0	
Silverton Tank	93 12 0	.....	.....	.....	
Silverton Well	120 0 0	2 16 9	.....	2 16 9	
Sixteen-mile Gums Tank	146 0 0	73 15 0	.....	73 15 0	
Tambar Springs	6 0 0	.....	.....	.....	No charge made for water.
Thackaringa Tank	4 0 0	.....	.....	.....	Lately taken over.
The Lake Tank	.....	.....	50 0 0	50 0 0	
Thirty-five mile Tank	131 5 0	52 2 4	.....	52 2 4	
Thorndale Tank	127 15 0	78 0 3	.....	78 0 3	
Till Till Tank	109 10 0	4 13 8	.....	4 13 8	
Tinda Tank	122 17 0	3 1 2	.....	3 1 2	
Tindarie Tank	125 15 0	55 8 2	.....	55 8 2	
Tom's Lake Tank	.....	.....	51 0 0	51 0 0	
Twelve-mile Tank	.....	.....	57 0 0	57 0 0	
Two Waterholes Tank	.....	.....	52 0 0	52 0 0	
Wagga Tank	127 15 0	4 15 0	.....	4 15 0	
Walla Walla Tank	106 0 0	2 1 4	12 10 1	14 11 4	Leased 1/10/86, £50 per ann.
Wangonella Well	89 0 0	1 0 6	.....	1 0 6	
Wicklow Tank	127 15 0	0 15 4	.....	0 15 4	
Woolloondool Well	94 7 6	66 1 11	18 6 8	84 8 7	,, 1/9/86, £55 ,,
Yantabangee Tank	.....	.....	30 0 0	30 0 0	
Youhl Plain Tank	79 16 0	16 4 1	13 6 8	29 10 9	,, 1/9/86, £40 ,,
Totals	8,922 4 0	2,177 16 2	1,265 9 1	3,443 5 3	

Summary.

Total wages paid	£8,922 4 0
Total Revenue	3,443 5 3
Number of tanks under lease in 1886	36
Total rental per annum	1,777 10 0
Average rental per annum	49 7 2

9 June, 1887.

J. S. RAMSAY.

Public Watering-places.

Return showing Wages and Revenue received for the year 1887.

Name of Watering place.	Wages to caretakers in 1887	Revenue received.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees.	Total receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Amphitheatre Tank	147 7 6	6 8 1		6 8 1	
Babinda Tank	127 15 0	9 10 10		9 10 10	
Baradine Well	54 15 0				
Beloura Tank	127 15 0	1 2 4		1 2 4	
Berrigan Well			20 0 0	20 0 0	
Black Swamp Tank			50 2 6	50 2 6	Lease cancelled 16 1/83.
Boggy Creek Tank			78 0 0	78 0 0	
Boona Tank	127 15 0	0 16 4		0 16 4	
Boonoona Tank	146 0 0	62 2 4		62 2 4	
Booroomugga Tank	146 0 0	14 15 1		14 15 1	
Booroondarra Tank			50 5 6	50 5 6	
Booroorban Tank			85 0 0	85 0 0	
Boro Tank	123 3 0	13 2 11		13 2 11	
Box Creek Tank	146 0 0	2 9 2		2 9 2	
Brocklesby Tank	146 0 0	4 9 11		4 9 11	
Brolgan Creek Tank	118 12 6	2 4 10		2 4 10	
Brura Tank	127 15 0	49 11 6		49 11 6	
Bulagreen Tank	137 17 6	1 18 6		1 18 6	
Bunghill Tank	118 12 6	2 17 8		2 17 8	
Carson's Swamp Tank	127 15 0	0 9 2		0 9 2	
Clare Tank	146 0 0	2 13 10		2 13 10	
Cobar Stock Tank	118 12 6	59 8 10		59 8 10	
Colombo Dam	118 12 6	0 7 0	4 3 4	4 10 4	Leased 1/12/87, £50 per ann.
Coolaman Tank	109 10 0	1 6 1		1 6 1	
Corilla Tank			40 8 5	40 8 5	
Carowra Swamp Tank	158 0 0	13 19 9		13 19 9	
Crow's Nest Well			40 0 0	40 0 0	
Curraweena Tank	145 0 0	11 12 1		11 12 1	
Cuttygullyaroo Tank	127 15 0	8 8 0		8 8 0	
Day Dream Tank	176 12 0	9 10 5		9 10 5	
Dawsdale Tank	127 15 0	7 2 0		7 2 0	
Derribong Tank	73 4 0	0 4 0		0 4 0	
Dolmoreve Well	157 4 0	0 2 8		0 2 8	
Dry Lake Well			35 1 3	35 1 3	
Eighteen-mile Tank			52 0 0	52 0 0	
Ford's Bridge Tank			80 8 8	80 8 8	
Forty-eight-mile Tank			50 1 10	50 1 10	
Galathera Tank			126 0 0	126 0 0	
Gilgan Tank			57 10 0	57 10 0	
Girilambone Tank	90 13 6		3 6 8	3 6 8	Leased 1/9/87 £10 per ann.
Glendon Tank	146 0 0	1 7 4		1 7 4	
Goonery Artesian Well			60 0 0	60 0 0	
Grass Hut Tank			53 9 10	53 9 10	
Gunaramby Tank	146 0 0	5 18 7		5 18 7	
Helman's Tank	146 0 0	49 10 11		49 10 11	
Hermitage Tank	146 0 0				
Holy Box Well	146 0 0	20 17 2		20 17 2	
Hovell's Dam			30 0 0	30 0 0	
Ivanhoe Tank	146 0 0	4 12 0		4 12 0	
Jindera Tank	146 0 0	5 17 2		5 17 2	
Jumping Sandhill Well	144 8 0	34 18 4		34 18 4	
Juree Dam	113 0 9				Stock water gratis.
Keighran's Tank	127 15 0	12 1 6		12 1 6	
Kerrigundi Tank			50 5 6	50 5 6	
Ledknappa Tank			110 0 0	110 0 0	
Lightning Ridge Tank	118 12 6	5 17 11		5 17 11	
Lowesdale Tank	127 15 0				
Mannum Well	54 15 0	1 1 4		1 1 4	
Menamurtie Well	146 0 0				
Merri Merriwa Tank	127 15 0	2 13 4		2 13 4	
Mossgiel Tank	146 0 0	16 1 0		16 1 0	
Mount Manara Tank	127 15 0	118 3 11		118 3 11	
Mount Hope Tank	127 15 0	0 5 4		0 5 4	
Mulya Tank	6 6 0	1 4 10		1 4 10	
Muriel Tank			55 0 0	55 0 0	
Mount Elliot Tank	127 15 0	10 17 7		10 17 7	
Mowambla Tank	127 15 0	1 12 8		1 12 8	
Mombil Tank	127 15 0	1 0 4		1 0 4	
Murray Hut Well			20 5 0	20 5 0	
North Roto Well			21 2 8	21 2 8	
Nullamut Tank			52 15 4	52 15 4	
Nevertire Tank	10 1 6		10 0 0	10 0 0	Leased 1/11/87, £30 per ann.
Nymagee Tank	127 15 0	16 15 11		16 15 11	
One Tree Tank	146 0 0	0 6 4		0 6 4	
Old Gundar Well	146 0 0				
Pretty Pine Well			40 12 9	40 12 9	
Polygonum Hut Well	110 0 0	1 13 10		1 13 10	
Priory Tank	127 15 0	12 0 9		12 0 9	
Purnamoota Tank	176 12 0	7 0 7		7 0 7	
Pulletop Tank	21 7 0	0 1 4	50 0 0	50 1 4	Lease cancelled 31/10/87.
Quandong Tank	144 8 0	14 17 2		14 17 2	
Roto Well			23 3 0	23 3 0	
Rock Holes Tank	127 15 0	8 17 4		8 17 4	
Rat Hole Tank	186 13 0	214 14 7		214 14 7	
Sixteen-mile Gums Tank	146 0 0	2 1 8		2 1 8	

Name of Watering-place.	Wages to caretakers in 1887.	Revenue received. Fees collected by Caretakers.	Rent received from Lessees.	Total Receipts.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Sandy Creek Tank	127 15 0	22 10 9	.....	22 10 9	
Shearleg's Tank	.....	.....	50 0 0	50 0 0	
Silverton Well	176 12 0	87 19 9½	.....	87 19 9½	
Tom's Lake Tank	.....	.....	51 1 10	51 1 10	
Til Til Tank	146 13 8	5 17 1	.....	5 17 1	
Tindarie Tank	127 15 0	33 0 8	.....	33 0 8	
Two Waterholes Tank	.....	.....	52 0 0	52 0 0	
Thackaringa Tank	176 7 0	48 14 11	.....	48 14 11	
Tambar Springs	6 0 0	.....	.....	.....	No charge made for water.
The Lake Tank	.....	.....	50 15 0	50 15 0	
Thorndale Tank	35 0 0	6 8 8	37 10 0	43 18 8	Leased 1/4/87, £50 per ann.
Tinda Tank	127 15 0	1 18 6	.....	1 18 6	
Twelve-mile Tank	.....	.....	57 2 1	57 2 1	
Thirty-five-mile Tank	146 0 0	47 10 1	.....	47 10 1	
Ulong Tank	127 15 0	23 9 0	.....	23 9 0	
Walla Walla Tank	.....	.....	50 3 11	50 3 11	
Wangonilla Well	149 8 6	4 16 4	.....	4 16 4	
Wooloondool Well	.....	.....	55 0 0	55 0 0	
Wagga Wagga Tank	127 15 0	7 9 9	.....	7 9 9	
Wicklow Tank	127 15 0	0 2 0	.....	0 2 0	
Youhl Plain Tank	.....	.....	40 0 0	40 0 0	
Yantabangee Tank	.....	.....	30 0 0	30 0 0	
Totals	£9,319 1 5	£1,149 1 7½	£1,822 15 1	£2,971 16 8½	

Summary.

*Total wages paid	£9,319 1 5
Total revenue	2,971 16 8½
Number of tanks under lease in 1887	38
Total rental per annum	£1,863 0 0
Average rental per annum	49 0 6

23rd June, 1888.

S. A. MYRING.

*The increase of wages in 1887 is due to five additional tanks taken over during that year.

Public Watering-places.

Return showing Wages paid and Revenue received from 1st January to 31st December, 1888.

Name of Watering-place.	Wages paid to Caretakers, 1st Jan. to 31st Dec., 1888.	Revenue. Fees collected by caretakers.	Rent received from Lessees.	Total Receipts.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Amphitheatre Tank	114 7 6	14 10 1	6 16 8	21 6 9	Leased 1/11/88, £41 per ann.
Babinda Tank	79 9 0	28 19 4	26 13 4	55 12 8	Leased 1/5/88, £40 per ann.
Baradine Well	51 6 0	2 14 7	2 1 8	4 16 3	Leased 1/12/88, £25 per ann.
Beloura Tank	128 2 0	59 9 8½	.....	59 9 8½	
Berrigan Well	.....	.....	20 0 0	20 0 0	
Black Swamp Tank	140 0 0	2 13 4	2 4 3	4 17 7	Lease cancelled, 16/1/88.
Boggy Creek Tank	.....	.....	78 0 0	78 0 0	
Boona Tank	128 2 0	13 14 6	.....	13 14 6	
Boonoona Tank	150 8 0	43 8 9	.....	43 8 9	
Booroomugga Tank	85 4 0	25 10 11	26 13 4	52 4 3	Leased 1/5/88, £40 per ann.
Booroondarra Tank	.....	.....	50 0 0	50 0 0	
Booroorban Tank	.....	.....	85 0 0	85 0 0	
Boro Tank	118 19 0	90 14 4	.....	90 14 4	
Box Creek Tank	146 8 0	140 13 5	.....	140 13 5	
Brocklesby Tank	146 8 0	30 3 8	.....	30 3 8	
Brolgan Creek Tank	118 19 6	33 17 2	.....	33 17 2	
Brura Tank	128 2 0	107 15 11	.....	107 15 11	Leased 1/11/88, £50 per ann.
Bullagreen Tank	116 12 6	38 8 10½	7 10 0	45 18 10½	Leased 1/11/88, £45 per ann.
Bunghill Tank	118 19 0	49 16 8	.....	49 16 8	
Carson's Swamp Tank	128 2 0	3 3 2	.....	3 3 2	
Clare Tank	146 8 0	15 13 11	.....	15 13 11	
Cobar Stock Tank	118 19 0	97 6 6	.....	97 6 6	
Colombo Dam	.....	.....	50 0 0	50 0 0	
Coolamon Tank	109 16 0	71 12 7	.....	71 12 7	
Corilla Tank	.....	.....	40 0 0	40 0 0	
Corowa Tank	146 8 0	36 14 0	.....	36 14 0	
Crow's Nest Well	.....	.....	40 0 0	40 0 0	
Curraweena Tank	146 8 0	36 9 1	1 8 0	37 17 1	Leased 1/12/88, £20 per ann.
Cuttygullyaroo Tank	128 2 0	68 4 3	.....	68 4 3	
Day Dream Tank	178 4 0	201 19 9	.....	201 19 9	
Daysdale Tank	106 15 0	3 4 2	9 3 4	12 7 6	Leased 1/11/88, £55 per ann.
Derribong Tank	122 0 0	46 1 11	6 13 4	52 15 3	Leased 1/11/88, £40 per ann.
Dolmoreve Well	146 8 0	7 17 6	.....	7 17 6	
Dry Lake Well	.....	.....	35 0 0	35 0 0	
Eighteen-mile Tank	101 17 0	239 15 5	10 11 0	250 6 5	Leased up to 14/3/88.
Ford's Bridge Tank	.....	.....	80 0 0	80 0 0	
Forty-eight Mile Tank	.....	.....	50 0 0	50 0 0	
Galathera Tank	.....	.....	126 0 0	126 0 0	
Gilgaii Tank	.....	.....	30 0 0	30 0 0	
Girilambone Tank	.....	.....	10 11 4	10 11 4	Leased 1/12/88, £20 per ann.
Glendon Tank	146 8 0	27 11 8	.....	27 11 8	
Grass Hut Tank	.....	.....	53 0 0	53 0 0	
Gunaramby Tank	146 8 0	8 13 0	.....	8 13 0	

Name of Watering-place.	Wages paid to Caretakers, 1st Jan to 31st Dec, 1888.	Revenue.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees	Total Receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Goonery Artesian Well			60 0 0	60 0 0	
Helman's Tank	146 8 0	35 12 6		35 12 6	Leased 1/12/88, £32 per ann.
Hermitage Tank	122 0 0	111 13 5	8 6 8	120 0 1	Leased 1/11/88, £50 per ann.
Holy Box Well	122 0 0	72 13 11	12 0 0	84 13 11	Leased 1/11/88, £72 per ann.
Hovell's Dam			30 0 0	30 0 0	
Ivanhoe Tank	146 8 0	68 15 1		68 15 1	
Jindera Tank	122 0 0	3 9 7	4 3 4	7 12 11	Leased 1/11/88, £25 per ann.
Jumping Sandhill Well	146 8 0	80 8 9		80 8 9	
Junee Dam	146 8 0				Stock water gratis.
Keighran's Tank	115 3 0	42 2 4	5 0 0	47 2 4	Leased 1/11/88, £30 per ann.
Kerrigundi Tank			50 0 0	50 0 0	
Ledknappa Tank			110 0 0	110 0 0	
Lightning Ridge Tank	118 19 0	87 2 1		87 2 1	
Limestone Quarry Well	18 8 0	22 12 7		22 12 7	Taken over 15/11/88.
Lowesdale Tank	67 11 0	8 12 6	34 13 4	43 5 10	Leased 1/5/88, £52 per ann.
Mannum Well	54 18 0	0 6 0		0 6 0	
Menamurtie Well	146 8 0	0 2 6		0 2 6	
Merri Merriwa Tank	128 2 0	34 2 3		34 2 3	
Mossgiel Tank	146 8 0	90 3 11		90 3 11	
Mount Manara Tank	128 2 0	70 10 7		70 10 7	
Mount Hope Tank	128 2 0	125 11 7		125 11 7	
Mulga Tank	128 2 0	62 18 5		62 18 5	
Muriel Tank			55 0 0	55 0 0	
Mount Elliott Tank	106 15 0	49 6 10	4 6 8	53 13 6	Leased 1/11/88, £26 per ann.
Mowabla Tank	128 2 0	56 9 4		56 9 4	
Mombil Tank	128 2 0	73 0 4		73 0 4	
Murray Hut Well			20 0 0	20 0 0	
Milparinka Well	78 8 0	115 2 1		115 2 1	Taken over, 18/6/88.
Murlippa Tank	73 12 0	43 6 6		43 6 6	Tank taken over, 1/7/88.
Mulga Tank	42 14 0	1 19 7		1 19 7	Tank taken over, 31/8/88; leased 1/12/88, £60 per annum.
North Rota Well			21 0 0	21 0 0	
Nullamut Tank			52 10 0	52 10 0	
Nevertire Tank			60 0 0	60 0 0	
Nymagee Tank	135 15 0	407 12 11		407 12 11	
One Tree Tank	76 16 0	12 14 3	34 16 8	47 10 11	Leased 11/7/88, £76 per annum
Old Gunbar Well	146 8 0				Water bad.
Pretty Pine Well			40 0 0	40 0 0	
Polygonum Hut Well	118 19 0	56 4 4		56 4 4	
Priory Tank	115 3 0	48 5 9	4 3 4	52 9 1	
Purnamoota Tank	178 13 0	180 6 1		180 6 1	
Pulletop Tank	77 7 0	5 7 4	16 13 4	22 0 8	Leased 1/8/88, £40 per annum.
Penarie Tank	18 0 0				Taken over, 16/11/91.
Quandong Tank	146 8 0	58 11 5		58 11 5	
Roto Well			23 0 0	23 0 0	
Rock Holes Tank	128 2 0	33 14 5		33 14 5	
Rat Hole Tank	165 16 0	213 7 10		213 7 10	Trustees appointed, 27/9/88.
Sixteen-mile Gums Tank	141 8 0	62 0 7		62 0 7	
Sandy Creek Tank	128 2 0	53 2 8		53 2 8	
Shearlegs Tank			50 0 0	50 0 0	
Silverton Well	189 15 0	118 5 10		118 5 10	
Stephen's Creek	34 5 0	81 10 6		81 10 6	Soakage reserved, 19/9/88.
Seaville's Tank	36 12 0	15 17 1		15 17 1	Taken over, 1/9/88.
Tom's Lake Tank			51 0 0	51 0 0	
Til Til Tank	149 10 0	54 15 9		54 15 9	
Timdarie Tank	106 15 0	28 17 2	4 10 0	33 7 2	Leased 1/11/88, £27 per annum.
Two Waterholes Tank			52 0 0	52 0 0	
Thackaringa Tank	183 2 0	312 17 0		312 17 0	
Tambar Springs	6 0 0				No charge made for water.
The Lake Tank			50 0 0	50 0 0	
Thorndale Tank			50 0 0	50 0 0	
Tinda Tank	128 2 0	66 5 6		66 5 6	
Twelve-mile Tank			57 0 0	57 0 0	
Twenty-six-mile Tank	98 0 0	130 17 11		130 17 11	
Thirty-five-mile Tank	146 8 0	19 9 4		19 9 4	
The Peak Tank	71 4 0	64 0 3	8 13 4	72 13 7	Taken over, 1/6/88; leased, 1/11/88, £52 per annum.
Tarella Tank	73 12 0	83 4 11		83 4 11	Taken over, 1/7/88.
Tibooburra Well Bore	70 8 0	42 14 10		42 14 10	Taken over, 17/8/88.
Ulong Tank	74 11 0	20 3 9	16 16 8	37 0 5	Leased 1/1/88, £40 per annum.
Walla Walla Tank			50 0 0	50 0 0	
Wangonilla Well	146 8 0	42 18 2		42 18 2	
Wooloondool Well			55 0 0	55 0 0	
Wagga Tank	128 2 0	43 8 0		43 8 0	
Wicklow Tank	128 2 0	33 3 11		33 3 11	
Waratta Tank	78 0 0	85 9 4		85 9 4	Taken over, 18/6/88.
Youhl Plains Tank			40 0 0	40 0 0	
Yantabangee Tank			30 0 0	30 0 0	
Total	9,658 10 6	5,178 7 8	2,007 19 7	7,186 17 3	

Summary.

Total wages paid, 1st January to 31st December, 1888	£9,658 10 6
Total revenue received, 1st January to 31st December, 1888	7,186 17 3
Number of watering-places leased during 1888	59
Total rental per annum	2,778 10 0
Average rental per annum	47 1 10

PUBLIC

Public Watering-places.

Return showing Wages paid and Revenue received from 1st January to 31st December, 1889.

Name of Watering place.	Wages paid to caretakers, 1st Jan to 31st Dec, 1889	Revenue			Remarks.
		Fees collected by Caretakers	Rent received from Lessees	Total Receipts.	
	£ s. d	£ s. d.	£ s d	£ s. d.	
Amphitheatre Tank			41 0 0	41 0 0	
Babinda Tank			40 0 0	40 0 0	
Baradine Well			25 0 0	25 0 0	
Barnato Tank	40 12 0	0 14 8		0 14 8	Tank taken over, 6/9/89.
Beloura Tank	127 15 0	12 8 4		12 8 4	
Bendermere Tank	106 19 0	5 6 0		5 6 0	Leased, 1/11/89, £50 per ann.
Berrigan Well			20 0 0	20 0 0	
Beefwood Well	12 8 0	11 2 6		11 2 6	Well taken over, 1/12/89.
Black Swamp Tank	146 0 0	1 7 11		1 7 11	
Boggy Creek Tank			78 0 0	78 0 0	
Boma Tank	127 15 0	8 5 2		8 5 2	
Booroona Tank	162 0 0	11 6 1		11 6 1	
Booroomugga Tank			40 0 0	40 0 0	
Booroondarra Tank			50 0 0	50 0 0	
Boorooban Tank			85 0 0	85 0 0	
Boro Tank	118 12 6	7 9 9		7 9 9	
Box Creek Tank	78 8 0	0 5 2	15 0 0	15 5 2	Leased 1/7/89, £30 per ann
Brocalesby Tank	146 0 0	1 1 0		1 1 0	
Bro'gan Creek Tank	118 12 6	60 16 3½		60 16 3½	
Brura Tank	74 4 0	12 18 8	10 0 0	22 18 0	Leased 1/7/89, £20 per ann.
Bullagreen Tank			45 0 0	45 0 0	
Bunghill Tank	118 12 6	9 19 9		9 19 9	
Carson's Swamp Tank	74 4 0	0 0 6	3 10 0	3 10 6	Leased 1/6/89, £6 per ann.
Clare Tank	146 0 0	7 10 11		7 10 11	
Cobar Stock Tank	118 12 6	37 8 8		37 8 8	
Colombo Dam			50 0 0	50 0 0	
Coolamon Tank	109 10 0	23 9 5		23 9 5	
Coulla Tank			40 0 0	40 0 0	
Corowa Tank	146 0 0	1 13 1		1 13 1	
Crow's Nest Well			40 0 0	40 0 0	
Curlaweena Tank			20 0 0	20 0 0	
Cuttygullyaroo Tank	127 15 0	5 10 8		5 10 8	
Day Dream Tank	9 0 0		30 0 0	30 0 0	
Daysdale Tank			55 0 0	55 0 0	
Derribong Tank			40 0 0	40 0 0	
Dolmoreve Well	146 0 0	1 6 0		1 6 0	
Dry Lake Well			35 0 0	35 0 0	
Eighteen-mile Tank	127 15 0	20 12 1		20 12 1	
Ford's Bridge Tank			80 0 0	80 0 0	
Forty eight mile Tank			50 0 0	50 0 0	
Galathera Tank			126 0 0	126 0 0	
Gilgai Tank			30 0 0	30 0 0	
Girilambone Tank			20 0 0	20 0 0	
Glendon Tank	146 0 0	14 10 1		14 10 1	
Grass Hut Tank			53 0 0	53 0 0	
Gunaramby Tank	72 8 0	0 13 4	15 0 0	15 13 4	Leased 1/7/89, £30 per ann.
Goonery Artesian Well			60 0 0	60 0 0	
Goomboolara Tank	81 6 0				Tank taken over, 4/4/89.
Helman's Tank	3 12 0		32 0 0	32 0 0	
Harman's Tank	46 8 0				Tank taken over, 15/3/89.
Hermitage Tank			50 0 0	50 0 0	
Holy Box Well			72 0 0	72 0 0	
Hovell's Dam			30 0 0	30 0 0	
Ivanhoe Tank	146 0 0	5 14 4		5 14 4	
Jindera Tank			25 0 0	25 0 0	
Jumping Sandhill Well	146 0 0	4 17 6		4 17 6	
Junee Dam			25 0 0	25 0 0	Leased 1/9/89, £75 per ann.
Hurley's Dam					
Wallace Town Dam	146 0 0				Stock water gratis
Illabo Dam					
Keighran's Tank			30 0 0	30 0 0	
Kerrigundi Tank			50 0 0	50 0 0	
Ledknappa Tank			110 0 0	110 0 0	
Lightning Ridge Tank	123 8 6	18 18 11		18 18 11	
Limestone Well	165 19 0	3 0 9		3 0 9	
Lowesdale Tank			52 0 0	52 0 0	
Mannum Well	54 15 0	10 5 6		10 5 6	
Mena Murtie Well	118 0 0	1 11 0	0 8 4	1 19 4	Leased 1/12/89, £5 per ann.
Merri Merriwa Tank	127 15 0	22 14 2		22 14 2	
Mossgiel Tank	146 0 0	3 2 10		3 2 10	
Mount Manara Tank	127 15 0	3 10 8		3 10 8	
Mount Hope Tank	127 15 0	61 8 3		61 8 3	
Mulga Tank	127 15 0	13 13 6		13 13 6	
Muriel Tank			55 0 0	55 0 0	
Mount Elliott Tank			26 0 0	26 0 0	
Mowabla Tank	127 15 0	8 18 2		8 18 2	
Mombil Tank	127 15 0	20 4 6		20 4 6	
Murray Hut Well			20 0 0	20 0 0	
Milparinka Well	72 8 0	19 0 5		19 0 5	Placed under Trust 1/6/89.
Murlippa Tank	146 0 0	18 7 0		18 7 0	
Mulga Tank	8 8 0		54 6 9	54 6 9	
North Roto Well			21 0 0	21 0 0	
Nullamut Tank			52 10 0	52 10 0	

Name of Watering-place.	Wages paid to Caretakers 1st Jan to 31st Dec, 1889.	Revenue. Fees collected by Caretakers.	Revenue. Rent received from Lessees.	Revenue. Total Receipts.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d	
Nevertire Tank	53 18 0	27 19 3	20 0 0	47 19 3	Lease cancelled.
Nymagee Tank	22 2 6				Under Trustees.
One Tree Tank			76 0 0	76 0 0	
Old Gunbar Well	146 0 0				Water bad.
Pretty Pine Well			40 0 0	40 0 0	
Polygonum Hut Well	122 11 0	12 3 2		12 3 2	
Priory Tank			25 0 0	25 0 0	
Purnamoota Tank	164 5 0	31 6 6		31 6 6	
Pullctop Tank			40 0 0	40 0 0	
Penarie Tank	146 0 0	1 4 0		1 4 0	
Quandong Tank	146 0 0	13 13 10		13 13 10	
Roto Well			23 0 0	23 0 0	
Rock Holes Tank	127 15 0	28 12 3		28 12 3	
Rat Hole Tank	137 10 0	99 12 1		99 12 1	Trustees resigned, 31/3/89.
Sixteen-mile Gums Tank	82 16 0	2 19 6	11 13 4	14 12 10	Leased 1/6/89, £20 per annum.
Sandy Creek Tank	127 15 0	31 5 9		31 5 9	
Shearlegs Tank			50 0 0	50 0 0	
Silverton Well	188 11 0	15 11 5		15 11 5	
Seaville's Tank	63 12 0	0 17 0		0 17 0	Tank abandoned, 1/8/89.
Springfield Tank	42 14 0	9 2 2		9 2 2	Tank taken over, 1/9/89.
Tom's Lake Tank			51 0 0	51 0 0	
Til Til Tank	146 0 0	2 10 2		2 10 2	
Tindarie Tank			27 0 0	27 0 0	
Two Waterholes Tank			52 0 0	52 0 0	
Thackaringa Tank	164 5 0	152 10 8		152 10 8	
Tambar Springs	5 0 0				Stock water gratis.
The Lake Tank			50 0 0	50 0 0	
Thorndale Tank			50 0 0	50 0 0	
The Meadows Tank	42 14 0	7 6 0		7 6 0	Tank taken over, 1/9/89.
Tara Tank	27 4 0	3 4 6		3 4 6	" " 24/10 89.
Tomingley Tank	87 3 0				" " 26/4/89.
Tinda Tank	85 15 0	27 11 7	8 6 8	35 18 3	Leased 1/8/89, £20 per annum.
Twelve-mile Tank			57 0 0	57 0 0	
Twenty-six-mile Tank	146 0 0	26 17 5		26 17 5	
Thirty-five mile Tank	146 0 0	8 18 10		8 18 10	
The Peak Tank			52 0 0	52 0 0	
Tarella Tank	146 0 0	0 11 2		0 11 2	
Tibooburra Well Bore	206 0 0	9 4 9		9 4 9	
Urana Dam	62 2 0				Stock water gratis.
Ulong Tank			40 0 0	40 0 0	
Walla Walla Tank			50 0 0	50 0 0	
Waterman's Tank	99 15 0	0 6 6		0 6 6	Taken over, 21/3/89.
Wangonilla Well	146 0 0	1 4 6		1 4 6	
Wooloondool Well			55 0 0	55 0 0	
Wagga Tank	127 15 0	22 3 2		22 3 2	
Wicklow Tank	127 15 0	39 18 2		39 18 2	
Waratta Tank	146 0 0	44 11 2		44 11 2	
Youhl Plains Tank			40 0 0	40 0 0	
Yantabangee Tank			30 0 0	30 0 0	
	8,324 15 0	1.092 9 0½	2,749 15 1	3,842 3 5½	

Summary.

Total wages paid, 1st January to 31st December, 1889	£8,324	15	0
Total revenue received, 1st January to 31st December, 1889	3,842	3	5½
Number of watering places leased during 1889	68		
Total rental per annum	3,011	10	0
Average rental per annum	44	5	9

Public Watering Places.

Return showing wages paid and revenue received from 1st January to 31st December, 1890.

Name of Watering-place.	Wages paid to Caretakers 1st Jan to 31st Dec, 1890.	Revenue. Fees collected by Caretakers	Revenue. Rent received from Lessees.	Revenue. Total receipts.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Amphitheatre Tank			41 0 0	41 0 0	
Babinda Tank			40 0 0	40 0 0	
Baradine Well			25 0 0	25 0 0	
Parnato Tank	127 15 0	16 19 3		16 19 3	
Beloura Tank	127 15 0	34 1 2		34 1 2	
Bendermere Tank	27 0 0	6 12 6	37 10 0	44 2 6	
Berrigan Well			20 0 0	20 0 0	
Beefwood Well	156 15 8	15 11 6		15 11 6	
Black Swamp Tank	78 8 0	0 1 6	15 0 0	15 1 6	Leased 1/7/90, at £30 per ann.
Boggy Creek Tank	22 0 0	34 19 9	58 10 0	93 9 9	Lease expired on 31/9/90.
Boona Tank	127 15 0	9 13 10		9 13 10	
Boonoona Tank	146 0 0	3 14 8		3 14 8	
Booroomugga Tank			25 0 0	25 0 0	Lease cancelled 30/4/90; leased 1/5/90 at £20 per annum.

Name of Watering place	Wages paid to Caretakers 1st Jan. to 31st Dec., 1890	Revenue.			Remarks.
		Fees collected by Caretakers	Rent received from Lessees.	Total Receipts.	
	£ s. d	£ s. d.	£ s. d.	£ s. d.	
Booroondarra Tank			50 0 0	50 0 0	
Booroorban Tank			71 10 0	71 10 0	Lease expired 20/9/90; Leased 1/10/90, at £31 per ann.
Boro Tank	146 0 0	18 9 5		18 9 5	
Box Creek Tank			30 0 0	30 0 0	
Brocklesby Tank	146 0 0	9 13 0		9 13 0	
Brolgan Creek Tank	118 12 6	19 18 2		19 18 2	
Biura Tank			20 0 0	20 0 0	
Bullagreen Tank	22 17 0	9 11 8	37 10 0	47 1 8	Lease cancelled 31/10/90.
Bunghill Tank	127 4 0	0 10 0		0 10 0	
Carson's Swamp Tank			6 0 0	6 0 0	
Clare Tank	128 0 0	3 7 0	5 0 0	8 7 0	Leased 1/10/90, at £20 per ann.
Cobar Stock Tank	118 12 6	53 4 3		53 4 3	
Colombo Dam			50 0 0	50 0 0	
Coolamon Tank	109 10 0	33 11 0		33 11 0	
Corilla Tank			37 10 0	37 10 0	Lease expired at 30/9/90; renewed, 1/10/90; £30.
Corowra Tank	146 0 0	12 4 6		12 4 6	
Crow's Nest Well	39 12 0	0 7 0	20 0 0	20 7 0	Leased 31/3/90; released, 1/7/90, at £20 per annum.
Curraweena Tank			20 0 0	20 0 0	
Cuttygullyaroo Tank	127 15 0	17 9 5		17 9 5	
Claypan Tank	85 12 0	0 12 8		0 12 8	
Day dream Tank			30 0 0	30 0 0	
Daysdale Tank			55 0 0	55 0 0	
Derribong Tank			40 0 0	40 0 0	
Dolmoreve Well	109 19 0	16 7 10	5 0 0	21 7 10	
Dry Lake Well			35 0 0	35 0 0	
Dry Lake Tank	85 12 0	0 3 9		0 3 9	
Eighteen mile Tank	127 15 0	38 11 9		38 11 9	
Ford's Bridge Tank			80 0 0	80 0 0	
Forty-eight mile Tank			50 0 0	50 0 0	
Galathera Tank			126 0 0	126 0 0	
Gilgan Tank			30 0 0	30 0 0	
Girilambone Tank			20 0 0	20 0 0	
Glendon Tank	146 0 0	1 6 10		1 6 10	
Grass Hut Tank			53 0 0	53 0 0	
Gunaramby Tank			30 0 0	30 0 0	
Goonery Artesian Well	19 3 6	28 13 10	45 0 0	73 13 10	Lease expired, 30/9/90.
Helman's Tank	10 8 0	1 7 2	29 6 8	30 13 10	Lease cancelled, 6/12/90.
Harman's Tank	146 0 0	0 3 3		0 3 3	
Hermitage Tank			50 0 0	50 0 0	
Horse Lake Tank			5 0 0	5 0 0	
Holy Box Well			72 0 0	72 0 0	
Hovell's Dam			30 0 0	30 0 0	
Hurley's Dam			13 0 0	13 0 0	
Ivanhoe Tank	146 0 0	31 19 10½		31 19 10½	
Illabo Dam			19 10 0	19 10 0	
Jindera Tank			25 0 0	25 0 0	
Jumping Sandhill Well	146 0 0	17 3 9		17 3 9	
Junee Dam	72 8 0		75 0 0	75 0 0	
Keighran's Tank			30 0 0	30 0 0	
Kerrigundi Tank			50 0 0	50 0 0	
Leaknappa Tank			110 0 0	110 0 0	
Lightning Ridge Tank	146 0 0	8 2 6		8 2 6	
Limestone Quarry Well	164 0 0	26 3 0		26 3 0	
Lowesdale Tank			52 0 0	52 0 0	
Mannum Well	54 15 0				
Mena Murtie Well			5 0 0	5 0 0	
Merri Merrwa Tank	127 15 0	20 13 7		20 13 7	
Mossgiel Tank	146 0 0	17 4 4		17 4 4	
Mount Manara Tank	127 15 0	47 6 0		47 6 0	
Mount Hope Tank	127 15 0	24 1 10		24 1 10	
Mulya Tank	127 15 0	18 16 9		18 16 9	
Muriel Tank			55 0 0	55 0 0	
Mount Elliot Tank			26 0 0	26 0 0	
Mowabla Tank	127 15 0	7 2 0		7 2 0	
Mombil Tank	127 15 0	21 16 6		21 16 6	
Murray Hut Well			20 0 0	20 0 0	
Milparinka Well					Under trustees.
Murlippa Tank	36 0 0	0 5 0	7 10 0	7 15 0	
Mulga Tank	47 19 0	9 19 2	39 0 0	48 19 2	Leased 1/4/90, at £52 per ann.
Myall Plains Dam			20 15 0	20 15 0	Leased 1/7/90, at £41 10s. ,,
North Roto Well			21 0 0	21 0 0	
Nullamutt Tank			52 10 0	52 10 0	
Nevertire Tank	54 19 0	18 7 4	39 0 0	57 7 4	Leased 1/4/90, at £52 per ann.
Nymagee Tank	103 2 6	71 0 10		71 0 10	Taken over from trustees, 1/8/90.
Normanstone Well	146 0 0	1 8 0		1 8 0	
One-Tree Tank			76 0 0	76 0 0	
Old Gunbar Well	111 12 0		2 15 0	2 15 0	
Pretty Pine Well	75 18 0	2 8 10	15 0 0	17 8 10	
Polygonum Hut Well	129 3 0	19 13 4		19 13 4	
Priory Tank			25 0 0	25 0 0	
Purnamoota Tank	111 3 0	26 19 5	26 0 0	52 19 5	Leased 1/7/90, at £52 per ann.
Pulletop Tank			40 0 0	40 0 0	
Penarie Tank	146 0 0	0 15 0		0 15 0	
Paka Tank	103 2 0	23 8 2		23 8 2	

Name of Watering-place.	Wages paid to Caretakers, 1st Jan to 31st Dec, 1890	Revenue.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees.	Total Receipts	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Quandong Tank	52 8 0	27 9 3	48 0 0	75 9 3	
Roto Well			23 0 0	23 0 0	
Rock Holes Tank	127 15 0	19 1 5		19 1 5	
Rat Hole Tank	182 10 0	257 11 8		257 11 8	
Seaville's Tank	44 14 0	0 13 19		0 13 10	
Sixteen-mile Gums Tank			20 0 0	20 0 0	
Sandy Creek Tank	127 15 0	14 3 2		14 3 2	
Shearlegs Tank	69 1 0	43 12 1	16 16 8	60 8 9	
Silverton Well	164 0 0	19 14 4		19 14 4	
Springfield Tank	127 15 0	11 2 3		11 2 3	
Tinchelooka Bore			39 0 0	39 0 0	Leased 1/7/90, at £78 per ann.
Tom's Lake Tank			51 0 0	51 0 0	
Til Til Tank	146 0 0	11 10 10		11 10 10	
Tindarie Tank			27 0 0	27 0 0	
Two Waterholes Tank	37 12 0	7 14 2	39 0 0	46 14 2	
Thackaringa Tank	164 0 0	218 19 10		218 19 10	
Tambar Springs					No fees collected.
The Lake Tank			44 0 0	44 0 0	Leased expired 30/9/90; leased 1/10/90, at £20 per ann.
Thorndale Tank			36 10 0	36 10 0	
The Meadows Tank	127 15 0	12 9 4		12 9 4	
Tara Tank	146 0 0	69 18 11		69 18 11	
Tomingley Tank	78 15 6	18 16 6	31 4 2	50 0 8	Leased 1/7/90, at £35 per ann.
Tinda Tank			20 0 0	20 0 0	
Twelve-mile Tank			57 0 0	57 0 0	
Twenty-six mile Tank	146 0 0	52 2 4		52 2 4	
Thirty-five-mile Tank	146 0 0	19 12 0		19 12 0	
The Peak Tank			52 0 0	52 0 0	
Tarella Tank	60 8 0	1 2 2	7 10 0	8 12 2	
Tibooburra Well Bore	193 0 0	7 13 6		7 13 6	
Ulong Tank			40 0 0	40 0 0	
Urana Dam	6 12 0				
Walla Walla Tank			50 0 0	50 0 0	
Waterman's Tank	127 15 0	1 19 10		1 19 10	
Wangonilla Well	121 12 0	3 8 6	13 10 0	16 18 6	Leased 1/10/90, at £54 per ann.
Wooloondool Well			55 0 0	55 0 0	
Wagga Wagga Tank	127 15 0	12 9 9		12 9 9	
Wicklow Tank	127 15 0	13 12 4		13 12 4	
Waratta Tank	146 0 0	8 8 2		8 8 2	
Wallace Town Dam			25 0 0	25 0 0	
Youhl Plain Tank			40 0 0	40 0 0	
Yantabangee Tank	13 2 9		22 10 0	22 10 0	Lease expired, 30/9/90.
Total	8,317 2 11	1,645 8 0½	2,997 17 6	4,643 5 6½	

Summary.

Total wages paid 1st January to 31st December, 1890	£8,317 2 11
Total revenue received, 1st January to 31st December, 1890	4,643 5 6½
Number of water-places leased during 1890	83
Total rental per annum	3,337 0 0
Average rental per annum	40 4 1

Public Watering-places.

Return showing stages paid and revenue received from 1st January to 31st December, 1891.

Name of Watering-place.	Wages paid to Caretakers 1st Jan. to 31st Dec, 1891.	Revenue.			Remarks.
		Fees collected by Caretakers.	Fees received from Lessees.	Total Receipts	
	£ s d	£ s. d.	£ s. d	£ s. d.	
Ampitheatre Tank	73 17 0	6 8 10	17 1 8	23 10 6	
Allpress Dam	12 8 0	8 15 0		8 15 0	
Babinda Well			40 0 0	40 0 0	
Barnato Tank	127 15 0	9 17 8		9 17 8	
Bc'oura Tank	127 15 0	19 9 1		19 9 1	
Bendermeer Tank			50 0 0	50 0 0	
Berrigan Well			20 0 0	20 0 0	
Beefwood Well	156 15 8	32 3 3		32 3 3	
Black Swamp Tank			30 0 0	30 0 0	
Boggy Creek Tank			100 0 0	100 0 0	
Boona Tank	127 15 0	16 4 0		16 4 0	
Boonoona Tank	116 0 0	5 18 8		5 18 8	
Booroomugga Tank			20 0 0	20 0 0	
Booroondarra Tank	32 4 0	0 9 8	37 10 0	37 19 8	
Booroorban Tank			31 0 0	31 0 0	
Boro Tank	146 0 0	16 11 5		16 11 5	
Box Creek Tank			30 0 0	30 0 0	
Brocklesby Tank	118 16 0	17 3 3	7 15 0	24 18 3	
Brolgan Creek Tank	118 12 6	16 3 4		16 3 4	
Brura Tank			20 0 0	20 0 0	
Bullagreen Tank	102 15 0	22 9 4	37 10 0	59 19 4	

Name of Watering-place.	Wages paid to Caretakers 1st Jan. to 31st Dec., 1891.	Revenue.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessees.	Total Receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Bung Hill Tank	146 0 0	19 9 1		19 9 1	
Bulla Bulla Tank	136 17 6	8 10 2		8 10 2	
Big Plain Well	124 0 0	11 16 3		11 16 3	
Baradine Well			25 0 0	25 0 0	
Carson's Swamp Tank			6 0 0	6 0 0	
Clare Tank			20 0 0	20 0 0	
Cobar Stock Tank	118 12 6	38 18 2		38 18 2	
Colombo Dam			50 0 0	50 0 0	
Coolamon Dam	109 10 0	29 4 6½		29 4 6½	
Corilla Tank			30 0 0	30 0 0	
Corowra Tank	146 0 0	0 8 8		0 8 8	
Crow's Nest Well			20 0 0	20 0 0	
Curraweena Tank			20 0 0	20 0 0	
Cullygullyaroo Tank	127 15 0	10 13 11		10 13 11	
Clay Pan Tank	146 0 0	3 1 0		3 1 0	
Day Dream Tank			30 0 0	30 0 0	
Daysdale Tank			55 0 0	55 0 0	
Derribong Tank			40 0 0	40 0 0	
Dolmoreve Well			20 0 0	20 0 0	
Dry Lake Tank	146 0 0	73 4 8		73 4 8	
Dolo Tank	71 12 0	0 16 6		0 16 6	
Dry Lake Well			28 10 0	28 10 0	
Eighteen Mile Well	127 15 0	41 7 1		41 7 1	
Forty-eight Mile Tank	63 15 0	17 9 9	20 16 8	38 6 5	
Ford's Bridge Tank	68 8 0	10 7 5	47 10 0	57 17 5	
Galathera Tank			126 0 0	126 0 0	
Gilgai Tank			22 10 0	22 10 0	
Girilambone Tank			20 0 0	20 0 0	
Glendon Tank	146 0 0	12 16 11½		12 16 11½	
Grass Hut Tank			53 0 0	53 0 0	
Gunaramby Tank			30 0 0	30 0 0	
Gooncry Artesian Well	118 12 6	4 0 0		4 0 0	
Goomboolra Well	100 4 0		0 10 0	0 10 0	
Hellman's Tank	146 0 0	36 11 3		36 11 3	
Harman's Tank	146 0 0	0 1 6		0 1 6	
Hermitage Tank			50 0 0	50 0 0	
Holy Box Well			72 0 0	72 0 0	
Hovell's Dam			30 0 0	30 0 0	
Hurly's Dam			26 0 0	26 0 0	
Horse Lake Tank			2 10 3	2 10 3	
Ivanhoe Tank	146 0 0	7 18 10		7 18 10	
Illabo Dam			23 0 0	26 0 0	
Jindera Tank			25 0 0	25 0 0	
Jumping Sandhill Well	150 7 1	7 1 6		7 1 6	
Juree Dam			75 0 0	75 0 0	
Keighran's Tank			30 0 0	30 0 0	
Kerrigundi Well			37 10 0	37 10 0	
Kilberoo Tank	114 15 0	16 12 1		16 12 1	
Ledknappa Tank			105 0 0	105 0 0	
Lightning Ridge Tank	146 0 0	6 17 7		6 17 7	
Limestone Quarry Well	122 17 0	290 14 11		290 14 11	Handed over to the Proprietary Company, 1st October, 1891.
Lowesdale Tank			52 0 0	52 0 0	
Mannum Well	54 15 0				
Mena Murtie Well			5 0 0	5 0 0	
Merri Merriwa Tank	127 15 0	0 17 0		0 17 0	
Mossgiel Tank	146 0 0	1 11 4		1 11 4	
Mount Manara Tank	127 15 0	77 0 8		77 0 8	
Mount Hope Tank	127 15 0	14 9 9		14 9 9	
Mulya Tank	127 15 0	27 8 6		27 8 6	
Muriel Tank	69 0 0	53 9 7	25 10 0 27 10 0	25 10 0 80 19 7	
Mount Elliott Tank			26 0 0	26 0 0	
Mowabla Tank	127 15 0	2 15 5		2 15 5	
Mombil Tank	127 15 0	21 1 2		21 1 2	
Murray Hut Well			20 0 0	20 0 0	
Milparinka Well					Under Trustees.
Mulga Tank	64 8 0	27 6 5	26 0 0	53 6 5	
Murlippa Tank			10 0 0	10 0 0	
Myall Plains Dam			41 10 0	41 10 0	
North Roto Well			15 10 0	15 10 0	
Nullamut Tank	10 10 0	3 7 9	43 15 0	47 2 9	
Nevertire Tank			52 0 0	52 0 0	
Nymagee Tank	136 17 6	101 17 4½		101 17 4½	
Normanstone Well	146 0 0	3 4 4		3 4 4	
Native Dog Bore	54 7 6	34 14 8		34 14 8	
One-Tree Tank			76 0 0	76 0 0	
Old Gunbar Well			7 5 0	7 5 0	
Old Gunbar Tank	6 13 0				
Pretty Pine Well			30 0 0	30 0 0	
Polygonum Hut Well	134 0 0	15 12 2		15 12 2	
Priory Tank			25 0 0	25 0 0	
Pulletop Tank			40 0 0	40 0 0	
Purnamoota Tank			52 0 0	52 0 0	
Penarie Tank	146 0 0	0 2 4		0 2 4	

Name of Watering-place.	Wages paid to Caretakers 1st Jan. to 31st Dec., 1891.	Revenue.			Remarks.
		Fees collected by Caretakers.	Rent received from Lessee.	Total Receipts.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Paka Tank	79 10 0	15 4 9	15 0 0	30 4 9	
Peak Hill Tank	33 5 0	9 13 0	.....	9 13 0	
Quandong Tank	.....	.....	64 0 0	64 0 0	
Roto Well	.....	.....	14 0 0	14 0 0	
Rock Holes Tank	127 15 0	0 13 9	.....	0 13 9	
Rat Hole Tank	205 17 11	225 14 10	.....	225 14 10	
Sixteen-mile Gums Tank	.....	.....	20 0 0	20 0 0	
Sandy Creek Tank	127 15 0	0 18 7	.....	0 18 7	
Shearleg's Tank	127 15 0	27 14 0	.....	27 14 0	
Silverton Well	192 17 9	22 12 0	.....	22 12 0	
Seaville's Tank	.....	.....	.....	.....	Abandoned.
Springfield Tank	127 15 0	3 19 4	.....	3 19 4	
Silverton Tank	.....	.....	.....	.....	
Stephen's Creek Watering Place	.....	.....	.....	.....	
Tom's Lake Tank	.....	.....	20 0 0	20 0 0	
Til Til Tank	146 0 0	1 19 0	.....	1 19 0	
Twelve-mile Tank	.....	.....	37 10 0	37 10 0	
Thirty-five-mile Tank	146 0 0	19 15 9	.....	19 15 9	
Tindarie Tank	.....	.....	27 0 0	27 0 0	
Two Water-holes Tank	74 0 0	5 8 2	20 0 0	25 8 2	
Tinda Tank	.....	.....	20 0 0	20 0 0	
Thorndale Tank	.....	.....	32 0 0	32 0 0	
The Lake Tank	.....	.....	26 0 0	26 0 0	
Tambar Springs	.....	.....	Nil.	Nil.	No fees collected.
Thackaringa Tank	164 5 0	137 4 6	.....	137 4 6	
Twenty-six-mile Tank	146 0 0	32 17 6	.....	32 17 6	
Tarella Tank	.....	.....	10 0 0	10 0 0	
The Peak Tank	.....	.....	52 0 0	52 0 0	
Tibooburra Bore	185 12 0	22 11 4	.....	22 11 4	
Tomingley Tank	.....	.....	35 0 0	35 0 0	
The Meadows Tank	127 15 0	10 13 7	.....	10 13 7	
Tara Tank	146 0 0	18 2 2	.....	18 2 2	
The Rock Tank	90 10 0	Nil.	.....	Nil.	
Tinchelooka Bore	.....	.....	78 0 0	78 0 0	
Ulong Tank	.....	.....	40 0 0	40 0 0	
Walla Walla Tank	32 4 0	.....	37 10 0	37 10 0	
Wangonilla Well	.....	.....	54 0 0	54 0 0	
Wooloondool Well	.....	.....	43 10 0	43 10 0	
Wagga Tank	127 15 0	0 14 9	.....	0 14 9	
Wicklow Tank	127 15 0	11 19 0	.....	11 19 0	
Waratta Tank	146 0 0	24 5 8	.....	24 5 8	
Waterman's Tank	127 15 0	3 13 9	.....	3 13 9	
Wallace Town Dam	.....	.....	50 0 0	50 0 0	
Warramurtie Dam	.....	.....	0 10 0	0 10 0	
Youhl Plain Tank	.....	.....	35 0 0	35 0 0	
Yantabangee Tank	52 0 0	Nil.	Nil.	.....	
	8,756 16 5	1,800 9 2½	2,870 13 7	4,671 2 9	

Summary.

Total wages paid, 1st January to 31st December, 1891	£8,756	16	5
Total Revenue, 1st January to 31st December, 1891	4,671	2	9
Number of Watering-places leased during 1891	83		
Total rental per annum	3,022	11	0
Average rental per annum	36	7	4½

REPORT

REPORT BY MR. J. W. BOULTBEE ON ARTESIAN BORING.

The Officer-in-Charge, Water Conservation, to The Under Secretary for Mines and Agriculture.

BORING for artesian water has only within a recent period become an industry in this Colony, and it is now attracting some attention not only from scientific but also from economic points of view.

So little concerning it is known generally that it may perhaps be of interest to give briefly a general idea of what has been effected in other countries before distinctly referring to the efforts made in this direction in our own colony.

Antiquity of Boring.

Boring for artesian water is an industry that can be traced to remote periods, and the modern method may be said to be an application of steam power to the means used for ages by the Chinese, and which were first known and used in Europe in the province of Artois, "*inde derivatur*," the word artesian.

There are evidences of artesian borings of great age in Asia Minor, Persia, Egypt, China, Algeria, and the Great Sahara Desert. At Aire, in the province of Artois, France, there is a well that has now been flowing for upwards of a century to a height of 11 feet above the curb, and another dating from the 12th Century in the Carthusian Monastery, at Lillers, which has been flowing ever since it was sunk. It was not, however, until the celebrated wells at Grenelle and Passy, near Paris, were undertaken that attention was fully directed to the question, and many improvements, both in the tools and system of working, introduced.

Notable Bores.

The Grenelle well is a remarkable example of the patience and skill required to cope with the difficulties and risks incidental to boring operations. It was commenced at the Abattoirs by an engineer named Mulot in 1832, and it was not until 1842, after ten years of incessant work, that artesian water was tapped, at a depth of 1,798 feet, and rose above the curb. When a depth of 1,254 feet was reached an accident occurred, which had nearly the effect of causing the abandonment of the work; over 200 feet of the rods broke and fell to the bottom of the hole, and it was not until fifteen months had been expended in "fishing" and other devices that they were recovered. The French Government was so discouraged that when the depth of 1,500 feet was reached the abandonment of the bore was again mooted; but, in deference to strongly-expressed scientific advice, it was continued, until, at the depth stated, the rods suddenly dropped, and the water rose at the rate of 864,000 gallons per diem, from an 8-inch bore; previously no bore for artesian water had exceeded 1,000 feet. Subsequent to this efforts were made in the Rhenish provinces, by German engineers, who introduced many improvements in the tools, more notably that now known as the "jars," with a view to tapping the sources of their numerous brine springs, the most remarkable of this class, perhaps, being the Salt Well at Kissengen, in Bavaria, from which the water rises from a depth of 1,878 feet to a height of 58 feet above the curb. It is alleged that this is due rather to carbonic acid gas generated at the junction of the limestone and gypsum formations than to hydrostatic pressure.

In 1866 the Municipality of Paris let a contract for an artesian well at Passy to the German engineer, Kind, who commenced operations with a hole of nearly 4 feet diameter, using a "trepan," or bit of special construction. A depth of over 1,700 feet was reached, when the upper portion of the boring collapsed, filling up the hole. Operations were resumed, and the bore was contracted to a diameter of 2 feet 4 inches, and at a depth of 1,904 feet a supply, which quickly increased to 5,500,000 gallons per diem, was struck; this enormous supply is thrown to a height of 54 feet above the surface. The cost of this well, which was commenced in 1855, and completed in 1861, amounted to nearly £40,000. In addition, two other wells are worthy of mention: That at La Chappelle, 5 feet 7 inches in diameter, abandoned at a depth of 1,745 feet; and that at the Butte aux Cailles, 6 feet in diameter, the details of which I have been unable to obtain. These, together with numerous other wells, varying from 300 to 400 feet deep, are sunk in what is known as the Paris Basin. The equal temperature of these waters, nearly 80 degrees, would tend to show their common source. A section of the wells at Passy and Grenelle is furnished. [*See Appendices* 1 and 2.]

Deepest Bore in the World.

To Prussia belongs the credit of the deepest bore in the world, namely, 4,515 feet, at Schladeback, near Kotschau, on the Leipsic-Corbetha Railway, commenced at a diameter of 11 inches, and contracted to 1·88 inches; it was sunk with a view of testing for coal. The strata pierced were as follows:—Alluvial, 16 feet; clay, 66 feet; sandstone, 459 feet; anhydrite, 59 feet; magnesium limestone, 144 feet; gypsum, 36 feet; anhydrite, 295 feet; marl slate, 3 feet; sandstone, 3,435 feet.

Other Deep Bores.

Other deep bores may be enumerated—Domnitz, near Wettin, 3,287 feet, Probot Jesar, near Mecklenburg, 3,957 feet; Sperenberg, near Berlin, 4,173 feet; Umsenberg, near Strassfurt, 4,242 feet; Leith, Elmshorn, in Holstein, 4,390 feet. That at Sperenberg was sunk for the purpose of obtaining a supply of rock salt, and its extraordinary depth was reached without passing through the stratum of rock salt, which proved to be of the wonderful thickness of 3,900 feet. None of the artesian wells in England or America can approach these depths, in England few exceed 1,000 feet; and it is more particularly in London and its environs that success has been attained.

English Bores.

A formation of mesozoic chalk underlies London, forming what is known as the London Basin; and this has been, practically speaking, riddled with borings. It may not be generally known, but the sources of the New River, which is one of the feeders of the London Water Supply, derive their origin from artesian wells at Amwell and Chatfield, yielding some 4,500,000 gallons per diem. The Bank of England, the fountains in Trafalgar Square, and the House of Commons are all supplied by artesian wells, and several of the prisons are supplied from the same source. At Sion House there is a well 650 feet deep, the water rising 4 feet over the curb. Several breweries and the Kentish Town Waterworks derive their supplies from artesian wells—the latter having a well 900 feet deep. The London Jute Company have a notable well at Ponders End, yielding also a large artesian supply. At many places on the southern and eastern coasts artesian wells exist, extending as far north as Bourne, in Lincolnshire, where a well 95 feet deep yields a supply under sufficient pressure to reach the tallest houses; these are known as "Blow Wells" in the locality. The well at Bourne was bored through Oolitic strata to a depth of 95 feet, with a hole of the diameter of 4 inches. Below the alluvial a limestone formation 32 feet thick was met with, and continued until a stratum of hard rock was met with, 6 feet thick, upon passing through which the tool suddenly dropped 2 feet, and a supply yielding 567,000 gallons per diem rose to a height of 40 feet above the curb. It is a notable fact that the great number of wells in the London Basin have had the effect of reducing the flow to such an extent that wells which were flowing a few years since have now to be pumped

Algerian Bores.

In Algeria and the Sahara boring has been practised from time immemorial, and of late years immense strides have been made by the French engineers, by whom a very large number of wells have been put down, with the effect of rapidly fertilising and populating portions of this arid region. Artesian wells have, as I have said, existed for ages in this huge ocean of sand, but sunk by the primitive means available to the Arabs and cased with hollowed palm logs, they have not been lasting, and in time have caved in, the flow has ceased, all vegetation has perished from the lack of water, and some of the oases have disappeared *in toto*. As far back as 1856, the French engineer, M. Nus, first commenced operations in Oued Rirh, a district of the Sahara, in the province of Constantine, and obtained a well yielding the enormous supply of 1,278,000 gallons daily. This well is called by the Arabs "The Fountain of Peace." The energy of M. Nus and the military authorities have been untiring, and it is reported on 1st October, 1885, that there were in existence 114 artesian wells belonging to the French military authorities and 492 belonging to the Arabs, yielding the enormous aggregate supply of 80,975,000 gallons daily. The oases are again fertile. The wealth of the Oued Rirh has increased five-fold since the first well was drilled, and the production of dates is enormous. In seven years three villages and oases have sprung into existence at Ouriz, in the north of the Oued Rirh, at Sidi Yahia, and Ayata watered by nine flowing wells, yielding a supply of 8,477,000 gallons per diem, and it may be stated that 56 miles of ditches are formed for the utilisation of these supplies. The transformation produced by artesian water upon the sandhills of Algeria is described by the distinguished French engineer, M. Tournel, as amazing. In Austria, Roumania, and Galicia boring has been carried on to a very large extent, and many of the practical drillers now in the Colony have gained some of their experience in those countries. The conditions are, I understand, widely different, and the borings for the most part undertaken in search of oil.

American Bores.

In America the petroleum industry speedily brought boring to the front, and directed attention to the vast supplies of Phreatic waters available (φρεαρ—a well); the importance of the results attained have been fully recognised, the information regarding the wells has been carefully collated by the Department dealing with it, and a wonderful fund of knowledge has thereby been made available. Artesian wells are reckoned in America by thousands, extending from Montana and North Dakota to the southern portions of Texas. In North and South Dakota, Wyoming, Nebraska, Colorado, Kansas, Idaho, California, Nevada, New Mexico, and Texas, and the Llano Estacado their numbers are incredible. From a recent map I see there are about 2,000 artesian wells alone in the San Luis Valley; in a small area surrounding Denver about 325 are charted; and from the Rio Grande to the Brazos River the country is dotted with them.

Notable American Bores.

So far as I can ascertain, great depths are rare, and the most notable wells are those at Louisville, Kentucky, depth 2,086 feet, with a supply of nearly 1,000,000 gallons daily; that at Chicago, over 1,000 feet deep, yielding 800,000 gallons daily; that at St. Louis, Missouri, the bore of which was carried down nearly three-quarters of a mile in depth, but only reaching brine, was abandoned; that at Charleston was sunk 1,250 feet, yielding but a limited supply; that at Lampasas, in New Mexico, yielding the enormous supply of 4,000,000 gallons daily.

In the great basin embracing the Utah Territory the Mormon authorities report 1,794 flowing wells, and that an area of 1,193 acres is entirely irrigated by this means.

In the San Joacquin Valley, California, there are some 3,000.

In Deseret there are 2,000 wells, with an area of 8,000 acres irrigated solely from this source.

In Kern County, California, is a remarkable group of wells within a well-defined area of 18 by 14 miles, yielding the aggregate supply of 61,000,000 gallons per diem.

To the discovery of artesian water the rapid settlement and reclamation of the Great American Desert, comprising the Colorado, Mojave, Death's Valley, Antelope Valley, and Armagosa Deserts and the Paramint Waste is to a very large extent due.

In the Mojave District, the average rainfall of which is from 2 to 6 inches per annum, the South Pacific Railroad Company bored an artesian well and obtained a good supply. From this start many wells were bored, the land cultivated and improved, and "from this section of the Mojave District, whose aridity has been so notorious, the wheat was harvested in the summer of 1890 that took the prize at the County Fair over the competition of all Southern California."

In the Antelope Valley, since 1889, 7,000 acres have been brought under cultivation, irrigated by five artesian wells, with a flow from each ranging from 50,000 to 200,000 gallons per diem. It is stated that fifty years ago the border of this desert district was nearly 1,000 miles eastward of its present boundary, and many hundred miles to the north.

The

The reclamation of this and the Algerian deserts is a striking instance of what can be done by the aid of artesian wells, and distinctly encourages us to perseverance in our inceptive efforts, and opens out a vista of possibilities for our north-western districts, where the enormous Cretaceous area is known to exist.

In Utah artesian water is to some extent used for the irrigation of grass lands and *Alfalfa crops, but such use is considered justifiable only under conditions of large and deep-seated supplies, since it is more to special crops and the intense cultivation of orchards, &c., or limited areas, that it is really applied. Irrigation from this source is not general in Utah in its application, the supplies obtained in many instances being only sufficient to irrigate from 2 to 3 acres, or for domestic use.

Town Supplies.

Artesian water is, further, an important factor in the provision of water supplies for the American country towns, 26 per cent. of them deriving their supplies from artesian and underground sources, the most notable of which is Boise, Idaho, where five wells are sunk in close proximity to each other, discharging into a reservoir, situated above the town, 200 feet by 50 feet by 8 feet, holding 550,000 gallons, and which can be filled by the united flow of the five wells in about twelve hours. The pressure will throw water through an inch nozzle to a height of 85 feet. The population of the town is 5,000.

Collection of Information.

Recognising its importance, therefore, great pains have been taken to define the areas of artesian basins, and to collect information of a character of value to science, respecting the temperature, volume or flow, chemical character, hydrostatic pressure, and the strata bored through. The collation of this information is dealt with by a department in Washington, in a special branch, by the Artesian Underflow and Irrigation Investigation Agent, with a staff of engineers, geologists, field agents, draftsmen, compilers, &c. In addition to this, the control and construction is considered to be of sufficient importance and moment to be the subject of legislation by more than one of the States.

Legislation.

In Dakota an Act was passed in 1889 "to provide for the sinking of artesian wells and the construction of watercourses therefrom"; and by it the Probate Judge of each county is made Artesian Well Commissioner. The provisions are briefly:—Upon application from ten freeholders for the sinking of a public well, and upon deposit of a description of the land to be benefited, the Commissioner appoints three viewers, who inspect the site, and after examination report. If the report is favourable to the well any claims for damage, &c., that may be put forward, are paid out of the County Treasury. The report accepted, survey and levels are taken by the county surveyor, and the Commissioner advertises for tenders to contract for the work. A Board of assessment composed of certain local officials is appointed, who, after estimating the cost of construction, levy an assessment, which is limited, upon ratable property, known as the Artesian Well Fund. The State subsidizes the fund by a contribution of one-tenth of the cost of the well and channels. The proportion of the cost to be borne by the various towns to be benefited is assessed, the amounts to be paid by any town not to exceed a quarter of the cost. Assessments may be raised or lowered according to requirements. The balance of the provisions relates to the safeguards for collection and disbursement of funds.

In South Dakota an Act was passed in 1890 to "encourage the construction of artesian wells," whereby landowners or leaseholders or corporations are empowered to sink artesian wells upon such land as may be held by them for the purpose of power or agricultural purposes, and for any purpose for which such water can be used. Right to survey and construct channels is given, which may not be brought within 15 rods of any dwelling without consent, and such channels may be on the shortest and most direct route obtainable, and may cross public roads. Claims for damage are settled by a jury of appeal. The site of the well, route selected, and surveyed for the channels, is registered. Owners of land through which the water flows may use the same on payment of rental to be fixed by the County Commissioner. Water-rights are sold with the land. Water flowing over a road is reserved for the use of the public under the same terms required in the use of surplus water flowing across private land.

Proposed Legislation.

In the draft of the proposed Colorado Irrigation Code, Article 12, is defined "Subterranean and Artesian Wells." It declares that water channels and courses with flow in them, found beneath the surface not already appropriated, are public property, and are dedicated to the use of the people of the State. Records are to be supplied to the County Clerk of the sinking and character of all artesian wells, of the stratum passed, volume of water, &c., and all details of importance. Bored wells are to be properly cased to prevent escape of water; proper appliances to be used to arrest or regulate the flow. Every person complying with these provisions, and using the water for beneficial uses, shall be deemed to have appropriated them to the extent to which the same shall be so applied. No person controlling an artesian well shall suffer the water to flow to waste. This last proposed enactment appears very much to the point, and the provisions are absolutely necessary.

Queensland Government Bores.

In Queensland the success of the operations under the Hydraulic Engineer and by private firms has been marked, and wells have been bored yielding enormous supplies, the more notable ones being:—

Barcaldine, 691 feet deep, yields 175,000 gallons per diem; temperature, 102 degrees. Cost, £1,340.
Saltern, 978 feet deep, yields 17,200 gallons per diem; temperature, 115 degrees. Cost, £1,459.
Blackall, 1,663 feet deep, yields 300,000 gallons per diem; temperature, 119 degrees. Cost, £5,074.
Tambo, 1,002 feet deep, yields 200,000 gallons per diem; temperature, 98 degrees. Cost, £1,544.
Cunnamulla, 1,402 feet deep, yields 540,000 gallons per diem; temperature 106 degrees. Cost, £2,316.
Back Creek, 180 feet deep, yields 72,000 gallons per diem; temperature, 70 degrees.
Charleville, 1,370 feet deep, yields 3,000,000 gallons per diem; temperature, 106 degrees. Cost, £1,641.
Bogantungun, small flow.
Racecourse, 1,781 feet deep, yields 8,228 gallons per diem; temperature, 88 degrees.
Muckadilla, 3,262 feet deep, yields 23,000 gallons per diem; temperature, 124 degrees.
Mackinlay, 1,002 feet, yields 350,000 gallons per diem. *Queensland*

NOTE.—Alfalfa is one of the most prolific and fattening of fodder plants.

Queensland Private Bores.

Name of Bore.	Depth in feet.	Yield per diem in Gallons.	Temperature Fahrenheit	Pressure per square inch at surface.	Remarks.
			°	lb.	
Aberfoyle, No. 1	496				Good supply struck in sandstone; volume, and whether overflowing not stated.
Do No. 2					In progress, now 500 feet deep.
Albilbah					No particulars to hand.
Alice Downs	2,145	100,000			Overflowing.
Aramac, No. 1	650	2,000,000	81	25	do
Do No. 2	1,011	1,750,000	99	39	do
Bowen Downs, No. 1	970	493,600	90	70	do
Do No. 2	1,374	1,500,000	103		do
Do No. 3	1,112	864,000			do
Burenda	1,900	Good supply.			Water rises to within 50 feet of surface.
Burranbilla	1,811	4,000,000	124		Overflowing.
Caiwarra	1,810	10,080			do
Coreena	300	25,000			Water rises to within 4 feet of surface; supply pumped.
Do	285	Small supply.			Not overflowing.
Do	450	do			do
Do	750	40,000			Originally water rose to within 40 feet of surface; now it stands 12 feet from the surface; supply pumped.
Do	904	1,500,000			Overflowing.
Do	1,350	350,000			do
Dalzell's Bore, Newark Block, Coreena	1,100	150,000			do
Darr River Downs, No. 1	2,007	20,000	107		Supply pumped; water brackish; rose to 70 feet from surface.
Do No. 2	1,007	40,000			Supply pumped.
Do No. 3	2,700	50,000			Overflowing.
Do No. 4	800	4,800			Pumping.
Evora	2,036	43,000	116		Overflowing.
Fraser's selection bore, 7 miles northerly from Barcaldine.	1,175	600,000			do
Fraser and McLachlan's bore, Barcaldine.	700	200,000			do
Home Creek	1,760	100,000			do
Kungie Lake	1,255	500,000	110		Overflowing, about 45 miles S.W. from Cunnamulla.
Llanrheidol					No particulars to hand.
Lansdowne	2,485				Water rises to within 17 feet of surface.
Malvern Hills					No particulars to hand.
Manfred Downs No. 1	177	22,000			Overflowing.
Do No. 2	128	12,000			do
Do No. 3	86	14,000			do
Do No. 4	210	10,000			do
Do No. 5	200	20,000			Not overflowing; supply pumped.
Do No. 6	98	16,000			Overflowing.
Do No. 7	678	50,000	106		do
Do No. 8	760	525,000	110		do
Do No. 9	707	200,000	102		do
Do No. 10	733	250,000	118		do
Murweh	1,230	140,000	98		do
Noorama, No. 1	1,502	1,500,000	112	200	do
Do No. 2	1,650	1,500,000			do
Do No. 3	1,632	3,456,000	110	200	do
Northampton Downs	1,334	25,000			do
Richmond Downs, No. 1	699	1,600,000	96		do
Do No. 2	480	1,200,000	92		do
Saltern Creek, No. 1	1,130	175,000	108		do
Do No. 2	1,605	220,000	113	31	do
Do No. 3	1,970	690,000	128	49	do
Tara, Cudmore's selection, about 20 miles westerly from Barcaldine.	2,003	250,000			do
Thurulgoona, No. 1	1,270	177,000	112		Overflowing.
Do No. 2	1,440	30,000	102		Overflowing slightly; supply pumped.
Do No. 3	1,616	200,000	108		Overflowing.
Do No. 4	718	36,000	102		Overflowing slightly; supply pumped.
Do No. 5	831	8,000			Overflowing when first tapped, but water since receded; salt water.
Do No. 6	1,529	1,500,000	108		Overflowing.
Uanda, No. 1	334½	100,000			do
Do No. 2	362	100,000			do
Do No. 3	248	40,000			do
Do No. 4	397				Water rises to within 23 feet of surface.
Do No. 5	280	40,000			Overflowing.
Do No. 6	296½				Water rises to within 35 feet of surface.
Do No. 7	225½	60,000			Overflowing.
Do No. 8	509½	120,000			do.
Do No. 9	518	100,000	90		
Do No. 10	525	120,000	90	36	
Do No. 11	606	30,000	90		
Do No. 12	650				Water rises to within 30 feet of surface.
Do No. 13	380	150,000	90		
Do No. 14	756	200,000	90		
Do No. 15	360	60,000	80		
Do No. 16	200	50,000	80		
Do No. 17	250	70,000			
Do No. 18					Particulars not to hand.
Warenda, No. 2	184	70,000			Overflowing.
Do No. 4	511	150,000			do
Do No. 5	715	750,000			do
Woelamurra	1,589	150,000	113½	150	do

NOTE.—From the Queensland Hydraulic Engineer's Report for 1891.

No Legislation in Queensland.

As in our own colony, the work in Queensland is yet comparatively in its infancy. There is no legislation dealing with these works in existence. Although the necessity and importance of it has been recognised, and a short bill introduced in which there were clauses dealing with the regulation of the flow from artesian bores, it was thrown out by the Upper House after some debate on these very clauses. The Government artesian wells being used for the purposes of watering stock, the question of irrigation from them has apparently not been considered. Regulating-valves are used at the Government bores, but I am not aware of any legislation compelling their use by private individuals, nor am I aware if such are used.

Victoria.

In Victoria, boring for artesian water appears to have been carried out with more or less success, the oldest and most known of these works being the artesian well at Sale. The first bore here was put down in 1880 to a depth of 234 feet at a cost of £180, the casing used being 100 feet of 4 inch, and 234 feet of 2½ inch, the flow from the 2½ casing rising 16 feet above the curb yielded a supply from 1,200 to 1,500 gallons per hour. The water was unsuited for domestic purposes, and although used by the railway department for some time for locomotive purposes its use was eventually discontinued. The water, essentially saline and containing 40 grains of salt to the gallon, exercised such an effect upon the casing that it became necessary to recase the bore. This was done, but within eighteen months it again became necessary to insert fresh piping which lasted about two years. The bore is now abandoned, and I understand has choked and ceased to flow. The strata pierced was clay and sand in alternate bands, and when the water was first struck leaves and pieces of wood or lignite were thrown up for several days. It is very curious to note the effect of this water upon the casing, which was rapidly destroyed, the ordinary wrought-iron lasting longer than the galvanised, yet the tanks (ordinary 400 gallon tanks) above ground into which the supply discharged have not given way. An instance, I think of what has already been proved in America, namely, that artesian water invariably improves by exposure and aeration. The Government of that colony have further spent since the year 1886 a sum of £42,700 in experimental borings, and have put down a series of them with a view of testing their Mallee country for artesian water, but they have so far been unsuccessful. Upon the line of bores running north from Nhill to the Murray River six bores have been put down, two of which are in progress; the deepest of the series, at Netherby, reached a depth of 2,200 feet, piercing the bed-rock to a considerable distance, when it was abandoned. The result of the two bores in progress will be looked for with interest. Further to the eastward another line of bores is in progress, from Donald to the river Murray, the deepest of which reached a depth of 899 feet without the desired result. One bore of the series is still unfinished. Artesian water has been also struck at Mordialloc, the water fresh, but the flow limited; but under the pump the water can be raised at the rate of 2,700 gallons per hour. The work is carried out partly by contract and partly by the plants belonging to the Government.

South Australia.

In South Australia, owing to the large extent of territory, the borings are much scattered, the earliest of the bores attempted being at Wilmington, which resulted in a sub-artesian supply, *i.e.*, not flowing, being tapped at 350 feet. Subsequently, borings were commenced at Tarkannina, about 60 miles north of Farina, and at a depth of 1,220 feet a flow rising 20 feet over the curb was tapped. Bores were subsequently undertaken, and artesian water in large quantities obtained near Hergott, Coward and Strangways, and Mulligan Springs, all situated within short distances of mound springs. Following these an essay was made on the Great Australian Bight, and on the Nullabor Plain a bore was sunk 777 feet, which resulted in a sub-artesian supply of 68,000 gallons per diem, temperature 81 deg. Fahr., of good water. Following upon this a bore was tried at Tintinarra, in the 90-Mile Desert, and at 246 feet a supply was struck of 48,000 gallons per diem, rising to the surface. A geological examination of the country has shown that a very extensive area of country may be said to embrace a wide Cretaceous basin, extending from the New South Wales and Queensland Borders to outcrop of bed-rock near Farina; the limits on the north and west being as yet undefined, but so far as can be ascertained it embraces an area of nearly 100,000 square miles. The most successful bores are those named at Hergott, Coward, Strangways, and Mungamurtee, and at the respective depths of 342, 308, 365, and 237 feet, corresponding supplies of 100,000, 1,200,000, 1,200,000, and 52,000 gallons in each case, at a temperature of 86 and 90 degrees, were struck. Nothing has yet been done, so far as I am aware, to utilize these supplies for irrigation.

New South Wales.

In our own colony the question has been for years before the Department, attention being in the first instance drawn to it by a successful artesian well sunk on Kallara Station, by David Brown, Esq., in 1879. A section of this bore is shown in appendix 42. This well was sunk in proximity to a mud-spring, and at a depth of 140 feet artesian water was tapped that rose 26 feet above the curb, and has been flowing without intermission ever since. The first essay made by the Department for artesian water was in 1884, although artesian water had been previously tapped in a bore for coal near Lake Macquarie, and under the directions of a former Superintendent of Drills (Mr. Henderson) a bore was put down at Goonery, an out-station of Toorale Run, on the Bourke-Wanaaring Road, 51 miles from Bourke, to a depth of 89 feet, at which depth water was struck, which rose 8 feet above the curb at a rate of 1,000 gallons per hour. [*See Appendix* 15.] Other bores sunk in the same locality proved successful, so far as reaching artesian water was concerned, but so impregnated with saline matter as to be useless.

In 1885 and 1886 the present Superintendent of Drills (Mr. Slee) sunk a bore at the 75-Mile Peg, now the Tinchelooka bore, upon the same road, to a depth of 960 feet, in the face of great difficulties, due to the drought, &c., the water from which rose to a height of 20 feet above the curb at the rate of 33,000 gallons per diem, the quality being not first-class.

In 1885, in a bore for coal at Ballimore, near Dubbo, artesian water of a mineral character was struck at a depth of 550 feet, rising at the rate of 1,000 gallons per hour to a height of 30 feet above the curb. [*See Appendices A and* 13.]

In 1887, at 101½ miles from Bourke, a bore (the Cuttaburra bore) was sunk a depth of 965 feet, at which depth water was tapped and rose to a height of 8 feet above the curb, yielding 22,464 gallons per diem, the water being of an inferior quality, due, it is supposed, to the salt water struck near the surface not being sufficiently shut off. [For analysis, *see Appendix B.*] These bores were all sunk in pursuance of

of a recommendation made to the Government in 1880, after the successful effort made by Mr. David Brown, at Kallara, by Mr. Wilkinson, the late Government Geologist, in conjunction with the Chief Inspector of Public Watering Places, Mr. Gilliat, and the Chief Inspector of Stock, Mr. Bruce, to put down a series of bores for artesian water, with a view of opening up a new road and well-watered stock-route from the Mount Browne Gold-field to Bourke, to lead the northern traffic to the railway terminus at Bourke. During the progress of this work, Mr. Geological-Surveyor Brown was engaged in examining the extensive water-bearing country in the Albert and Warrego districts; and this work has been continued by Mr. Geological-Surveyor Anderson, who has so far been able to determine very largely the probable southern limits of the Cretaceous or artesian water-bearing formations. The inadequate appliances, viz., Tiffin and Wright and Edwards' augers, at the command of the Superintendent of Drills prevented rapid progress in the work. The success in Queensland drew attention to the contract system of carrying out this work, and, acting upon the advice of Mr. Slee, the then Secretary for Mines, Mr. Abigail, issued instructions for the calling of tenders for the bulk amount of 30,000 feet of boring.

Tenders for Boring.

The first series of these tenders was opened in February, 1889, and resulted in nine tenders, as follows:—

1. Austral American Boring Company; 2. William Watkins; 3. A. D. Carmichael; 4. Artesian Well and Mineral Boring Company; 5. Federal Artesian Well and Mineral Boring Company; 6. George Proudfoot; 7. Colonial Mineral and Water Boring Company; 8. T. S. Parrott; 9. Mooy Brothers.

Funds, however, had not at the time been voted by Parliament, but the tender, No. 5, of the Federal Artesian Well and Mineral Boring Company was accepted by the Hon. W. J. Lyne, who was at that time administering the business in connection with Public Watering Places and Water Conservation, subject to the money being voted by Parliament, but the tenderers withdrew. The second series was opened in September, 1889, with the result that only one tender was received, from Andrew Murray and Company, and was declined.

Previously to the third series it became apparent that the magnitude of the works proposed was beyond the power of any one to take in hand single-handed, and with a view to affording persons of limited capital an opportunity of tendering, the 30,000 feet of boring was divided by the late Minister, the Hon. Sydney Smith, into five contracts; and upon tenders being opened in October, 1889, five tenders were received, as follows:—

1. A. D. Carmichael; 2. The Australian Well and Mineral Boring Company; 3. Australian Water and Mineral Boring Company; 4. William Watkins; 5. G. A. Greatrex.

Tender No. 2, of the Australian Well and Mineral Boring Company, was accepted for two contracts, comprising nineteen bores at the following rates:—

Surface to 1,000 feet, 24s. 9d. per foot; 1,000 to 1,500 feet, 27s. 6d. per foot; 1,500 to 2,000 feet, 30s. per foot—exclusive of casing.

Owing, however, to the collapse of this boring Company, operations were not commenced, and after a delay of many months, waiting in the expectation of the re-forming of the Company, steps were eventually taken to estreat their bond and cancel the contract.

The fourth series, consisting of the bores then unlet, again subdivided into smaller contracts, was opened in November, 1889, and resulted in three tenders, as follows:—

1. William Watkins; 2. Petrolia Boring Company; 3. D. C. Carmichael.

Of which tenders No. 2, of the Petrolia Boring Company, at the following rates:—

Surface to 1,000 feet, 24s. 6d. per foot; 1,000 to 1,500 feet, 29s. 6d. per foot; 1,500 to 2,000 feet, 34s. 6d. per foot—exclusive of casing.—was accepted for seven bores, as follows:—

Bourke to Barringun, 3 bores; Bourke to Hungerford, 3 bores; Bourke Trucking Yards, 1 bore.

The fifth series, inviting tenders for the unlet bores, was opened in March, 1890, and resulted in five tenders, as follows:—

1. Thos. Potts; 2. William Watkins; 3. M. Ferguson; 4. Chas. Mayes; 5. Griffiths and Simsonsen.

Of which tenders, No. 5 was accepted for four bores (two Collarendabri to Angledool, and two Moree to Boggabrilla).

Before signing the bond, however, in this case, the contractors confessed their inability to carry on, and forfeited their preliminary deposit of £40.

The sixth series was opened 31st March, 1890, resulting in two tenders:—

1. Charles Mayes; 2. William Watkins.

And in view of the high rates neither was accepted.

The seventh series was opened on 16th June, 1890, and resulted in only one tender, from Chas. Mayes, which was accepted for four bores (two on the Collarendabri to Angledool Road, and two on the Moree to Boggabrilla Road), comprising contracts Nos. 4 and 5, at the following rates, respectively:—

Surface to 1,000 feet, 24s. per foot; 1,000 to 1,500 feet, 28s. per foot; 1,500 to 2,000 feet, 32s. per foot;—and Surface to 1,000 feet, 27s. per foot; 1,000 to 1,500 feet, 31s. per foot; 1,500 to 2,000 feet, 35s. per foot—casing extra at schedule rates.

Before fresh advertisements, however, could be inserted, inviting tenders for the bores still unlet, Mr. William Watkins submitted an offer to undertake the two bores at Nyngan and Coonamble, contract No. 3, at the following rates:—

Surface to 1,000 feet, 25s. per foot; 1,000 to 1,500 feet, 32s. 6d. per foot; 1,500 to 2,000 feet, 35s. per foot;—casing at schedule rates extra, which was accepted in June, 1890.

At this period it became apparent that the Australian Water and Mineral Boring Company would be unable to re-form their Company to complete its contracts; steps were therefore taken to cancel them and estreat the bonds, and again advertise the nineteen bores that had been let to them. Before this was done, however, steps were taken to modify the specifications and conditions, representations having been made that the stringent nature of them pressed harshly upon contractors, and that if this action was taken more tenders would be received. The terms, therefore, were modified, taking all the risks into consideration, so far as was consistent with safety, and the eighth series of tenders, comprising in all twenty-eight bores, was advertised on 31st October, 1890. Upon the 1st December following, the date upon which tenders closed, it was found, to our disappointment, that none were received. The delay and want of success

success in obtaining suitable tenders, more especially when the publicity given to the matter by advertising in each of the Colonies is considered, was very discouraging, and serious attention was given to the question of purchasing plants and carrying the work out under the Department's own officers. Tenders were therefore invited for the supply of two pole-rig boring plants complete, but I am thankful to say that the acceptance of any of the tenders was considered unnecessary, since in the ninth series tenders were invited for the whole of the unlet bores, in nine contracts, under the modified specifications, and with the material alteration that the Department should provide the casing, as has been the invariable custom in Queensland, with the result that tenders were received from Messrs. Pickering for contracts 10 and 13, five bores, Milparinka to Wanaaring Road, and two bores, Louth to Wanaaring Road, and from Mr. J. H. Stubbs for contracts Nos. 6 and 9, five bores, Ivanhoe to Menindie Road; one bore, Box Creek to Arumpo Road; four bores, Euston to Pooncarie Road, being a portion of the cancelled contract of the Australian Water and Mineral Boring Company, comprising in all seventeen bores.

The rates for contract 10 being:—

Surface to 1,000 feet, 27s. per foot; 1,000 to 1,500 feet, 35s. per foot; 1,500 to 2,000 feet, 40s. per foot.

For contract 13:—

Surface to 1,000 feet, 24s. 6d. per foot; 1,000 to 1,500 feet, 29s. 6d. per foot; 1,500 to 2,000 feet, 34s. 6d. per foot.

For contracts 6 and 9:—

Surface to 1,000 feet, 28s. per foot; 1,000 to 1,500 feet, 33s. per foot; 1,500 to 2,000 feet, 38s. per foot.

Offers were subsequently submitted by the Federal Artesian Well and Mineral Boring Company and the Petrolia Boring Company to take up the unlet contracts, but in view of the rates asked by the former the offers were declined, and fresh tenders (the tenth series) were invited for the four contracts embracing the still unlet bores, which resulted in only one tender being received, from the Petrolia Boring Company, which was ultimately accepted for two contracts, Nos. 11 and 12, embracing ten bores, leaving two bores only out of those approved of still unlet.

The rates being for contract No. 11:—

Surface to 1,000 feet, 27s. per foot; 1,000 to 1,500 feet, 35s. per foot; 1,500 to 2,000 feet, 40s. per foot.

For contract No. 12:—

Surface to 1,000 feet, 27s. per foot; 1,000 to 1,500 feet, 35s. per foot; 1,500 to 2,000 feet, 40s. per foot.

Bores let.

The following is a statement of the contracts let up to the present date, the number of bores embraced, and the progress made:—

Contract No. 1.—Bourke Trucking Yards, 1 bore completed; depth, 1,475 feet; no water. [*See Appendix* 5.] Contractors—Petrolia Boring Company.

Contract No. 2.—Bourke to Barringun Road, 3 bores. One bore at Native Dog, complete, 475 feet deep; supply, 2,000,000 gallons per diem. [*See Appendices* 10 *and* 12.] Three bores, Bourke to Hungerford Road. Two bores, Youngerrina, complete, 166 feet deep; supply, 120,000 gallons per diem. [*See Appendix* 9.] Yantabulla, 180 feet deep; supply, 100,000 gallons. [*See Appendix* 11.] Contractors—Petrolia Boring Company.

Contract No. 3.—One bore, Nyngan, now 700 feet deep, not complete. [*See Appendix* 7.] One bore, Coonamble. Not yet commenced. Contractor—William Watkins.

Contract No. 4.—Two bores, Collarendabri to Angledool. No. 1 bore now 2,000 feet deep. Not complete. [*See Appendix* 6.] Contractor—C. E. Mayes.

Contract No. 5.—Two bores, Moree to Boggabrilla, not yet commenced Contractor—C. E. Mayes.

Contract No. 6.—Five bores, Ivanhoe to Menindie. Erection of machinery in progress. Contractor—J. H. Stubbs.

Contract No. 7.—One bore, Balranald to Wakool. Still unlet.

Contract No. 8.—One bore, Moama to Deniliquin. Still unlet.

Contract No. 9.—One bore, Box Creek to Arumpo, and four bores, Euston to Pooncarie. Plant now *en route*. Contractors—Messrs. J. H. Stubbs.

Contract No. 11.—Five bores, Silverton to Lake Cobham. Contractors—Petrolia Boring Company.

Contract No. 12.—Five bores in existing wells. Contractors—Petrolia Boring Company.

Contract No. 13.—Two bores, Louth to Wanaaring. No. 1 bore, 810 feet deep. [*See Appendix* 8.] Contractors—Messrs. Pickering.

Eleven contracts let in all, embracing thirty-nine bores Two contracts at present only remain unlet, Nos. 7 and 8, for one bore each.

Upon the acceptance of the tenders under the ninth series, the Superintendent of Drills drew attention again to the inadequate appliances at his command, and, fearing accident from them, suggested that, as the two bores upon the Milparinka to Wanaaring Road, at the 106 and 121 mile pegs, being carried on under his directions were now of great depth, they should be completed by contract, to which the Minister assented, and after some negotiation they were satisfactorily let under contract No. 14 to Messrs. Pickering, contractors for contract 10. For sections of these bores *see Appendices* 3 *and* 4 respectively.

Nature of Contracts.—Casing.

The nature of the present contracts entered into briefly is as follows:—

The Contractor provides all necessary plant, tools, power, wood, water, and labour, for the sinking of the bores to a depth of from the surface to such depth as may be required, not exceeding 2,000 feet; the Government providing and carting all the necessary casing to the bore site. In the earlier contracts provision was made for the Contractor to supply everything, including casing, and as experience showed that the large initial outlay for casing, in addition to plant, was to a certain extent the cause of the paucity of the tenders, and as it was found that the Hydraulic Engineer, Brisbane, has been supplying his contractors with casing from the inception of his operations, the Minister approved of the adoption of that system, which I have reason to believe will prove the more economical. The whole of the later contracts

contracts from Nos. 6 to 14, are therefore let under it, and were quickly taken up upon the change becoming known. It consequently became necessary to make provision for a supply of casing, and a contract was entered into with Mr. T. J. McWilliam, sole Australian Agent for Messrs. A. and J. Stewart and Clydesdale, Glasgow, for the supply of casing at satisfactory rates, for the ensuing twelve months, in such quantities as might be required of the "Russian Brand" swelled and collar joint casing, the same kind as is largely used in Roumania, Italy, Austria, Russia, and in the Caspian oil wells. Tenders were publicly invited and six were received, but it was not until exhaustive inquiry had been made from private sources and from the Governments of Queensland (where Stewart's casing is used exclusively), South Australia, and Victoria, that the Minister decided to accept Mr. McWilliam's tender. Although not the lowest, it was considered that the class of casing to be supplied would be more suitable, and, from its world wide reputation and the experience of the Department, give the most satisfaction. In this a right step has, I venture to think, been taken, since the whole success of a bore depends upon its casing; grave and costly accidents, sometimes irreparable, have occurred, causing the total loss of a bore from defective casing. The choice I may add has given the profoundest satisfaction to our contractors, who have equally recognised the importance of being supplied with the best obtainable.

Bourke Bore.

So far as these wells have been completed, the cost, including the necessary casing, has averaged 35s. per foot, while the average cost of the more important of the Queensland bores appears to be about 37s. per foot. I see no reason why our average cost should be very materially increased, and when the outlay necessary to place a complete plant upon the ground that must in the first instance be incurred, the cost of the plant, &c., probably more than £2,000, before any return can be made, and the risks of the work, which fall upon the Contractor, and the isolated and outlying positions of most of our bores are taken into consideration, the rates appear to be reasonable. As instancing the risk attendant upon this class of work, the case of the Bourke Bore may be cited where the Contractor sunk five bores, losing both tools and casing in them, before he successfully got through the large beds of drifts; and as he was only paid for the actual depth of the last bore, his loss over this one operation must have been quite £1,000. This (Bourke) bore was sunk near the Trucking Yards, with the understanding that the Railway Commissioners would bear half the expense if successful. The greatest difficulty was experienced in piercing the heavy drift-beds, and, as before stated, no less than five holes were commenced, one of which reached a depth of 600 feet before the difficulties were overcome and a settled formation reached. This, however, soon merged into a formation, which was pronounced by the Government Geologist to be bed rock, in which it was considered hopeless to persevere. However, in deference to the expressed local opinion the Minister directed the boring to proceed with a view to placing the matter beyond all doubt, until 1,467 feet was reached at which depth the bore was stopped and the bulk of the casing withdrawn. [*See Appendix* 5.]

Moongulla Bore.

The Moongulla Bore, on the Collarendabri-Angledool Road, is an interesting bore, now down 2,000 feet in depth, and if successful will be most encouraging Some miles to the westward the proprietors of Dunumbral Station put down a bore 2,042 feet and tapped artesian water, which just flows over the curb 200 gallons per diem; the bore at this point had to be abandoned owing to the rotten caving nature of the strata and the impossibility to get the casing down, otherwise it was intended to proceed to a greater depth with a view of a large supply. The Government bore, it is trusted, will, if possible, solve this question, and prove whether a large deep-seated supply exists in this north-east district of the Colony. [*See Appendix* 6.]

Nyngan Bore.

The bore at Nyngan is another interesting bore, situated without or upon the verge of the supposed Cretaceous formation; the operations are keenly watched since if successful an entirely new field will be opened up. The depth is now over 700 feet and the enormous difficulty in piercing the drift-beds has been experienced here as at Bourke. The Contractor was compelled to abandon the first hole at a depth of nearly 5,090 feet. His perseverance in a most disheartening contract for a poor man is deserving of recognition. He is now out of his difficulty, and is in a more settled formation. In this bore it is extremely interesting to note that a thin coal seam has been struck, and that the formation underlying the band is closely allied to the formation of the Clarence series, and the Leigh Creek Coal Measure of South Australia. The sample of the stratum submitted to the Palæontologist of the Department, Mr. R. Etheridge, contained fossil leaves of a rare description (*tæniopteris*, a fern plant), which have as yet only been found in the formations referred to. [*See Appendix 7 and Appendix C.*]

Selection of Sites.

Great care was exercised in the selection of the boring sites; the Government Geologist and the Chief Inspector of Stock were consulted with the double object of not only placing the bores where they would have the effect, if successful, of watering certain arid stock routes, but also of testing definitely the geological formations of a very large area of hitherto unexploited country. They enclose, so to speak, a very large tract of country, which will be properly tested, since it is fair to assume that if one bore strikes the Cretaceous or Tertiary formation upon the eastern line, and another strikes the same formation on the northern and western line, the formation, of the intervening country will be the same, and if water is struck will afford encouragement and definite information for private individuals to proceed.

Reservations.

The bores are not confined to any stated district, but are in districts widely apart and different, and each succeeding bore, therefore, that is completed is a step nearer the important end of defining the boundaries of the extent and depth of the Cretaceous or artesian water-bearing formation or basins. Steps were at once taken when the sites were chosen and marked to secure a sufficient reservation of land for the protection of the bores, and to serve as public watering-place areas upon completion.

The stock routes chosen, in their present condition, are almost impassable in a drought, and the actual average annual stock traffic and the prospective increase due to the watering of the roads was in the first instance carefully considered. [*See Appendix D.*] It will be both instructive and interesting to watch the developments of the bores in the south-western and north-eastern districts, which are to the present day practically unexplored geologically. The immense plains may, for ought we know, cover as

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yet unknown basins of the Cretaceous formation or vast mesozoic or Tertiary drifts that will yield enormous supplies of water. The importance of this exploration will be seen on reference to the Superintendent of Drills, hydrographical map of New South Wales, where it is evident that the wells in the districts referred to are few and far between, and with few exceptions do not exceed 200 feet in depth; and when we consider again the limited nature and extent of the natural supplies of water in those districts, inadequate indeed for even domestic and stock purposes, let alone irrigation. Those portions of the districts to be tested by artesian boring are in addition almost entirely out of reach of any scheme for water conservation and irrigation, and if the latter is ever brought to them, it will be solely by the means of artesian wells.

Necessity for Records of Bores.

From the many demands for information generally made by the public upon the Department charged with this work, and for specific information regarding the strata, &c., in existing bores in the different localities, it became at once apparent that the information at its disposal was gravely inadequate. Steps were therefore taken, with the Minister's sanction, to initiate as complete an artesian well record as could be made and to that end the different boring companies and private firms, who had undertaken work of this class, were communicated with, with a view of obtaining a record of the positions, numbers, details, and sections of the various artesian wells sunk by them in the Colony. This was in most cases cordially responded to and the information (approximate, however, in some cases) was given, while in others no reply has been received, the public importance and great utility of such record being probably not recognised. The record obtained is given in the appendices, and sections of each bore have been prepared, so far as the information afforded permits, and the positions accurately shown on the artesian well map attached. The nucleus of a permanent record that will in each year increase in value and importance is now established, and will be of the utmost service in guiding future operations, whether public or private. The importance of the collation of this class of information does not appear to have been at first recognised in America, nor was it commenced with the earlier boring operations, the collection therefore of the arrears has caused infinite trouble and expense. Here it is trusted the compilation of this important record will proceed *pari passu* with the work as its scope becomes enlarged. As the matter at present stands we are now entirely dependent upon the courtesy of those who have undertaken such works for the requisite information. It seems to me, therefore, in view of the fact that our request has not in all cases been responded to, that some action is required, whereby those who undertake such work should be required to furnish the Government with the fullest information, as regards strata, depth &c., and that samples of each stratum pierced and the water struck should be afforded for examination, and analysis. How this can best be dealt with is a matter for further consideration, whether by regulation under the Crown Lands Act or by a few comprehensive clauses in the proposed Water Conservation Bill.

Analysis of Artesian Water.

The analysis of the waters is another important question, and in America is dealt with accordingly. Here we have as yet, done nothing beyond the analysis of a few samples of water of palpably low quality, from the Government bores and wells. [*See Appendix E.*]

It is, however, intended to obtain samples from every bore if possible for analysis, in order to determine their chemical character in regard to suitability for irrigation, a phase in the question that has not yet apparently attracted public attention, since the analyses hitherto made have only been with a view of determining the suitability or otherwise of the water for stock purposes, and then only from the wells and bores yielding a low-class quality, and in few instances has the water of a potable quality been tested. The object in view in the future will be to test all artesian waters of all qualities by analyses, as to their chemical character and suitability for irrigation. This branch of the subject is dealt with most comprehensively and exhaustively in America, and should receive the same treatment here as its importance demands. [*See Appendix F.*]

Regulation of Flow.

The Department has recognised the importance of the regulation of the flow from artesian bores and by the direction of the Minister a special regulating-valve was designed and made for use at all the Government bores, to which attention was generally directed in the public press, in the hopes that the owners of flowing artesian wells would recognise the importance of the subject, which is very great, and the necessity for some provision for preventing the waste of the most precious commodity in the arid portions of the Colony. This regulating-valve is doubly necessary in cases were the occurrence of artesian water is at comparatively shallow depths and where the artesian basin is supplied by the local rainfall soaking into them. "In which case," Mr. C. S. Wilkinson, the late Government Geologist states, "the artesian supply may gradually diminish if largely drawn upon and it will of course vary with the depth and distance of the bore from the outcrop of the bed; in other words, according as the bore may have a greater or less extent of water-bearing formation to drain. Here then will be seen the wisdom of preventing the outflow from going to waste by regulating it by a valve or mechanical means such as is being constructed under the direction of the Minister." The lesson of the diminution of the artesian supply in the London Basin before referred to, and our own immediate experience in the shallow Goonery Bore, where the flow has decreased in five years from 1,000 gallons to 260 gallons per hour, confirms amply this opinion, and the fact that the question has been deemed sufficiently important to legislate upon in America, all points out the great necessity for legislation upon the subject in this Colony, where, I believe, I am not beyond the mark in saying 16,000,000 gallons of artesian water is daily flowing to waste, and that in southern Queensland, upon our own border, extending as far as Charleville, the water flowing to waste fully equals 15,000,000 gallons daily.

Mr. Wilkinson continues:—"But where the supply is of deep-seated origin its source is so distant and wide spread that in my opinion it is practically unlimited, and cannot possibly be exhausted by the numerous bores that may be put down throughout the extensive area, so that such supply may be unsparingly used for irrigation purposes." In corroboration of this, the experience of the Mormon authorities in Utah, where such use, that is, irrigation, is considered justifiable only under conditions of large and deep-seated supplies, perhaps confirms this view, but for all that the outflow is regulated, and no waste permitted, and so it should be in this country. As yet we have no legislation dealing with the question, but in the draft Bill for the conservation and utilisation of water, provisions are inserted dealing with it

Some few owners of artesian bores have regulating-valves in position, but the majority I believe. have not. Neither do I think the value or importance of them is fully recognised. In addition to this

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the bulk of the wells are not sufficiently cased to admit of this being done. From economical motives most of the casing is withdrawn, and if the outlet is suddenly closed, I fear in many instances the water would find its way out behind the casing, and probably destroy the bore or lose the flow in the previous strata that necessitate the use of the casing. Such has happened and is, I believe, within the experience of the South Australian Government in respect of the Hergott Springs Bore. The State of Colorado has recognised the importance of use of proper and sufficient casing, and deals with this in Article 12 of the proposed irrigation code. In San Bernardino County, California, this question is also dealt with by public regulation.

Irrigation from Artesian Bores.

Artesian water is, as a rule, suitable for irrigation purposes, and it is only those heavily charged with salt or alkaline matters that are not; and as I can see no reason why this industry, growing daily in importance, should not be an element of immense value, deserving the utmost consideration in developing that north-western portion of the colony, where the fertility and recuperative powers of the soil are so wonderfully illustrated by the growth of feed after rainfall at the proper season. The average quantity of water required for the irrigation of grain crops, based upon the experience of other countries, may be roughly estimated at 72,600 cubic feet or 543,485 gallons per acre. One inch of rain would equal 3,630 cubic feet or 22,622 gallons per acre. A rainfall of 20 inches would therefore yield 72,600 cubic feet or 543,485 gallons per acre. 640 acres would consequently require 46,464,000 cubic feet or 347,830,400 gallons upon them as an equivalent to 20 inches of rain. When it is considered that the flow per diem from the Native Dog Artesian Bore, 45 miles from Bourke, is approximately 2,000,000 gallons per diem, or 730,000,000 gallons per year, it will be seen that upon the foregoing basis a supply of water equal to a rainfall of 40 inches per annum, per 640 acres is available, or that an area of considerably over 1,280 acres can be supplied with water equalling a rainfall of 20 inches per annum.

The cost of the Native Dog Bore has been £1,000 4s. 6d. This amount added on to the value of 1,280 acres of land, renders its cost so disproportionate to its value furnished with a water supply, it may be said for ever equalling 20 inches of rain per annum, that it seems to me there is a wide opening for the encouragement generally of artesian boring to the great benefit of the colony, and particularly to the north-western portion of it, where the supposed Cretaceous area embraces a territory of 45,000 square miles, or over 28,000,000 acres. There is a great opening, too, for any enterprise that can devise a means for boring for artesian water at a cost that will place it within reach of all classes, as it stands the expense which may be roughly averaged from 30s. to 35s. per foot, limits the operations to the few. The cost in America, which averages somewhere about 8s. per foot, has an important bearing upon the progress and development of this work there. The same appliances are mostly used, and the small cost compared with that in our own colonies is, I understand, attributable to a very large extent to the fact that the strata are known and are more settled in America than in our own country, and to keen competition. I was informed by a practical driller, with a life's experience of boring in Europe and America, that he had never met such difficult ground to deal with as here; and the discouraging difficulties our own drillers have met with tends to confirm this statement. Further, so little is known of the strata likely to be met with that the price is one to cover all risks.

Legislation Required.

From the foregoing statement in regard to the boring in other lands, I venture to think that legislation is required in this Colony, based somewhat upon the proposals contained in Article 12 of the proposed Colorado code, embodying the latest suggestions from a country where artesian boring is perhaps the most extensive in the world; that accurate records should be kept of the strata, positions, &c.; that analysis of the waters should in all cases be made, and all particulars required should be furnished by private persons, who undertake this work; and that all wells should be properly cased.

As the theory of the occurrence of artesian water has never so far as I know been clearly and succinctly placed before us, I venture to add the following interesting remarks upon the subject prepared by T. W. E. David, Esq., Professor of Geology at the Sydney University, and late Geological Surveyor to the Department.

Note on the Origin of Artesian Water in New South Wales.

With reference to the origin of the artesian water of New South Wales, the geological map of the country shows that the area within which the artesian water lies is shut in the south-east by the great impervious barrier of the Palæozoic rocks, which constitute the Main Dividing Range, but to the north and west communicates and forms part of the artesian water formations of Queensland and South Australia, possibly on the south-west the artesian basin is hemmed in by a low ridge of impervious Palæozoic rocks, extending from near Dubbo by way of Nymagee and Cobar to the Barrier Ranges. Possibly, however, a narrow outlet may exist in this sunken ridge, approximately underlying the present channel of the Darling River, and allowing the water in the artesian beds to escape underneath the Tertiary deposits of the Riverina district to the ocean at the Coorong coast, near the mouth of the Murray River. Traced northwards into Queensland the artesian basin is still bounded on the east by the same Main Dividing Range and its various offshoots as far north as the Gulf of Carpentaria.

In Northern Queensland the artesian basin is bounded on the west by the Palæozoic rocks of Gloncurry, and possibly this ridge of rocks is more or less continuous in a southerly direction to the Grey Ranges and Mount Browne. It is possible, however, that an outlet for the artesian water to the ocean may exist through some of the deep depressions in the western sunken ridge of impervious rock. The artesian water basin has a length extending from Nevertire to the Gulf of Carpentaria, and a width extending probably from near Warren to across the South Australian border that portion of it which lies in New South Wales, having an area of about 40,000 square miles, according to the estimates of the late Government Geologist, Mr. C. S. Wilkinson, F.G.S. The artesian basin is obviously completely closed along its eastern margin, but may discharge its waters into the ocean either in a northerly direction at the Gulf of Carpentaria or westerly; and then south-westerly by way of Lake Eyre into the Australian Bight or directed south-westerly, following approximately the course of the river Darling into the ocean near the Coorong coast. There is a strong probability that the artesian waters of the Cretaceous basin are subject to a slow but constant underflow, which enables the water to circulate and eventually discharge its saline matter into the ocean, for it is on this property of circulation that the freshness of it chiefly depends.

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It is a well known fact that rain water which has percolated into the Tertiary formations, which overlie large areas of the Cretaceous formation of our western plains, rapidly becomes salt in those areas where it remains stagnant, but in localities where water-bearing beds of the same formation overlie the porous beds of the Cretaceous formation, the water found in the former is fresh owing to its being able to circulate. The source of the water in our portion of the artesian basin is obviously the rainfall of the upper portion of the Darling Catchment, and particularly that which drains into those portions of the Dumaresq, Gwydir, Namoi, Castlereagh, Bogan, and Macquarie Rivers, which overlie impervious bed rock. Mr. H. C. Russell, C.M.G., F.R.S., has estimated that the average rainfall over this area for the ten years preceding 1889 was 22·14 inches, and that out of this only 1½ per cent. was actually discharged by the river Darling at Bourke. Assuming that out of this total rainfall 48½ per cent. is evaporated, half the total rainfall must percolate and should be recoverable by means of wells and bores. The great extent of this percolation is proved by the fact that floods in the Macquarie River, unless exceptionally high, are scarcely appreciable at Warren, the river for the intermediate distance having flowed over the porous beds of the Tertiaries, which allow its water to percolate into the still deeper porous beds of the Cretaceous formation.

Mr. J. W. Boultbee, Officer-in-charge of Water Conservation, in the accompanying report states that for irrigation purposes an amount of water supply is needed equal to about 20 inches of rain annually. Assuming that the area of land, off which the percolated rainfall drains into the Cretaceous beds, is equal only to one-third of the total area of the Cretaceous, or about 13,000 square miles (a minimum estimate), and that of the 22 inches of rain which falls on this third, one-half percolates, it should be possible to irrigate at least one-sixth of the whole Cretaceous basin, or about 6,500 square miles by means of water obtained from artesian wells or bores, provided the water prove suitable for irrigation purposes. The latter question has not yet been definitely settled, and with a view to its solution it is of great importance that as many analyses as possible should be made by the Government of such artesian water. It is gratifying, however, to note that recent analyses by Mr. J. C. H. Mingaye, F.C.S., Analyst to the Department of Mines, proves that the artesian water from the Youngerrina and Native Dog Bores is well suited for irrigating purposes. In cases where the water may prove unsuited for irrigation, as has been the experience at the Barcaldine and Blackhall Bores in Queensland, it is possible that by a judicious preliminary æration of the water by exposing it in shallow tanks to the influence of the atmosphere, its quality may be so far improved as to render it suited for supporting plant life. This æration of artesian water before using it for irrigation, has been attended with considerable success in the United States of America. As regards the cause of the water in the bores rising to the surface, and in most cases overflowing, this phenomenon is, in my opinion, due simply to hydraulic pressure, brought about partly by the resistance of the sand beds of the Cretaceous formation to the rapid escape of the water percolating through them, and partly to the pressure of the ocean waters at the Gulf of Carpentaria or along the southern coast of South Australia. In exceptional cases the natural generation of certain gases may assist in forcing the artesian water to the surface, as has been observed at the Kissengen Salt Well in Germany. At this well, which is 1,878 feet deep, the water rises 58 feet above the surface of the ground, the pressure being attributed to the generation of carbon dioxide through the interaction of sulphate of lime and limestone, a considerable thickness of which has been passed through in the bore. Some of the artesian wells sunk on the eastern side of the Sierra Nevada are considered to owe part of their pressure to gas. (Progress Report on Irrigation in the United States, Part I, page 203.)

Between Hungerford and Thargomindah, in Queensland, near the New South Wales border, there are a number of mud springs, as I am informed by Mr. J. E. Carne, F.G.S., some of which give off gas as well as mud and water. In this case, also, therefore gaseous pressure may assist in forcing the artesian water to the surface. The relative altitudes, however, of the sites of overflowing wells and bores in New South Wales, as compared with the altitudes at which rain water has its lowest points of egress into the artesian water-bearing beds of the Cretaceous formation, show that hydraulic pressure alone will fully account for the rise of water to the surface at artesian bores, such as the Native Dog Bore, and the Cuttaburra Bore. The altitude of these bores may be assumed to be between 400 and 450 feet above the sea level, whereas the level of the Palæozoic rocks, in the neighbourhood of Byrock and Coolabah, where percolation of rain water probably takes place, is from 500 to 700 feet above sea level, and the level where this water enters the Cretaceous beds in this neighbourhood may be from 100 to 200 feet lower. Between Dubbo and Warren a large amount of water percolates into the Cretaceous beds from the Macquarie, and the lowest point of intake into this portion of the basin may be as much as 600 feet above sea level. This would give a difference in level of about 150 feet between the point of inflow between Dubbo and Warren and the point of outflow at Wanaaring. Besides, the Macquarie, the Bogan, the Castlereagh, the Namoi, the Gwydir, and the Barwon or Dumaresq Rivers obviously supply large quantities of water, by percolation to the Cretaceous beds. The supply of percolated rainfall from the Mount Browne and Milparinka District must also be taken into account; but as far as I am aware little is known as to the level of this latter district of the intake into the Cretaceous beds, but it would probably be sufficiently high to afford hydraulic pressure competent to raise water to the surface at Wanaaring. The bottom of the Cuttaburra Bore is probably nearly 500 feet below sea level, and the bottom of the Charleville artesian bore, in Queensland, is 395 feet below sea level. In such cases the pressure of the ocean water along the coasts of Northern and Southern Australia must obviously assist the resisting action of the water-bearing sands of the Cretaceous, and so help to raise the general level of the hydraulic grade. The high temperature of the water flowing from some of the deeper artesian bores can be explained by the known laws of the downward increment in temperature of the earth's crust, which averages about 1 deg. Fahr., for every 63 feet of descent after the superficial zone of constant temperature is past. Owing, however, to the different heat conductivities of different rocks, considerable latitude must be allowed in employing the above formula. For example, at the Muckadilla Bore, Queensland, which is 3,262 feet deep, the water has a temperature of 124 degrees Fahr., while the water from the Buranoilla Bore, in the same colony, has temperature also of 124 degrees Fahr., whereas its depth is only 1,811 feet. The mean surface temperature at these two bores being assumed to be 80 degrees Fahr., the temperature of the Muckadilla water, theoretically, should be 130 degrees Fahr., whereas it is actually 124 degrees Fahr., and that of the Buranbilla water about 100 degrees Fahr., whereas its actual temperature is 124 degrees Fahr. Obviously it is unnecessary to refer the origin of these high temperatures to volcanic agency, when they are capable of being explained by the above simple law.

Mr.

Mr. David has in his memorandum touched upon an important point, which I had not brought into prominence, and which should be emphasised, in connection with the consideration of the permanence of the artesian sources. He states that while half of the rainfall can be accounted for by evaporation and the natural flow to the ocean, there still remains a half that percolates into the pervious strata, and replenishes to an enormous extent the existing artesian supplies which have not been taken into consideration by him in his estimate. This is amply confirmed by the experience gained in America. In conclusion, I can only reiterate that much may be done in the North-western portion of the Colony, in settling a desirable population on the land, provided legislation is brought to bear to foster and encourage the development of this work, and provided that rail freights are so arranged as to allow the producers to compete with the importers, as its stands the cost of transit of wheat from Bourke to Sydney, a distance of 505 miles, is 7d. per bushel. This is a heavy tax. In America the transit of wheat from San Francisco to New York a distance of 3,325 miles by the Southern Pacific Road is 5½d. per bushel and fast freight is guaranteed. I have been informed by a local resident at Bourke that 7 or 8 tons of grapes, bananas, &c., grown within a few miles of Bourke on irrigated land, was last season thrown to waste because it would not pay to forward to the metropolitan market. This district is sparsely populated by the Crown tenants, and a nomadic unsettled population of shearers, rouseabouts, boundary riders, carriers, &c., and is at present given over almost entirely to the pastoral industry. It is not, I think, unreasonable to forecast that with the conditions suggested fulfilled that a population of prosperous yeomanry will in time spread over this district, which is now, as I have said before, sparsely populated and devoted to carrying at its best a sheep to about 4 acres, and thus materially add to the prosperity and progress of the Colony. If our operations in other portions of the Colony meet with the hoped for success, it is difficult to estimate the progress and prosperity that must naturally ensue.

JAMES W. BOULTBEE,
Officer-in-charge, Water Conservation.

List of Artesian Wells in New South Wales.

Government Wells (complete or in progress).

No. on Map.	Name.	Parish.	County.	Road.	Depth in Feet.	Supply per diem in Gallons.	Temperature.	Height above sea level.	Contractor.
↑							Approx		
7	121 Mile		Ularara	Milparinka to Wanaaring	1,304		In progress		Wm. Pickering
8	106 Mile		do	do	1,299		do		Wm. Pickering
1	Bourke	East Bourke	Cowper	At Bourke	1,467	Nil		350	Petrolia Co.
12	Moongulla	Bukkulla	Finch	Collarindabri to Angledool	2,000		In progress		Chas. Mayes
13	Nyngan	Nyngan	Oxley	At Nyngan	700		do		Wm. Watkins
10	Louth		Landsborough	Louth–Wanaaring	810		do		Wm. Pickering
5	Youngerina	Youngerina	Irrara	Bourke–Hungerford	165	175,000	82°	450	
6	Native Dog	Leila	Gunderbooka	Bourke–Barringun	475	2,000,000	92°		
15	Yantabulla	Mucruss	Irrara	Bourke–Hungerford	210	100,000	92°		Petrolia Co.
11	Barringun	Barringun	Culgoa	Bourke–Barringun	815				
48	Ballimore	Murrungundie	Lincoln	Near Dubbo	561½	24,000			
4	Cuttaburra	Paroo	Irrara	Bourke–Wanaaring	965⅚	22,464		450	
2	Goonery	Goonery	Barrona	do	89⅙	24,000			Put down by the Superintendent of Drills.
9	91 Mile		Ularara	Wanaaring–Milparinka	72	Nil			
45	Tibooburra No. 1		Tongowoko	At Tibooburra	288	Not flowing.			
46	do No. 2		do	do	53	,,			
47	Milparinka		Evelyn	At Milparinka	99¾	,,			
3	Tinchelooka	Wanga	Barrona	Bourke–Wanaaring		33,000			

Government Bores (Let).

No. on Map.	Name.	Parish.	County.	Road.	Contractor.
14	Coonamble	Morambilla	Leichhardt	At Coonamble	Wm. Watkins
16	Warroo	Waroo	Irrara	Bourke to Hungerford	Petrolia Co.
17	Engonia	Engonia	Culgoa	Bourke-Barringun	do
18	Louth (No. 2)		Barrona	Louth to Wanaaring	Wm. Pickering
19	77 M.		Ularara	Wanaaring to Milparinka	do
20	41 M.		Yantara	do do	do
21	25 M.		do	do do	do
22	10 M.		Evelyn	do do	do
23	No. 1		Yantara	Cobham to Silverton	Petrolia Co.
24	No. 2		Mootwingee	do do	do
25	No. 3		do	do do	do
26	No. 4		do	do do	do
27	No. 5		Farnell	do do	do
28	174 M.	Makingah	Livingstone	Ivanhoe to Menindie	J. H. Stubbs.
29	151 M.	Huco	do	do do	do
30	130 M.	Tolarno	do	do do	do
31	111 M.	Linbee	Manara	do do	do
32	21 M.	Casey	do	Ivanhoe	do
33	77 M.	Pulpa	Wentworth	Euston to Pooncarie	do
34	Arumpo	Buraguy	do	do do	do
35	38 M.		Taila	do do	do
36	19 M.	Pringle	do	do do	do
37	33 M.		do	Box Creek to Arumpo	do
38	Willandra Well	Whitminbah	Manara	Balranald to Ivanhoe	Petrolia Co.
39	Dolmoreve Well	Cubarla	do	do do	do
40	Holy Box Well	Pittenweem	Mossgiel	Booligal to Ivanhoe	do
41	Polygonum Hut Well	Annan	Waljeers	do do	do
42	Jumping Sandhill Well	Yarto	do	do do	do
43	Hay		Waradgery	Hay to Booligal	do
44	Angledool	Mundoo	Finch	Collarindabri to Angledool	Chas. Mayes
51	No. 1	Tulloona	Stapylton	Moree to Bogabilla	do
52	No. 2	Illingrimindi	do	do do	do

Government Bores (Approved, but not let).

No. of Map.	Name.	Parish.	County.	Road.	Remarks.
50	Wakool	Wombah	Caira	Balranald to Wakool	
49	Yellow Waterholes	Bama	Caddell	Deniliquin to Moama	

Private Bores, New South Wales.

Station.	Parish.	County.	Depth in Feet.	Artesian Supply in Gallons per diem.	Ref. No. on Map.
Buckanbe	Wygilla	Rankin	725	Nil	1
Marra, No. 1	Balara	Killara	1,482	Nil	2
Do No. 2		Do	895	Nil	3
Dunumbral		Finch	2,070	300	4
Dunlop, No. 1	Sargorimba	Barrona	620	43	5
Do No. 2	Goolgumbla	Landsbrough	940	576,000	6
Do No. 3	Coonong	Do	860	600,000	7
Do No. 4	Do	Do	750	500,000	8
Do No. 5	Tweandah	Do	1,200	15,000	9
Nocoleche, No. 1		Barrona	916	140,000	10
Do No. 2		Ularara	1,500	Nil	11
Do No. 3		Barrona	1,227	700,000	12
Belalie, No. 1		Culgoa	1,693	600,000	13
Do No. 2		Irrara	1,160	In progress	14
Do No. 3		Do	1,600	do	40
Yanda, No. 1		Cowper	750	Nil	15
Do No. 1		Do	1,608	Nil	16
Salisbury Downs, No. 1		Yantara	1,365	200	17
Do No. 2		Do	1,568	9,000	18
Kerribree, No. 1		Barrona	1,073	350,000	20
Do No. 2	Moseta	Do	1,340	1,750,000	21
Wangamana		Do	1,600	224,000	22
Pirillie		Irrara	613	No information	23
Kallara, No. 1	Mulyee	Kallara	46	9,000	24
Do No. 2	Undelcarra	Do	140	4,000	25
Do No. 3 (Kingswell bore)	Dinpooker	Kallara	600	10,000	26
Do No. 4 (Toonburra bore)	Parkin	Fitzgerald	820	1,000	27
Do No. 5 (Moonooloo bore)	Moonooloo	Kallara	900	1,500	25
Do No. 6 (Box bore)		Do	1,411	2,000	29
Do No. 7 (Nefeenyah bore)	Tutly	Do	540	500,000	30
Do No. 8 (Paradise bore)	Calpacaira	Do	931	60,000	31
Do No. 10 (Gum Lake bore)	Paroo	Do	676	50,000	32
Do No. 11 (Tonga bore)	Mullawoolka	Do	700	7,000	33
Do No. 12 (Mungundi Lake bore)		Do	760	Not stated	34
Yancannia, No. 1	Cockulby	Yanbara	268	In progress	35
Do No. 2	Bingiwilpa	Do	203	480,000	36
Fort Bourke		Gunderbooka	1,284	Nil	37
Weilmoringle, No. 1		Culgoa	2,005	28,000	38
Do No. 2		Do	1,590	1,728,000	39
Pirillie, No. 2			803	60	43
Momba, No. 1	Charlton	Fitzgerald	1,505	Nil	44
Do No. 2	Parkingi	Yungunlgra	1,261	Nil	45

Particulars not to hand of Corella, Nos. 1 and 2, and Lissington, Nos. 1, 2, and 3, and Brindingabba bores.

Appendix A.

Extract from Report of the Department of Mines for 1886.

The Boring for coal at Ballimore, about 23 miles from Dubbo, is also of great importance. At the depth of 540 feet the drill passed through a seam of coal 5 ft. 2 in. in thickness, and while boring for a second seam of coal, 10 feet below the first seam artesian, mineral water commenced to flow to the surface, and is now flowing at the rate of 1,000 gallons per hour, and will flow through tubing 30 feet above the surface, and higher if required. The water when coming up out of the bore-hole contains a great deal of gas, and has a taste very similar to the German seltzer water. I believe that this is the first artesian mineral water discovered at such a depth in New South Wales; it is, therefore, of great importance, and may become very valuable to the colony. Mr. Slee brought two quart bottles full of water with him to Sydney for a rough analysis, but owing to the cork coming out the gas escaped, and the analysis is not as satisfactory as it would have been had he been able to obtain Winchester quart bottles on the place. Nevertheless, the rough analysis obtained proves it to be a valuable mineral water, as the following certificate of analysis will show:—

Sir, Department of Mines, Assay Branch, Sydney.

I have the honor to report as follows respecting the sample of water received from you, and numbered. Total fixed residue 226·66 grains per gallon, consisting of:—

Carbonate of lime	14·00 grains per gallon.
Chloride of magnesium	12·05 ,,
Oxide of iron	1·02 ,,
Alumina	trace
Silica	·21 ,,
Alkaline carbonates	199·38 ,,

Note.—The quantity of water received was too small for a thorough analysis; if such a one is required it will be necessary to supply 2 gallons of the water in clear, stoppered Winchester quart bottles, also two samples in sodawater bottles, securely corked, for the estimation of the free carbonic acid. The water has all the properties of a mineral water, and is highly charged with carbonic acid.

I have, &c.,

JOHN C. H. MINGAYE.

APPENDIX B.

Report on Analysis of Water from Cuttaburra Bore.

I HAVE the honor to report as follows, respecting a sample of water forwarded by you for analysis and report on the 2nd instant. The water yielded on evaporation a total fixed residue of 396·872 grains per gallon, consisting of:—

Silica	1·596	grains per gallon
Protoxide of Iron	·112	,,
Alumina	Trace	
Carbonate of Lime	6·664	,,
Carbonate of Magnesia	·336	,,
Chloride of Sodium	349·040	,,
Chloride of Potassium	Trace	
Chloride of Calcium	27·530	,,
Chloride of Magnesium	4·190	,,
Chloride of Ammonium	·642	,,
Alkaline Carbonates, Organic matter, strong traces of Bromide, trace of Iodine and Lithi, Nitrates, &c.	6·712	,,
	396·872	

No poisonous metals detected. Water clear in colour, free from odour. On tasting had a strong saline taste due to the chloride of sodium (common salt) present. On perusing the various papers forwarded with the sample I find that it is proposed to conserve the water for watering stock. As regards its use for that purpose I am of opinion that it is a fairly suitable water, the magnesia salts being present only in a small quantity, and the proportion of chloride of sodium not excessive.

In Foreman Carmichael's report to Inspector Slee he points out the luxurious growth of vegetation where the water has been in contact with the soil. This is what would be expected with this class of water, but for a time only, as when the soil became saturated with a large quantity of the water, the saline matter deposited on evaporation would tend to kill vegetation. On referring to the analysis it will be seen that a strong trace of bromine and a minute trace of iodine were detected. I am not aware that bromine has previously been found in any of the waters of this Colony, though it is sometimes present in some of the mineral waters of South America. Mr. Hamlet informs me that he detected iodine in a mineral water found in this Colony.

I have, &c.,

JOHN C. H. MINGAYE, F.C.S.,
Analyst and Assayer.

The Geological Surveyor-in-Charge.

APPENDIX C.

MEMO. Strata from the Nyngan Bore.

THE plant fragments distributed throughout the strata from the Nyngan Bore are portion of the fronds of *tæniopteris*, a fern, characteristic in Australia, of the lower mesozoic coal measure; and in New South Wales particularly of that section known as the Clarence series. The latter is, probably, the equivalent of some part of the Ipswich coal measures, in Queensland, where the fern also occurs. It is likewise found in the typical Clarence District, and in the "carbonaceous" coal measure of Victoria.

I may point out that the occurrence of this *tæniopteris* shale in the Nyngan Bore is a matter of very considerable importance, because, in the absence of any negative evidence, it appears to indicate the presence of an additional mesozoic area in Central New South Wales, which might prove coal-bearing. The nearest other mesozoic area is that of the Ballimore series, near Dubbo.

18/9/91.

R. ETHERIDGE,
Palæontologist.

APPENDIX D.

Estimated Traffic on the under-mentioned Roads upon which it is proposed to Bore.

Bourke to Barringun.—Sheep, 197,116; horses, 879; cattle, 130,762.

Wanaaring to Tibooburra.—Road, impassable until watered, it is required to provide access from and to Mount Brown Diggings and Railway at Bourke, and would catch considerable stock as it is the last turn off from the Adelaide Road for Sydney or Queensland stock. Traffic may be estimated at:—Sheep, 50,000; horses, 500; cattle, 20,000.

Bourke to Hungerford.—Sheep, 115,000; horses, 600; cattle, 90,000. If permanently watered, traffic would largely increase; the numbers do not include teamsters' stock.

Moree to Boggabrilla.—Sheep, 150,000; horses, 500; cattle, 50,000. Traffic likely to increase; main route from Queensland to the heart of this Colony.

Angledool to Collarendabri.—Sheep, 50,000; horses, 100; cattle, 500. Traffic is likely to increase considerably, as it draws from the Culgoa and Ballone Rivers Districts, in Queensland.

Coonamble.—Sheep, 331,014; horses, 912; cattle, 18,511.

Nyngan.—Town supply.

Silverton to Lake Cobham.—Sheep, 64,000; horses, 2,500; cattle, 10,760. The number of cattle is considered under the mark.

Hay to Ivanhoe.—Sheep, 284,204; horses, 575; cattle, 4,271. The estimate of cattle and horses is considered very much under the mark.

Menindie to Ivanhoe.—Road impassable until watered. Estimated traffic:—Sheep, 80,000; horses, 300; cattle, 5,000.

Ivanhoe to Balranald.—Sheep, 7,000; horses, 1,050; cattle, 1,000.

Carrathool to Hillston.—Sheep, 206,272; cattle, 5,557.

Balranald to Wakool.—Sheep, 275,601; horses, 206; cattle, 2,288.

Deniliquin to Moama.—Sheep, 860,738; horses, 568; cattle, 6,893.

Euston to Arumpo.—Sheep, 18,100; horses, 70; cattle, 6,200.

Box Creek to Pooncarie.—Sheep, 50,000; horses, 200; cattle, 10,000.

APPENDIX E.

Analysis of Water from Native Dog and Youngerrina Bores.

I HAVE the honor to report as follows respecting two samples of Artesian Water received from you for analyses and report on the 3rd instant:—

No. "3716". Water from Youngerrina Bore, depth 168 ft. Temperature 82° F.

	Grains per gal.	Parts per 1,000.
Total solid residue	32·984 ...	0·4712
Soluble saline matter	31·892 ...	·4556
Insoluble mineral matter	1·092 ...	·0156
Chlorine	5·100 ...	·0728
Equal to Chloride of sodium	8·404 ...	·1200

Remarks:—The water was clear and colourless, free from odour and matters in suspension. On evaporation gave a strong alkaline reaction; before evaporation a slight alkaline reaction.

The soluble saline matter consists largely of alkaline carbonates, chloride of sodium (common salt), silica and strong traces of lime, Magnesia, Sulphuric Acid, &c. The insoluble matter consists almost entirely of silica with traces of Carbonates of Lime and Magnesia.

No. "3717". Water from Native Dog Bore, depth 475 ft., temperature 92° F.

	Grains per gal.	Parts per 1,000.
Total solid residue	45·108 ...	0·644
Soluble saline matter	44·044 ...	·6292
Insoluble mineral matter	1·064 ...	·0152
Chlorine	4·500 ...	·0642
Equal to chloride of sodium	7·415 ...	·1059

Remarks:—The water was clear and colourless and free from odour. On evaporation gave a strong alkaline reaction; before evaporation a slight alkaline reaction.

The soluble saline matter consists chiefly of alkaline carbonates, chloride of sodium (common salt), silica, and strong traces of lime, Magnesia and Sulphuric Acid. The quantities of both the samples received were rather small for analysis.

The alkaline carbonates when present in a large quantity are known to excite a strong corrosive action upon the roots of plants, their action being to a great extent remedied by the addition of gypsum to the soil. The amount present in these waters, however, is small, and they may be classed as of a good description for irrigation purposes and suitable for all domestic purposes.

I have, &c.,
JOHN C. MINGAYE, F.G.S.,
Analyst and Assayer.

The Geological Surveyor-in-Charge.

APPENDIX F.

MEMO. *Re* the effects of Saline Waters on Stock.

FOR the information of the Chief Inspector of Watering places, I have the honor to report having ascertained from the analyses of some of the wells in the Western District, contained in the Departmental reports, that the salts most frequently found are magnesia and soda, combined with sulphuric acid or chlorine.

As these salines are used in veterinary medicine, their effects are well known when administered in definite medicinal quantities. Magnesia salts, in doses of about 1 lb., act as a purgative for cattle, and ½ lb. is a purge for sheep or swine. It is not suitable for horses, as it excites too much irritation of the bowels, and causes inflammation. From 2 to 4 ounces repeated daily to cattle, or a proportionate quantity to sheep, would set up indigestion, dissolve the fibrine in the blood, cause loss of flesh, attended by irritation of the bowels, semi-fluid feces, with excited action of the kidneys, gradually reducing the animal strength and vitality. Such water being nauseous and bitter to taste, would prevent stock from drinking it, unless they are pressed by thirst. Soda salts are also used, but much less frequently, in purgative doses for stock. Cattle will take about 1 lb., and sheep about 3 or 4 ounces. It is too violent and uncertain in its action to be used for horses.

Common salt (chloride of sodium) is an essential article of food, aiding digestion. It assists in the formation of the gastric juice and bile, and generally assists nutrition in quantities of 1 to 3 ounces daily for cattle, half that quantity for horses, and 1 or 2 drams for sheep.

Large and repeated doses of salt in drinking-water causes increased thirst, and excites the action of the kidneys. They excrete an excessive quantity of pale urine and impoverish the blood of its chemical constituents, leading to loss of condition and general debility.

There is no doubt that many animals located on a station can and do accommodate themselves to saline water, while others less robust in condition will waste away and die.

It is easy to understand that starving, or even thirsty, travelling stock may suffer disastrously from drinking at once a large quantity of water containing a high percentage of saline material. Horses and cattle will drink from 5 to 12 gallons a day, sheep from 1 to 2 gallons a day. Drovers should be cautioned at saline drinking-places of the danger of permitting stock to drink too freely, until they had become accustomed to the medicinal properties of the water.

EDWARD STANLEY,
Government Veterinarian.

Appendix G.

Artesian Well Boring Tools and Plant Complete.

Machinery for Rig.

1 crank shaft, 3⅞ in. diameter, with w.-i., crank, pin, and collar; 1 draw spool, all w.-i., and 1 sand, line spool, w.-i., with brakes; 2 belt-tighteners, all w.-i.; 1 wrought-iron driving-wheel, 6·0 in. diameter; 2 wrought-iron draw-wheels, 4·6 in. diameter; 2 spool chains and swivels; 1 wrought-iron con. rod and brasses; 1 cast-iron spring pole-jacket; 1 saddle and stirrups for beam; 1 noddle pin and bolts; 1 slipper-out, complete (steel wheel); 1 set braces for slipper-out; 3 rope-sheaves (turned); 1 stirrup and king bolt for spring-pole; 2 hydraulic jacks.

Derrick Tools.

2 knock wrenches; 2 catch wrenches; 1 pair heavy tool wrenches, 1 bit lever and chains, 1 extra large iron wrench board and stool; 1 pole-holder; 1 joint clamp.

Pole-fittings.

60 sets pole joints and centre straps; 2 pole swivels; 2 drill swivels; 1 drill chain and swivel; 1 cowsucker and shackles.

Drilling Tools.

1 sinker-bar, 2½ in. diameter, 30 ft. long, joint in centre; 1 sinker-bar, 3 in. diameter, 30 ft. long joint in centre; 1 sinker-bar, 3½ in. diameter, 30 ft. long, joint in centre; 1 sinker-bar, 4 in. diameter 30 ft. long, joint in centre; 1 pair drilling-jars, 1½ in., legs all steel; 1 pair drilling-jars, 1¼ in., legs all steel; 1 pair drilling-jars, 1⅛ in., legs all steel; 1 pair drilling-jars, 1 in., legs all steel; 2 dutchmen, 1 top, and 1 bottom; 1 ball or improved under-runner for 6-in. and 8-in. casing; 2 6-in. bits; 2 8-in. bits; 2 10-in. bits; 2 5-in. bits.

Sand-pumps.

1 sand-pump, 4 in. diameter, brass valve and seat; 1 sand-pump, 5-in. diameter, brass valve and seat; 1 sand-pump, 6½ in. diameter, brass valve and seat; 1 sand-pump, hanger, and chain.

Fishing Tools.

1 pair spring grabs; 1 spud, 8 ft. long; 21 two-legged socket; 21 one-legged socket; 1 half-turn hook.

Casing Tools.

1 set casing dogs, 5-in., 6-in., and 8-in.; 3 sets clamp bolts, nuts, and washers; 3 steel, casing shoes, 5-in., 6-in. and 8-in.; 1 casing chain, ring, and hook; 51 pairs iron casing clamps and bolts.

Boring Tools.

1 surface auger, 12-in.; 100 ft. boring-stems and connections; 1 stone-hook; 1 mud-pump, 10 in. 1 boring-chain; 2,000 ft. 2¼ in. best drill-poles.

Engine and boiler complete with all mountings; cylinder 10 in. x 12 in. (equal to 25 h.p.; American Catalogue). Engine fitted with pump and feed-heater, and cylinder lagged with non-conducting composition.

Boiler entirely of steel, and tested for a working pressure of 60 lb. per square inch. All pipes, valves, and connections fitted and supplied, and engine mounted on substantial bed and governor specially designed for well-boring purposes, fitted on slide valve jacket.

Wrought-iron rig and derrick complete with all foundation timbers, bolts, &c., &c., and all bearing and holding-down-bolts for saddle, crank, shaft, spools, tighteners, and snatch-post; also hardwood walkins, beam and spring pole, with all mountings fitted, the whole being erected in place before despatch.

One improved new design automatic casing clamp fitted with alternate dogs for 6-in. and 8-in. casing complete.

Tools, Stores, and Sundries for Artesian Boring Outfit.

2 engineers' hand-hammers, 1 ratchet brace, 1 monkey wrench, 2 yards best insertion, 3 saw files, 1 blacksmith's anvil, 6 pairs blacksmiths' tongs, 1 large fuller, 1 hot chisel, 1 set swedges ½ in. to 1½ in., 2 engineers' hand-chisels, 6 assorted drills, 6 assorted files, 6 assorted hammer-handles, 1 blacksmith's bellows, 1 Wilkinson's vyce 5 in., 1 large flatter, 1 forge complete, 1 cold chisel, 2 handsaws, 1 cross-cut saw and handles, 1 draw knife, 2 gouges, 1 claw hammer, 1 wood rasp, 1 chalk line, 2 2-ft. four-fold rules, 1 carpenter's brace and bits, 25 ft. best ⅜-in. chain, 2 treble iron blocks, 10-in., 2 single iron blocks, 6-in., 2 single iron blocks, 4-in., 2 dozen lampwicks, 1 adze and handle, 5 assorted chisels, 4 augurs (assorted), 1 hatchet, 1 square, 1 66-ft. Chesterman's tape, 1 Rabone level, 3 steel sledge hammers, 25-ft. best ⅝-chain, 4 lb. hemp packing, 3 hurricane lanterns, 1 12-in. engine-room lamp and reflector, 2 dozen lamp chimneys, 70 ft. best 12-in. leather belting for draw belts, 45 ft. best 12-in. Indiarubber belting for driving-belts, 2,000 ft. Bullivant's steel-wire rope for sand line, 3 draw ropes, each 110 ft. long, complete, with thimbles spliced in ends, &c. (steel wire).

[64 Sections of Bores and 1 Map; also Maps, &c., for main Report.]

Sydney: Charles Potter, Government Printer.—1892.

APPENDIX 59

Section of Bore on Pirlite

Holding Hde Index Map Site 43

5.4 miles east from E.B.M. of Maranoa 4 miles S. from S.W. corner of Wapweelah Run

Parish of ____ County of ____

Total Depth 803 feet | Water Supply ____ Gal^ns Per Diem

THICKNESS OF STRATA		NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK At feet	WATER RISE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
5	0	Red loam		feet					Papers W.C. 91 7018
36	0	Sandstone Rock							
80	0	White chalky formation changing to grey and later to yellow		100	120	Some standard on bore		fresh	
				200					
				300					
				350					Supply at all times and increase to 50 gallons per min.
				400					
623	0	Blue or black shale		500					
				600					
				700					
				800					
60	0	Granite							

Sig. 874

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APPENDIX 60

Section of Bore on Momba

Holding Hde Index Map Site 44

Cunellie & Charlton

Parish of Charlton County of Fitzgerald

Total Depth 1505 feet | Water Supply ____ Gal^ns Per Diem

THICKNESS OF STRATA		NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK At feet	WATER RISE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
				feet					Papers N.C. 91 5960
				100					
				200					
				300					
				400					
				500					
				600					
				700					
				800					
				900					
				1000					
				1100					
				1200					
				1300					
				1400					
		In hard clay		1500					Proceeding

* reduced supply at this depth

Section of Bore on Momba

Holding Hde Index Map Site 45

Packing Block

Parish of Packing No^1 Bore County of Yungnulgra

Total Depth 1261 feet | Water Supply ____ Gal^ns Per Diem

THICKNESS OF STRATA		NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK At feet	WATER RISE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
				feet					Papers W.C. 91 5960
				100					
				200					
				258					Reduced supply at this depth
				300					
				400					
				500					
				600					
				700					
				800					
				900					
				1000					
				1100					
				1200					
		In Soft Rock (water Trickles)		1300					

Appendix 62

Section of Bore on Barringun

Holding Hde Index Map Site 11

Parish of Barringun County of Culgoa

Total Depth ____ feet | Water Supply in Progress Gal^ns Per Diem

THICKNESS OF STRATA		NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK At feet	WATER RISE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
30	0	Black and Yellow clays & drift		feet					Papers W.C. 91 9085
28	0	Sand drift and rock							
32	0	Red sandstone		75				Salt	
32	0	Yellow Watercourse of white pipe clay		100					
30	0"	Red sandstone							
42	0	Yellow clay and white clay		200					
124	0	Yellow clay		300					
57	0"	Gray shale		400					
180	0	Black shale		500					
				600					
4	0	Light shale		700					
14	0	Light shale & sandstone							
22		Light drab clay shale							
50	0"	Shale							

Sig. 872

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APPENDIX 63

Section of Bore on Marra

Holding Hde Index Map Site 2

Parish of ____ County of Killara

Total Depth 1485 feet | Water Supply No 1 Gal^ns Per Diem

THICKNESS OF STRATA		NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK At feet	WATER RISE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
				feet					Papers W.C. 91
				100					
				200					
				300					
				400					
				500					
				600					
				700					
				800					
				900					
				1000					
				1100					
				1200					
				1300					
				1400					
720		Very hard red & white rock		1500					

Sig. 874

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE SYDNEY NEW SOUTH WALES

APPENDIX 47

Section of Bore on Kallara

Holding Vide Index Map Site 29

Parish of ____ County of Killara

Box Bore (48"Wall)

Total Depth 1411 feet Water Supply 2000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
40	Rock Clay							Papers M C 91 6082
135	Sand Clay & Drift As in same as Drift from Site 1134							
75	Yellow Clay							
160	Blue cretaceous clay							
15	Impure sand.							Temperature 68°F Analysis not fit for human use
1000	Sandstone, varying from disintegrating to reddish As Drawn on Plan by M Richardson				410 not lined	2000		
	Hard sandstone with pebbles thrown freely							

APPENDIX 48

Section of Bore on Kallara

Holding Vide Index Map Site 30

on the southern boundary of 452 Hec Water Block, 2 miles 5.4° from the Duntryn Boundary

Parish of Tutty County of Killara

Dwelling (48"Wall)

Total Depth 540 feet Water Supply 500000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
15	Surface & yellow clay							Papers M C 91 6082
30	Blue clay							
330	Blue clay shale							
165	White rock & fr. impure sands							

APPENDIX 49.

Section of Bore on Kallara

Holding Vide Index Map Site 31

about 2 miles from north end of narrow N. Jump off N°3 on Jump off N°3

Parish of Calpacarra County of Killara

Parish of Tutty (48"Wall)

Total Depth 931 feet Water Supply 60000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
90	Surface clay gypsum ferruginous & yellow clay							Papers M C 9 6082
99	Blue Clay				189	1/4 Gallon		
422	Blue Clay & Black Shale				275	1/4 Gallon		
65	White Sand coarse grit							
74	Chalky Clay like Pipeclay yellowish				676	10000 Gallons		
121	Black Shale constantly altering							
180	Hard slate. No variation							

Sgd ETA

APPENDIX 50

Section of Bore on Killara

Holding Vide Index Map Site 32

about 2 miles from north end of South East Boundary of Multawoolka Rough Block

Parish of Parroo County of Killara

Quarry Lake (48"Wall)

Total Depth 676 feet Water Supply 50000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
90	Surface Clay Gypsum ferruginous & yellow clay							Papers M C 91 6082
99	Blue Clay				189	1/4 Gallon		
422	Blue Clay & Black Shale				275	1/4 Gallon		
65	White Sand coarse grit				676	50000 Gallons		
	Chalky clay like pipeclay yellowish							

APPENDIX 51

Section of Bore on Kallara

Holding Vide Index Map Site 33

about 2 miles south of Bore No 1 on Jump off N°3

Parish of Multawoolka County of Killara

Kings Bore (48"Wall)

Total Depth feet Water Supply 7000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
90	Surface clay Gypsum ferruginous & yellow clay							Papers M C 91 6082
99	Blue Clay				189	1/4 Gallon		
422	Blue Clay & Black Shale				275	1/4 Gallon		
65	White Sand coarse grit							
74	Chalky Clay like Pipeclay yellowish				676	10000 Gallons		
121	Black Shale constantly altering							
180	Hard slate. No variation							

Sgd ETA

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APPENDIX 52

Section of Bore on Kallara

Holding Vide Index Map Site 34

On S.E. corner of Block 8 on Island 4 on 1st Jump off from Boundary on main road Intersecting

Parish of ____ County of Killara

Municipal Land Board (48"Wall)

Total Depth 160 feet Water Supply ____ Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
								Papers M C 91 6082

APPENDIX 53

Section of Bore on Yancannia

Holding Vide Index Map Site 35

Parish of Cockiboy County of Yantara

Total Depth 268 feet Water Supply ____ Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
								Papers M C 91 6492

APPENDIX 54

Section of Bore on Yancannia

Holding Vide Index Map Site 36

Adjacent to west-east side of Tinjari 2 miles 40 chains supposed none on other Road to or Boundary

Parish of ____ County of Yantara Run

Total Depth 2034 feet Water Supply 480000 Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
								Papers M C 91 6492

APPENDIX 55

Section of Bore on Fort Bourke

Holding Vide Index Map Site 37

Parish of ____ County of Gunderbooka

Dwelling (48"Wall) Now Nil Gal/hr Per Diem

Total Depth 1284 feet Water Supply Nil

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
18	Surface & Sand Rock							Papers M C 91
142	White & yellow sand							
447	Black clay							
	Hard rock							
764	Black clay with hard streaks							
416	Black shale with hard streaks							
99	Blue sand				1230	Supply increased to 2 1200 when this hard and coarse sand struck		

Sgd ETA

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE SYDNEY NEW SOUTH WALES

APPENDIX 56

Section of Bore on Westmoringle

Holding Vide Index Map Site 38

North Dwelling Block 18 Run

Parish of ____ County of Culgoa

N°1 Bore Water Supply 28000 Gal/hr Per Diem

Total Depth 2005 feet

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
10	Clay							Papers M C 91 6215
30	Rock Drift Clay							
35	Rock							
30	Pipeclay							
35	Yellow Clay							
50	Blue Clay							
80	Yellow Clay							
100	Blue Clay							
200	Sandstone							
200	Blue Clay							
100	Sandy Clay							
100	Blue Clay							
100	Sandy Clay							
100	Blue Clay							
30	Sandstone							

APPENDIX 57

Section of Bore on Westmoringle

Holding Vide Index Map Site 39

Parish of ____ County of Culgoa

N°2 Bore Water Supply 128000 Gal/hr Per Diem

Total Depth 1590 feet

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
40	Clay							Papers M C 91 6215
47	Rock Drift Clay							
75	Rock							
30	Pipeclay							
14	Yellow Clay							
8	Rock Drift Clay							
85	Yellow Clay							
188	Blue Clay							
110	Sandstone							
620	Clay							
174	Blue Clay							
107	Sandy Clay							
105	Blue Clay							
25	Sandy Clay Coal							
20	Sandy Clay Coal							
10	Sandy Clay Coal							
100	Shale							
245	Blue Clay							
15	White Clay							
55	Sandy Rock & White Clay							
75	Rock and Clay							
125	Clay							
40	Rock							

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APPENDIX 58

Section of Bore on Belalie

Holding Vide Index Map Site 40

Parish of ____ County of Irrara

Total Depth 1600 feet Water Supply Nil Gal/hr Per Diem

THICKNESS OF STRATA Ft. In.	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK in Feet	WATER ROSE Feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
50	Sand and clay							Papers M C 91
70	Grit and sand							
145	Soft dry sand and soap							
620	Clay							
174	Blue Clay							
107	Sandy Clay							
105	Blue Clay							
25	Sandy Clay Coal							
20	Sandy Clay Coal							
10	Sandy Clay Coal							
100	Shale							
330	Clay and more							
15	White Clay							
55	Sandy Rock & White Clay							
75	Rock and clay							
125	Clay							
40	Rock							

Appendix 36

Section of Bore on Salisbury Downs

Holding Vide Index Map Site 17

Parish of — County of Yantara

Total Depth 1365 feet — Water Supply 200 (Vide Note) Gal^ns Per Diem

Thickness of Strata (ft)	(in)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
							Papers W C 91 4400
235	0	Mostly clay					
92	0	Drift sand with petrified wood, decomposed leaves and layers of sulphur	327			Very salt	
513	0	Soft blue clay	840			Brackish	
161	0	Blue clay					
199	0	Mud banks and sand	1200	Surface	28000	fresh	
165	0	Fine sand	1365	Surface vide note	200	fresh	

Remarks: By using 640 ft pump 45000 gal^s per day can be raised (fresh water) Temperature of water when pumping 108 deg^s – 5" casing broke 20 ft from bottom & 3 strings of casing had to be left in bore to keep back saltwater Bore cost £3 per ft Omura N° 2 Run

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Appendix 37

Section of Bore on Salisbury Downs

Holding Vide Index Map Site 18

Parish of — County of Yantara

Total Depth 1568 feet — Water Supply 7000 (Vide Note) Gal^ns Per Diem

Thickness of Strata (ft)	(in)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
							Papers W C 91 4400
1568		Mostly clay of various sorts with occasional sand until coarse quartz sand was struck at 1568 ft with flow of 7000 gallons of fresh water per day	940	To surface	7000	Fit for Stock	
		Quartz Sand	1568	To surface	[illegible]000	fresh	

Remarks: [illegible] 940 ft water used at 7000 gal^s per day good enough for stock at 1568 ft flows at 1000 gal^s per day [illegible] by using 350 ft pump increase 5000 gal^s per day fresh Temperature 120° when pump is working

Appendix 38

Section of Bore on Kerribree

Holding Vide Index Map Site 20

Parish of — County of Barrona

Total Depth 1073 Feet — Water Supply 350,000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
	No information given as to Strata					Papers W C 91 [illegible]73
		1073	Surface	350000	Fresh	

Remarks: Situated in N E corner Moreta West Block Run

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Appendix 39

Section of Bore on Kerribree

Holding Vide Index Map Site 21

Situated in centre of Moreta South Block Run

Parish of — County of Barrona

Total Depth 1340 feet — Water Supply 175000 Gal^ns Per Diem

Thickness of Strata (ft)	(in)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
55	0	Soft and sandy clay & pebbles					Papers W C 91·4173
27	0	Drift sand clay & pebbles					
3	0	Drift sand					
47	0	Drift & clay					
83	0	Boulders and hard rock					
70	0	Shale					
90	0	Shale & sticky clay					
130	0	Rock & Clay					
90	0"	Hard rock					
250	0"	Sticky clay and hard patches					
		No information given from 900 ft to 1340 ft when water was struck in the quartz rock					
		Quartz rock	1340	Surface	175000	fresh	

Appendix 40.

Section of Bore on Wangamana

Holding Vide Index Map Site 22

Parish of — County of Barrona

Total Depth 1600 feet — Water Supply 224,000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
	No Information					Papers W C 91 4173
		1050	Surface	Small quantity		
	Mud sticky clay and sand					
	Bed sandstone and quartz					
	Getting harder					
	Shale	1600	Surface	224000	Fresh	

Remarks: 12M East of Wangamana Head Stn which is 15 M East of 75 M on Bourke Wanaaring Road

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Appendix 41

Section of Bore on Pirillie

Holding Vide Index Map Site 23

6 M east from Younger na & 30 from Fords Bridge

Parish of — County of Irrara

Total Depth 613 feet — Water Supply — Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
No definite information given	Hard rock					Papers W C 91 4173
	Clay					
	Sandstone					
	Drift and mud					

Appendix 42

Section of Bore on Kallara

Holding Vide Index Map Site 24 Mulyer Well

Parish of Mulyee — County of Killara

Total Depth 46 feet — Water Supply 9000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
46	Sand	46	[illegible]	9000		Papers W C 91 6083

Remarks: Temperature 80 deg^s. Good quality free from salt but useless for irrigation purposes [illegible] Bore [illegible] near S E corner of the Far West Block near Mulyer Sand Spring. A previous bore at this place resulted in a supply of 12000 gal per day free from [illegible] at a depth of 46 feet but in an effort to deepen the bore [illegible] more that it was impossible to keep the pipes clear & bore was put down to 491 feet

Appendix 43

Section of Bore on [illegible]

Holding Vide Index Map Site 25 Wx Na [illegible] Well

Parish of [illegible]ndelcarra County of Killara

Total Depth 140 feet — Water Supply 7000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
14[illegible]	Grey clay and sand & clay		17 above surface			Papers W C 91-6083
	Coarse sand & pebbles	140				

Remarks: Originally 160000 gallons per day mixed with pebbles and [illegible] became clear when down to about 4000 gal^ns per day. Too salt for irrigation but sufficiently palatable for human use Temperature 89 degrees. Position about ½ miles north from the S W corner of the Far West Block about [illegible] Wx Wanna Mud Spring [illegible] 1878

Appendix 44

Section of Bore on Kallara

Holding Vide Index Map Site 26

near S E Corner of Byjerk South Run

Parish of Binpooker County of Killara

"Kingswell"

Total Depth 600 feet — Water Supply 10000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
40	Sand and Clay	about 50		very small quantity		Papers W C 91 6082
50	Ironstained Sandstone					
	Clay of varying color					
	Cretaceous Clay	600	Rose to within 12 ft of surface	about 10000 per day	Too salt for irrigation. Fit for sheep & cattle & on a pinch man would live on it. Temperature ab^t 80 deg^s	Shaft sunk in 1879 bored 1886 A true artesian supply would doubtless be obtained by deepening bore

Section: Shaft; Bore

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[Appendix 45]

Section of Bore on Kallara

Holding Vide Index Map Site 27

about 1 mile from Butha West Block (from middle of W Boundary

Parish of Parkin — County of Fitzgerald

Toonburra (4th Well)

Total Depth 820 feet — Water Supply 1000 Gal^ns Per Diem

Thickness of Strata	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
90	Surface Clay & Sand					Papers W C 91 6082
110	Cretaceous Clay					
620	Cretaceous clay impregnated with sand	420	Rose well in shaft	ab^t 1000 gl^ns @ day	Water brackish	[illegible] accident to tools The indications are sufficiently good to justify another trial in the neighbourhood

Section: Shaft sunk ab^t 200 ft; Bored in 1884 and 1885

Appendix 46

Section of Bore on Kallara

Holding Vide Index Map Site 28

On Paroo Plains Block about 9 miles from Toonburra "Moonooloo" (5th Well)

Parish of Moonooloo County of Killara

Total Depth 900 feet — Water Supply 1500 Gal^ns Per Diem

Thickness of Strata (ft)	(in)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
90		Surface clay & sand					Papers W C 91·6082
110		Cretaceous clay	360	not tried	1500 perday	Good stock water	
700		Cretaceous Clay more or less impregnated with sand					

Section: Shaft sunk 180 ft

Appendix 26.

Section of Bore on Dunlop
Holding Vide Index Map Site 7

Parish of Coonong or Gonja County of Landsborough.
3miles S.E. of No.2 Bore (No.6 on Index Map)

Total Depth 860 feet Water Supply 500000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
100	Drift, at about 60 with sand at 90		100					Papers M C 91 4871
710	Red and buff clay & White Plastic Clay, most eastern no.4 bore 90 feet more than other three bores 715 to 805		800					
	Limestone clay							
	Bore not sunk		860					

Appendix 27.

Section of Bore on Dunlop
Holding Vide Index Map Site 8

Parish of Coonong County of Landsborough

Total Depth 150 feet Water Supply 500000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
10	Surface Drift		10					Papers M C 91 4871
140	Brick and Marl clay and in bore 3 yellow mottled in two cases 2 Rich mottled between clay formation 15 to 20 feet thick		150					
600	Limestone formation							
	Bore not sunk		750					

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Appendix 28.

Section of Bore on Dunlop
Holding Vide Index Map Site 9

Parish of Tindeandah County of Landsborough

Total Depth 1200 feet Water Supply 15000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
100	Drift at 40 also at 90 with Artesian water		100					Papers M C 91 487
500	Red and Blue clay & White Plastic, occasional veins, very hard between clay formation at 1080 thick		600					
	Cretaceous formation		700					
	Bore not sunk		1200					

Appendix 29.

Section of Bore on Nicoleche
Holding Vide Index Map Site 10

Parish of . County of Barrona

Total Depth 916 feet Water Supply 140000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
16	Loam		16					Papers M C 91 4634
834	Marl		850	840	Supply 140000 Gals.			
50	Limestone		900					
	Bore not sunk		916					

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Appendix 30.

Section of Bore on Nicoleche
Holding Vide Index Map Site 11

Parish of County of Ularara

Total Depth 1500 feet Water Supply Nil Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
	Series of Marl very soft Alternate rock and Limestone formation to 1400ft. Intersected at 1400 feet Quartz in the bore		60	6				Papers M C 91 4634
100	Gravel		1500					

Appendix 31.

Section of Bore on Nicoleche
Holding Vide Index Map Site 12

Parish of County of Barrona

Total Depth 1227 feet Water Supply 700000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
	Drift		20					Papers M C 91 4634
	Drift		200					
	Drift		310					
	Drift		407					
	Drift		1035					
178 Feet	Shale		1213	Supply 700000 Gals.				
	Sandstone and shale		1227					

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Appendix 32.

Section of Bore on Belaire
Holding Vide Index Map Site 13

Parish of County of Gidgoa.
2miles south of the 12mile peg Queensland Boundary & S of the Warrego.

Total Depth 1633 feet Water Supply 600000 Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
100	Muddy clay		100					Papers M C 91 94439
500	Shale		600					
	Clay		700	Supply 600000 Gals.			Artesian	Slightly Brackish
	Shale		1300	Supply 600000 Gals.			Artesian	Slightly Brackish
	Sandstone and shale		1680	Supply 600000 Gals.			Artesian	Brackish
	Bore not sunk		1700					

Sty 852

Appendix 33.

Section of Bore on Belaire
Holding Vide Index Map Site 14

Parish of County of Irrara

Total Depth 1160 feet Water Supply Nil (Water Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
940	Muddy clay with occasional sand and drift, not much gravel to 940		940					Papers M C 91 4479
160	Shale		1100					
	Bore not sunk		1160					

Sty 852

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Appendix 34.

Section of Bore on Yanda
Holding Vide Index Map Site 15

at cord of F.G. Tabers to Wm Hailes H.L's where they touch the Dividing Line
Parish of County of Cowper

Total Depth 750 feet Water Supply Nil Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
80	Crumbling rock & shaly clays		80					Papers M C 91 4570
520	Yanda Drift		600					
	Bore not sunk		750					

Appendix 35.

Section of Bore on Yanda
Holding Vide Index Map Site 16

S37°E 10miles from River & 3miles from Jandra B[re]

Parish of County of Cowper

Total Depth 1008 feet Water Supply Nil Gal[ns] Per diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK feet	WATER ROSE feet	QUANTITY WATER Gallons	QUALITY WATER	REMARKS
70	Crumbling Rock and Shaley clays		70					Papers M C 91 4570
110	Drift		180					
828	Yanda Rock		1008					
	Bore not sunk							

APPENDIX I.

Section of the Well at Passy in the Paris Basin

Total depth 1923 ft. 8 in. Supply now 450 000 gall.s a day
Width of Borehole 1 meter (3·2809 ft.) Completed 24th September 1861

Thickness of Strata (ft.)	(in.)	Nature of Strata	Depth	Water struck at	Water rose	Quantity water	Quality water	Remarks
61'	2"	Alluvial earth, sands and flint					Temperature 82 deg.s Fahr.	Papers W.C. 91·...... Time occupied in sinking ab.t 7 years & 9 months, cost over £40000. Well lined with solid masonry to a depth of 150 ft necessitated by excavation having collapsed at 100 ft; thence tubing of wood & iron to depth of 1804 ft; thence perforated copper tubing, with an inner tube 2 ft 4 in. wide, formed of wrought iron plates 2 in thick. Original yield 3,735000 gls but escapes through the defective tubing into the basement bed of the Paris basin, yields now 450000 g.ls a day
111'	10"	Plastic clays and Ferruginous sands						
19'	6"	Calcareous nodule						
863'	7"	White chalk with beds of black flints						
210'	6"	Grey chalk with marl and beds of flints						
187'	2"							
110'	10"	Chalk marl alternating with beds of flints						
35'	11"							
49'	1"							
68'	0"							
142'	4"	Upper green sand and gault						
32'	9"							
8'	4"							
22'	8"		1913'10"					
		Lower green sand						

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APPENDIX 2.

Section of the Well bored at Grenelle in the Paris Basin

sunk by Mulot from 1832 to 1842 to a depth of 1806 ft 9 in. Width of the Borehole 8 inches

Thickness of Strata (ft.)	(in.)	Nature of Strata	Depth	Water struck at	Water rose	Quantity water	Quality water	Remarks
33	4	Alluvial earth, sand and beds of rolled flints						Papers W.C. 91·......
100	6	Plastic clays with quartzose sands						
16	3	Calcareous nodule at 150'7" Level of the sea						
308	5	White Chalk with beds of black flints						
82	9	Grey chalk alternating with marl & flints						
387	7	Grey chalk very compact, alternating with beds of micaceous clay						
89	6	Chalk Marl						
188	8	Upper green sand and gault, composed of micaceous clays, blue, green and black with fossils and pyrites	1806'9"					
		Lower green sand						

Appendix 3

Section of Bore on T.S.R.

~~Holding~~ Vide Index Map Site 7
at the 121 Mile Post on the Road from Milparinka to Wanaaring
Parish of .... County of ....
Total Depth 1304 feet Water Supply in Progress Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
11	7	Shaft					Papers W.C. 91·......
6	7	Sandy clay					
13	10	Sandstone					
23	3	Sandy clay, tight					
19	0	Quartzite rock					
7	5	White Sandstone & pipeclay	81		20	fresh	
9	1	Pipeclay					
44	3	White and yellow clay					
3	4	Sandstone					
4	8	Yellow clay, stiff					
48	9	Blue sandstone & ironstone					
23	10	Blue sandy clay					
28	11	Blue clay and grey rock					
71	8	Blue clay					
7	0	Blue clay and grey rock					
74	6	Blue clay					
0	5	Limestone rock					
32	7	Green sandy clay					
33	1	Blue clay					
33'	0"	Blue sandy clay					
5	1"	Blue clay and Limestone					
1	5	Limestone rock hard					
1/2	1½	Blue sandy clay					
29'	11½	8½ Limestone 2' 8½" Blue sandy clay 3' 3" Limestone 5' 1" Blue clay 10' 7" Grey sandy clay 4' 9" Cement band & boulders 2' 10½" Boulders					
26'	11"	Cemented sand					
2'		Hard Limestone rock					
31'	6"	Sandstone					
31'	9"	Sandy clay					
3'	6"	Boulders					
94'	10"	Sandy clay					
92'	9"	Black shale					
22'	7"	Sandy clay					
8'	1½	Hard rock, Sandy clay					
2' 4'		Hard rock					
9'	3"	Sandy clay & hard rock					
5'	4½	Hard rock					
10'	10"	Sandy clay					
10'	9"	Sandy clay & boulders					
12'		Black shale & boulders					
51'	7"	Sandy clay					
14'	6"	Layers hard rock & sandy clay					
104'	9"	Black shale					
14'	7"	Black shale with hard cemented seams					
5'	1"	Sandy clay					
	5"	2' 11" Cemented sand 2' 6" Grey sandy clay					
	3"	Grey clay with bands of fine sand					
		Black shale					
1'	3"	Hard rock like Limestone					
66'	3"	Grey clay & sand, alternating with bands of sandstone					
7'	6"	3 Hard rock 6" Coarse quartzose sand 10" Boulder inside of bore 2' 2" Stiff grey clay 1' Hard pan					
13'	3" 1"	Clay with bands of coarse sand Hard rock					
20'		Grey clay with bands of hard cem.t sand					
1' 7'	6"	Grey sandy clay					
		Grey rock					
16'		Sandy clay					
1'		Hard pan					
14'	6"	Sandy clay Grey shale					
2'		Hard rock Grey shale					
58'	3"	Black stony clay					
4'	6	3 Boulder 1' 6" Stony clay 9" Hard blue Boulder 1' Blue clay with round stones					
9'	3"	Blue clay with white sand					

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Appendix 4

Section of Bore on T.S.R.

~~Holding~~ Vide Index Map Site 8
at the 106 Mile Post on Road from Milparinka to Wanaaring
Parish of .... County of Ularara
Total Depth 1299 feet Water Supply in Progress Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
14	6	Shaft					Papers W.C. 91·......
10	6	Hard cement sand					
17	9	Yellow sandstone					
40	3	White sand drift					
25	6	Pipeclay					
2	0	White shale	126	26	small supply	fair quality	Water channels passed through a few ft above this, but neither the strata nor the tools indicated the presence of water
29	0	Clay (various colours)					
23	0	White shale & yellow sandstone					
2	6	Ironstone band					
25	6	Sandstone with ironstone bands					
12	0	Bluish sandstone					
26	0	Limestone & blue sandy clay					
12	0	Hard sandstone & clay					
6	0	Fine sandy clay					
109	6	Blue clay					
43	3	Blue shaly clay					
2	3	Hard limestone					
15		Fine sandy clay (blue)					
16	6	Hard limestone boulder					
74	10	Blue clay & light sandstone					
1	4	Hard limestone					
77	0	Greenish blue sandstone with shells and decomposed vegetable matter					
41	6	Blue sandstone					
3	0	Blue sand & boulder					
1	11	Boulder limestone					
21	0	Blue sand & black clay					
1	6	Limestone boulder					
15'	5"	Blue sandy clay					
52'	11"	Greenish blue sandy clay					
	2"	Limestone					
18'	1"	Greenish sand & black clay					
1'	3'	Gypsum					
6'	11"	Gypsum, iron pyrites & green sandstone					
55'	8"	Sand & clay					
50'	2"	Blue clay					
14'	9"	Sand & clay					
4'	10"	Sandy cement					
7'	1"	Hard rock					
15'	2"	Limestone					
21'	11"	Sandy cement					
3'	10"	Limestone					
38'	1"	Sandy clay					
4'	0"	Limestone					
29'	2"	Sandy cement					
39'	0"	Blue sandy clay					
10'	3"	Sandy cement					
31'	0"	Black shale					
5'	4"	Sandy clay					
15'	3"	Blue clay					
10' 5'	4" 0"	Sandy clay Blue clay					
7'	5"	Black shale					
8'	9"	Grey soapy shales					
35'	0"	Dark grey shales					
10'	0"	Grey shales					
34'	6"	Hard slatey bands					
9'	2"	Swelling clay					
5'	7"	Quartzite					
7'	8"	Sandy swelling clay					
23'	3"	Stiff puggy clay					
48'	6"	Grey shales with hard bands					

APPENDIX 5.

Section of Bore on ....

Holding Vide Index Map Site 1
Parish of East Bourke County of Cowper
Bourke No 4 Bore
Total Depth 1467 feet Water Supply nil Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
40	0	Clay					Papers W.C. 91·6471
25	0	Sand					
85	0	Clay and shale					
50	0	Sand					
16	0	Stones					
194	0	Clay					
50	0	Clay with a few hard streaks					
60	0	Clay					
70	0	Clay with hard streaks					
165	0	Getting very hard					
712	0	Slate Rock					

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APPENDIX 6.

Section of Bore at Moongulla

Holding Vide Index Map Site 12
on the road from Collarendabri to Angledool
Parish of .... County of Finch
Moongulla Bore
Total Depth ...... feet Water Supply ...... Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
25	0	Hard grey clay	17'			salt	Papers W.C. 91·......
47	0	Sand & clay adhesive					
36	0	Drift sand & clay	108			salt	
62	0	Clay					
82	0	Dark blue shale with hard bands 6 to 18 ft. apart	241			salt	
102	0	Shale, clay & pebble bands					
40	0	Dark blue shale & hard bands 4 ft. apart	370			salt	
74	0	Clay, shale & seam of green flint					
88	0	Clay shale and coal formation	526			salt	
66	0	Clay & grey shale					
11	0	Dark blue shale					
47	0	Shale and hard bands					
57	0	Grey shale and clay					
77	0	Brown clay and gravel					
86	0	Gravel & shale deposit					
4	0	Broken shale deposit					
82	0	Clay sandstone clay & gravel					
2	0	Hard seam 2' thick 6 hours drilling					
40	6	Light blue clay					
7	0	Blue sandstone					
20	0	Light blue clay					
16	0	Dark brown clay					
6	0	Blue sandstone					
10	0	Dark brown clay					
8	0	Dark blue shale bands					
37	0	Light blue sandy clay					
21	0	Dark blue shale					
4	0	Dark blue clay					
18	0	Light blue clay					
4	0	Shale band					
22	0	Dark blue shale					
34	0	Dark brown clay					
8	0	Shale					
4	0	Sandstone rock					
10	0	Brown clay					
7	0	Dark blue shale					
6	0	Blue shale					
17	0	Coarse sand drift					
6	0	Shale					
12	0	Blue clay					
5	0	Sandstone					
15	0	Brown tenacious clay					
3	0	Sandstone					
22	0	Brown clay & sandstone bands 4 to 5 ft apart					
114	0	Blue shale					
17	0	Dark blue shale					
2	0	Hard shale seam					
49	0	Light blue shale					
14	0	Dark blue shale					
3	0	Yellow sand drift					
93	0	Hard blue shale					
2		Grit shale					
22		Blue shale					
4		Grit shale					
13		Blue shale					
2	6	Grit shale					
12	6	Blue shale					
4	0	Grit shale					
23	0	Shale					
5	0	Sandstone (blue)					
37	0	Shale					
8	0	Freestone	1777	to 25 feet from surface		salt	

APPENDIX 7.

Section of Bore on Portion 71

~~Holding~~ Vide Index Map Site 13
Parish of Nyngan County of Oxley
Nyngan Government Bore
Total Depth 520½ feet Water Supply ...... Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
218'	11"	Clay & drift sand alternating					Papers W.C. 91·......
66	5"	Dry red sand					
50'	2"	Dark blue shale		rose 270 ft.			
40'	0"	Drift sand (water rose 270 ft.)					
16'	6"	Quicksand					
102'	0"	Fine sand, drift with colored clay bands, coarse sand and pebbles					
10'	0"	Blue clay, coal seam 4" (by Gov.t Geologist probably lignite)					
7'	0"	Sandstone					
4'	0"	Dark shale					
5'	6"	Blue clay with specks of charcoal					

APPENDIX 8

Section of Bore on Louth-Wanaaring Road near 26 Mile Post

Holding Vide Index Map Site 10
Parish of .... County of Landsborough
Total Depth ...... feet Water Supply ...... Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
8'	6"	Red sand					Papers W.C. 91·......
5'	3"	Red & white Sandstone					
9'	0"	Broken sandstone & pipe clay					
58'	2"	White pipe clay and pebbley grit					
47'	10"	White pipe clay					
79'	10"	Blue clay					
3'	2"	Hard dark sandstone					
20'	0"	Blue clay					
132'	10"	Clay, sand grit and small pebbles					
2'	0"	Sand drift					
42'	2"	Clay sand & grit					
2'	0"	Hard dark sandstone					
79'	0"	Clay sand & grit					
3'	0"	Quartz bands & clay					
59'	8"	Clay and pebbles					
1'	8"	Hard Sandstone					
20'	10"	Pipe clay and pebbles					
4'	0"	White Quartz					
1'	3"	Sandstone					

Sig 874.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

APPENDIX 9.

Section of Bore on W.R. 159

~~Holding~~ Vide Index Map Site 5
Parish of Youngarina County of Irrara
Youngarina Government Bore
Total Depth 165 feet Water Supply now 175000 Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
11'	0"	Shaft					Papers W.C. 91·......
21'	0"	Rock					
21'	0"	Mud					
19'	0"	Clay	80'		5000		
8'	0"	Rock					
83'	0"	Black shale	160'		500000		
2'	0"	Boulders					

APPENDIX 10.

Section of Bore on Leila Springs

Holding Vide Index Map Site 6
Parish of Leila County of Gunderbooka
NATIVE DOG BORE
Total Depth 475 feet Water Supply approx.y 2000000 Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
50'	0"	Sand					Papers W.C. 91·10799
50'	0"	Yellow Clay Mud Spring	100				
135'	0"	Black Clay					
115'	0"	Shale					
50'	0"	Black Clay					
75'	0"	Hard Streak	450, 471				Struck the Main Supply

Appendix No 11.

Section of Bore on W.R. 162

Holding Vide Index Map Site 15
at Yantabulla on Bourke-Hungerford Road.
Parish of Mucruss County of Irrara
Total Depth 210 feet Water Supply 100,000 Gal.ns Per Diem

Thickness of Strata (ft.)	(in.)	Nature of Strata	Water struck at (feet)	Water rose (feet)	Quantity water (gallons)	Quality water	Remarks
11'	0"	Shaft					Papers W.C. 91·......
39'	0"	Sand Rock					
20'	0"	Yellow Clay					
5'	0"	Pipe clay					
3'	0"	Rock					
62'	0"	Soft blue clay					
20'	0"	Cemented sand					
50'	0"	Bed rock					

No 41 Lith. 0.52.16

QUEENSLAND

NEW SOUTH WALES

SOUTH AUSTRALIA

VICTORIA

PACIFIC OCEAN

CRETACEOUS

TERTIARY

Contract Nº 1
5 Bores

Contract Nº 14
3 Bores

Contract Nº 2
2 Bores

Contract Nº 5
5 Bores

Contract Nº 6
5 Bores

Contract Nº 9
5 Bores

Contract Nº 12
6 Bores
in existing wells

Contract Nº 7

Contract Nº 8

Cuttaburra Bore

Yungaroona Bore

Coonery Artesian Well

Native Dog

Holy Box Well

Willandra Well

Polygonum Hut Well

Jumping Sandhill Well

Dolinoreve Well

Arumpo

EXPLANATORY NOTES

Government Artesian Wells completed, are shewn thus ●
do. do. do. in progress, do. ◒
do. do. do. contracts let. do. ⊖
do. do. do. sites selected. do. ○
Private Artesian Wells do. ●

DEPARTMENT OF MINES

WATER CONSERVATION

MAP

OF

NEW SOUTH WALES

SHEWING

ARTESIAN WELLS

SCALE 24 MILES TO AN INCH

Lithographed and Printed at the Department of Lands, Sydney, N.S.W. 1892.

Appendix 12

Section of Bore on Bourke Wanaaring Road near 75M peg Vide Index Map Site 3

Parish of Wanga County of Barrona

Total Depth 960 feet Water Supply 33,000 Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata	Water struck at (Feet)	Quantity Water (Gallons)	Quality Water
266	6	Bored in 1885 Information re strata not available			
9	0	Blue & Grey sandstone			
16	6	Fine blue clay shale			
5	0	do do with green copper stains			
14	6	Sandy clay shales			
10	0	Blue and black shale			
48	4	Blue shale with thin seams of sandstone			
39	6	Black & blue clayey shale			
38	4	Black clay shale			
30	10	Blue clayey sandy shale			
23	10	Black clay shale			
33	0	Blue and black shale with thin layers sand			
34	2	Sandstone white rock and boulders			
25	6	Hard blue clay with sandstone & boulders			
11	0	Grey & dark sandstone			
22	6	Rock and shale			
16	6	Blue rock and sandstone			
25	10	Bluish grey sandstone with clay and shells			
13	8	Blue rock & grey stone			
16	0	Grey sandstone and black clay shale with small fossil wood			
26	3	Grey & black sandstone & clay			
20	0	Grey & black sand and black shaly clay			
16	0	Black & grey strata with waterworn pebbles & ½ inch seam of pyrites			
22	4	Light grey sand and sandstone & black shaly clay interlayers			
21	0	Black & reddish brown clay shale and sandstone & sand with small shells			
24	9	Grey sandy & black clay			
14	10	Light grey rock and black sandy clay			
28	3	Dark clay & sand			
16	3	Dark grey & brownish sand			
26	8	Light grey sand & brown clay			
2	9	Grey clay with decayed wood			
12	7	Grey loam & quartz pebbles			
11	8	Brown clay & grey sand with vegetable matter	942	4000	Fresh
14	7	Light grey sandy loam with 4 inches carbonaceous matter	958	33000	Fresh
3	0	White sand and clay			

Water rose: Rose over the surface at the rate of 4000 gallons per diem. — Rose 70 feet above surface at the rate of 33000 gallons per diem.

Remarks: Papers W C 91. The fresh artesian water tapped at 942 feet continued to flow at an increasing rate until at 958 feet after cutting through a light layer into water channel the water burst up and rising 20 feet over the surface continued to flow at the rate of 33000 gallons per diem. By latest accounts the supply is increasing. Strata from water channel at 958 feet was driven up over the surface by the force of water

Appendix 13

Section of Bore at Ballimore

~~Holding~~ Vide Index Map Site 48

Situated 22 M East of Dubbo

Parish of Murrungundie County of Lincoln

Total Depth 561½ feet Water Supply 24,000 Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata
81	5	Soil 17 10 Coal 1 4 then Sandstone Shale and Coal alternating as follows to 81 5 – Sandstone 3" Shale 12 8 Coal 10" Shale 7 Stne 1 7 Shale 1 3 Stne 3 7" Shale 2 10 Stne 1 Coal 3 Shale 8 Coal 10 Shale 5 Coal 5 Shale 8 Coal 2" Shale 4 7 Coal 3" Shale 7 11 Coal 3
93	7	Sandstone & Shale
0	4	Coal
11	1	Shale
9	9	Sandstone
5	3	Conglomerate
51	6	Sandstone and Shale
194	6"	Soft shale with sandstone partings and brown Shale
15	0"	Shale
7	1"	Black Shale
28	8"	Dark soft Shale with soft sandstone bands
8	3	Shaly sandstone
18	2	Soft sandstone
[illegible]	[illegible]	Coaly Shale
[illegible]	[illegible]	Coal 1 1 Soft fireclay Coal 4 1
[illegible]	[illegible]	Soft coaly Shale
[illegible]	[illegible]	Soft sandstone
4	0"	Drifty sand

Depth: 550

Water rose: Water rose 50 feet over surface the strata and sediment from bottom of bore being thrown over surface by force of water

Quantity water: At rate of 1000 gals per hour

Quality water: Artesian Water (Mineral)

Remarks: Papers W C 91. Bore hole is 4 inches in Diameter

Sig 874

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Appendix 14

Section of Bore on Govt. Reserve

~~Holding~~ Vide Index Map Site 4

Cuttaburra Bore

Parish of Paroo County of Irrara

at 101½ Mile Post on road Bourke to Wanaaring

Total Depth 965⅚ feet Water Supply 22,464 Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata	Water struck at (Feet)	Quantity Water (Gallons)	Quality Water
35	0	Red sand clay marly, Limestone and driftsand			
15	0	Brown clay & ironstone boulders			
9	0	Tight ironstone			
3	0	Light blue stone			
79	6	Sandstone & clay and tight sandstone			
57	6	White drift & salt water			
38	0	Drift & stuff blue clay and grey rock & ironstone			
7	0	Quartzite			
9	6	Blue clay			
6	6	Light white clay			
7	0	Light grey clay & gypsum			
3	6	Tough blue clay			
25	6	Tight light cold clay			
9	0	Grey sand & black clay			
[illegible]	9	Quartzite			
27	3	Greenish tight sandy loam			
8	9	Tight fine sand and mud			
5	8	Quartzite			
12	1	Greenish sandy clay with spots of vegetable matter			
33	5	Black clay and sand			
1	0	Rock			
66	0	Black clay with thin layers of sand			
35	10	Blue black clay			
8	10	Rock			
	9	Blue Black clay			
	0	Rock			
61	11	Blue Black Clay			
4	6	Sandstone Rock			
9	9	Sand & Clay			
27	2	Fine sand & layers of rock			
3	7	Light grey rock			
12	6	Blue black clay and sand			
4	2	Fine sand & clay in layers			
6	6	Sandy water worn stones			
6	0	Decomp vegd matter & pieces of bone			
5	10	Light grey sand & coal Rock			
8	3	Sandy clay with veg matter mud cut up			
14	0	Sandy clay in thin layers, Brownish blue clay & sandstone & thin layers of rock			
1	3	Dark grey rock & limestone			
3	6	Limestone rock			
	0	Blue & grey clay			
56	3	Brownish blue clay			
9	8	Gypsum			
	6	Blue clay			
48	9	Black clay			
10	8	Green sandstone			
6	3	Boulders			
3	0	Green sandstone			
4	11	Limestone rock			
22	6	Clay			
1	7	Clay with sand seams			
7	5	Light grey sandstone			
1	9	Very light clay			
2	4	Blue clay with sand seams			
		Limestone rock	851	1400 per day	fresh
30	4	Brown clay & sandstone layers			
2	0	Sandstone			
7	7	Sandstone & sand, Limestone rock			
15	2	Sand & clay with decomp veg matter		21600 per day	fresh
4	1	Limestone			
21	7	Light sandy clay			
7	6	Limestone			
17	1	Blue clay with thin layer of limestone		22464 per day increasing	fresh

Water rose: Flowed over surface at the rate of 1400 gallons per day. Flowed over surface at the rate of 21600 gallons per day. Flowed over surface at the rate of 22464 gallons per day supply increasing

Remarks: Papers W C 91. Salt water was tapped in this Bore at from 284ft to 424ft & at from 140ft to 164ft

Appendix 15

Section of Bore on Bourke-Wanaaring Road

Holding Vide Index Map Site 2

Coonery Bore

Parish of Goonery County of Barrona

51 Miles west of Bourke

Total Depth 89⅙ feet Water Supply 1000 Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata	Water struck at (Feet)	Quantity Water (Gallons per day)	Quality Water
	8	Dry sand			
27	4	Stiff yellow clay with sand seams			
4	0	Damp swelling clay & sand	30	96	fresh
6	0	Damp sand with clay & salt water			
14	0	Blue clay & sand			
6	6	Compact blue sand with a little clay			
10	0	Do ferruginous seams	61	270	fresh
4	4	Fine grey drift sand	70	800	fresh
2	3	Blue clay very stiff	89	1000	fresh
8	5	Hard sand stone & quartz conglom's			
	2	Stiff blue clay			
		Grey sand & clay with fossil bones			
		Blue clay & hard fine sand stone			

Remarks: Papers W C 91. at 34 ft a cement containing fossil seen was struck. 51 fragments of bone were struck. 78 blue clay containing fragments of fossil bones. 79 sand & clay containing fossil bones

Appendix 16

Section of Bore on T S R

~~Holding~~ Vide Index Map Site 9

at 91 Mile Post Road Milparinka to Wanaaring

Parish of County of Ularara

Total Depth 72 feet Water Supply in Progress Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata
10	0	Shaft
7	3	Red sandy clay
23	2	Red cement rock
3	5	Red rock & yellow sand
23	9	Yellow sand & white sandstone
4	4	Quartzite rock

Remarks: Papers W C 91

Appendix 17

Section of Bore on Govt Reserve

~~Holding~~ Vide Index Map Site 45

Bore No 1 at Tibooburra

Parish of County of Tongowoka

Total Depth 288 feet Water Supply 10000 Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata	Water struck at (Feet)	Water rose	Quantity Water (Gallons)	Quality Water
15	0	Loamy soil, gravel wash & boulders				
7	0	Cement & boulders				
18	0	Yellow sandstone & shale				
3	6	Hard flinty rock				
9	0	Yellow Sandstone				
18	0	Blue shale				
5	0	Light sandstone				
31	0	Quartzite and blue shale				
11	10	Sand stone quartzite & blue shale				
27	0	Grey sandstone and blue shale	150	42 FT	very large supply	fresh
31	0	Grey sandstone				
40	10	Blue shale				
0	6	Quartzite				
14	0	Hard blue shale	233	113 FT	10000 glns per diem	fresh
31	3	Grey rock				
5	6	Quartzite				
2	0	White swelling clay				
6	0	Blue shale				
11	3	Blue shale				

Remarks: Papers W C 91

Appendix 18

Section of Bore on Tongowoko

Holding Vide Index Map Site 46

at Tibooburra Bore No 2

Parish of County of

Total Depth feet Water Supply Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata
4	0	Surface Loam
21	0	Gravel Wash & Boulders
15	0	Yellow Slate Sediment
10	0	Hard rock & blue Sediment
3	0	Bands quartzite & yellow sediment

Remarks: Papers W C 91

Sig 874

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Appendix 19.

Section of Bore on Milparinka

Holding Vide Index Map Site 47

Bore No 1 at Milparinka

Parish of County of Evelyn

Total Depth feet Water Supply Galns Per Diem

Thickness of Strata (Ft)	(In)	Nature of Strata	Water struck at (Feet)	Quantity Water	Quality Water
6	0	Gravel Wash & Boulders			
13	0	Gravel Wash & Blue Clay			
10	0	Sandstone	25	small supply	Salt
21	0	Hard cretaceous clays			
1	0	Quartzite			
6	6	Hard cretaceous clay			
0	9	Quartzite			
41	0	Hard cretaceous clays			
0	6	Quartzite			

Remarks: Papers W.C 91.

Appendix 20

Section of Bore on Buckanbe

Holding Vide Index Map Site 1

Parish of Wygilla County of Rankin

Total Depth 725 feet Water Supply Nil Galns Per Diem

Nature of Strata: About 480' drift sand in three layers divided by bands of clay First drift met with at 70 from the surface

Remarks: Papers W C 91 5/60. Sinker stuck at 725 feet & unable to get it out. Bore is 16 Miles from the River Darling

APPENDIX 21.

Section of Bore on Marra Holding Vide Index Map Site 2

Parish of Balara County of Killara

Total Depth 1482 feet Water Supply Nil Galns Per Diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK at	WATER RISE	QUANTITY WATER	QUALITY WATER	REMARKS
			Feet	Feet	Feet	Gallons		Papers W C 91 5036
500 0	Sand and decomposed Rock		100 200 300 400 500	240 500	200' 440		Highly mineralised & Salt ditto	
982 0	Sand and Hard Rock		600 00 800 900 1000 1100 1200 1300 1400 1500					Abandoned at 1482 as Govt Geologist stated useless to bore further

S12 874

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APPENDIX 22

Section of Bore on Marra Holding Vide Index Map Site 3

Parish of County of Killara

N°2 Bore

Total Depth 895 feet Water Supply Galns Per Diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK at	WATER RISE	QUANTITY WATER	QUALITY WATER	REMARKS
			Feet	Feet	Feet	Gallons		Papers W C 91
355	Whiteshale & clay, some hard & sandy		100 200 300 400 500					
540	Red rock		600 700 800 900					

APPENDIX 23.

Section of Bore on Dunumbral.

Holding Vide Index Map Site 4.

Parish of ... ... County of Finch

Total Depth 2070 feet Water Supply 300 Gal^ns Per Diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK at	WATER RISE	QUANTITY WATER	QUALITY WATER	REMARKS
			feet	feet	Feet	Gallons		
	No particulars given up to 1600 feet.							Papers W C 91-4956
470' 0"	Soft shale and sand caves in as soon as bored							
				2070	Surface	300	Good Soft water	

Sig 871

APPENDIX 24.

Section of Bore on Dunlop.

Holding Vide Index Map Site 5.

Parish of Singoramba County of Barrona

Total Depth 620 feet Water Supply 43 Gal^ns Per Diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK at	WATER RISE	QUANTITY WATER	QUALITY WATER	REMARKS
			feet	feet	Feet	Gallons		
30' 0"	Clay Drift							Papers W.C. 91-4871
20 0"								
100	Red blue & white pipe Clay occasional rotten rock 2 to 5 feet thick							
470 0	Cretaceous formation							
				620	Surface	43		Temperature of water 100°

APPENDIX 25

Section of Bore on Dunlop.

Holding Vide Index Map Site 6.

12 miles south west from N°1 Bore (N°6) on Index Map)

Parish of Goolgumbla County of Landsborough

Total Depth 940 feet Water Supply 576000 Gal^ns Per Diem

THICKNESS OF STRATA	NATURE OF STRATA	SECTION	DEPTH	WATER STRUCK at	WATER RISE	QUANTITY WATER	QUALITY WATER	REMARKS
ab'			feet	feet	Feet	Gallons		
30 0	Surface							Papers W.C. 91-4871
ab' 20 0	Drift			in drift			salt	
100	Red and blue clay and white pipe clay, occasional rotten rock 2 to 5 thick between clay strata 15' to 50 thick							
690	Cretaceous formation							
				840	surface	17000	fresh	
100' 0"	Porous Sandstone							
				940	surface	576000	fresh	

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT BY PUBLIC SERVICE INQUIRY COMMISSION ON THE MINES DEPARTMENT.

(CORRESPONDENCE, &c., RESPECTING.)

Ordered by the Legislative Assembly to be printed, 24 February, 1892.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 11th February, 1892, That there be laid upon the Table of this House,—

"Copies of all papers, letters, minutes, and correspondence between the "Colonial Secretary's Department, the Mines Department, and the Public "Service Inquiry Commission, with regard to supplying the evidence upon "which the Report on the Mines Department is based."

(Mr. Garrard.)

SCHEDULE.

No. 1.

The Under Secretary for Mines to The Principal Under Secretary.

Sir, Department of Mines, Sydney, 7 January, 1891.

I am desired to ask if you will be so good as to forward to the Secretary for Mines and Agriculture, officially, the Report of the Civil Service Inquiry Commission upon this Department, together with the evidence upon which such Report is based.

I have, &c.,
HARRIE WOOD,
Under Secretary.

Reminded, 10th February, 1891, and 13th March, 1891.

[970 copies—Approximate Cost of Printing (labour and material), £2 10s. 4d.]

No. 2.

The Under Secretary for Mines to The Principal Under Secretary.

Sir, Department of Mines, Sydney, 22 April, 1891.

I am desired by the Secretary for Mines and Agriculture to acknowledge the receipt of a copy of the Report of the Civil Service Inquiry Commission upon this Department, and I am to ask that you will please furnish me with a copy of the evidence upon which such Report is founded.

I have, &c.,
HARRIE WOOD,
Under Secretary.

No. 3.

The Chairman of the Public Service Inquiry Commission to The Colonial Secretary.

Sir, Public Service Inquiry Commission, Sydney, 19 May, 1891.

I have the honor to forward herewith for your information a letter from the Under Secretary for Mines, addressed to the Principal Under Secretary, and forwarded by that Officer by B.C. minute to the Public Service Inquiry Commission.

This letter repeats the request formerly made for a copy of the evidence upon which the Report of the Commission on the Department of Mines is assumed to have been based.

The method of procedure adopted by the Commission was verbally explained by me, to you, on a former occasion, but as the Under Secretary for Mines has repeated his request, the Commission now deem it desirable to place on record their views upon this question.

When the Commissioners first entered on their duties it was decided to stipulate that the evidence given by officers under examination should be regarded as strictly confidential. In no other way, it was believed, could the truth be arrived at where faults or irregularities existed, and the Commission are satisfied from experience that the course they have pursued is the best calculated to promote the public interests.

Under these circumstances the Commission are unable to furnish the evidence asked for.

The Report of the Commission on the Department of Mines contains no statement which is not susceptible of verification in the Department itself.

Every material fact contained in the document was derived by the Commission from personal observation, or from inspection of the records of the office. They ought, consequently, to be within the cognisance of the Under Secretary.

I have, &c.,
J. GARRARD,
Chairman.

No. 4.

Minute of The Secretary for Mines *re* the Report of the Public Service Inquiry Commission.

I HAVE been compelled to postpone dealing with the important Report presented by the Commission appointed to inquire into the working of this Department, owing to the refusal of the Commission to allow me access to the evidence upon which their conclusions are founded. I have been for some time past anxious to deal with it, but, before taking action, felt it necessary, as the Minister responsible for the efficient and proper working of this Branch of the Public Service, to be placed in full possession of all the facts elicited by the inquiry, so that I should be better able to deal satisfactorily with matters so materially affecting the working of the Department and the welfare of many of its officers. I therefore conceive it my duty to ascertain the nature of the evidence which supported the recommendations, so that I could judge of their value, and feel fortified in any action I might think it desirable to take in regard to them.

Accordingly, I instructed the Under Secretary to obtain the evidence, but, up to the present, I regret to say it has not been forthcoming.

The request seemed to me a reasonable one, but, notwithstanding that it was preferred some months ago and repeated several times since, it was only within the last few weeks I was placed in possession of the Commissioners' reply, which is to the effect that as it had been stipulated that the evidence given by the officers under examination should be regarded as "strictly confidential," I could not be furnished with it. This I consider a strange position to be placed in. I had the Report, but no evidence, and it was practically placing me in the position of a judge and asking me to decide a case without being furnished with the evidence bearing upon the matter. Indeed, I consider the position even worse than that, for it resolves itself into this: that I am invited to censure or dispense with the services of officers, without those officers having a knowledge of the evidence adduced against them. If they appeal, I am virtually in the position that I would be compelled to admit I had acted without any evidence before me, and if they pressed for the grounds upon which they were dispensed with, to enable them to reply in their own defence, I would be left in the still stranger position of having to inform them that the evidence being strictly private and confidential, they could not see it, but must, without question, abide by the decision I had given.

The whole procedure seemed extraordinary and unprecedented, and by their asking me to deal with the Report in this way I felt placed in a somewhat false position—if not a false position certainly a strange one—where I am recommended to make important changes in the administration of the Department without being made fully aware of the reasons in support of them.

In Reports submitted to the highest tribunal of the land—the Legislature—the recommendations are always based upon the evidence which accompanies them, and I fail to see why the supporting evidence should be withheld in this case.

In dealing with the bald recommendations presented, I might possibly be led into approving of a course which might ultimately prove to be disastrous to the interests I am called upon to conserve, and be found inflicting an injustice upon capable and meritorious officers. It has always been held an axiom

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in British justice that no man is adjudged guilty unless he has read or heard the evidence upon which he is to be condemned, and in like manner I hold that no man, however humble his position, should be censured or removed from the Service without being made aware of the reasons for being so dealt with, and afforded the fullest opportunity of replying.

That my contention is not unreasonable or untenable is borne out by the action of some of the Members of the Commission themselves. I find that in an addendum to the Report two of the Members (both ex-Ministers of the Crown—one an ex-Minister for Mines) declined to attach their signatures to the Report, on the ground that they had not heard all the evidence. These members, it will be observed, refused to sign the document, although they had an opportunity of hearing part of the evidence, and perusing the whole of it, yet I am invited to carry out these recommendations without being given the opportunity of even perusing the evidence. If these gentlemen had scruples of this kind, how much are they intensified in my case, where I am expected to be the medium by which the recommendations are to be given effect to?

The course adopted by the Commission is, I consider, one fraught with great danger. In one part of the Report it is stated "the fullest opportunity has been given to every officer to give expression to his opinions or state his grievances."

It is, no doubt, highly desirable that officers should be free and untrammelled in giving evidence, but they should at the same time certainly understand that they are expected to give such evidence as will bear the light of day and be open to the scrutiny afterwards of those able to judge of its reliability. If officers have been allowed to air their grievances, and if they exist, how am I to remove them until I am made aware of their nature? They may be real or they may exist only in the imagination of the individual, but of this I am not afforded an opportunity to judge.

Privileged evidence of this kind opens the door to the practice of duplicity and even treachery, and I think cannot be too strongly deprecated.

In all services there are disappointed and discontented officers, and the mode of procedure adopted by the Commission gives an opportunity to those persons to vent their spleen and dislike upon other officers who have no chance of replying, and the adoption of such a course in conducting the inquiry seems to me extraordinary and indefensible.

In another portion of the Report the Commission state that the inquiry reveals discontent which may be in some degree baseless, but which they think is partly due to a want of judgment and tact on the part of the superior officers. The Commission here admit that they base their opinion "on the evidence before them," but how am I to judge the correctness of that opinion without seeing the evidence it is based upon? If there be discontent as stated, I certainly should have the evidence taken to guide me in arriving at a just and equitable decision, or to enable me to trace out the source of it, and endeavour to provide a remedy.

I may mention that since the investigation was started by the Commission and prior to the receipt of their Report, I caused an inquiry to be held into the working of certain branches of the office, but deferred dealing in their entirety with the recommendations submitted to me owing to the non-receipt of the evidence taken by the Commission. From the information elicited at my instance, however, I have been able to make changes in the administration of the Department which will tend to promote its efficiency and facilitate the despatch of business with the public, but the complete reorganisation of the Charting and Survey Branch, which I had in contemplation, I had postponed carrying out, until I had before me the evidence which the Commission had taken on this head. I had expected that on receipt of it I should have been able to deal effectively with this branch and place it on a more satisfactory basis, but was deferred giving effect to all the changes I had in view, being fearful they might clash with the action I would deem myself justified in taking when I received the evidence of the Commission.

I have, however, been able to make alteration in the Registrar's office, improve the method of dealing with applications both by the Wardens and the Wardens' clerks, and to expedite the completion of surveys, &c., adjust work in connection with the Wells and Tanks, and Water Conservation Branch, and effect improvements in other directions.

Although I have been able to make many alterations of an important character in the Charting Branch, there are still several questions, especially those relating to the supervision of and mode of conducting the charting work, which have had to be kept in abeyance in the daily expectation that I would get what I required to enable me to properly deal with them, viz., the evidence referred to.

I have to say in conclusion that while anxious to give every consideration to suggestions made to secure greater efficiency and promptitude in the conduct of the business of the Department, I feel I cannot satisfactorily deal with the changes proposed by the Commission until I am put in possession of all the facts bearing upon the important subject dealt with. While I have, as before stated, reorganised some of the Branches of the Department, I regret that the Commission have not yielded to my repeated requests and thus placed me in a position to be able to thoroughly and conclusively settle the whole of the changes I have had for some time in contemplation.

In justice to myself and to the great interests over which I am called upon to preside, I feel I should not be warranted in acting upon the recommendations made in the Report without the supporting evidence, and can therefore only reluctantly return it with an expression of the hope that the Commission will, on a consideration of the reasons herein adduced, see fit to comply with the reasonable request I have made.

S. SMITH,
14/7/91.

The Principal Under Secretary.—H.W., B.C., 17/7/91. Submitted, 21/7/91. Copies of Report returned to Mr. Palmer.—C.W., 28/1/92.

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1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

INTERNATIONAL EXHIBITION OF MINING AND METALLURGY, LONDON, 1890.

(REPORT OF THE EXECUTIVE COMMISSIONER FOR NEW SOUTH WALES.)

Ordered by the Legislative Assembly to be printed, 10 *September*, 1891.

To His Excellency the Right Honorable VICTOR ALBERT GEORGE, EARL OF JERSEY, a Member of Her Majesty's Most Honorable Privy Council, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies.

May it please your Excellency,

This Exhibition having been closed, and the specimens shown in the New South Wales Court having been removed, it now devolves upon me, as Executive Commissioner, to record for your Excellency's information the steps taken by me in that capacity for the advantageous display of the valuable exhibits transmitted to my care, and the effects produced upon the public in the mother country by the evidence they afforded of the vast mineral resources of the Colony. Bearing in mind that a collection of minerals and metals, equally extensive and complete, had never before been submitted to public inspection in England from any country, the display made by New South Wales naturally attracted great attention, and excited even greater surprise. The result, so far as it could be gauged at the time, was to create a highly favourable impression of the natural wealth of the Colony, and inspire confidence in persons seeking opportunities for the safe and profitable investment of capital, either in loans to the Government or in private enterprises.

Before describing in detail the exhibits comprised in the New South Wales Court, their arrangement therein, and the accessories introduced with a view to set them off to the greatest advantage, and thus secure the full attention of visitors, it may be well to advert briefly to the circumstances under which the Government of the Colony was induced to join in the undertaking.

Specimens

Specimens of minerals and metals from New South Wales had been shown at the Colonial and Indian Exhibition, held in London in 1886. That display, however creditable, was admittedly incomplete, some metallic ores found in the Colony not having been included among the exhibits. Efforts were subsequently made to supplement that collection, to which additions were made at the Adelaide Jubilee Exhibition of 1887. A still more complete representation of the mineral wealth of the Colony was shown at the Centennial International Exhibition held in Melbourne in 1888; and the whole of the collection then displayed by the Government, together with additional specimens procured for the occasion, were forwarded to Dunedin, and shown in the New Zealand and South Seas Exhibition held there in 1889-90. These, finally, were transmitted to London, and exhibited in the New South Wales Court at the International Exhibition of Mining and Metallurgy, others having been added in order to make the catalogue as completely representative as possible.

As the Exposition in London was to be devoted exclusively to matters Mineral and Metallurgical, it was thought desirable that steps should be taken to benefit the Colony by the opportunity thus presented for demonstrating to the world the extent and importance of its mineral wealth, and for acquiring useful information as to the character and practical utility of the improvements and fresh inventions which have taken place in the construction of machinery for the treatment of refractory ores. The Government accordingly appointed a Royal Commission, consisting of the Honorable Sir Saul Samuel, K.C.M.G., C.B., Agent-General for the Colony; the Honorable C. J. Roberts, C.M.G., M.L.C.; Mr Francis Abigail, M.P.; Mr. C. Smith Wilkinson, F.G.S., F.L.S., Government Geologist; Mr. J. R. Fairfax; Mr. W. Knox; Mr. S. H. Cox, F.C.S., F.G.S.; and myself. For the practical working of the scheme, I was appointed to the Executive Commissionership, and Mr. Wilkinson was selected as Geological Director.

Mr. Wilkinson proceeded to England early in May, 1890, accompanied by his assistant, Mr. J. E. Carne. I myself followed on the 28th of that month, proceeding overland from Sydney, in order to catch the outgoing Peninsular and Oriental steamship at Adelaide. My departure had been delayed owing to the business I had still to transact as Commissioner for New South Wales at the New Zealand and South Seas Exhibition at Dunedin, which was not closed until the 19th of April of that year.

Upon my arrival in England, I found that the Agent-General, Mr. Abigail, M.P., and Mr. Wilkinson had met with very grave difficulties in the performance of their duties as Commissioners. The space allotted to New South Wales by the Executive Council of the Exhibition was split up into isolated sections, most of which were located in the galleries, where the flooring was incapable of sustaining the weight of our heavy mineral exhibits. The Agent-General, at the instance of the Government, had asked for 15,000 square feet in a rectangle on the ground floor; and it was certainly to be expected that, as the space was

to be paid for, the request would be acceded to. The anticipation was not realised, whether through the omission of the Exhibition Executive to secure, or the disinclination of the Crystal Palace Company to grant, the concession asked, could not be clearly ascertained. To obviate the disadvantages which would have accrued from so unsuitable an arrangement, Messrs. Abigail and Wilkinson interviewed the authorities of the Crystal Palace upon the subject; and, after a full discussion, in course of which various difficulties in the way of securing a position free from serious disadvantages were met and overcome, they obtained, upon the payment of £700, 7,000 feet of space in the South Nave, one of the most picturesque and most frequented portions of the Palace. Even with this, however, our Court had to be divided into two parts—one in the South Nave, as just stated, and the other in the East and South Galleries. It was evident, nevertheless, that the Commissioners had secured the best terms possible under the circumstances. The Crystal Palace authorities had demurred when the Executive Council of the Exhibition applied on behalf of New South Wales for a large space on the ground floor, for it is there that all sorts of entertainments are provided for the general public, and their yielding to the request of the Commissioners was therefore matter for congratulation. Other difficulties, occasioned by the palpable want of experience on the part of those who had been entrusted with the general management of the Exhibition, stood in our way. It was evident that these gentlemen were unacquainted with the manifold intricacies and complications attendant upon undertakings of this character. They appeared to be oblivious to many important matters requiring previous knowledge for their successful treatment. There must, for example, have been a lack of forethought in the selection both of the building and the locality in which the Exhibition was situated. The railway journey from the city or the West End of London to the Crystal Palace is long and tedious, and it was evident that had thoroughly representative displays been sent from the chief mining centres of the world, such as would have perfectly justified the designation of the Exhibition as "International," there would then have been no proper available space for their accommodation.

Under these circumstances, I was not surprised to find upon my arrival in England that the Agent-General and Mr. Abigail were greatly dissatisfied with the arrangements made by the Executive Council of the Mining Exhibition. Other matters also gave them just cause for complaint. It was observed, for instance, that the general public had been left in apparently total ignorance as to the forthcoming event, and it was not until my advent in London that a single paragraph relating to the Exhibition appeared in any influential journal. Nothing whatever had been done, as it seemed, for the purpose of attracting attention to, and exciting interest in, the display then shortly to be inaugurated.

At several meetings with my fellow Commissioners at the offices of the Agent-General, a unanimous desire was expressed that the New South Wales Court should be conducted in such a manner as

to ensure the most beneficial result that the unfavourable conditions would admit of. It was clear from the first that the New South Wales Court would form a large and most important part of the display—that the Court would, in short, constitute the principal part of the Exhibition; for the only other section representative of the national mineral wealth, or covering an area of any considerable dimensions, was that of South Australia, under the control of Mr. Rosewarne, Inspector of Mines for the South Australian Government.

On account of the lack of publicity given to the Exhibition by the Executive Council, and the distance of the Crystal Palace from London, we decided to issue, free of cost, railway tickets and season tickets for admission to the display, to the editors of the leading English newspapers, and to other persons whose attendance at the Court was considered desirable. This proposition was carried into effect with beneficial results.

By strenuous exertions, on all sides, the New South Wales Court was completed and presented a finished appearance by the 15th of July, the date appointed for the formal opening of the Exhibition. The ceremony, however, was postponed until the 28th of that month. The Duke of Fife had, in the first instance, undertaken the duty of performing the inaugural ceremony, but, on account of the postponement, His Grace was unable to fulfil his engagement. At a very late hour, the Council secured the services of the Right Honorable Lord Thurlow, F.R.S., one of the honorary vice-presidents of the Exhibition. A private view of the display was given on Saturday, 26th July, the greater proportion of the visitors, on the occasion, being members of the Press. The company assembled in the Pompeian Court of the Palace, and were then conducted through the Exhibition by the office-bearers of the Executive Council. Many visitors were also received in the Reception Room of the New South Wales Commission, and every facility was afforded them for acquiring all possible information concerning the mineral specimens from New South Wales and the mineral wealth of the Colony generally. The inaugural ceremony took place on Monday, 28th July. The company again assembled in the Pompeian Court, the chair being taken by Lord Thurlow, who was supported by Mr. A. Pritchard Morgan, M.P. (Chairman of the Executive Council), by Mr. George T. Rait (Deputy Chairman of the Crystal Palace Company, Ltd.), and by the Commissioners of the Colonies, the Members, the Honorary Treasurers and the Honorary Secretary of the Council, and the Directors and Officials of the Company. The Exhibition having been formally declared open, the company proceeded upon a tour of inspection through the Courts. Lord Thurlow, who expressed himself agreeably surprised at the extent and importance of the New South Wales exhibits, was received in our Reception Room, where he signed his name in the Visitors' Book. A *recherché* repast, over which Mr. Pritchard Morgan presided, was then served in the Garden Hall. Through the kindness of Messrs. Bertram and Company, the caterers,

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and with the permission of the Council, I was enabled to place extra accommodation at the luncheon table for those visitors to the New South Wales Court who were not upon the list of guests invited by the authorities of the Exhibition. On the Thursday afternoon following the inauguration, Sir Saul Samuel accompanied to the Exhibition the Right Honorable Lord Knutsford, Secretary of State for the Colonies, and the Right Honorable the Earl of Jersey, the newly-appointed Governor of New South Wales, with his daughter, Lady Villiers. Their lordships were also accompanied by Sir Charles Mills, K.C.M.G., C.B., and the Honorable Robert Meade. The visitors were received at the entrance of the Court by Mr. Abigail, Mr. Wilkinson, and myself, and shown through the Exhibition. Subsequently I received the company in the New South Wales Reception Room, where light refreshments were provided.

It is to be regretted that, for the place of honor in the Exhibition, New South Wales had no competitors, by whose defeat greater lustre would have been shed upon our Colony. As it has been, however, my duty to attract public attention to the wealth represented by our exhibits, and to disseminate the knowledge of its existence as far as possible throughout the United Kingdom, and as numerous circumstances point to unqualified success in this particular, I am perhaps best able to judge of the extent to which New South Wales is likely to benefit by the part she has taken in the Exhibition. My opinions upon this point are dealt with at some length in the concluding passages of this Report, and it will be sufficient for the present if I confine myself to the statements I have already made, viz., that our display was complete and representative, that it clearly indicated the extent and value of our mineral wealth, and that all possible means were taken under the circumstances for impressing on the mind of the British public the lessons it was calculated to teach.

As previously remarked, the New South Wales Court was divided into two parts, the one, covering an area of 7,000 square feet, in the South Nave of the Palace, and the other, occupying about 8,000 square feet, in the East and South Galleries. The collection of mineral specimens shown by the New South Wales Government in the New Zealand and South Seas Exhibition, held at Dunedin during the latter part of 1889 and the early part of 1890, and supplemented with other samples, had been forwarded to London with best possible dispatch, and formed, when arranged in the Crystal Palace, the finest and the largest display of its kind ever exhibited. In the South Nave there were three long rows of imposing trophies, interspersed with glass cases containing small though valuable specimens of precious stones, nuggets, crystals, &c. The sombre appearance presented by the huge piles of ores and of coal and shale was relieved by a display of flags and bannerets, and by variously coloured boards suspended above the principal trophies, which gave the names of the mines and and districts whence the specimens had been taken. In the East and South Galleries the exhibits consisted of timber, marble, asbestos, fossils, building stones, and Mudgee sharpening stones. It was here

also that the spacious reception room was located, with the offices of the Executive Commissioner and the Geological Director and the Courts of the *Sydney Morning Herald* and *Sydney Daily Telegraph.* In the South Gallery we had pictorial representations of an alluvial gold-field, and a model of an adit into a coal mine, both with wax figures representing miners engaged in their work. The effect this produced was heightened by the courtesy of some firms of engineers who kindly lent several accessories, which added to the reality of the representation.

It will be convenient perhaps to refer here briefly to the very many visitors who accepted my invitations to the Court every Thursday during the continuation of the Exhibition, and whose interest I secured in matters which it was my duty to advocate. The company on these occasions consisted not only of influential colonists then in London, but comprised also many gentlemen well known in the financial and commercial circles of the City, as well as those representatives of newspapers who had interested themselves in our affairs. Besides these, I had the pleasure of entertaining on the eve of his departure for the Colony, a member of the Commission, Mr. Abigail, who had worked most energetically on behalf of our Court at a time when great difficulties stood in the way of its success, and to whose untiring efforts, in conjunction with the Agent-General, it is in a large degree owing that an advantageous position in the building was at length secured. But for these efforts, in fact, the Colony might as well have retired from the Exhibition and returned the exhibits to Sydney.

A brief catalogue of the exhibits in the New South Wales Court is appended hereto. (Appendix A.) The following remarks are intended less as a description of these exhibits than as a commentary upon them, suggested by the varying degrees of attention bestowed by visitors, and the amount of intelligent appreciation manifested by observers of different classes. While much of the notice taken of them may be attributed to simple curiosity, there is no doubt that the better educated classes of visitors fully realised the fact that the specimens shown indicated the possession by the Colony of enormous wealth in its mineral resources.

No class of exhibits attracted greater attention, or excited greater interest in the minds of visitors, than those sent from the coal-fields of the Colony. There were in all twenty-eight of such exhibits, exclusive of the collection shown by the Department of Mines; and it would be difficult to judge whether the immense size of some of the blocks or the excellent quality of the coal was the more frequent theme of wondering remark. It was evident that, to the vast majority of the onlookers, the possession by New South Wales of seams of coal from which such blocks could be cut was an entirely new idea, inasmuch as masses of the mineral of equal dimensions had not been displayed at any previous exhibition in the mother country. Equally startling was the revelation of the quality of the coal produced in the Colony. A firm belief in the inferiority of the colonial product had apparently

prevailed

prevailed in the minds of a large class of the English people; but inspection of the samples exhibited showed clearly the erroneous nature of such a view. The press notices of the exhibits prove that the production of coal was regarded by the writers as a matter of surpassing importance; and the statistical information on this head supplied by the publications distributed gratuitously to visitors in the Court, was quoted with significant comments by nearly all the papers that printed descriptions of the exhibits. At public gatherings, also, in the Exhibition, the abundance and quality of our coal received laudatory mention in the speeches of persons versed in the subject, and consequently not likely to be betrayed into the use of extravagant expressions in stating their opinions. The Exhibition may therefore be credited with having demonstrated in the mother country, that New South Wales is a great coal producing country; that the coal is, for most purposes, not inferior to that obtainable in Great Britain; and that few of the difficulties in the way of working the mines which prevail elsewhere exist in the Colony.

One of the most prominent of the coal exhibits was a block shown by the Australian Agricultural Company, taken from their Bore-hole seam, which, being nearly 11 feet in average thickness, allowed a sample of great size to be selected. Mining experts noticed also with interest that this is the only colliery in New Sonth Wales in which mine ventilation is effected by means of a Guibal fan in place of an underground furnace.

Petroleum oil cannel coal was exhibited by the Australian Kerosene Oil and Mineral Company, and attracted attention on account of its great use in the manufacture of gas for lighting purposes. As the richest samples of the mineral give 15,399 cubic feet of 48-candle gas per ton, it is largely imported into England by gas manufacturers for mixing with ordinary coal to increase the quantity and improve the quality of their gas. The trade in this article might be greatly extended. A diploma of gold medal was awarded to the Company on account of this exhibit.

Another conspicuous coal exhibit was that of the Burwood Coal Mining Company, who showed three blocks, together about 7 feet high, being the thickness of the seam from which the sample was taken. This coal is also of excellent quality, and useful for all the purposes to which coal is applied. A gold medal was also awarded for this exhibit.

A similar exhibit from the Duckenfield Colliery was shown by Messrs. J. and A. Brown, of Newcastle, and received the like recognition from the jurors.

The coal from Curlewis, supplied by the Centenary Coke and Coal Company, was noticeable chiefly from the fact that it was supplied from a locality far distant from the better known centres of coal production in the Colony. It is specially valuable for the manufacture of coke. In this case also a diploma of gold medal was awarded.

Specimens of steam coal were furnished by the Coal Cliff Land and Coal Mining Company. The Company's property is situated in the Illawarra Coal-field, and their samples were deemed deserving of notice as being of a different class of coal, admirably adapted for steam purposes, as it does not clinker and burns to a very fine ash.

Considerable interest was shown in the exhibits from the Greta Coal Mines, samples having been forwarded by the Greta Collieries Company, and the East Greta Coal Mining Company. One specimen was a section of coal from the 30-feet seam, East Greta Colliery. The following information, supplied by Mr. David, the Geological Surveyor, will account for the attention bestowed upon these exhibits by mining experts. Referring to the above mentioned specimen, he states:—"The seam from which the section of coal exhibited was taken, is known as the Upper seam of the Greta Coal Measures. The latter are the oldest and consequently the deepest productive coal measures at present known in Australia, and underlie a great thickness of sandstone, shale, and conglomerate which contain an abundant marine fauna of Permo-carboniferous age. The Greta Coal Measures are termed the Lower Coal Measures, as distinguishing them from the Middle (East Maitland or Tomago) Coal Measures, and the Upper (or Newcastle) Coal Measures."

A diploma of gold medal was awarded to each of the following exhibitors, viz. :—

The Burwood Extended Coal Company.
The Wickham and Bullock Island Colliery.
The Waratah Coal Mining Company.
The Newcastle Coal Mining Company.
The West Wallsend Coal Mining Company.

The Katoomba Coal and Shale Mining Company exhibited specimens of both coal and shale, the former differing in many respects from the samples forwarded from the Newcastle and Illawarra districts Exhibits of coal from the Mittagong district were shown with the collection supplied by the Department of Mines, and usefully illustrated the variety of kinds of coal produced in New South Wales and their respective qualities.

Two exhibits of graphite from the New England district were shown. Ochres and kalsomines for painting and colouring were also exhibited, and were considered entitled to notice from the fact that they were manufactured in the Colony from native products.

The Mines Department exhibited a collection of samples of stone, including granite, limestone, marbles of different colours, serpentine, porphyry, roofing slate, and sandstone. Respecting marbles, it may be pointed out that our exhibits of white marble must have weakened the prevailing belief that Carrara furnishes the only material of that class fit for architectural decoration and for statuary. As the means of transit are perfected, it will be found that for that article, as well as for all kinds of coloured marbles, New South Wales holds a position not inferior to that of any other country. Visitors to the

Colony

Colony would see that already our marbles, granites, and other kinds of stone are largely used for public buildings and such structures as churches, banks, and municipal halls. These samples served to prove to capitalists, manufacturers, and engineers, that New South Wales possesses an abundant supply of excellent materials for architectural, engineering, and artistic purposes. The like service was performed by the exhibits of brick, pottery, and porcelain clays. Of the samples of sharpening stones from Mudgee, I may here mention with advantage the opinions expressed in relation thereto by Messrs. William Marples and Sons, edge tool manufacturers, of Sheffield, to whom I transmitted a few samples for testing. After careful consideration the firm reported that the quality of the stone was all that could be desired for "carpenter's tools." They stated that the texture was somewhat soft, much softer than Turkey, Washita, or Arkansas stone, and they doubted very much whether it would be suitable for fine cutlery; but for carpenter's tools they thought it was as good as any they had tried. As an example of what the price should be, they quoted the American cut "Washita" stones, which are generally considered to be of excellent quality and which can be imported into England at a fraction under sixpence per lb. The firm informed me that they bought Turkey oil stones, cut to sizes according to order, and all warranted, at a fraction under eight-pence per lb. It was their belief that the Mudgee sharpening stones would have to be offered at a lower figure than those quoted before a sale could be effected.

The gems found in this Colony include the diamond, ruby, sapphire, emerald, topaz, garnet, and others of less value. Specimens of each of these kinds of gems were exhibited in the same case with nuggets of gold and samples of gold dust from various districts of the Colony. This collection was naturally viewed with great interest, and that part of the Court where it was shown was generally crowded with visitors. In order to regulate the traffic and ensure safety, it was necessary to maintain a careful watch; and, for this purpose, two men were constantly on duty in close proximity to the case containing these valuables. At night they were removed from the case and locked up in a safe procured for the purpose. The gems exhibited were not of great size, and were valuable chiefly for their suggestiveness. If, with imperfect appliances and in an unsystematic search, such results could be obtained, how much more valuable would be the return from operations conducted in a scientific manner with proper machinery. The mere fact that already 50,000 diamonds had been procured in New South Wales, some of them of fair size, would doubtless give some assurance to the anticipations of the future.

Although the nuggets above mentioned denoted to the ordinary visitor most vividly the mineral wealth of the Colony, the scientist and mining expert looked to the other exhibits of gold as more truly indicative of the extent and abundance of the metal. Native gold in quartz, and gold associated with antimony, arsenic, iron, and other ores, besides numerous specimens of the so-called alluvial gold, were

 exhibited

exhibited in such abundance that probably no goldfield in the Colony, of even third rate importance, was unrepresented. These various exhibits could not fail to impress upon those who were capable of studying the subject, the wide distribution of the precious metal, the numerous forms in which it appears, and the economic value of each. They would, at the same time, be able to discern the practical difficulties likely to occur in the treatment of the different ores, and the mode by which such difficulties could be overcome. Such information would be most useful, not only to persons engaged in mining pursuits, but also to those who contemplate the investment of money in mining enterprises in the Colony. Viewed in connection with the information supplied in the Catalogue of Exhibits, respecting the production of gold in the past, the imperfect methods of mining that prevailed until lately, and the extensive dissemination of the metal throughout the Colony, both these classes of persons should find in the exhibits matter of the greatest interest.

Next to coal, the exhibits of silver were perhaps regarded with the greatest interest by visitors. This was to some extent due to the presence of the great trophy of the Broken Hill Proprietary Company, an object so conspicuous by its size and supposed material that it could not fail to attract notice. While, however, the casual observer's attention would be caught by the silver pillar, surmounted by a figure of Atlas bearing a globe upon his shoulders, both apparently of the same metal, the scientific visitor would direct his regards to the numerous and diversified specimens of ore—silver lead, silver and iron, silver and zinc, silver and quartz, and other combinations. The thirty-three exhibits from mines situated in the northern, southern, and western districts of the Colony, afforded ample evidence of the extent and value of the deposits of this metal, and furnished information from which the investor could judge of the character of undertakings for obtaining it from different localities. Gold medals were awarded to—

The Broken Hill Proprietary Silver Mining Company.
Broken Hill Block 14 Silver Mining Company.
Broken Hill Junction Silver Mining Company.
Broken Hill British Block Silver Mining Company.

The specimens from the other silver mining districts—New England, Goulburn, and Bathurst—formed for the most part portions of the general collection of minerals exhibited by the Mines Department.

Twenty exhibits of tin and tin-ore were shown. These were of a high order, and showed conclusively that this Colony ranks among the largest producers of both lode and stream tin. Although the value of tin procured in the Colony up to the end of 1889 exceeded that of silver up to the same date, these exhibits failed to attract equal attention, excepting, it might be, on the part of persons interested in the Cornish tin mines in the mother country. An exception should be made in the case of 4 tons of refined ingots, an exhibit which, on

account

account of its excellent quality, was generally noticed with interest. Ultimately this exhibit was sold at the rate of £101 per ton.

The exhibits of copper and copper ore numbered twenty, inclusive of the collection belonging to the Mines Department. These evidences of the productiveness of the mines in New South Wales were viewed with much interest on account of the great fluctuations in the copper market during the last few years, and its uncertainty in the immediate future. Although this latter circumstance has diminished the interest formerly taken in the working of copper-mines in the Colony, it may be expected to revive with the advance in the price of the metal, which of late has shown a tendency to improve. It now brings more than £60 per ton in London. It may be mentioned that information was given to me to the effect that large quantities of the copper produced in the Colony find their way to Germany, where the gold contained in it is extracted and the copper re-sold.

Exhibits of iron were not numerous, and served rather to indicate what is possible with regard to this metal in the future than what has been accomplished in the past. Notwithstanding the large deposits existing in the Colony, the iron industry is comparatively undeveloped. This may be accounted for on the ground that iron mining and working cannot be profitably carried on without a very large capital, expensive machinery, and a good supply of specially skilled labour, which, at present, is not plentiful in the Colony. There are indications, however, that matters will, at no distant date, undergo great improvement. The subject is already receiving much attention from capitalists in the mother country, and arrangements have been entered into for the establishment of important works, which, if successful, would place New South Wales first among the Australian Colonies in this particular.

Respecting the numerous other metals and minerals exhibited in the New South Wales Court, there is little need for remark; for, although their number and variety would naturally attract attention from the scientist and mining expert, they do not possess so great an economic value as those already mentioned, and do not furnish the material for any considerable industry. Antimony may, perhaps, be deemed an exception to this statement, both from its abundance and from the fact that the export of this metal up to the end of 1889 exceeded £70,000 in value.

The collections of Professor Liversidge and Mr. Martin Isaacsohn have been brought under public notice at previous exhibitions, but they did not fail to draw large numbers of visitors to the cases in which they were shown in the Court. It was evident that the persons by whom these exhibits were most carefully scrutinized belonged to the scientific classes, who were best qualified to estimate their value and significance. This remark applies equally to the collection exhibited by the Minister of Mines, of fossils from the principal sedimentary formations of New South Wales.

Native timbers were exhibited by the Minister for Mines, and, although not included in the original scheme of the Exhibition, formed a valuable constituent of the general display from this Colony. One of the most important practical uses of timber is in connection with mining, and the existence of a plentiful supply of suitable kinds is a necessary condition for successful mining operations. While this collection was greatly noticed and much admired by visitors, the commercial value of our timbers was not generally appreciated. I took some trouble to ascertain whether it would be possible to substitute our hardwood blocks for the soft wood used in paving the streets of London. While the greater durability of the colonial timber was admitted, the objection was strongly urged that in winter and during wet weather the hardwood blocks would be found too slippery. As railway sleepers also, there is no doubt that the elasticity of our timbers gives them many advantages over those used for this purpose in the mother country. This quality would in the long run prove that economy would result from the adoption of hardwood sleepers; but, notwithstanding, there appears to be at present but small probability of creating a demand in the London market. Softwood from Norway and Sweden is imported in immense quantities, and sold at prices which practically destroy competition. The high cost of procuring the timber in the bush and forwarding it to Sydney, together with the freight over-sea to London, renders competition well nigh hopeless under present circumstances.

The exhibits forwarded by the proprietors of the *Sydney Morning Herald* and the *Sydney Daily Telegraph* were of a most interesting character, and greatly enhanced the attractiveness of the Court. The photographs shown of the machinery used for printing, cutting, and folding the *Herald* formed the subject for much favourable criticism among engineers and journalists, great surprise being expressed that Sydney should possess printing machines equalled only by those in use by three London newspapers, and excelled by none.

"The machinery of the *Sydney Morning Herald*," to quote from a description kindly furnished by the management, "has from time to time advanced with the progress of invention in the development of newspaper printing presses. The large photographs which attracted so much attention and evoked so much surprise represent a section of the largest of the machine-rooms of the *Herald* office, and set forth the magnificent proportions of the new double-web perfecting machines, which produce eight-page papers, or ten or twelve page papers insetted and folded at the rate of 24,000 per hour. Each machine is really a combination of three machines, and consists of a 'main' which, at each revolution, prints two copies of the main sheet of the *Sydney Morning Herald* side by side; whilst at the same time the supplement press attached prints the supplement of two or four pages, as the case may be, and conveys it to its proper position to be accurately folded with the main sheet. The rapidity of production may be better appreciated when it is realised that

copies

copies of a ten or twelve page *Sydney Morning Herald* are perfected at a speed of between six and seven per second! But a still more marvellous result is obtained in the production of a sixteen-page paper, by what is called the "collecting" process. In printing eight, ten, and twelve page papers the feat accomplished is that of bringing the pages together with exactness in layers. In a sixteen-page paper the triumph of the inventor is in bringing the two sets of eight pages together before their combined folding in half-page size as they are delivered to the public. As each set of eight pages travels in one continuous line at the rate of over six per second, how could it be possible to bring together each first and second series of eight pages—that is pages one to eight, and pages nine to sixteen, which follow one to eight—for the purpose of folding one set into the other. This difficult and delicate operation was overcome by the inventor, who added a 'collecting' cylinder in which are automatic pins, which spring out at each proper fraction of a second, seize each alternate eight pages, take it, waltzing round, and deliver it to its partner just at the time when they can proceed together to receive their final fold. These double-web machines are marvels of speed and accuracy. They are beautiful in design, and perfect in execution. They are the greatest of the many triumphs of Messrs. Hoe and Co., and the most advanced achievement in mechanism for the purpose of printing by steam.

"The processes of printing are illustrated by various exhibits—(1) Type in a composing-stick; (2) type on a galley, showing how 'stickfuls' are made into columns, which are formed into pages; the paper matrices from which the metal plates are cast; a number of metal plates cast on the curve, ready for the machines; photographs of the machines on which the papers are printed and folded; and, by way of contrast, a copy of the first number of the *Sydney Herald*, consisting of four pages, published on the 18th April, 1831, and a copy of the Centennial number of the *Sydney Morning Herald*, published on the 24th January, 1887, and containing, with supplement and map thirty-two pages—the largest number ever published.

"Among the most interesting exhibits is a collection of original numbers of old newspapers, which furnish a still further contrast to modern journalism. These include — *Ulster Country Gazette*, January 1, 1800; *London Evening Post*, November 28, 1778, and December 1, 1778; the *Star*, September 9, 1800; the *Times*, June 22, 1815; the *Connaught Journal*, August 3, 1761; the *Times*, April 9, 1805; the *York Courant*, November 4, 1740; the *Times*, October 17, 1810.

"Among the enlarged photographs are those of the late Hon. Charles Kemp, M.L.C., and the late Hon. John Fairfax, M.L.C., who became proprietors of the *Herald* in 1840; and a photograph of the late Mr. Charles Fairfax, eldest son of the late Hon. John Fairfax, who, on the retirement of the Hon. C. Kemp, was admitted as a partner in the firm of John Fairfax and Sons, and at whose instance, in 1860, the *Sydney Mail* was established to provide an interesting weekly newspaper for country readers."

Much

Much interest was shown in the bound volumes and latest files of the *Sydney Morning Herald*, the *Sydney Mail*, and *Echo*, and portfolios of pictures which have been published in the *Sydney Mail*. In one of the glass cases were specimens of phonetic shorthand by some of the members of the *Herald* reporting staff.

The *Daily Telegraph* Court was erected in the gallery, in close proximity to the reception rooms and offices of the Executive Commissioner, and adjoining that of the *Sydney Morning Herald* The exhibits were much admired, and constant readers of the files regularly supplied by the proprietors were to be seen seated for hours in the elegantly arranged Court.

"The *Daily Telegraph*, Sydney," the editor remarks, "is one of the two great morning newspapers published in the capital of New South Wales. It has always been noted for its bold and fearless writing on all questions of public interest, and it is not surprising that the enterprise and courage of its proprietary have been rewarded by a large measure of public support. The exhibits of the *Daily Telegraph* consisted principally of historical drawings bearing particularly upon the founding of the Colony, the characteristics of its people, and the efforts made to establish a newspaper press in Sydney from the earliest period up to a year or so preceding the opening of this Exhibition. 'The First Fleet' is the title of a large photo-zinco engraving, showing H.M.S. 'Sirius' with a convoy of five vessels entering Port Jackson Heads on the 26th of January, 1778. 'The Australian Stockman' is also a photo-zinco etching from G. R. Ashton's famous picture, and represents bush life in the colonies. The chief exhibits, however, from a newspaper press point of view, are two large drawings by Mr. E. Le Bihan of 'The Press, Past and Present.' The former of these presents in a group *fac similes* of the headings of all newspapers published in Sydney from the first effort up to the current date.

"The *Sydney Gazette*, in the small form in which it appeared in 1803, is faithfully re-produced by the side of the *Currency Lad*, the *Monitor*, the *Stockwhip*, the *Empire*, (owned and edited by Sir Henry Parkes), and a hundred other newspapers which did good service in their day—including that able publication *The Atlas*, edited by Mr. Robert Lowe, now Lord Sherbrooke, and subsequently by the late Sir James Martin. The group is one full of the literary history of New South Wales, and abounds in interest to all who have a knowledge of the stirring times included in the dates of these publications. The *Press of the Present* (1888) deals in a similar manner with all newspapers issuing at the time the sketch was drawn. A handsome watercolour view of the new offices of the *Daily Telegraph*, King-street, Sydney, is also given. These exhibits included bound volumes of the *Daily Telegraph* for the year 1889—together with files of the current numbers." Taken as a whole, the display made by the *Daily Telegraph* was in every way a credit to the newspaper press of the Australian colonies.

The Court received additional interest by the advantage I took of an opportunity which presented itself for securing, on loan, for a short

short period, what was evidently the private copy of the original Log Book of Captain Cook, detailing the adventures of the "Endeavour." The manuscript which bore Captain Cook's own signature, had but recently been unearthed from a bookseller's shop. Although this addition to the Court was not of so important a character as was at first supposed, I deem it advisable to mention it here as it was through this means that I was able to further attract public attention to our Court, and to bring some writers for the press to a renewed consideration of our affairs, at a time when the Exhibition was declining in popular favour.

A complete catalogue of the Court was printed and published, and widely distributed among interested people. It contained in addition an abridged account of the mineral products of the Colony, a list of the terms and conditions under which the use of diamond drills and boring machines may be obtained upon application through the Under Secretary for Mines, and a short treatise upon the method to be employed in New South Wales for acquiring titles to Crown lands. By the issue of an epitome of the "Year Book of Australia," relating solely to matters directly concerning New South Wales, I secured the insertion of articles and paragraphs in hundreds of daily and weekly newspapers throughout, England, Scotland, and Ireland. Some of the writers referred generally to the progress and prospects of the Colony; others confined themselves to the evidences to be found at the Crystal Palace. By the methods peculiar to the English newspaper press, writings of any worth from a literary point of view appearing in influential "dailies" were quoted and re-quoted by the smaller provincial journals, a general advertisement being thus distributed throughout the United Kingdom. Five thousand copies of the brochure in question were forwarded to European newspapers, and a similar number were transmitted to public institutions and leading London firms, or were distributed in the Court.

The Exhibition acquired some direct and immediate utility from the lessons taught in the Machinery Hall, where, although few in number, some good mining machinery and appliances were displayed, and where instructive experiments were conducted occasionally in the treatment of various ores. I shall have some remarks to make upon this subject further on in my report. For the present it will be well to describe briefly, several of the more important exhibits.

The Machinery Hall was situated outside the Palace at the northern end, and was an iron building measuring about 200 feet long by 50 feet wide for a part of its length and 75 feet wide for the remainder. The display of machinery was a very meagre one considering the professed international character of the Exhibition. The largest space allotted to any individual exhibitor was that occupied by Mr. James McCulloch, of the Minas de Rio Tinto, Spain, the patentee of the Rio Tinto rock drills. A McCulloch's Patent Quarry Carriage, mounted with four "Rio Tinto" rock drills was here shown in operation. The patentee claims that for tunnelling, driving, heading, sinking shafts, raising winzes, stoping, or quarrying, his drills are

unequalled

unequalled both in speed and economy. When mounted upon their patent car it is contended that "the acme of mining convenience is attained." The drills owe their peculiarity to the arrangement of the valves and valve gear. The distributing valves in many types of rock drills have been operated by means of a tappet under the control of the piston or piston rod. It has usually been found necessary, under these circumstances to employ a spring for retaining the valve in position at either extremity of its movement, while it was not acted upon by the piston or the piston rod. The purpose of these springs has frequently been but imperfectly fulfilled, owing to the gradual diminution of strength. In other instances the valves of the drills have been devised in such a manner as to operate by air pressure. This arrangement has been found in practice to be not wholly reliable for as the valve is calculated at times to "flutter" or stick, or to be rendered inoperative by the reception of grit or sand between the working surfaces, air pressure in these cases, is usually found to be insufficient for the purpose of overcoming the extra resistance. The "Rio Tinto" drills have been designed with the object of surmounting the difficulties thus created. They provide for the operation of a distributing valve in a reliable manner by means of the combined action of a tappet or similar device, and of compressed air or steam pressure. The details of working have been thus described: "The valve adapted to be moved by the tappet, which is pivoted to the cylinder, is actuated by a swelling or enlargement upon the piston rod. The air or other fluid delivered through the supply pipe and stop cock is caused by the tappet valve to pass alternately through two channels or passages to the extremities of the cylinder, and to expand in the cylinder. Holes are provided in the cylinder through which the exhaust takes place. After the air or other fluid has been exhausted through these apertures, atmospheric air enters the cylinder and is compressed at either end of stroke. The air thus compressed provides a cushion at each end of the stroke, preventing damage to the covers of the pistons. The air compressed as above described expands in the return stroke of the pistons, and thereby augments the power or initial pressure tending to move the said pistons. When the pistons are performing their forward stroke or movement, or the stroke in which they deliver the cutting blow of the drill, resistance due to the cushioning does not offer any appreciable opposition to the force of the cutting blow of the drill except when the pistons travel too fast, as when the drill comes in contact with soft places in the rock, or when the apparatus is not kept in its proper working position. When required, the atmospheric air is prevented from entering the channels or passages through which the motive fluid is delivered to the cylinder by valves provided with seatings. When the atmospheric air is being compressed, as already described, in either end of the cylinder, the pressure of the air tends to press the valve in that end of the cylinder tighter upon its seating, whilst the valve in the other end of the cylinder is opened by the air or other fluid delivered by the tappet-valve through the passages, the pressure of the air or other fluid being sufficient to overcome the

strength

strength of the spring. This action takes place alternately at either end of the cylinder. Further important features in the invention are to be found in the construction and arrangement of the distributing valve and its adjuncts and the introduction of a spindle, fitted in the cylinder cover in order to impart a rotary or angular motion to the drill upon or about its axis, as it delivers its cutting blow." Mr. McCulloch exhibited also his patent quarry bar, which, when mounted with rock drills, is used for horizontal and vertical channeling, plug and feather work; and for similar operations.

The exemplification of Jordan's patent centrifugal gold process was perhaps the next most important item connected with the exhibits in the machinery hall. The process is carried out by means of two machines, viz., the fine reducer or pulveriser, and the amalgamator or extractor. The former is intended to take the place of the stamp battery now in general use for crushing gold-bearing quartz; and the advantages claimed for it, in comparison, by the experts who have examined and tested it may be briefly stated as follows:—Extreme simplicity; 50 per cent. reduction in first cost erected at mine; 50 per cent. reduction in weight; cost of transport much less; erection far more simple and expeditious; less power, labour, and water required; reduces the ore to a much finer pulp when desirable; wear and tear and working, cost greatly reduced; occupies less space; requires little foundation. The Amalgamator or Extractor is intended to take the place of copper plates, riffle tables, grinding pans, settles, and the numerous other machines and plant now in use. The various experts and miners who have tested the machine report that it has the following among other advantages over all the present known method of gold extraction:—Retains the finest particles of gold; favourable condition of amalgamated surfaces automatically and constantly assured; extracts nearly all the gold from pyritic ores without calcination; yield often superior to chlorination at about one-sixth the cost per ton; greatly reduced cost of treating auriferous ores; extracts the gold from tailings; every existing battery will find it advantageous. A brief allusion to the process was made recently in a volume entitled "Practical Gold Mining," by Mr. C. J. Warnford Lock, of the Arpad Gold Syndicate, 22 Moorgate-street, London. The author has since been invited to make on exhaustive trial of the method, and to report on the results obtained. Mr. Lock states that "the plant employed is remarkable for its simplicity. The usual stone-breaker begins the process. This is followed by a revolving pan, set at an angle, and carrying three massive balls of white iron, which work in a suitably shaped bed, also of white iron, around the greatest circumference of the pan. The ore and water are fed automatically into the bed of the pan, and by the rotary motion of the latter are conveyed under the rapidly revolving balls, whereby the comminution of the ore is effected. The inner half of the floor of the pan rises as a shallow dome surrounding the centre shaft, and is fitted with movable frames carrying wire screens of any required mesh. The feeds of ore and water, and the inclination of the screens are so adjusted that, as the ore is reduced to a sufficient degree

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of fineness, it is washed over the screens and passed away into a launder for conveyance to the amalgamator. A comparison of this machine with the most approved form of stamp battery, reveals some highly important facts, which may be summarised thus :—*Cost*—a Jordan pan, equal in efficiency to a 10-stamp battery, is considerably less in first cost. To this saving must be added the greatly reduced cost of transport to the mine, as the pan weighs less than half a battery. A third economy effected is in the erection; eminently simple and expeditious in the case of the pan, but a long and expensive operation with the stamps. Generally it may be stated that the total cost of plant erected at the mines will not exceed one half that of a stamp battery. *Efficiency* — The simple principle of the stamp battery (that of a falling hammer), which proves such an attraction to its advocates, carries with it several disadvantages. Not the least is its intermittent action—the time during which actual work is being done bears but a small proportion to the time the battery is in motion. Each hammer must be lifted to a greater or less height, and though the fall produces an effective blow, it is only at the moment of impact between stamp and ore that work is really done. Jordan's pan, on the other hand, has a continuous action on an evenly distributed and constantly changing layer of ore, and thus gets through a much greater amount of work. In fact, it disposes of a rapid feed at an astonishing rate. Trials with various ores showed a power of reducing 20 to 25 tons per 24 hours. Now few 10-stamp batteries can do more than 15 to 20 tons, even when the mesh of the screens is as low as 30. This is one of the great faults of the stamp battery, fine grinding is impossible at anything like a reasonable rate and cost. The outlet for the stamped stuff is so limited, and so ill adapted that it takes almost as long to pass pulp through a battery as to crush coarse stuff and pass it through. With Jordan's pan this is obviated, the screen area of which is much greater in proportion, and the screens are set at a very low angle. These features, combined with the wash produced by the rotation of the mill, and the inclination of the jet of feed water, increase the facilities of outlet in a most remarkable degree. Another advantage, which, in many cases, would be of primary importance is, that the consumption of water is only about half that required in a battery. In a crushing of "Edwin Bray," ore, which I witnessed, the water feed was only a 1-inch pipe (where a 10-stamp battery would have had a 3-inch), and the ore, fed from a stone breaker, was passed through an 80-mesh screen at a surprising rate, not less than 20 tons per 24 hours. Such a result speaks for itself. Moreover, the power required to effect this is about half that needed with stamps, while the labour is virtually nil; with automatic feeds, one man could watch a dozen pans, and the prodigal use of mercury, so common in batteries, is dispensed with. *Wear and Repairs*— Here again Jordan's pan has advantages over the battery. There are only two wearing parts in the pan, viz., the balls and their bed. An examination of the latter, after six months intermittent use, shows that the two surfaces wear in such a way as to maintain

tain their proper relation to each other. When worn too thin, the bed can be removed and replaced with a new one with very little trouble. The screens are much less exposed to injury and wear, and are readily detached and renewed, any desired mesh being adopted. The frequent minor stoppages inherent to stamps with their numerous working parts are quite avoided. The only other apparatus employed is a novel form of amalgamator. The steam or pulp, without any addition of water, flows into the hopper of the amalgamator. This machine consists of a series of shallow dishes attached one below another to a central revolving shaft, and enclosed in a fixed circular casing which can be kept under lock and key. Secured to the inner side of the casing and alternating with the dishes are slightly inclined shelves, also amalgamated. The pulp fed into the amalgamator enters the first dish, in which it is revolved. until impelled by the centrifugal motion, over the edge of the dish. It then falls on one of the shelves, and is thus conveyed to the centre of the second dish, there to undergo similar treatment. This is repeated to the end of the series, where the tailings escape. The free gold and silver contained in the pulp are completely arrested by the amalgamated dishes and shelves. The very high efficiency of Jordan's amalgamator is apparently due to several causes. In the first place, the ore is reduced in the pan to such a degree of fineness that all precious metal not chemically combined is set free. Then the shape of the dishes and the manner and speed of rotation all tend to insure intimate frictional contact between the precious metals and the amalgamated plates, so that the finest particles of float gold are retained, and the gentle attrition of the flowing pulp maintains the amalgamated surfaces in a constantly bright and favourable condition. Any amalgam which may become detached is caught in a well at the bottom of the machine, together with such mercury as may have escaped from the dishes when it is thought desirable to employ it. To such a high degree of perfection is amalgamation carried in this apparatus that it is *capable of extracting nearly all the gold from most Pyritic ores without calcination or any other treatment.* In making such a statement I expect to incur the condemnation of theorists; but a study of the table of actual results achieved, as recorded below, will substantiate my opinion. And a more startling piece of evidence which may be deduced from the said table of results, is that, in some cases, the process is cheaper, and more advantageous than chlorination itself; for whereas chlorination alone costs between £2 and £4 per ton, and seldom less than £3 for a return of 90-94 per cent. of the assay value, the total cost by Jordan's process is only about 5s. to 10s. per ton, and the yield is often equal and sometimes superior to that from chlorination. The subjoined figures, though quoted on the authority of the inventor of the process, are in my opinion reliable. To verify them I made a trial with "Edwin Bray" ore, its refractory character affording a crucial test of the process. Three samples before treatment gave an average of 10 oz. 16 dwt. 2 gr. of gold, and the average gold contents of three samples of tailings as they left the amalgamator was as nearly as possible 3 dwt., or 91·686 per cent extracted.

	Description of Ore Treated.	Gold contained in raw ore before treatment.			Gold contained in tailings after treatment.		
		oz.	dwt.	gr.	oz.	dwt.	gr.
1	Welsh ore; sulphides of iron, copper, lead, &c.	0	1	12	0	0	13
2	Tailings from transvaal	0	2	7	0	0	23
3	"Indian consolidated" refractory sulphides	0	1	23	0	0	12
4	Australian "Black Jack;" arsenical sulphides, very complex	1	9	9	0	10	16
5	Tailings from Johnson and Matthey	1	6	3	0	1	23
6	"Devala Moyar" complex arsenical pyrites	0	19	12	0	6	11
7	"Edwin Bray" pyritic ore	2	0	22	0	3	0

As regards Jordan's pan, the enormous capital represented by existing stamp batteries, will prevent its immediate adoption to the general displacement of stamps; but it will be introduced by degrees in the room of such batteries as they wear out, and must come into favour for new mills and extensions. Jordan's Amalgamator, on the other hand, will claim a wide application at *once*. Every existing mill will find it advantageous, first as an adjunct to the prevalent blanket-tables and other appliances for catching escaping gold, and later as a substitute for them all, when its usefulness has been demonstrated. By its employment, too, many a heap of tailings, hitherto unprofitable, will be made to yield its hidden value."

The well-known "Ingersoll Rock Drill" was shown by the proprietors and patentees, Messrs. Le Gros, Mayne, Leaver, & Co., who obtained a gold medal for a similar exhibit at the Paris International Exhibition of 1889. In common with most of its kindred inventions, the distinguishing characteristic of the "Ingersoll" Drill consists in the arrangement of its valve motion. The piston has the fitting parts divided by a smaller or recessed portion, which has a gentle inclined plane at each end, the space round the centre of the piston forming the chamber into which the steam or air is first admitted. It is over this centre portion alone that the valve is placed, and it forms a segment of a circle, fitting accurately against the curved face in the valve sheet. In order to allow the motive-power to pass the valve to the ends of the piston, the upper side of the valve is provided with recesses; and, in operation, the steam or air is admitted into the central portion of the cylinder, pressing the valve closely to the curved face. When the piston is at one end of the stroke, one end of the valve has been raised by the inclined plane, and moved sufficiently round a portion of the curved face to open the passage for the admission of the motive fluid to the other end of the piston, forcing it along the cylinder. Arriving at its proper position, the valve is again moved round its curved by the inclined plane, and the steam or air being admitted to the other end, the motion of the piston is again reversed, and the stroke is completed. The piston and the valve, therefore, are the only moving pieces; and the patentees declare that, by this means, the wear and liability to derangement are decreased, and that, compared

with

with other machines, a harder blow is struck with a smaller consumption of motive-power. Several other improved rock drills were exhibited, notably those of Messrs. C. E. Hall, Robinson, & Co., of Sheffield (Shack's Patent); Mr. Henry J. Coles, 89, Summer-street, Southwark, London (Coles' Patent); Messrs. R. Stephens and Sons, of the Wheal Crofty Ironworks, Carn Brea, Cornwall (the "Climax" Rock Drill); Messrs. Albert and Zacharia Drew, of Marytavy, near Tavistock, Devon and Lauring, Norway; and Messrs. Bickle & Co., of Plymouth. Mr. E. T. Bromfield, the representative in England of the Bromfield-Ingersoll Company, of 658, Broadway, New York, and Glenbrook, Connecticut, United States, exhibited a hand-power rock drill which is said to embody in its design and construction the results of many years of study by Mr. S. Ingersoll, the inventor of the rock drill previously mentioned. Mr. Ingersoll contends that the Bromfield-Ingersoll drill shows a considerable improvement upon all previous inventions of a similar character, and that the machine overcomes those difficulties which were previously regarded as being inseparable from all methods of hand drilling. An official report was issued during the continuation of the Exhibition stating that at a trial of the machine, before several competent judges, a depth of three-eighths of an inch was drilled in one minute, the operators being two young girls of 15 years of age.

A new style of ore concentrator, the joint invention of Mr. Clarkson, late Demonstrator of Metallurgy at King's College, London, and Mr. Richard Stanfield, Professor of Engineering at the Heriot-Watt College, Edinburgh, was exhibited in the Machinery Hall by Mr. Peter Strickland, of Crosby Buildings, London, E.C. The machine belongs to the class of "dry" concentrators which have been found to be of great service in those localities where mining operations are carried on, and where a scarcity of water is experienced. Atmospheric assistance, gravitation, and centrifugal force are all three necessary for the action of the Clarkson-Stanfield machine. The concentrator exhibited did not embody some of the improvements, which will, it is said, be introduced subsequently, for the machine was put together hurriedly for exhibition.

One of the most important exhibits in the Machinery Hall was that made by the firm of Messrs. C. E. Hall, Robinson, & Co., of the Standard Ironworks of Sheffield, and consisting of a Hall's patent "Leviathan Pulveriser." While putting into operation the firm's dry process of grinding, the material to be dealt with is passed through a "Blake" crusher, which is fitted with special jaws and adjusting arrangements, and thus enabled to reduce most refractory ores to about quarter-inch cubes. The crushed material then passes from the Blake into the "Leviathan," where it is at once set in motion by the grinding plates which revolve in opposite directions and are fixed concentric with, and at a distance from each other. The heavy grinding is done by the material itself, which afterwards passes between the hard steel serrated faces and two circular rings possessing teeth of a graduating section, and is, by this means reduced to a very fine mesh.

Cowards' "Niagara Mill," a new pulverising machine, was another exhibit in the Machinery Hall, which deserves some words of recognition and explanation. The patentee of the machine, Mr. W. H. Coward, of the Railway Ironworks, Bath, has stated that the mills requires 75 per cent. less power, and makes a finer sample than any other of its kindred mills. By the general arrangement of the Machine, he claims that he has reduced friction to a mimimum. The reduction of friction is, of course, one of the chief things to be desired in the construction of a "pulveriser," and in this particular, the inventor of the "Niagara Mill" is certainly justified in much that he has said concerning it.

Messrs. Davey, Paxman, & Co., the manufacturers of Huntington's Centrifugal Roller Quartz Mills, were also represented in the Machinery Hall. They claim for Huntington's machine that (1) its method of working prevents all flowing of gold and quicksilver and the inevitable loss of gold consequent upon the employment of stamp milling; (2) it is superior to stamp mills in regard to economy; (3) the rotary method of crushing the ore so granulates the pulp, which is discharged the moment it is crushed, that a complete concentration of sulphurets is rendered most easy. The following description of the working of the mill is supplied by the manufacturers: "The ore and water being fed into the mill at the hopper, the rotating rollers and scrapers throw the ore against the ring-die; where it is crushed to any desired fineness by the centrifugal force of the rollers as they roll over it. The water and pulverised ore are thrown against and through the screens when fine enough. The discharge is so perfect that it makes little or no slimes, and leaves the pulp in good condition for concentration. The rollers are suspended, leaving a space of 1-inch between them and the bottom of the mill, thus allowing them to pass freely over the quicksilver and amalgam without grinding it and throwing it from the mill, while it agitates it sufficiently to make amalgamation perfect. For wet crushing and gold saving it has no equal."

The Newberry-Vautin (Patent) Gold Extraction Company, Limited, took advantage of the Exhibition for showing the latest improvements effected in the Newberry-Vautin Chlorination process, which has been before the public for several years past. The application of chlorine in the extraction of gold from refractory ores is at present a subject of great interest among mining experts; and the demonstration of the method at present under review was regarded, with just cause, as one of the most important exhibits in the Machinery Hall. The chief respects in which the process has been improved upon since its appearance in 1887 are to be found in the more economical means adopted for applying the chlorine, whereby a saving of 50 per cent. of the reagent is rendered possible; the production of the chlorine by the decomposition of chloride of lime, without the use of free acids; the abrogation of the old leaching vat; the employment of glass-lined iron tubes for conveying the gold solution and chemical fluids, obviating thereby the objections to which the former lead pipes were liable;

liable; and the adoption of a plant altogether lighter and less costly than the original, and so constructed as to enable it to be packed in easy sections for transportation. The process is thus briefly described: "The material for treatment is first crushed, and, where necessary, roasted, and is fed by a truck on a tramway, and deposited in a hopper. From this hopper it falls when liberated into the chlorinator, where from a ½ to 1 per cent. of chloride of lime is added, together with the same quantity of the new reagent. Five to ten per cent. of water is also added, and the cover is secured and the barrel-like chlorinator set in motion, until the chlorine, generated by the decomposition of the chloride of lime, has converted the gold into a soluble chloride, the chlorinating and leaching being, as previously stated, effected in the same vessel. The solution of gold may then be removed either by an upper or downward leaching, effected either by the use of a pump or gravitation, into a tank, and from this tank by means of a pump into another on the floor above the first-mentioned tank. Where necessary, however, to facilitate the leaching, the pipe connected with the chlorinator may be connected direct with the pump."

Messrs. Askham Bros. and Wilson (Limited), were the exhibitors of a patent separator, which formed another exhibit, concerning which some few remarks are also necessary. The firm state in their circular that, "It is of the greatest importance to all users of pulverising and grinding machinery to obtain a uniform fine product; many methods have hitherto been adopted, but until the introduction of the "Patent Separator," none have proved successful. All forms of sieves—circular, hexagonal, and flat—with iron, steel, copper, and brass sieving, as well as perforated plates, &c., have been tried, but none have proved satisfactory. If the material be slightly damp, the sieves become clogged, and must be kept in a constant state of vibration or be brushed. Briefly described, it is an apparatus self-contained wherein a current of air, circulating continuously through a descending stream of ground material, separates the finer particles from the coarser, the latter being returned to the pulveriser, millstones, or other grinding machinery to be further reduced. It can be easily applied to every description of crushing or grinding machinery. It can be adjusted to produce a finished material to almost any degree of fineness so that the miller cannot by inattention vary the grade of the ground material. It requires no settling or stive rooms. The mechanism is most simple, and there are no brushes, sieves, clothes, or wearing parts to get out of order. The separator occupies very little space and is driven at a slow speed. The machine increases the grinding capacity of millstones and other crushing or grinding machinery."

The rock drills, which I have considered it advisable to describe individually, were put to practical test at a competition during the early part of October, for which certificates of merit were offered by the Executive Council. The trial took place on the lawn adjoining the Machinery Hall. There were three sets of competitors, one for power drills on tripods, and a third for hand power drills. A perusal

of

of the following table of results issued by the judges (Messrs. E. H. Carbutt and Henry Davey) may be of interest:—

POWER Drills driven with Compressed Air—Drills mounted on a Bar—Time allowed, two minutes each hole.

Maker's Name.	Form of Chisel.	No. of Hole.	Actual working time on seconds.	Depth of hole. Inches.	Capacity in cubic inches.	Diameter of drill. At start.	Diameter of drill. At finish.	Diameter of cylinder. Inches.	Air used in cubic feet.	Average air presure lb. per square inch.	Remarks.
Coles ..	—	1	120	4 7/16	6·04	1 1/2	1 3/16	2 1/2	..	66 3/4	Good run, no hitch.
Do ..	—	10	127	7 1/4	10·59	1 1/2	1 7/16	2 1/2	..	67 1/4	Good run, no hitch.
Daw ..	—	2	100	12 3/8	21·94	1 1/2	1 3/8	3	40	65 1/2	Good run, drill struck once with hammer; drill out of guide.
Do ..	—	11	120	13 1/16	22·46	1 1/2	1 5/8	3	44	67 1/4	Good run, drill struck once with hammer.
Stephens ..	—	3	100	3 1/16	7 77	1 3/4	1 11/16	3 1/2	41	65 1/2	Drill dropped out, stopped 20 seconds.
Do ..	—	9	120	11 1/2	29 37	1 3/4	1 11/16	3 1/2	46	65 3/4	Good run, no hitch.
Bickle ..	—	4	60	8	21·25	1 13/16	1 3/4	3 1/2	25	61 1/4	Flexible air pipe fouled and was broken, which caused stop.
Do ..	—	8	120	18 1/16	48 03	1 13/16	1 11/16	3 1/2	59	65	Good run, no hitch.
Le Gros ..	×	5	30	4 1/2	7 77	1 13/16	Broken	3	..	67 3/4	Machine stuck, drill broken.
Do ..	×	6	95	10 3/8	18·42	1 15/16	Broken	3	31	68 1/2	Machine stuck, and drill splintered after 95 seconds work.
Hathorn ..	—	7	120	12 5/8	25.62	1 17/32	1 1/2	3	45	67 1/2	Good run, no hitch.
Do ..	—	16	120	13 3/8	26·78	1 17/32	1 1/2	3	35	68 1/4	Good run, no hitch.
M'Culloch ..	—	12	120	13 1/16	37·15	1 29/32	1 3/4	3 1/2	62·5	67 1/4	Good run, no hitch.
Do ..	—	17	120	15 1/2	42·85	1 13/16	1 1/4	3 1/2	59·0	66 1/2	Good run, no hitch.

POWER Drills driven with Compressed Air—Drills on Tripods—Time allowed: Two minutes each hole.

Maker's Name.	Form of Chisel.	No. of Hole.	Actual working time in seconds.	Depth of hole. Inches.	Capacity in cubic inches.	Diameter of drill. At start.	Diameter of drill. At finish.	Diameter of cylinder. Inches.	Air used in cubic feet.	Average air pressure lb. per square inch.	Remarks.
Le Gros ..	+	13	120	4	8·64	1 5/16	1 17/32	3	12 5	66 1/4	Machine would not work regularly.
Do ..	+	19	120	4 1/16	9·03	1 5/16	1 17/32	3	—	66 1/4	Machine would not work regularly.
Hathorn .	—	14	120	16 1/16	30·75	1 1/2	1 15/32	3	46	66	Good run; no hitch.
Do ..	—	18	120	14 1/2	27·21	1 1/2	1 7/16	3	46	66	Good run; no hitch.
M'Culloch .	—	15	120	13 15/16	30·96	1 7/8	1 13/16	3 1/2	82·5	67 1/2	Good run; no hitch.
Do ..	—	20	120	14 7/16	41·47	1 15/16	1 29/32	3 1/2	60·0	64 1/2	Good run; no hitch.

Hand Power Drills—Time allowed: Twenty minutes each hole.

			Actual time worked in minutes.					Number of revolutions per minute taken at intervals.			
Bromfield .. Ingersoll .. (2 men)	—	2	17	12 3/8	16·69	1 1/4	1 7/16	116	86	100	Stopped 1½ minutes at the end of 14 minutes for another drill; work ceased at end of 18½ minutes.
Le Gros .. (2 men)	—	1	10	11 1/8	14·03	1 1/4	1 5/16	80	68	86	Stopped 3½ minutes at end of 9½ minutes for another drill; worked for 1½ minutes, then stopped because drill was not true with hole.

Hole bored by hand, two men striking, and one holding chisel. Trial, 11th October, 1890.—Time allowed: Twenty minutes.

Three men .. (handwork)	—	0	18½	22	27·64	1 3/8 & 1 1/4	1 1/4 & 1 1/16	Two chisels used ..	One first-class man, two not very practised.

In their official report the judges stated that it was important to observe that "the drills, which did the greatest amount of work in the given time, also did the greatest quantity of work per cubic foot of air used," as far as they could ascertain. The judges also remarked that "in almost all competitions accidents happen which vitiate the trials. These accidents may, or may not, arise from inherent defects in the machine."

It will be seen from the foregoing remarks that notwithstanding the paucity of the exhibits in a class that might naturally have been expected to be largely represented on such an occasion, some of the machines shown were such as to offer great practical advantages to persons engaged in mining operations. Having regard to the number of quartz crushing plants, and the difficulty of treating some of the refractory ores abounding in the Colony, information as to machinery

deemed

deemed to be the most effective for either purpose may be very welcome to all who are interested in reducing the cost of production and in preventing the loss arising from waste. These considerations led me to make inquiry and to collect information on the subject, with a view to assist mining companies and managers in those objects by including in this report the latest intelligence on the subject.

Adverting now to the display made by the Australian Colonies, it may be noted that the South Australian exhibits were located in the east gallery of the Palace, adjoining that part of the New South Wales Court in which the Commissioners reception-room and offices were situated, together with the display of timber, fossils, marble, building stone, &c., and the Courts of the *Sydney Morning Herald* and the *Sydney Daily Telegraph.*

The preliminary prospectus of the Exhibition having reached Adelaide in January, 1890, accompanied with a recommendation from the Agent-General, Sir Arthur Blyth, K.C.M.G., C.B., the Government of the Colony, instructed the Government Geologist, Mr. H. Y. L. Brown, F.G.S., and the Inspector of Mines, Mr. D. D. Rosewarne, F.G.S., M.I.C.E., to bring together a representative collection of minerals. The duty thus entailed kept them fully employed until April the 23rd, the last possible date at which the bulk of the exhibits could be shipped from Adelaide in sufficient time for their classification and arrangement at the Crystal Palace before the opening of the Exhibition. The result of their labours was eminently satisfactory, support and assistance being freely given by the Council of the School of Mines at Adelaide, by the directors and managers of various mining companies in the colony, and by private individuals interested in the undertaking. For the practical carrying out of the scheme which had been formulated, the Government appointed Mr. Rosewarne as Executive Commissioner.

The South Australian Court covered an area of about 5,000 square feet, and the exhibits were so arranged, as to facilitate inspection by visitors. Specimens from the Moonta Copper Mines, representing the principal descriptions of copper ore, and also the geological character of the district, were placed in such a manner, as to show, as nearly as possible, the order in which they occurred from the surface downwards. Samples from the Wallaroo Mine, Yorke's Peninsula, were arranged so as to illustrate the mode of occurrence of the various ores in depth, and at the same time, to indicate the petrological character of the "country" or "bed rock" in which the lodes occur. Minerals illustrative of the varieties of ore found in the Moonta, Mutooroo, and Hambly Mines were forwarded by the School of Mines; and among some of the most important companies that exhibited may be mentioned—the South Australian Mining and Smelting Company (exhibits from the Blinman Copper Mine), the Melbourne Copper Company, the New Alma and Victoria Gold-mining Company (728 oz. of gold produced by one month's crushing), South Australian Pyrites and Gold-mining Company, the Kangarilla Proprietary Silver-mining Company, the Castle Salt Company. Gold in calcite, nuggets, alluvial

alluvial gold, geological maps of South Australia, and photographs illustrative of the geological features of the colony, &c., were exhibited by the Government Geologist; specimens of alluvial gold and yacca gum were shown by the Commissioner of Crown Lands; Australian rubies were exhibited by the Elder Ruby Company, the McDonnell Ruby Company, the Florence Ruby Company, and by the Maud River Ruby Company; specimens of asbestos were placed on view at the instigation of Mr. J. C. F. Johnson, M.P., Mr. P. Hynes, and the School of Mines; ochres were shown by the Eagle Silver Lead Company, the Mount Rhine Paint Company, and the Flinders' Ranges Ochres and Umber Company, marbles, granites, freestone, chalcedony, felspar, slates, &c., by the School of Mines, and ironstone by Sir S. Davenport, K.C.M.G., and the Oodla Wirra South Flux Company.

A portion of the South Australian Court was set apart for the display of a collection of specimens from the Northern Territory, which had been brought together by Mr. J. G. Knight, Acting Government Resident, and forwarded by direction of the Hon. J. H. Gordon, Minister for the Territory. Some of the principal companies here exhibiting were the Spring Hill Gold-mining Company, Pine Creek Prospecting and Mining Company, Coronet Hill Proprietary Company, the McKinlay and Mount Wells Northern Territory Tin-mining Association (Limited), the Flora Bell Silver-mining Company, the New Eveleen Silver-mining Company (Limited), the Palmerston Mining Company (Limited), the New Port Darwin Tin-mining Company (Limited), the Leviathan Tin-mining Company, the Mount Lines Tin-Proprietary Company, the Daly River Proprietary Company, and the North Australian Mining Company.

Under the direction of Mr. Henry Page Woodward, F.G.S., F.R.G.S., Government Geologist of Western Australia, a small but fairly representative collection of mineral specimens from that colony was forwarded to the Crystal Palace, and was provided with accommodation in the South Gallery. The Government sent cases of samples, principally from the Geological Museum and the Mechanics' Institute of Perth, and consisting chiefly of gold-dust, gold in quartz, stibnite, micaceous hæmatite, &c., from the Kimberley, Pilbarra, and Yilgarn gold-fields; and from the Darling Range, copper, lead, zinc, and iron ores, large specimens of gold in quartz and in stibnite, &c., and of malachite, chalco-pyrite, and galena. The cases contained also samples of pipe-clay and fire-clay. Some of the specimens were sent by private individuals and companies, such, for instance, as the Alfred Argles Gold-mining Company, the Waterhall Gold-mining Company, Fraser's Gold-mining Company, the West Australian Exploration Company (Limited), the Cumberland Gold-mining Company, the Kaboonga (Queensland) Gold-mining Company, and the Mount Shamrock Gold-mining Company (Limited), of Queensland, were also represented. The Court was under the superintendence of Dr. Henry Woodward, F.R.S., F.G.S., F.Z.S., keeper of the Department of Geology, British Museum (South Kensington).

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In the West Gallery of the Crystal Palace, six collective exhibits of Mexican minerals were arranged from instructions received from the Government of Mexico, through commissioners especially appointed for the occasion, including the Director of the National School of Engineers in Mexico, and the first officer in the Commercial Section of Secretary of "Fomento." Exhibits were sent by the Governments of the States of Sinaloa, Coahuila, Zacatecas, Guanajuato, Puebla, Queretaro, Colima, &c., the Government of the territories of Baja, California, and Tepic, and by some of the most important companies of Mexico. The specimens were endowed with geological interest of a rare order, and although they were small in numbers compared even with some other courts in the Exhibition, they gave a fairly good idea of the extent and value of the mineral resources of the country. With but few exceptions, the specimens consisted of crude ores before treatment. The method adopted in Mexico for the treatment of minerals is, in most cases, that of amalgamation by the "patio," or American system; but, in some districts, Freiberg's system of amalgamation is practised. The method of lixiviation is employed successfully at Sonora. At Pachura, the American system of "pans" has been most favourably received, the process of amalgamation being carried on in cast-iron boilers provided with double bottoms, through which steam circulates. "Catalan" furnaces are usually utilised for the reduction of silver ores by smelting, and they use in some of the works the "pilz" furnace. Gold ores are treated by amalgamation only.

In the West Gallery, there were also exhibits of mineral specimens from Tasmania (Mount Zeehan Silver Lead Mines), from the mines owned by the Tasmanian Silver-mining Company (Limited), from the Great Republic Tin Mine, Ben Lomond, Tasmania, from the Champion Gold and Silver Mines of New Zealand, and from the property of the Phœnix Gold-mining Company of Otago. Specimens of alluvial gold, nuggets, beach gold, retorted gold, platinum, metalliferous ores, and bullion, were exhibited by the Government of New Zealand.

In proceeding to describe the exhibits from other countries, it will be best for the sake of convenience to commence with those in the West Corridor of the Palace, which visitors enter first when they have passed the turnstiles leading from the stations of the London, Chatham, and Dover Railway Company. It will not be out of place, perhaps, to notice first the display made by the Lixa Mining Company (Limited), of Minas do Corgo, Portugal, and 6, Great St. Helens, London. Although not strongly represented at the Exhibition, Portugal had here a good display in an exhibit showing the various stages in the progress of antimony from the crude ore to the metal, for which a silver medal was awarded to the company, at the Paris International Exhibition. The Lixa Mines produce auriferous antimony ore of good quality, and the company have introduced a system by which they are able to separate the gold. Upon the following

analysis

analysis they contend that their Star antimony is the purest in the market:—

Antimony	99·67	per cent.
Lead	·10	„
Iron	·11	„
Cobalt	·06	„
Sulphur	·06	„
	100·00	

The fine gold is said to be under 12 grains, and the fine silver under 2 dwt. per ton. The company has established a high reputation for its "LX" brand—America being its principal market.

Another important exhibit in the West Corridor was that of the Rio Negro Salt Company (Limited), of Buenos Ayres. The importance of this exhibit must be gauged, not so much from any intrinsic value it possesses as from the industrial possibilities it suggests; for it should be remembered that the manufacture of salt from the sea has hitherto been unknown in the Argentine Republic. It consisted of samples from the vast salt deposits, recently acquired by the company, which are situated a few miles north of the town of Patagones. The deposits extend in an oblong form, measuring about $2\frac{1}{2}$ leagues by about 1 league, in the centre of a depression in the surrounding table-land. A correspondent of the Buenos Ayres *Standard*, who recently visited the district, states that the aspect of these salt lakes resembles an enormous snow-drift. "As we trudged across its surface," wrote the correspondent, "the crisp salt crackling under our tread, and sprinkling our boots at each step, the resemblance became more strong; whilst ever and anon a rosy-hued stretch, due probably to the presence of a very slight quantity of permanganate of iron recalled to our memory that phenomenon, common in Switzerland, of red snow, and rendered the illusion more complete. When exposed to the sun and wind and thoroughly dried, this colour entirely dissappears and a dazzling white salt is left in its place. Here and there drifts or waves of salt, often a foot in depth, presented themselves, and at rarer intervals strangely formed excrescences projected from the level surface, which, on examination, we found to be twigs or branches from the shrubs on the coast, around which the crystals had formed from a depth of from 3 to 5 inches. In order to form some idea of the possible quantity of mineral to be extracted, several perforations were made at varying distances. Towards the shore the layer of salt was about 3 inches in depth; below this was a stratum of thick salt intermixed with sand, and then a black mud, evidently of vegetable origin. More in the centre the salt became thicker, and we excavated to the depth of 2 metres by dint of pickaxes, with a result of finding crystalised salt, clear as glass. We had then touched on a spring which spouted up so freely that the limited resources at hand prohibited further investigation. Besides the perforations made by ourselves, we came across some wells sunk at a previous date by some former explorer; the largest of these wells had a diameter of about 4 feet, and contained some 6 of water coming right up to the level of the salt deposits. On testing the floor of this it was found to consist of

salt

salt and sand, into which, by means of long canes joined one to the other, we probed a depth of 50 feet without reaching any solid bottom. It has been computed that the quantity of salt at the various salinas, now lying ready to be gathered, amounts to about two and a half millions of tons. As to the quality of the salt obtained by the Rio Negro Company, some estimate may be arrived at by the perusal of the following statistics, in which the constituted elements of the products of Rio Negro, Cadiz, and English salines are given; the figures in the latter case having been taken from official sources, and those of the former from independent analysis :—

	English. per cent.	Rio Negro. per cent.	Cadiz. per cent.
Chloride of soda	96·70	96 78	86·17
Chloride of lime	0·68	01·43	01·15
Chloride of magnesia	Traces	00 20	00 92
Sulphate of magnesia	Traces	00 12	00·68
Insoluble material	1·74	00·27	5·26
Water	0 78	01·16	5 82
	99·90	100·00	100·00

According to a statement published by a member of the company, the permanency of the deposits is practically assured; for, as it is possible to take from these salt lakes in a given year upwards of 2,000,000 of tons of salt, it is a fact that in the ensuing season an equal quantity of salt will be found, the lakes being filled each winter with brine of a density of 25 to 32 degrees, which in due time solidifies into the form of a vast cake of salt. With such resources at their disposal, situated as they are in a region which is but poorly supplied as a whole with this important mineral, the company possess great facilities for the development of a very important industry.

A floor area of 900 square feet was taken up in the West Corridor by the exhibits of the Harney Peak Consolidated Tin Company (Limited), consisting principally of samples of tin ore, impregnated with mica. Some excellent specimens of sheet mica were shown separately in a glass case which contained the smaller exhibits. Many of these were exceedingly rich, the crystals of black tin being large in most cases, and distinctly marked. Specimens of stream tin were also shown, together with some black tin in a pulverised condition, and examples of tin foil made from bar tin produced from the Company's mine in Dakota, United States of America. The Black Hills, of which Harney Peak forms a part, are a group of mountains jutting from the Rockies into the plains of Dakota. The district, consisting of an area of about 10,000 square miles, was first exploited by the French, but it was practically the property of the Indians until the United States Government recently purchased it from them and transformed it into two States of North and South Dakota. The reports issued by Professor Winchell, who went with an expedition under the command of General Custer for the purpose of mapping a route to the Black Hills, stated that the country was rich in precious metals. It now appears that besides a wealth of gold, there are valuable tin lodes in the neighbourhood of Harney Peak, and that the

other

other minerals of the district include silver, iron, coal, antimony, galena, copper, lead, asbestos, manganese, limestone, salt, marble, roofing slates, and zinc.

Another very interesting and instructive display in the west corridor was that made by Mr. John H. Darby, of Brymbo, Wrexham, England, specimens of steel being shown as manufactured by Darby's patented "filtered steel" process. Samples were also shown of angles, rivets, and other sections made of steel manufactured by the "open hearth basic process," and subsequently carbonised by Darby's to furnish the tests required by the Board of Trade and Lloyd's, with specimens of harder steel chisels, hammers, and other tools carbonised by the same process. The importance of the introduction of alloys of iron, carbon, and manganese in the form of spiegeleisen and ferro-manganese is fully recognised by those engaged in the manufacture of steel. Before the Bessemer process was invented in 1856, Sheffield crucible steel was chiefly made from Swedish bars of great purity. It is well known that steels, those with carbon above 5 per cent., in particular, which are made by the "Bessemer" or "open hearth process," and which contain a large proportion of added manganese, are liable to "water-crack" when hardened and subsequently tempered. It is important, therefore, that the manufacturer should be able to control the percentage of manganese, while the carbon is varied at will to suit requirements in order to avoid this defect. The use of ferro-manganese or spiegel for carbonisation introduces into the steel a large amount of harmful silicon, which the alloys contain. The "Direct" or "Darby's" process has been introduced for the purpose of avoiding these difficulties, and in order to obtain a thoroughly reliable and uniform alloy of iron and carbon. It is an easy matter to add carbon by this process to the extent of 1 per cent. or more if desired, without putting more than 3 per cent. of manganese into the steel. It is stated by the inventors that when the "Darby" process is adopted, it is possible to carbonise the steel during the complete absence of the slag; and as the quantity of carbon added is so much less than when the comparatively cold spiegel is used, the temperature of the steel is maintained, better metal being thereby insured. Any reaction of the carbon on the slag is said to be avoided. One of the chief advantages claimed for the invention is that, in the manufacture of steel in the basic open hearth or in the basic converter, there is no reabsorption of phosphorus when the carbon is added, and that the resulting steel, therefore, contains a lower percentage of phosphorus than steels which are carbonised in the ordinary method, by spiegeleisen, &c., where the phosphoric slag is allowed to remain in contact with the carbonised steel for some time after it is added. Another quality claimed for the process is that it provides perfect control of the percentage of manganese. The bars and angles, &c., which were shown at the Exhibition, had been subjected to severe tests by being twisted into various shapes, and drawn into knots, and they were all of a quality suitable for passing Lloyd's examination, viz., material that will give 26 to 30 tons per square-inch tensile strain, with an elongation of not less than 20 per cent. in a length of 8 inches.

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It was a remarkable fact that the display in the West Corridor, which was sometimes known as the British Section, possessed no mineral exhibits from any English Coal Mining Companies. The coal exhibits in this section came from the mines of the Dundee Coal Company (Limited), and the Wallsend Colliery Company of Natal; from Dobra in Servia; El Porvenir Compania de Minas y Fabrica de Azogue en España, Muses, Provincia de Oviedo; the colliery Friedrich der Grosse, Herne, Westphalia; the Mining Department, Ministry of National Economy, Kingdom of Servia; and from the mines of the Central Borneo Company (Limited), in Labuan. Coal has only been recently discovered in Borneo, and the coal specimens from Labuan were of exceedingly good quality, being of a fine lustrous black, free from excessive brittleness, and possessing a conchoidal appearance when fractured. A report upon the Borneo coal, issued by Sir Charles A. Cameron, M.D., Professor of Chemistry and ex-President of the Royal College of Surgeons, Ireland, states that one hundred parts contain:—

5·76	of water
71·81	of carbon
5·76	of hydrogen
14·50	oxygen and nitrogen
0·42	sulphur
1·75	of ash
100·000	

Five manufacturers of safety lamps exhibited in the West Corridor, viz.—Mr. Lars Bristöl, of 138, Loughborough Park, London; Messrs. E. Thomas and Williams, of the Cambrian Lamp Works, Aberdare, South Wales; Messrs J. Davis and Son, of London, Derby, and Cardiff; Messrs. Messer and Thorpe, Quality Court, Chancery Lane, London; and Mr. T. Thomas, of Yngshir, Pontypridd. Mr. Lars Bristöl had on view a new electric safety lamp, his own invention, which he recommends to those interested in the well-being of miners as an improvement upon the locked lamps of the old pattern. A small glow lamp is fixed on to the front of a square box of polished wood containing a four-cell accumulator, with which the lamp is connected and from which the current may be directed at will. A dome of stout glass shields the lamp from accidental blows, and should this be broken by any means, the lamp, being lightly suspended from hooks bent downwards becomes instantly displaced, the circuit is broken, and the filament grows cold before the gas has time to reach it. The lid at the top and the dome it front are each securely locked. It is said that the battery can be easily recharged by even the most inexperienced workman, and that the current can be switched on and off instantaneously. The lamp is compactly built and exceedingly light, a lamp of one and a half candle power, to burn ten hours, weighing 3 lb. 6 oz. and being 5½ inches high. I was informed that the price of the lamp would compare favourably with that of any other at present in the market.

The peculiar feature of Mr. Thomas Thomas' exhibit, the "Thomas" double-chambered Miners' Safety Lamp, is the double chamber

chamber formed in the interior of the lamp, which gives it the power to stand under circumstances which overturn any other. It is said that miners view the lamp with favour because it deposits no film on the glass, and does not thus dim the light.

Mr. W. F. Stanley, of 5, Great Turnstile, Holborn, London, W.C., exhibited his new mining transit, the compass of which is made large, and reads not only upon the surface but also in the inside of the step which, in many cases, is the only manner in which it can be read in a close working. The reading of the horizontal circle is placed almost vertical, so that it can be clearly seen when the instrument is near the roof of the mine. Two pairs of sights are placed upon the telescope, which has a much larger object glass than usual, for either roughly sighting an object or to enable the apparatus to be used in difficult positions. The instrument is fitted with sub-tense points in the telescope, by which distances may be taken with staff without actual measurement. Mr. Stanley also showed a prismatic Mining Survey Compass, the entire depth of which is only 4 inches. Any reading may be taken with the instrument from one point of view simultaneously with the observation, the reading of the 5-inch compass, which possesses a floating ring divided to half degres, being reflected through a prism so that it appears directly under the foresight, to be seen at the same time. This prism has a slight magnifying power, so that by estimation a bearing may be taken to a quarter degree or nearer. The principal feature of the compass is its mode of lighting, which is effected by means of a large prism placed under the compass box in a square tube, with a movable lamp for the purpose of throwing light into it. The instrument weighs $4\frac{1}{4}$ lb.

Devon and Cornwall, which provide the chief sources for the production of arsenic in England, were both represented in the West Corridor. The best specimens of arsenic were probably those from the Coombe Arsenic Works, of Callington in Cornwall. The works which are capable of burning thirty-two tons of mundic per day, of refining sixty tons per week, and of turning out five tons of lump arsenic per week are about the oldest in Cornwall. The arsenic produced is known as the "Lion" brand, probably the best in the market. The exhibits by the Coombe Company (Limited,) included specimens of arsenic in every stage of its production, from the crude mundic to the finished article; from the coarse "jagged" mundic of the first and second hutches to the powdered white arsenic of commerce. There was also to be seen a specimen of lump arsenic used in the manufacture of glass and for other purposes.

Spain was perhaps better represented at the Exhibition, Scandinavia excepted, than any other mineral country in Europe. The Spanish iron ore, as shown at the stand of the Iberian Iron Ore Company (Limited), was of a very rich quality. The Company's mines are situated in Andalusia, about twelve English miles from Seville. After a careful analysis of samples of the Andalusian ore, Mr. Edward Riley, a well known analytical chemist of London, reported that "Two samples gave a yield of metallic iron of 67·43 and 63·69 per cent.;

cent.; a third gave 66 per cent.; another 62·76; and a fifth 57·44 per cent." The analyst stated further that he considered the samples to be excellent, very rich in yield of iron, and free from injurious ingredients. All the samples were well suited for making Bessemer iron of the best quality.

In the "security" cartridge, exhibited in the West Corridor by the Flameless Explosives Company, it is claimed that the mining and quarrying interests have "a cheap, powerful, and safe explosive," which is "perfectly safe in carriage, handling, and tonnage," and is "unaffected by the atmosphere or the climate." The firm make a flameless cartridge case to be used with the explosive in fiery mines, and under conditions where the least flame would be highly dangerous. This case, prepared by chemical treatment, is damped before insertion, and when fixed under these conditions it is asserted that the blast is rendered absolutely flameless. I am informed that the truth of this contention has been proved by the result of several exhaustive tests. The Company's works are located in the neighbourhood of Rotherham in Yorkshire.

There was only one European Government officially represented at the Exhibition, that of Servia; and in addition to the Government exhibit, which was shown under the authority of the Minister of National Economy, there were several displays made by independent Anglo-Servian Companies. The Avala Quicksilver Mines (Limited), for instance, had a large case mounted upon a platform which contained several interesting and in some cases very valuable specimens of ore, together with some samples of refined quicksilver. The mines were discovered in 1882; a concession was obtained five years later; and the present company took possession in 1889, the property having been reported upon favourably, by several mining engineers of high repute, including Professors Fischer and Grodeck.

The Société des Travaux Publics et Communeaux exhibited in the West Corridor a trophy of their magnesite. The mines of the Société des Travaux are situated at Eubora, in Greece. Upon an analysis made on a specimen of the product dried at 212° Fahr, by Mr. John Pattison, F.I.C., of the Laboratory, and Assay Office, Newcastle on Tyne, it is reported that the sealed sample contained:—

Carbonate of Magnesia	96·52	per cent.
Carbonate of Lime	2·06	„
Peroxide of Iron	0·26	„
Alumina	0 19	„
Insoluble Siliceous Matter	0·60	„
Combined Water	0·34	„
	99·97	

A sample of magnesite taken by the analyst from 400 tons, at Garston, contained carbonate of magnesia in sample dried at 212° Fahr., 97·72 per cent., moisture 3·91 per cent.

The West Corridor possessed, with one exception, the largest individual exhibit, viz., that of the Salt Union (Limited). A large glass case containing a representation of a lighthouse composed of fine salt, stood in the centre of a platform, upon which many specimens of manufactured and rock salt had been placed. On three sides of the

 platform

platform stands were arranged for the display of photographs of exterior and interior views of the works of the Union, and of the salt properties and brine lands of Cheshire, Worcestershire, Durham, Staffordshire, and Carrickfergus, in County Antrim, Ireland, in which the works are situated. The Union was established a little more than two years ago, the object of its inception being the embodiment under one central authority, and the consolidation into a single industrial undertaking of a number of the most important salt works and salt bearing properties in the United Kingdom, "with a view to ending injurious competition," according to the prospectus, "which unduly affects the salt trade without conferring any adequate advantage on the public." The properties of the Union, freehold and leasehold, are of large extent and of great importance, many of the firms whose possessions were amalgamated therein having been originally established over a hundred years ago, and their brands being familiar throughout the markets of the world. The capital of the Union is stated at £3,000,000. The gross salt tonnage of the Company in 1889 was quoted at about 1,550,000 tons.

A stall in the West Corridor deserving something more than a bare mention was that containing specimens of turned pedestals and blocks of granite, the exhibits of Mr. Edmund Spargo, a well-known mining engineer of Temple Chambers, Temple Avenue, London, and of 3, Cable-street, Liverpool. The granite had been taken from an estate acquired by the exhibitor in the district of County Donegal. These samples demonstrated the high degree of polish which the stone is capable of receiving. The granite, as handsome perhaps as any that the United Kingdom can produce, seemed to combine in its colouring all the known tints peculiar to its class. Some of the samples were porphyritic in character; others were mottled, wavy, and graphic. The property is said to consist practically of a mass of granite comprising almost every known range of colour.

The Government of Queensland declined to participate in, or to officially recognise the Exhibition. Mr. John M'Donald, of Charters Towers, however, considered it advisable that advantage should be taken of the display for showing specimens of the mineral wealth of the district to which he belongs; and, through his exertions, a local executive committee was appointed for the purpose of carrying the suggestion into effect. Mr. A. W. Clarke, F.G.S., late Mineralogical Lecturer in Charters Towers for the Queensland Government, officiated as honorary secretary, while Mr. M'Donald and Mr. Thomas Buckland constituted the executive committee in London. Beyond the free carriage of the exhibits from the Charters Towers gold-fields to the coast, for a distance of 86 miles, the full burthen of the expense of the display was borne by the people of the district. It is not by any means contended that the Queensland Court in the south gallery of the Crystal Palace was an adequate representation of the mineral resources of Queensland, or even of Charters Towers, for in an introduction to the catalogue, by Mr. A. W. Clarke, it was stated that the minerals, rocks, &c., hurriedly collected had not been "critically examined," and that the description

therefore

therefore was "crude and provisional." On the other hand the bulk exhibits of auriferous quartz and mundic spoke for themselves, as in many cases they exhibited free gold. It was to be noted that the bulk exhibits of stone had been taken at random, more or less, from paddocks of stone lying on the surface of the mines, the committee having been allowed no time for the proper selection of specially good samples. A few microscopical sections were displayed among the other exhibits, together with the rocks from which they were sliced. The Day Dawn P. C. Gold-mining Company exhibited specimens taken from a vertical depth of about 900 feet, equivalent to 1,200 feet down the underlie shaft. Other important companies were also represented.

A small part of the East Gallery was set apart for the display of exhibits from Norway and Sweden. The specimens were forwarded to London at the instigation principally of Mr. Alfred Schartum-Swensen, of Christiania, a gentleman well known in mining circles in the Scandinavian peninsula. It was originally proposed that Norway should have a separate Court; but, on account of a desire expressed by the Executive Council of the Exhibition, it was arranged by Mr. Schartum-Swensen that the mineral specimens from Norway and Sweden should be displayed in one general Scandinavian Court. Messrs. Schartum-Swensen and Company, of the mining offices, Christiania, sent a collective exhibit, including a sample of nickel ore from the Rom nickel mines, which are situated in the thickly-populated agricultural county of Smaalenene, Norway. Rock was broken in the mines between the years 1870–1876 to the extent of 1,440 cubic fathoms, yielding 11,300 tons of ore. Seven hundred tons of this, assaying 2·4 per cent. of nickel and cobalt, were sold to an English firm; 10,100 tons were treated by smelting, and gave 1,774 tons of matter, assaying 4·3 per cent., and 400 tons assaying 5·8 per cent. of nickel and cobalt. It is stated that there are now about 500 tons, assaying 1 per cent. of nickel and cobalt, remaining at the mines. These 11,300 tons of ore contained, it is said, 121·2 tons of nickel and cobalt. As the company were not provided with the funds required for the erection of a concentrating plant, the ore was treated by smelting without any previous crushing or roasting. A large quantity of low-grade matter was the result, this process of treatment creating a heavy loss of the cobalt present in the ore. The Master of the Royal Mint at Kongsberg has reported favourably with regard to the possibilities of working the mines successfully; and with increased capital and the necessary plant it is estimated that the company may secure good returns.

The collective exhibit of Messrs. Schartum-Swensen and Company in the Scandinavian Court included also a sample of magnetic iron ore from Mr. O. J. Opdal's mine at Skage, near Namsos. It has been reported by competent analysts that the ore contains 59·5 per cent. of magnetic iron and only 0·24 per cent. of sulphur; and considering the nearness of mine to the port of Namsos, it is evident that the property is one of considerable value. Messrs. A. Huitfeldt and Company, of Drontheim, had on view an excellent sample of copper pyrites from the Esna mines, together with specimens

of

of sulphur ore from the Kjöli mines near Röros. The former properties are situated at Ty-dalen, close to the Swedish frontier, and supply an average yield of 10 per cent. of pure copper. The Kjöli mines, although they are not now being worked, are also said to be very valuable, analyses having shown 48 per cent. of sulphur, and 3 per cent. of copper as the average contents of the ore. The Scandinavian Exploration Company (Limited), of 5, Throgmorton Avenue, London, E.C., exhibited gold ore from Bömmeloens Bergvarkselskab, silver-lead ore from the Röken Hill mines near Christiania, iron ore from Braastad and zinc ore from the Haakenstad zinc mines. An important exhibit in the Scandinavian Court was that of Mr. E. A. Gude of Christiania, comprising blocks of fine labradorite, granite, and Tönsberg, Bolaer, and Malmö syenites. Two monuments of labradorite and syenite were exhibited, the former being an exquisite piece of work, the polish upon the stone, which is a species of granite in which mica largely occurs, being remarkable for its brilliancy. The colouring could hardly be surpassed by many of the finest marbles. The Norske Granit Kompagni of Christiania also had on show some samples of syenite, labradorite, and norite, which were noticeable for their excellence. I have been informed, although I am unable to vouch for the accuracy of the statement which, however, has a semi-official origin, that the granites can be quarried in Norway and shipped to England for a less sum than similar material can be obtained and delivered in the granite producing districts of the latter country.

The Skrataas zinc mines, of Throndhjem, were represented in the Scandinavian Court by specimens of zinc ore, containing silver, cobalt, &c. The property is likely to have a prosperous future, for the lode is very rich, representing, as it does, almost perfectly, the chief peculiarities of a Norwegian metalliferous lode. Being situated within six miles from the bottom of the Gulf of Throndhjem, which is generally free from ice all the year round, the accessibility of the mines will be increased when the new highway, now in course of construction, is completed. The Foldal Pyrites Mines, the Ruda Nickel Mining Company, of Wingaoker, Sweden, the Harge Aktiebolag, of Hammer, Sweden, and the Svenska Grafit Aktiebolag, of Fagersta Westanfors, Sweden, were among the other important exhibitors.

Next to the Scandinavian Court in the East Gallery of the Crystal Palace a small space was set apart for the accommodation of mineral specimens from South Africa. It was here that the Transvaal Coal Trust Company (Limited), had on show a large block of coal from a seam 22 feet thick. I have already referred to the exhibition, in the West Corridor of the Palace, of coal from the collieries of the Dundee Coal Company, and of the Wallsend Colliery Company, of Natal. Taking into consideration the comparatively slow progress made in coal development in South Africa, the vast importance of the country as a coal producer should the steam traffic to India and Australia be directed round the Cape in the event of hostilities, and the large demand already existing for coal for the mail steamers and for supplying the markets of Mauritius, Madagascar, &c., it is to be hoped that the

the exhibition will have some effect in giving an impetus to this branch of South African industry.

In the South African Court also the Johannesberg Chamber of Mines exhibited a trophy indicative of the total output of gold from the Witwatersrandt Gold-fields, from May, 1887, to June, 1890. The Union Gold-mining Company, of Port Elizabeth (Limited), of Moodie's, Transvaal, showed maps of their mines; the British South Africa Company sent a map showing the sphere of their operations; the South African and Orange Free State Coal and Mineral-mining Association had on view blocks of coal, fire clay, and limestone; the Princess Estate and Gold-mining Company (Limited), had blocks representing 3,518 ounces of gold, the output after three months' crushing; the Crœsus Gold-mining Company (Limited), displayed blocks indicative of the output of 6,100 ounces from the mine; the Barrett Gold-mining Company (Limited), had on view a model representing an output of gold amounting to 11,500 ounces; while the Worcester Exploration and Gold-mining Company (Limited), exhibited gilded blocks, representing in 220 ounce ingots the Company's output of 19,166 ounces to the end of June, 1890. Messrs. Wernher, Beit, and Company, of Holborn Viaduct, London, showed a model of a diamond washing machine as used on the Kimberley Diamond Fields. There were in the Court about twenty-five other individual exhibits, a very meagre display considering the great importance attached of late years to South Africa in respect to its mineral wealth.

With the foregoing paragraph I bring to conclusion my references to individual exhibits. Although the Executive Council advocated the prolongation of the Exhibition, the Directors of the Crystal Palace Company declined the requisition presented to them for that purpose, and the display was formally closed on Saturday, 11th October. It was barely two days before the closing ceremony that the jury appointed by the Council commenced their work of judging the exhibits; and I feel constrained to express my regret, on behalf of the interests I represented as Executive Commissioner for New South Wales, that a suitable period of time for this duty was not vouchsafed to the gentlemen who had kindly undertaken the task. The Jury's Report and the list of Awards were hurriedly put together, and I was not a little chagrined to find that though the services rendered to the Exhibition through the contributions sent under the authority of the Minister for Mines, were fully recognised, no mention had been made of the Government of the Colony, at whose instance so splendid a collection had been put together as that displayed in the New South Wales Court. The Jury reported as follows:—

Having carefully inspected the collection of minerals in the International Exhibition of Mining and Metallurgy, we desire to recommend to the Executive Council, that diplomas of merit be awarded to all those exhibitors whose exhibits are marked for recognition in the accompanying catalogue. In view of the exceptional character of the New South Wales Court, we are anxious that special recognition should be taken of the great value of the services rendered to the Exhibition by the Minister for Mines, Sydney; by the Government Geologist of New South Wales; and by the Executive Commissioner. We are also favourably impressed by the importance of the exhibits from South Australia, from Western Australia, from Charters Towers, from South Africa,

Africa, and from Mexico. At the same time, we beg to express our regret that the mineral resources of Great Britain and of many well-known mining districts in other countries are not more fully represented. The scientific and industrial advantages afforded by this Exhibition seem to us sufficient to justify its repetition at no distant date, when we hope that it will be found possible to secure a more complete representation of the mineral resources of the world."

(Signed) EDWARD HALL.
" HENRY WOODWARD.
" F. A. RUDLER.

Upon the recommendation of the jury, the Executive Council awarded diplomas of gold medal to the following exhibitors in the New South Wales Court :—

Mr. C. Smith Wilkinson, F.G.S., F.C.S., Geological Director.
The Australian Kerosene Oil and Mineral Company (Limited).
Mr. W. Brazenall, Mittagong.
The Broken Hill Proprietary Silver Mining Company.
Broken Hill, Block 14, Silver Mining Company.
Broken Hill Junction Silver Mining Company.
Broken Hill British Block Silver Mining Company.
Messrs. J. and A. Brown, Newcastle.
The Burwood Extended Coal Company (Limited).
The Centenary Coke and Coal Company.
The Eleanora Gold and Antimony Mining Company.
The Hetton Coal Mining Company (Limited).
Mr. T. Horton, junior, Fairfield.
Mr. Martin Isaacsohn, Nundle.
Professor Archibald Liversidge, F.R.S., University of Sydney.
The Minister for Mines, Sydney.
The Wickham and Bullock Island Colliery.
The Waratah Coal Mining Company.
The Burwood Coal Mining Company.
The Mudgee Sharpening Stone Company (Limited).
The Newcastle Coal Mining Company.
The Oban Tin and Gem Mine.
The West Wallsend Coal Mining Company (Limited).

While the repacking of exhibits was proceeding, after the formal closing of the Exhibition, a cablegram from the Government was received by the Agent-General advising the continuation of the display of New South Wales minerals in some convenient place in or near the city. A meeting of Commissioners for the Colony was immediately convened at the offices of the Agent-General in Victoria-street, Westminster. As a result of that meeting, a reply-cable was despatched, informing the Government of the difficulties which existed in procuring a suitable building. Meanwhile the work of repacking was proceeding. Subsequently the suggestion fell through, and, upon the authoritative order of the Agent-General, the exhibits were stored in a part of the Crystal Palace, rented from the Crystal Palace Company for the purpose, in order that they might be available for exhibition at an intercolonial mineral display which has been suggested for establishment concurrently with the inauguration of the Imperial Institute.

The

The object to be attained by this Colony in taking part in the Exhibition, and the justification of the expenditure incurred thereby, was the diffusion, throughout the better informed classes of the community, of accurate knowledge of the vast and diversified mineral productions of New South Wales. By this means it was hoped that the British public would be enabled to form a correct estimate of the natural resources of the Colony, and of its eligibility as a field for investment of capital. That purpose was in danger of being frustrated through the inactivity of the Executive of the Exhibition in regard to advertisements. In such circumstances, it seemed incumbent upon me, as the executive officer, representing the Colony, to take energetic steps to guard its interests, and to see that they did not suffer through what I considered to be the mistaken policy of the Executive. Specially advertising the New South Wales Court in the Press in the ordinary way, seemed likely to prove ineffectual, even if it were not on many grounds objectionable; and it thus became necessary to have recourse to indirect methods of making generally known the existence and objects of the Exhibition. In accordance with this view, I issued invitations to visit the Court, to the Editors of the leading newspapers in the metropolis and in the country districts, and furnished them at the same time with copies of the edition of the Year Book of Australia, specially prepared under my direction, of which 10,000 were gratuitously distributed. Return railway tickets from London, as well as admission passes to the Crystal Palace, were also given to a large number of persons who, in my judgment, appeared capable of forming a correct estimate, not only of the value of the exhibits, but also of the national wealth of which they were the exponents. Further, the weekly entertainments, given by me at the Crystal Palace, were the means of gathering in the New South Wales Court persons whose position, influence, and recommendations would induce those with whom they came in contact to visit and see for themselves what was universally described as a marvellous collection of all the most precious and useful minerals and metals. The results exceeded my most sanguine expectations. Visitors frequented the Court in such numbers as could not but be deemed satisfactory under the circumstances; and the extracts, printed in an appendix to this Roport, from articles in leading journals, clearly demonstrate that the great object of giving the widest publicity to the claims of the Colony to the first rank among mineral-producing countries was successfully attained.

Such exhibits as were to be returned to the Colony were duly packed and shipped per the "Clan Robertson" barque, which was appointed to sail from London on the 9th February, 1891. On the arrival of that vessel no time was lost in distributing these exhibits to their respective owners.

As regards the cost to the Colony of its display at this Exhibition, full information will be found in the appended balance-sheet, so far as I am able to afford it. Personally my responsibility is limited to a portion of the expenditure, as I have to account for such moneys only as were advanced to me by the Honorable the Colonial Treasurer in

Sydney,

Sydney, and by the Agent-General in London. The total sum advanced to me in Sydney for the purposes of this Exhibition was £947 11s. 5d., which was disbursed for the following purposes :—

	£	s.	d.
Salaries and allowances	177	0	0
Wages	219	18	11
Travelling expenses	172	3	0
Packing and cases	105	2	8
Court decorations	127	7	7
Wine for Exhibition	59	4	0
Stationery	9	6	9
Shipping charges	22	6	4
Catalogue	10	0	0
Miscellaneous	14	13	3
Petty expenses	28	7	6
Balance returned to Treasury	2	1	5
	947	11	5

The total amount advanced to me in London was £2,910 19s. 7½d., which is thus accounted for :—

	£	s.	d.
Purchase and preparation of exhibits	138	1	2
Material for fitting and decorating court	595	6	0
Freight and cartage	142	16	6
Salaries, wages, and allowances	1,592	18	2½
Travelling expenses	244	19	3
Stationery	38	7	0
Advertising	59	9	4
Petty expenses	98	15	7
Balance returned to the Treasury	0	6	7
	2,910	19	7½

It behoves me now, in conclusion, to take a retrospective view of the Exhibition, and to state my opinion as to the benefits likely to accrue to New South Wales from the part she has taken in the display. It is an indisputable fact that the Court served a purpose of both immediate and lasting utility, for the advantages to be gained by attracting, as it did, the attention of British capitalists, to the mineral resources of the Colony are palpable and undeniable. That large sums of money have been secured for exploiting purposes, and for the development of mineral properties upon all too insufficient data is a circumstance now fully recognised; and therefore when decided and unimpeachable evidence is given as to the geological formation of a district or of a country, the benefits to be derived from such information are very evident. In this particular, then, New South Wales is to be congratulated upon her rich and complete and instructive display. Evidence of the correctness of the estimate I have formed on this point is afforded by the extracts* appended to this Report, from the leading journals published in the mother country. Some of them are so important and speak so directly to the point, that their reproduction as an appendix seemed to be highly desirable in a permanent record of the share taken by the Colony in the Exhibition. As I have before stated, it was to be regretted that powerful competitors were not in the field to contest with her for the premier place in the Exhibition ; for in that case the Colony would have obtained greater benefits from the victory which, even then, would doubtless have been hers.

The effect of the Exhibition upon the interests of New South Wales and its kindred colonies has been clearly and concisely stated in an article appearing in the official organ of the Exhibition. "The principal feature of the Exhibition," said the writer, "has been the light which it has thrown upon the mineral resources of our

* Appendix B.

Australian

Australian possessions. Mining enterprise in New South Wales, for instance, is shown to have absolutely enormous possibilities before it, and the exhibits from South Australia and Western Australia have thrown what is even for many well informed mining authorities, a new light upon the metalliferous deposits of our great southern colonies. It is eminently desirable that British capital should be expended in British territory, rather than that the mineral value of our possessions should fail to be recognised in the greater interest attracted to foreign countries." *For my own part, I have observed so much ignorance among English people upon Australian affairs that I am inclined to believe in the advisability of advertising our Colony upon every possible occasion.* I regard with pride the undoubted success I achieved in this respect by the distribution of the pamphlets I have already mentioned, and by the verbal information I have been enabled to supply to many visitors who accepted my invitations to the Court.

It was to have been expected that the Exhibition would have furnished us with opportunities for learning as well as for teaching; but this, unfortunately, was not the case to any great extent. There was certainly some knowledge to be obtained from the experiments made in the machinery hall for the treatment of refractory ores; but when we consider the meagreness of the display made of mining machinery and appliances, it cannot be contended with any truth that the Exhibition was a success in this respect, nor that it supplied the looked for information. At an international exhibition of this description, one would naturally expect to find Great Britain in particular, and the other countries of Europe in general, well represented. Such expectation, however, would in this instance have been disappointed, whether because suspicions were entertained by those countries nearer the scene of operations as to the character of the display, or as to the intentions of the promoters, I am not in a position to judge, nor is it within my province to do so. The locality and the time of the year chosen for holding the Exhibition were both circumstances which were opposed to our interests; and it is consequently most gratifying to find that, in the face of such obstacles, New South Wales has won so undoubted a success.

I have the honor to be,

Your Excellency's most obedient Servant,

OSCAR MEYER,

Executive Commissioner.

APPENDIX A.

CATALOGUE OF THE EXHIBITS DISPLAYED IN THE NEW SOUTH WALES COURT.

AUSTRALIAN AGRICULTURAL COMPANY, Newcastle—Block of Coal from the Borehole coal-seam.

AUSTRALIAN ALUM COMPANY (LIMITED), 12, O'Connell-street, Sydney—Alumite from the Company's property at Bulladelah.

AUSTRALIAN BROKEN HILL CONSOLS SILVER-MINING COMPANY (LIMITED), London Office, 9, New Broad-street—Rich Silver Lead Ore from the Australian Broken Hill Consols mine, Barrier Range.

AUSTRALIAN COKE COMPANY, 5, Post Office Chambers, Pitt-street, Sydney—Coke manufactured from southern coal, at the company's works, Uanderra, near Wollongong.

AUSTRALIAN KEROSENE OIL AND MINERAL COMPANY (LIMITED), 5, Gresham-street, Sydney—Petroleum Oil Cannel Coal (kerosene shale) from the company's mine at Joadja Creek.

AUSTRALIAN NATURAL MINERAL WATER COMPANY (LIMITED), 80 and 82, Elizabeth-street, Sydney—Mineral Water from a spring at Rock Flat Creek, near Cooma, Monaro District.

BAKEWELL BROS, Beulah Brickworks, Macdonaldtown—Shale, Ground Shale, Green Bricks, Dry-pressed Bricks.

BALMORAL GOLD-MINING COMPANY, A. R. Gregory, 180, Phillip-street, Sydney—Auriferous Quartz from the Balmoral Gold-mine, Mount M'Donald.

BATHURST, E. WILKINSON, 108, Pitt-street, Sydney—(1) Load and Alluvial Tin Ore from the Wheal Herbert, 2 miles from the town of Stannifer, New England.
(2) Tin Ores from the Wheal Edith, situated about 3 miles from the town of Elsmore, New England.

BINGHI SILVER AND LEAD MINING COMPANY, R. B. Downing, secretary (*pro. tem.*), Tattersall's Chambers, Hunter-street, Sydney—Silver Ore from the Binghi Silver-mine, situated about 23 miles from Torrington, New England Table-land.

BRAZENALL, W., Mittagong—Iron Ore and Coal from the Mittagong District.
Limestone from Mittagong.
Pig Iron, Castings, &c., manufactured from the above iron ore.

BRECKENRIDGE AND WATSON, MESSRS., Newcastle—Iron Ore and Limestone from exhibitors' property at Port Stephens.

BRITISH BROKEN HILL PROPRIETARY SILVER-MINING COMPANY (LIMITED), 39, Queen-street, Melbourne, Victoria—Silver Lead Ores from the British Broken Hill Mine, Barrier Range, New South Wales.

BROKEN HILL, BLOCK 14 SILVER-MINING COMPANY, J. Brandon, Secretary, 15, Queen-street, Melbourne—Silver Lead Ores from the Broken Hill Block 14 Silver-mine, Barrier Range, New South Wales.

BROKEN HILL JUNCTION SILVER-MINING COMPANY, Offices Queen-street, Melbourne—Silver lead ores from the Company's Broken Hill Junction Mine, Barrier Range, New South Wales.

BROKEN HILL PROPRIETARY COMPANY (LIMITED), Office, 15, Queen-street, Melbourne—Silver Lead Ores and Bullion, from Broken Hill Barrier Range.

BROOMFIELD, JOHN, 152, Sussex-street, Sydney.—Auriferous Arsenical Pyrites from the Nambucca Heads Gold-mining Company.

BROWN, J. & A. Messrs., Newcastle.—Coal from the Borehole Coal-seam, worked in the Duckenfield Colliery.

BRYANT, B., Drake.—Silver Ores from the Mascotte Silver-mine, New England.

BRYDEN AND SALA, MESSRS., Caleula Quarry, Mullion Creek, near Orange.—Sample of Red Marble showing polished and plain surfaces.

BURWOOD COAL-MINING COMPANY (LIMITED) Newcastle.—Three Blocks of Coal, together about 7 feet high, showing thickness of seam worked at the Burwood Colliery.

BURWOOD EXTENDED COAL COMPANY (LIMITED), Head Office 131, Pitt-street, Sydney.—Two Blocks of Coal from the Borehole Coal-seam, worked in the above Company's Colliery at Redhead, 12 miles from Newcastle.

CALDWELL, JOHN T., Union Chambers, 70, Pitt-street, Sydney.—Block of Auriferous Quartz, showing free gold, from Chambigne Gold-mining Company's Mine, 20 miles west of Grafton.

CAMPBELL W. B., Flushcombe, Blacktown.—Metallic Copper, Copper Ores, and Gold and Silver Ore from the Belara Copper-mine.

CASTLERAG PROPRIETARY SILVER-MINING COMPANY.—Silver Lead Ores from the Castlerag Mine, near Deepwater,

CASTLE KING SILVER-MINING COMPANY.—Silver Ores from the Castle King Mine, near Deepwater.

CASTLE WELLINGTON TIN AND SILVER MINING COMPANY (NO LIABILITY), H. M. Deakin, Manager, 70, Pitt-street Sydney—Lode and Alluvial Tin Ore from Castle Wellington Tin-mine, situated at the Nine-mile, near Deepwater, New England.

CENTENARY COKE AND COAL COMPANY, Curlewis, near Gunnedah.—Full section of seam.

CENTRAL BROKEN HILL SILVER-MINING COMPANY'S OFFICES, Pitt-street Sydney.—Silver Lead Ores from the Central Broken Hill Mine, Barrier Range, New South Wales.

CHAPPLE AND LOCKWOOD, Messrs., Sydney—Drawings and Plants of a new Ore Reducing Plant.

COAL CLIFF LAND AND COAL-MINING COMPANY (LIMITED), Head Office, 19, Bridge-street, Sydney—Coal from the Coal Cliff Colliery.

COOK, R., Denby-street, Marrickville—Clay, Shale, Double pressed Bricks, &c., and Tera Cottas.

COOPERATIVE COAL AND COKE COMPANY, Newcastle—Coke manufactured from the Co-operative Company's Coal.

COSMOPOLITAN GOLD AND ANTIMONY COMPANY (NO LIABILITY), Hilgrove—Auriferous Quartz and Antimony Ore from the Company's mine situated at Hillgrove, New England.

CUNNINGAR TRIBUTE GOLD-MINING COMPANY (LIMITED), 16, Norwich Chambers, Hunter-street, Sydney—Block of Auriferious Pyrites, from the Company's Mine, Cunningar, Harden.

CURLEWIS, E.—The Warren Brick Works, Alexandria.—Shale, Ground Clay, Dry pressed Bricks.

DIAMOND WHETSTONE COMPANY—Whetstones.

DODD, J., Mount Hope—Auriferous Specimens from East and West Mount Dromedary, Lachlan River District.

DONNELLY, D. C. J., Cowra—About two tons of Magnetic Iron Ore from Broula Range.

EAST GRETA COAL-MINING COMPANY—Section of coal from the 30 ft. Seam, East Greta Colliery, near West Maitland.

EDWARDS AND ALLEN, Messrs., Newcastle—Map of the Newcastle Coal-field.

ELEANORA GOLD AND ANTIMONY MINING COMPANY (NO LIABILITY), Hillgrove—Auriferous Antimony Ore, Concentrates, Star Antimony, Crude Antimony, Granulated Crude, White Metal, and Artificial Oxide of Antimony.

ELPHINSTONE AND WILSON, Messrs., Petersham—Clay and Bricks.

FERNDALE COAL-MINING COMPANY, Newcastle—Coal from the Borehole Coal-seam, sunk through by the Ferndale Coal Company, at Wickham.

FRANKS, W. J., Sen. and Jun., 3, Denison Terrace, Ridge-street, Surry Hills, Sydney—
One ton of Auriferous Pyritous Quartz from Adelaide Hill Mine, Cargo, near Orange.
Auriferous Concentrated Pyrites from the Cargo mines.

FORSYTH, J. AND SONS, North Willoughby—Pottery Clay.

GIANT'S DEN TIN-MINING COMPANY, near Bendemeer—Tin ores from the Company's property.

GOLDEN CLAD GOLD-MINING COMPANY (LIMITED), Cargo, near Orange, Walter Burrell, Managing Director, 108, Pitt-street, Sydney—
(*a*) One ton of Auriferous Pyritous Quartz from No. 1 reef, Golden Clad Mine, Cargo.
(*b*) One ton of Auriferous Pyritous Quartz from No. 2 or "Big Reef

GOLDEN GULLY GOLD-MINING COMPANY (LIMITED), 108, Pitt-street, Sydney—Auriferous Pyritous Quartz from the 170-ft. level Golden Gully Mine, Ironbarks.

GRETA COLLIERIES COMPANY (LIMITED), 83 Pitt-street, Sydney—
(1.) Section of Coal from the Company's Leconfield Colliery, situated 35 miles north-west of Newcastle.
(2.) A Block of Coal from the Company's Greta Colliery, B. pit, situated 32 miles north-west from Newcastle.

GOREHILL BRICK WORKS.—Brick and Pottery Clay.

GREAT WOLLONGONG PROPRIETARY COAL COMPANY (LIMITED), William Wiley, Secretary, Post Office Chambers, Pitt-street, Sydney—Full Section of Top Seam, showing roof and floor, taken from the Company's Property.

HARBER, A., St. Peters—Pottery and Brick Clay.

HASSALL AND DOWEL, Messrs., Pitt-street, Sydney—Tin Ore and Gem Stones from Oban, New England.

HEINTZ, JOHN, Waverley—Samples of Gold in Quartz, from Krohmann's Claim, Hill End.

HERBERT PARK GOLD-MINING SYNDICATE, Armidale—
(1) Auriferous Quartz from the 40 and 110 ft. levels, Herbert Park Syndicate Reef, 9 miles from Armidale.
(2) Auriferous Quartz from an adjoining reef at 20-ft. level.

HETTON COAL-MINING COMPANY (LIMITED), Bond-street, Sydney—Coal from the Company's Mine, Newcastle.

HIBBLE, W. G., Sydney—Paint Ochres and Kalsomines, prepared by exhibitor from New South Wales minerals.

HORTON, T., Jun., Fairfield—Collection of Minerals from New England.

ISSACSOHN, MARTIN, Nundle—Collection of Auriferous and other Mineralogical and Geological Specimens.

JAGGER, J.—Marble, New South Wales.

KATOOMBA COAL AND SHALE MINING COMPANY (LIMITED), 90, Pitt-street, Sydney—
(1) Coal from the Katoomba Coal and Shale Company's Mine, Katoomba.
(2) Boghead Mineral, from Ruined Castle, Katoomba.

KENNEDY AND BATEMAN, Messrs., Tenterfield—Tin Ore, from 8 miles north-west of Tenterfield.

LAST CHANCE GOLD-MINING SYNDICATE, 177, George-street West, Sydney—Auriferous Quartz, showing free gold, from the Last Chance Gold-mine, King's Plains, near Blayney.

LINWOOD COAL MINING COMPANY, Newcastle—Coal from Linwood Colliery.

LIVERSIDE, ARCHIBALD, M.A., F.R.S., Professor of Chemistry, University of Sydney—
(1) Collection of Auriferous and other Mineralogical and Geological Specimens.
(2) Diagrams, Illustrations, &c.
(3) Scientific Papers.

LOVEGROVE, W., 109, Pitt-street, Sydney—Graphite from the New Borrowdale Graphites Mine, Undercliff Station, near Wilson's Downfall, New England.

MACDONAGH, ROCK & Co. MESSRS., Burwood, near Sydney—Patent Liquid Fuel Injector, for burning coal tar, oil, and other liquid fuels for heating furnaces, steam boilers, &c.

MAJORS CREEK GOLD-MINING COMPANY, J. T. Bulloch, Secretary, Hunter-street, Sydney—Auriferous Pyritous Quartz.

MEGALONG COAL AND SHALE COMPANY—Petroleum Oil, Cannel Coal, or Kerosene Shale.

MILLER, D. S. K., 113, Glenmore Road, Paddington, Sydney—Silver Ores from the Great Boro Silver and Lead Mine.

MINISTER FOR MINES, Sydney—Collections of Minerals from New South Wales, arranged under the direction of C. S. Wilkinson, L.S., F.G.S., Geological Surveyor-in-Charge; by J. E. Carne, F.G.S., Curator of the Mining and Geological Museum, Department of Mines, Sydney.

MINISTER FOR MINES, Sydney—Exhibits of Timbers, Fibres, Barks, Resins, Seeds, &c., prepared by direction of the Honourable Sydney Smith, M.P., Minister for Mines, Sydney.

MITCHELL'S CREEK FREEHOLD GOLD ESTATE, Cope's Chambers, Bond-street, Sydney—
(1) About one ton of Auriferous Pyritous Quartz, from a reef 2¼ feet in thickness in the Mitchell's Creek Freehold Estate.
(2) Auriferous Concentrated Pyrites.

MUDGEE SHARPENING STONE COMPANY, Mudgee, James Standen, Manager—Shear Stones, Carpenters' Stones, Slip Stones, Grind Stones, &c., from the Company's Quarry, near Mudgee.

NEW BORROWDALE GRAPHITE COMPANY, Undercliff, New England—Graphite.

NEWCASTLE COAL-MINING COMPANY, Newcastle—Section of the Borehole Coal-seam, worked by the Newcastle Coal-mining Company.

NEWCASTLE WALLSEND COAL-MINING COMPANY (LIMITED), South British Chambers, 12, Bridge-street, Sydney—Coal from the Borehole Coal-seam, opened out on the Newcastle Wallsend Coal Company's 9000 acres of freehold land at Dark Creek, near Wallsend.

NORTH STOCKTON COAL COMPANY (LIMITED), 131, Pitt-street, Sydney—Coal representing the seam worked at the above Company's colliery, at a depth of 501 ft., near Hexham, Hunter River District. Also Nodules of Coal from Pit Heap.

PEAK HILL PROPRIETARY GOLD-MINING COMPANY (NO LIABILITY), Peak Hill, near Dubbo—Auriferous Lodestuff from Peak Hill.

PINNACLE TRIBUTE SILVER-MINING COMPANY, Barrier Range, A. C. M'Donald, Secretary, Melbourne—Silver Lead Ores, &c., from the mine.

REDFERN GOLD-MINING COMPANY, Phillip-street, Sydney—Auriferous Pyritous Quartz from the Redfern Gold-mine, situated near Ironbarks.

ROBERTSON, J. B. R., Oakhampton Park, West Maitland—Mineralogical and Geological Specimens.

ROBJOHNS, H., 50, Elizabeth-street, Sydney—Plan of the Illawarra Coal-field.

ROTHERY, W. M., Cliefden, near Lyndhurst—About two tons of Brown Iron Ore and Ferro-manganese Ore, from near the Cliefden homestead.

SAMUEL, SIR SAUL, K.C.M.G., C.B., Agent General for New South Wales—Collection of Copper Ores from New South Wales.

SMITH, C. W., Rocky Point Road, Carroll's Hill, Kogarah—Clay from Exhibitor's property at Kogarah.

SMITH, GEORGE, Hillgrove, near Armidale—Auriferous Quartz and Antimony.

SPIERS AND RIGG, Pitt-street, Sydney—Tin Ore, and Gem Stone from the Oban Tin and Gem Mine, New England.

SILKSTONE AND CLYDE COAL AND RAILWAY COMPANY, 14, O'Connell-street, Sydney—Section of Coal from the Company's Colliery.

SUNLIGHT GOLD-MINING COMPANY, 96, Pitt-street, Sydney—Auriferous Quartz from the Sunlight Gold-mine, Baker's Creek, Hillgrove, near Armidale.

SYDNEY AND MELBOURNE GOLD-MINING COMPANY (Mittagong,) Hunter-street, Sydney—Section of the Coal-seam worked by the above Company, near Mittagong.

THE SCOTTISH-AUSTRALIAN MINING COMPANY (LIMITED), Sydney and Newcastle, F. W. Turner, Secretary—Samples of Coal from the Lambton Colliery, Newcastle; and a section of the Coal-seam at Durham Colliery, Newcastle.

THOMPSON, GALE AND PARTY, Messrs., Deepwater—Tin Ore from the Battery Mountain Nine-mile, near Deepwater.

WALLAH-WALLAH SILVER-MINING SYNDICATE, near Yass—Silver Lead ores from the Wallah-Wallah Silver-mine, Pudman's Creek, near Yass.

WALLARAH COAL COMPANY (LIMITED)—Coal from the 10 ft. 6 in. Coal-seam worked in the Company's Colliery, about 48 miles north from Sydney.

WANGABAH SILVER-MINING COMPANY, Hamilton-street, Sydney—Silver Ores from the Wangabah Silver Mine, Clarence River District.

WARATAH COAL-MINING COMPANY (LIMITED), 32, Bridge-street, Sydney—Coal from seams opened out by the Waratah Coal-mining Company at South Waratah.

WEBB'S SILVER-MINING COMPANY (LIMITED)—Silver Ores from Webb's Silver-mine, Little Plant Creek, near Emmaville.

WELLINGTON SILVER AND GOLD MINING CO-PARTNERY, Cope's Chambers, Bond-street, Sydney—Argentiferous and Auriferous Lodestuff from the Wellington Silver and Gold Mine.

WEST WALLSEND COAL-MINING COMPANY (LIMITED), 7, Exchange, Sydney—Section of Coal showing thickness of the Coal-seam worked at the West Wallsend Colliery, near Newcastle.

WILLIAMS, JOHN, Bridgewater, Molong—About one ton of Auriferous Ferruginous Loadstuff from Williams' lease, No. 4, Peak Hill.

WILSON, CHARLES, Silsoe Villa, London Road, St. Leonards-on-Sea, Hastings—Specimens of Australian Ore, suitable for natural pigment Ground Colours from Ores.

WOOLLER C., Burns-street, Darling Harbour—Graphite from Undercliff, near Wilson's Downfall, New England.

YOUNG WALLSEND COAL-MINING COMPANY, J. C. Bonarius, Wolfe-street, Newcastle—Coal from the Bore-hole Coal-seam, sunk through in the Young Wallsend Colliery.

THE "SYDNEY MORNING HERALD" OFFICES, Pitt and O'Connell-streets, Sydney—Stereotype Cylinders or "Type Barrels."
Moulds for Stereos.
Copper and Wood Engravings.
Prints and Coloured Plates from the *Sydney Mail.*
Portfolios containing latest issues of *Sydney Morning Herald*, *Sydney Mail*, and *The Echo*, with files for 1889.
Photographs of Machinery used for the production of these papers.

THE "DAILY TELEGRAPH" OFFICE, King-street, Sydney—Stereotype Plates.
Pen-and-Ink Sketches of Printing Works, Publishing Offices, Board Room, Editor's and Manager's Rooms, Etching and Photographic Rooms.
Issues of *The Telegraph* and *Tribune* per latest mails, and files of the papers for 1889.

THE "AUSTRALIAN MINING STANDARD" OFFICES, 108 Pitt-street, Sydney—Exhibits of the *Australian Mining Standard*, Vols I., II., and III.
Specimens of Printing, &c.

APPENDIX.

B.

Extracts from newspaper articles upon the Exhibition of Mining and Metallurgy.

The Times, 16th September, 1890.

Proceeding from the west corridor to the South Naves we found it occupied from beginning nearly to end by the splendid collection of minerals, metals, and gems from New South Wales, which has been arranged under the superintendence of Mr. Oscar Meyer, the Executive Commissioner appointed by the New South Wales Government, and Mr. C. S. Wilkinson, the Government Geologist, who is also a Commissioner. This unique collection of gold, silver, and other mineral specimens, which illustrate the rich character of the vast mineral resources of this Colony, includes several large blocks of coal, showing the great thickness of the principal seams, several of which have been recently found to have a working thickness of 30 ft. The coal supply of the Colony would appear to be practically inexhaustible, having been estimated at 23,950 square miles, representing many hundreds of millions of tons of this fuel. . . . . The collection as a whole cannot fail to be of far-reaching importance to the Colony, which is well represented by it, and not less by Mr. Meyer, who is watching its interests and observing its best traditions. That gentleman has prepared a special edition of the "Year Book of Australia" from that portion devoted to New South Wales, which is replete with useful and interesting information respecting the Colony. There is also a special catalogue of the New South Wales exhibits which is presented to visitors.

The Morning Post, 22nd August, 1890.

The Exhibition of Mining and Metallurgy.

If any person has a fancy to discover veritable "sermons in stones," or to realise in a practical manner what vast treasures our modern civilization derives "out of the bowels of the harmless earth," he cannot assuredly do better than pay a visit to the International Exhibition of Mining and Metallurgy which is now in course of progress at the Crystal Palace; for, though the collection appeals primarily, and with an especial force to the geologist and to the mining expert, it is by no means to this class alone that its interest or its attractions are confined. To them, no doubt, it marks a distinct and important advance in the progress both of mining enterprise and of geological research, and furnishes, at the same time, a striking ocular demonstration of the results that have been achieved; but it is to the general body of Englishmen—to the non-scientific as much as to the initiated—that the Exhibition teaches its deeper and broader lesson. It reveals, in fact, in a way that has never before been attempted, the untold riches, and the actual and possible resources of our Colonial Empire—resources which, for ages past, have lain buried in the soil, but which are now being explored, utilised, and developed by means of British capital and British enterprise. It is in this fact that the chief charm of the exhibition is to be found. As an international show it is perhaps somewhat disappointing, though, as the first of its kind ever held, either in this or any other country, it was hardly to be expected that it would be able to assume a perfectly representative character. But even the very considerable amount of success that would, no doubt, have attended the efforts of the committee in this direction, was rendered impracticable by reason of the extremely short space of time that was allowed in which to bring the exhibits together. It is a marvel, indeed, that so good a show is the result, considering that the exhibition opened barely four months after the issue of the prospectus. By a liberal use of cablegrams, however, the colonial sections have been brought to a remarkable state of perfection, and in spite of the limit of time, many foreign nations are well represented. The Governments who take part in the Exhibition officially are those of New South Wales, South Australia, Western Australia, New Zealand, Natal, Servia, Mexico and the Republic of Uruguay, while, in addition to these, a large number of most interesting exhibits has been contributed by the leading mining companies of Great Britain, Ireland, France, Belgium, Spain, Portugal, Germany, Prussia, Austria, Switzerland, Servia, Norway, Sweden, Greece, Corsica, Sardinia, Italy, United States of America, the Dominion of Canada, Mexico, Honduras, Venezuela, Uruguay, Chili, Columbia, India, Siam, Pahang, Burmah, Borneo, Cape Colony, South African Republic, Orange Free State, New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, New Zealand, and New Caledonia.

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The place of honour in the South Nave is very properly accorded to the Government of New South Wales, whose contributions, occupying also a portion of the east gallery, are by far the largest, and in some respects the most interesting in the collection. They comprise chiefly specimens of coal, gold, copper, silver, tin, iron, antimony, lead, and zinc, asbestos, chromite and manganese, bismuth, building stones, marble, gemstones, and alum. Most of the ores and minerals are effectively arranged in conic formations, and the monotony is relieved by the many varieties of colours. Thus, the sombre hue of the coal is set off by the delicate blue and green tints of the copper ores, the silver of the antimony, and the crystal appearance of the lode tin. Towards the southern end of the Palace, a massive silver column, reaching nearly to the roof, and surmounted by a figure of Atlas supporting the Globe, proclaims that the output of silver at the Broken Hill Proprietary Mine, Barrier Range, amounted, from May, 1886, to July, 1890, to 16,500,000 oz. The quartz crystals from the Peel River, exhibited by Mr. Isaacsohn, are among the most beautiful of the minerals in appearance, though possibly the stands devoted to samples of gold and silver will attract the greatest share of attention. In the gallery some mining curiosities are exhibited in the form of

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ossiferous clays, fragments of upper coal measures bearing the distinct impress of leaves, and specimens of upper marine beds on which are equally distinct impressions of shells. The slabs of marble, which also form part of the New South Wales section, in the gallery are particularly beautiful, especially the pieces of serpentine marble from Bingera, which are of a bright mottled green, and the brilliant red specimen of jasper and quartz from Bald-hill. The section also contains samples of Kaolin (China clay) and a large variety of polished woods.

The Mining Journal, 16th September, 1890.

It is no disparagement to the other large exhibitors at this Exhibition to state that undoubtedly the finest, as well as the largest collection in the Crystal Palace is that made by the Government of New South Wales. As soon as the intention to promote an Exhibition had assumed a firm basis, the Government of New South Wales arrived at a decision that the holding of the Exhibition presented a favourable opportunity for bringing under the notice of the British public an adequate representation of the varied and extensive mineral resources of our oldest Colony. Sir Saul Samuel, the Agent-General for New South Wales, was accordingly instructed by cablegram, after having satisfied himself as to the character of the undertaking and its management, to secure the requisite space for the accommodation of the exhibits, and a minimum of 15,000 square feet was applied for and allotted. To carry out the requirements of the Government, a Royal Commission was appointed, and this consisted of the following gentlemen:—Sir Saul Samuel, K.C.M.G., C.B., Agent-General for New South Wales; the Hon. Chas. Jas. Roberts, C.M.G., M.L.C.; Mr. Francis Abigail, M.P., late Minister for Mines in the Colony; Mr. C. S. Wilkinson, F.G.S., F.L.S., New South Wales Government Geologist; and Messrs. Oscar Meyer, J. R. Fairfax, W. Knox, and S. H. Cox, F.C.S., F.G.S. For the practical carrying out of the work, Mr. Oscar Meyer was appointed Executive Commissioner, and Mr. C. S. Wilkinson, Geological Director, the latter gentleman having as his chief assistant, Mr. J. E. Carne, Curator of the Mining and Geological Museum, Department of Mines, Sydney.

As was fitting, such a superb collection of the mineral resources of one of our greatest colonies, and also owing to the great weight of many of the trophies and leading items in the display, the South Nave of the Crystal Palace was allotted to the New South Wales Government. . . . . A large collection of minerals had been exhibited by the Government at Dunedin, in the New Zealand and South Seas Exhibition, and it has formed the nucleus for the more extensive display now in London. Recognising the greater importance of bringing forward a large collection at this Exhibition, the Government caused steps to be taken for supplementing the exhibition shown at Dunedin. In this direction the efforts of the Department of Mines, Sydney, as authorised by the Hon. Sidney Smith, M.P., Minister for Mines and Agriculture, proved successful, and the result is that we have now at the Crystal Palace, undoubtedly the finest, as well as the largest collection of minerals ever brought together by one Government or country.

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For the present it will suffice if we acknowledge the indebtedness of mining investors, capitalists, and the mining public generally in this country to the enterprise of the New South Wales Government in placing before them such a splendid *exposition* of the richness of the Colony in minerals. No such opportunity as the present Exhibition has hitherto presented itself, and New South Wales not only resolved to seize it, but to go into the matter thoroughly—heart and soul—and make a show which is an eye-opener to nine out of every ten persons in the old country. The Colony, its Government, and the Commission entrusted with the arrangement and exhibition of the minerals, are alike heartily to be congratulated.

The Mining World, 16th August, 1890.

The New South Wales Exhibits at the International Mining Exhibition at the Crystal Palace.

It is doing no injustice to the exhibits from other parts of the world now on view at the Crystal Palace when we say that those from New South Wales incomparably excel them all. Had there been no other exhibit but this, it alone would have been worth a journey to Sydenham to see. . . . . The display as a whole has unquestionably been the leading feature of interest to the many thousands of visitors who have already attended the Exhibition. The value of the minerals raised in New South Wales during the ten years ending 1841 was £81,275; 1851, £634,937; 1861, £14,276,637; 1871, £16,638,574; 1881, £23,441,890. It will thus be seen that the mining record of New South Wales is one of which that Colony has no reason to feel ashamed. The value of the minerals raised last year alone was £4,780,364. The display of coal is very remarkable. Only since 1830 have the coal measures, which are said to embrace an area of nearly 24,000 square miles, been worked. The seams vary from 3 ft. to 30 ft. in thickness, and there are now 103 collieries at work, employing 10,277 miners and others. The value of the coal raised to the end of 1889 was £22,787,155; and, in addition, there are two mines at which valuable seams of petroleum oil, cannel coal, or kerosene shale are being worked. There are three principal coal mining centres widely distributed, and Sir Saul Samuel, in his speech at the opening of the Exhibition, foreshadowed a time, which, for the sake of the mother country, we hope may be remote, when New South Wales coa will be

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sent here. . . . By direction of Mr. Oscar Meyer, the Executive Commissioner for New South Wales, the Australian exhibits in the display of mining and metallurgy at the Crystal Palace will be augmented in a day or two by a panoramic exposition of the manner adopted by Australian gold-diggers for abstracting the precious metal from the auriferous deposits of a watercourse. There will also be a panorama showing an adit into a coal mine, properly timbered up.

Iron, No. 921, London, Friday 5th, September, 1890.

THE MINERAL STATISTICS OF NEW SOUTH WALES FOR 1889.

To an untutored mind a visit to the excellent Mining Exhibition now being held at the Crystal Palace, will doubtless convey a better impression of the mineral resources of our Colonies than any array of dry figures. An expert, on the other hand, can scarcely fail to derive satisfaction, both on account of the extent and variety of the exhibits and of the orderly way in which they are displayed. But while the latter can comprehend the significance of the various minerals and ores which are exhibited, the former must adapt the biblical injunction in his case, and accept "what is set before him, nothing doubting," seeing that in the great majority of cases, the minerals for which it is claimed that they carry a certain percentage of gold, copper, tin, or whatever the case may be, might be any ordinary bits of stone for all the appearance they have to the contrary. It is, at least, interesting to know that such unpromising pieces of rock can be made to yield great riches for the use of mankind, and a valuable lesson may, perchance, be administered to some sanguine individuals by the conviction which is sure to be borne in upon them that even in these rich mineral regions of the globe wealth is not to be had merely for the picking up, but that, before the earth will yield its treasures, it must be wooed patiently, industriously, and by the help of those appliances and that knowledge which are the expression of the experience of past generations of toilers. The present Exhibition might fittingly be termed "Australasian," because of the preponderating position which these Colonies occupy; and amongst them the palm must undoubtedly be awarded to New South Wales, on account of the number and character of its exhibits, which range from coal—useful, but perhaps a little vulgar—to the lordly gold and the princely diamond. Such being the case, this short reference to the Exhibition will not be deemed an unfitting introduction to a brief review of the leading features of the mineral statistics of that Colony for last year.

The production of coal in New South Wales continues to improve steadily, and reached last year a total of 3,655,632 tons, showing an improvement upon 1888 of 452,188 tons. The rate of increase last year was considerably greater than in any previous year, and made the output double what it was in 1881, when it amounted to only 1,769,597 tons. The expansion in 1889 appears to have been entirely the result of a better outside demand, the home consumption actually showing a small decrease. The shipments to intercolonial ports, which in 1888 amounted to 1,039,764 tons, reached last year a total of 1,310,228 tons; and the export to foreign countries increased from 884,108 tons to 1,077,474 tons. It was, however, in the production of silver that New South Wales last year made the most remarkable advance, the total value having risen from £1,142,405 in 1888 to £1,971,198 in 1889.

The Pall Mall Gazette, 18th August, 1890.

THE METALS AND MINERALS OF NEW SOUTH WALES.

OF all the countries in the world that have yet exhibited specimens of their mineralogical and metallurgical resources at international exhibitions, perhaps not one has equalled in exhaustive completeness that presented at the Crystal Palace by New South Wales. Since the opening, three weeks ago, chronicled at the time in the *Pall Mall Gazette*, arrangements have been so matured that the mineral wealth, the industrial progress, and the metallurgy of the great province are now adequately represented. In the South Nave, ground floor, and on the Gallery overlooking it, some 15,000 ft. of space is fully occupied, under the superintendence of Mr. Oscar Meyer, the Executive Commissioner, who has an efficient lieutenant in the Curator of the Sydney Museum. The exhibits of gold, copper, silver, iron, zinc, tin, antimony, and coal are now scientifically classified; and the Commissioners who came to this country have excited so much interest by their striking Exhibition that already English and American syndicates who have viewed the specimens at the Crystal Palace have despatched parties to Sydney and Melbourne to investigate the resources thus efficiently represented. On the other hand, a deputation from the New South Wales Commission is now in Northumberland inspecting the latest mining improvements in that region, with a view to adopting any that may prove advantageous, and of comparing notes with experts as to the treatment of newly-discovered refractory ores—as, for instance, the elimination of a large percentage of gold from zinc ore. So soon as the Geological Museum in Jermyn-street re-opens, after the August recess, it is intended to have a gathering of the mineral *cognoscenti* at that centre, and important improvements may fairly be looked for. The magnificent silvered column or trophy which forms the central object in the collection represents in bulk the actual quantity of ore extracted from one mine, (the Broken Hill Mine) of New South Wales, between July, 1886, and July, 1890—an annual yield of 4,500,000 oz., a total yield in four years of 18,000,000 oz. of pure silver.

The

The Courant, Newcastle, 20th August, 1890.

To visitors to London I would say by all means pay a visit to the Mining Exhibition just opened at the Crystal Palace. The exhibition is an unique, as to the like of it has never been attempted before in this country. It is curious that the credit of the Exhibition, as an unquestionably large and attractive one, belongs to the Colony of New South Wales, which has displayed wonderful enterprise and enthusiasm in the matter. That Colony's ex-Minister for Mines, Mr. Abigail, M.P., informed me a short time back that at first the Palace authorities had intended relegating the exhibition to one of the galleries, and arrangements were in progress with that view when he landed here over a month ago. He quickly let them understand that if that intention were persisted in, the affair would end in a complete *fiasco*, if not disaster. The shiploads of minerals from his Colony alone, he pointed out, would, if staged in any of the galleries, be the effect of bringing that structure bodily down by the mere pressure of sheer deadweight.

One can see, from the extent and size of the exhibits from New South Wales, that these alarming representations were more than justified. A striking feature of the Colony's display is a silver column 75 feet high, bearing a figure of Atlas carrying the world on his shoulders. This is made to represent the annual output of silver from New South Wales, amounting in all to slightly over 16½ million oz., from 1886 to 1890. At the opposite end of the South Nave are piles of coal illustrative of another phase of the mineral wealth of New South Wales—a Colony which appears to be exceptionally rich in minerals of all descriptions.

The Middlesex County Times, 30th August, 1890.

One of the leading features of the International Exhibition of Mining and Metallurgy at the Crystal Palace is the magnificent collection of gold, silver, and other mineral specimens from New South Wales, illustrating the rich character of

The Vast Mineral Resources

of that Colony. It has been arranged under the superintendence of Mr. Oscar Meyer, the Executive Commissioner appointed by the New South Wales Government, in conjunction with Mr. C. S. Wilkinson, the Government Geologist and also a Commissioner for the Exhibition, and includes several enormous blocks of coal, showing the great thickness of the principal seams, several of which have a working thickness of nearly 10 feet. In some parts of New South Wales the coal crops out on the face of the hills, and is cheaply got by driving tunnels. The coal supply of the Colony is practically inexhaustible, the approximate area of the carboniferous strata being estimated at 23,950 miles, representing many hundreds of millions of tons of the valuable fuel. There are also several specimens of boghead mineral, one of which yields over 130 gallons of crude oil, or 18,000 cubic feet of 40-candle gas, per ton. The gold specimens are extremely rich, one from a quartz reef at Temora containing 238 oz. of gold. The quantity of auriferous land in the Colony is considerable, payable quartz being found at great depths. From one reef in the Armidale district, 1,307 tons of stone yielded 17,293 oz., being an average of over 13 oz. per ton. The specimens of silver and silver ore are equally interesting, and even in some respects, more remarkable, especially those from Broken Hill—the "Silver City" of Australia—where, between May, 1886, and May, 1889, no less than 9,756,977 oz. of silver were obtained from the Proprietary Mine alone. Previous to the Broken Hill discoveries, the principal silver lodes were at Boorook, a specimen from which, consisting of chloro-bromide of silver, quartz, and pyrites, shows, by assay, 275 oz. of silver to the ton. There are also 5 tons of stone, representing an enormous body of ore, which is being quarried from the face of a high cliff, known as the White Rock. The specimens of tin show that New South Wales is a formidable rival to Cornwall, the approximate area of the tin fields of the Colony being 5,440,000 acres. The richest portions are in the northern districts. Copper, antimony, bismuth, zinc, mercury, and other metals are well represented, as is also iron, immense deposits of which are found in close proximity to coal and limestone, some of the ores giving over 60 per cent. of iron. There are also numerous specimens of diamonds and other gem stones, including several fine examples of emerald, sapphire, topaz, opal, garnet, jasper, and beryl. It is said that over 50,000 diamonds have been obtained up to the present time, the largest being about 5½ carats, and that diamond mining is likely to become an important industry in the Colony. Many of the diamonds are used for drills, and one of these, from Bingera, used in a Government diamond drill, bored 1,267 feet through sandstone and conglomerate without fracture.

The Manchester Guardian, 2nd August, 1890.

The Mining Exhibition at the Crystal Palace.

(From a correspondent.)

"The International Exhibition of Mining and Metallurgy" now open at the Crystal Palace is only a partial success. A casual spectator might wander round it and come away with the impression that it was an exhibition of the mineral products of New South Wales and South Australia. In reality there are, or should be, exhibits from a large number of countries, but most of them are only represented by a few trifling things, and England, whose mining industries are so huge, is practically absent. Nevertheless, the exhibition has no little interest, for New South Wales has sent a splendid selection of her minerals, and many people will learn, probably for the first time, that New South Wales is, with regard to its minerals, nearly, if not quite, the

richest

richest country in the globe. In fact it contains every mineral which has a considerable commercial value. From it we have coal, gold, silver, iron, lead, tin, copper, diamonds, rubies, emeralds, topazes, sapphires, and other precious stones and ores. A man goes away with quite new ideas about New South Wales and South Australia, which he probably would not have gathered had these colonies been insignificant items in a vast whole. One of the most remarkable exhibits is a trophy in the form of a pillar reaching nearly to the top of the Crystal Palace, and surmounted by a figure of Atlas supporting a globe. The pillar is 75 feet high, and represents the total take at the Broken Hill Silver-mine up to the present—namely, 16,500,000 ounces. Another noteworthy exhibit is that of the West Maitland Coal-mine, which shows a seam no less than 30 feet thick. The specimens of auriferous rocks are numerous, and a nugget is shown worth £1,300. New South Wales is peculiarly rich in tin, and according to official reports the value of the tin produced up to the end of 1889 was £8,925,523. It is thought by some that diamond-mining in this Colony will become an important industry. Up to now 50,000 diamonds have been found—chiefly in tertiary gravels—the largest weighing a fraction over 16 grains. In the gallery may be found a small but very interesting collection of New South Wales fossils. The fish are particularly good, and so distinct that some of them seem to be "process engravings" on slabs of stone. There are also many remains of marsupial mammals, and a few specimens of aboriginal stone axes. South Australia, which comprises about one-third of the whole area of the continent, has been very energetic in collecting evidence of its mining wealth. It contains some gold, but obviously its chief industries are concerned with lead and copper. In South Australia are also to be found most of the earths—such as ochres and siennas—used by painters. These two colonies, New South Wales and South Australia, have fully equipped exhibitions. Their specimens are well arranged, and there are large maps and other things to help the spectator. All else in the exhibition is fragmentary and nearly valueless. Occasionally, indeed, we may suspect—perhaps not without reason—that the opportunity has been utilised by speculative mining companies or their promoters. But a fine collection of crystals from Mexico should not be unnoticed, nor the cylinders of rock, resembling the columns of cheese produced by a cheese-scoop, which are brought up by the diamond cutting machine. Some of these cylinders are about a foot in diameter, showing the enormous power of the machines. To sum up, the exhibition is an excellent display of the mineral wealth of two Australian colonies, and little or nothing more. Perhaps it is none the worse for this.

The Daily Chronicle, 4th August, 1890.

ENGLISH people have not a very correct notion of Australia. They know it mainly as a place for great sheep runs, for "roughing it in the bush," for carrying revolvers for self-protection, and for wearing a red flannel shirt and a wide-awake hat. The maps show that it is true there are still pasture districts suited for grazing not yet occupied, where big sheep runs may be made; that there are still districts where alluvial or river carried gold may be had by washing, that the adventurous young spirits like those who have before gone out to make Australia what it is, and wish for roughing it in the bush, can still find squatting ground; but the steadier minds will look to the maps and books for other information about railways, telegraphs, good harbours, government regulations for law and order and safety of life and property, postal arrangements, papers with news by cable, and the means of educating their children. And when the age of these colonies is considered the facts with regard to them are astonishing. The railways and telegraphs are, like the post, Government property, and the public libraries that are founded circulate boxes of books to remote districts. The geological surveys that have been made put those who contemplate going out in a very different position from those who first went out, for the character of the ground and the minerals it yields are mapped. It is mentioned that some of the earlier settlers lived on year after year in the miserable "scrub" without even dreaming of the mineral wealth a few yards below them. A most remarkable point to notice in the official returns is the recent date of the opening of mines, and the State geologists' reports of rich mineral districts, where no mines yet exist. People have not now to go "prospecting" where to work; the complaint is more mineral sites have been indicated than there are people to work them. Capital is rapidly being invested, and this must mean that labour will be wanted; but it must be to a large extent skilled labour. New methods of dealing with ores have been invented, and suitable machinery has been constructed, and much of it is going out. The machinery court furnishes a good idea of the kind of machines that will need supervising. Railways are doing away with long tedious bush journeys, and making it possible to put mineral and agricultural produce into a port at prices that will pay. A country so vast will be long before over-population is a trouble, and the statistics of progress show that its natural wealth will for long remain unexhausted.

Southport Visitor, 18th September, 1890.

THAT mining is an important industry in New South Wales has been abundantly shown this summer by the magnificant collection of gold, silver, and other mineral specimens brought from thence, which form one of the leading features of the International Exhibition of Mining and Metallurgy at the Crystal Palace, and which amply illustrate the rich character of the vast mineral resources of the Colony. It includes several enormous blocks of coal, showing the great thickness of the principal seams, several of which have a working capacity of nearly 10 feet. The coal supply is easily and cheaply obtained,

obtained, and is practically inexhaustible. Several specimens of oil-yielding minerals are also shown, the product of which is of high illuminating power—about twice as good, in fact, as the Southport gas supply. The gold specimens are extremely rich, and the quantity of auriferous land in the Colony is extensive. . . . These facts about a most important country might easily be extended, and we fancy that so far as they go they will be read with interest.

Highland News, 27th September, 1890.

AT THE INTERNATIONAL EXHIBITION OF MINING AND METALLURGY, IT DISTANCES ALL OTHERS.

THERE is presently being held at the Crystal Palace, London, an exhibition of mining and metallurgy which has not attracted as much notice as its importance deserves; but the public are not alone to blame. With the exception of New South Wales, the various countries asked to take part in the exhibition made a lamentably small show—poor it cannot be said, as there is no lack of gold specimens—due, it is stated, to the short time given for the preparation and shipment of specimens. Better, however, had some of the countries taken no part at all, as visitors go away with an entirely erroneous idea as to their mineral resources. New South Wales more than makes up for the shortcomings of the other Australasian Colonies, and its Government deserves the highest praise for giving the British public an opportunity of gaining at their own doors some knowledge of the magnificent mineral resources of that portion of Greater Britain. . . A representation of miners working on a coal out-crop and at alluvial gold washing (everything being on full scale, even to the figures of the men) having been visited, the main body of the exhibits were gone over. Divided into sections, the visitor could begin with the Coal Measures and finish with the Silver Ores, or *vice versa*, the iron, tin, lead, copper, gold, and other metalliferous ores being ranged between. In most instances bulk samples were shown, and in order to convey some idea as to the appearance *in situ* the various products from a mine were arranged in pyramids in the order in depth in which they are found. Over each hung a small banner giving the name, and in some instances particulars of the mine. . . . All the indications point to the conclusion that New South Wales, by reason of its known productiveness, independently of what is conjectured as to future developments, is destined to be one of the principal mining countries of the world.

Iron, 17th October, 1890.

THE Exhibition has certainly been unique of its kind, but had it not been for the magnificent collection from New South Wales, which filled the South Nave and part of the galleries above, it would have assumed very dwarfed proportions. The Exhibition can hardly fail to have a favourable reflex action upon the colonies represented, particularly the one just referred to; nor can this favourable reaction be otherwise than greatly promoted by the unflagging energy of Mr. Oscar Meyer, the Executive Commissioner of the New South Wales Government.

[1*s.* 9*d.*] Sydney: George Stephen Chapman, Acting Government Printer.—1891.

1891.
(SECOND SESSION.)

NEW SOUTH WALES.

MINING ACT OF 1874.

(REGULATION RELATING TO LEASES UNDER THE.)

Presented to Parliament, pursuant to Act 37 Vic. No. 13, sec. 59.

Department of Mines, Sydney, 21 July, 1891.

REGULATION UNDER THE MINING ACT OF 1874.

His Excellency the Governor, with the advice of the Executive Council, has been pleased to adopt the following Regulation as a Regulation under the Mining Act of 1874.

[91–14,186.]

SYDNEY SMITH.

Notice of time fixed for hearing an application for permission to suspend work on a Gold-mining Lease.

When an application shall have been made to the Warden, in terms of the Mining Act of 1874 and the Regulations thereunder, for permission to suspend work on any Gold-mining Lease which shall have been duly registered, the Warden shall appoint a time and place for hearing such application, and shall cause to be posted up at the Warden's Office nearest the land demised under the lease particularised in such application, and to be served, where practicable, upon the holders of adjoining claims or leases, a notice under his hand, stating the time and place appointed by him for hearing the said application: Provided that such notice be given at least seven days prior to the date fixed for the hearing of the application for permission to suspend work.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

CASE OF PATRICK BROWN.

(PETITION FROM PATRICK BROWN PRAYING TO BE HEARD PERSONALLY OR BY COUNSEL BEFORE THE SELECT COMMITTEE ON.)

Received by the Legislative Assembly, 18 *January*, 1892.

To the Honorable Speaker and Members of the Legislative Assembly of New South Wales in Parliament assembled.

The humble Petition of Patrick Brown, of Sydney,—

RESPECTFULLY SHOWETH:—

1st. That a Select Committee has been appointed by your Honorable House, with power to send for persons and papers, to report upon the case of Patrick Brown in regard to certain interests in gold or mineral leases.

2nd. That your Petitioner is the said Patrick Brown, and being largely interested in the question to be considered by the said Select Committee, your Petitioner is advised that it is highly desirable that he should be represented before such Select Committee.

Your Petitioner therefore humbly prays that your Honorable House will be pleased to grant him permission to appear before the said Committee, in person, or by Solicitor or Counsel, and, if necessary, to adduce such evidence and send for such persons and papers as your Petitioner may be advised, together with power to examine and cross-examine witnesses called before the said Committee.

And your Petitioner, as in duty bound, will ever pray.

PATRICK BROWN.

[8*d*.] 659—

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON THE

CASE OF PATRICK BROWN,

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND

APPENDIX.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,

11 *February*, 1892.

SYDNEY: CHARLES POTTER, GOVERNMENT PRINTER.

1892.

[1s] 646—A

1891–2.

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 67. MONDAY, 21 DECEMBER, 1891.

13. CASE OF PATRICK BROWN :—*Mr. Melville*, for Mr. Neild, moved, pursuant to Notice :—
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the case of Patrick Brown, in regard to certain interests in gold or mineral leases.
(2.) That such Committee consist of Mr. Sydney Smith, Mr. O'Sullivan, Mr. Frank Farnell, Mr. Tonkin, Mr. Wall, Mr. Marks, Mr. Torpy, Mr. Perry, Mr. Vaughn, and the Mover.
Question put and passed.

VOTES No. 72. MONDAY, 18 JANUARY, 1892.

5. CASE OF PATRICK BROWN :—Mr. Neild presented a Petition from Patrick Brown, of Sydney, praying that he may be heard personally or by counsel or solicitor before the Select Committee, appointed to inquire into and report upon his case in regard to certain interest in gold or mineral leases.
Petition received.
Mr. Neild (*by consent*) moved, without Notice, That the prayer of the Petitioner be granted.
Question put and passed.

VOTES No. 84. THURSDAY, 11 FEBRUARY, 1892.

9. CASE OF PATRICK BROWN :—Mr. Neild, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before, the Select Committee for whose consideration and report this subject was referred on 21st December, 1891; together with Appendix.
Ordered to be printed.

CONTENTS.

1891–2.

CASE OF PATRICK BROWN.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly appointed on 21st December, 1891, "*with power to send for persons and papers to inquire into, and report upon, the case of Patrick Brown, in regard to certain interests in gold or mineral leases,*"—have agreed to the following report:—

Your Committee having examined the witnesses named in the List* (whose evidence will be found appended hereto), find :— See list, p. 5.

(1.) That in the month of July, in the year 1879, the said Patrick Brown made application in person to the Crown Lands Agent at Carcoar for two blocks of 40 acres each as mineral conditional purchases in the county of Bathurst, parish of Dunleary.

(2.) That the said applications were refused and disallowed by the Lands Department upon the ground that the land comprised in such applications was under promise of mining lease.

(3.) That such refusal and disallowance was improperly made, according to the judgment of the Full Court in *re* King *versus* M'Ivor, delivered in the month of May, 1883.

(4.) That the cancellation of the said promise of gold-mining lease having been gazetted on the 18th of November, 1879, the said Patrick Brown applied through his agents to the Crown Lands Agent at Carcoar for the said land as mineral conditional purchases, and paid the moneys necessary to secure the same, together with survey fees, and subsequently made further payments to the Crown in respect of the said selections, all such acts being done and such payments being made in accordance with the practice of the Department.

(5.) That upon selecting such land the said Patrick Brown proceeded to work the same as a copper-mine, and expended thereon the sum of about £10,000, working the mine profitably, and receiving proposals to sell the same for sums varying from £15,000 to £20,000.

(6.) That while negotiations were pending for the sale of the said mine, the ground was jumped by certain gold-miners, against whom an award was made by an Appraisement Court sitting at Carcoar.

(7.) The said jumpers—Patterson and others—refusing to vacate the ground, the said Patrick Brown proceeded against them in the Supreme Court, when, after extensive litigation, in both the Common Law and Equity jurisdictions, the case was finally decided against Brown, upon the ground that his applications, being made through an agent, and not in person, were *ultra vires.*

(8.) That immediately after such judgment a Bill was introduced into Parliament and passed into law validating all selections made through agents, the preamble to such Act, 46 Vic. No. XVIII, reciting "Whereas it has been held that certain conditional purchases under the thirteenth, nineteenth, and twenty-first sections of the Crown Lands Alienation Act of 1861 are invalid

invalid by reason of the applications having been tendered through agents for the applicants: And whereas many such conditional purchases have been made from time to time and dealt with as valid, and it is expedient that the same should be declared valid in law."

(9.) That the said selections of the said Patrick Brown were not validated by the said Act, 46 Vic. No. XVIII, and that he was wholly dispossessed of the same, suffering loss of the property and the moneys expended thereon, together with loss of prospective profit upon the contemplated sale of the said land.

(10.) That such loss was occasioned by the wrongful acts of the Government Departments, and their misinterpretation of the provisions of the Crown Lands Acts.

2. Your Committee respectfully recommend the case of the said Patrick Brown to the favourable consideration of the Government.

JNO. C. NEILD,
Chairman.

No. 2 *Committee Room,*
Sydney, 11*th February*, 1892.

PROCEEDINGS OF THE COMMITTEE.

TUESDAY, 19 *JANUARY*, 1892.

MEMBERS PRESENT:—

Mr. Neild, | Mr. Marks,
Mr. Wall, | Mr. Frank Farnell.

Mr. Neild called to the Chair.

Entries from Votes and Proceedings appointing the Committee, and granting leave to Patrick Brown to by represented by counsel, *read* by the Clerk.

Committee deliberated.

Patrick Brown called in, sworn, and examined.

Witness *handed in* a judgment of His Honor the Primary Judge in Equity in the case of Brown and others *v.* Patterson and others. [*Appendix* A.]

Witness withdrew.

Ordered,—That T. B. Walker and the Under Secretary for Lands be summoned to give evidence at next meeting.

[Adjourned till Thursday next, at *Half-past One* o'clock.]

THURSDAY, 21 *JANUARY*, 1892.

MEMBERS PRESENT:—

Mr. Neild in the Chair.

Mr. Perry, | Mr. Torpy,
Mr. O'Sullivan.

Alfred Salwey (*Head of the Conditional Sales Branch, Lands Department*) called in, sworn, and examined.

Witness *produced* the Crown Lands Alienation Act, Crown Lands Occupation Act, Lands Acts Amendment Act, Precedent Book showing various decisions on Crown Lands cases, Instructions to Crown Lands Agents, and all papers, correspondence, &c., dealing with the case.

Witness withdrew.

Thomas Benjamin Walker called in, sworn, and examined.

Witness *handed in* a statement showing the receipts and disbursements by Patrick Brown and party in respect of copper-mine and mineral conditional purchases. [*Appendix* B.]

Witness withdrew.

Committee deliberated as to their report.

[Reassembling of the Committee to be arranged by the Chairman.]

WEDNESDAY, 10 *FEBRUARY*, 1892.

MEMBERS PRESENT:—

Mr. Neild in the Chair.

Mr. Marks, | Mr. Wall.

Chairman submitted draft report.

Same read, and agreed to.

Chairman to report to the House.

LIST OF WITNESSES.

1891–2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON

CASE OF PATRICK BROWN.

TUESDAY, 19 *JANUARY*, 1892.

Present:—

MR. FRANK FARNELL, | MR. WALL,
MR. MARKS.

JOHN CASH NEILD, ESQ., IN THE CHAIR.

Patrick Brown called in, sworn, and examined :—

1. *Chairman.*] You are the Patrick Brown whose interests are involved in this inquiry in reference to certain mineral lands? Yes. Mr. P. Brown. 19 Jan., 1892.
2. Some time in the year 1879 you took up land in the Carcoar district for the purpose of copper-mining? Yes.
3. And some time subsequently you applied through an agent to the Crown Lands Agent at Carcoar for two additional selections? Yes; originally, I applied in person.
4. And your first application was set aside by the department on account of the ground you applied for being under promise for a gold-mining lease? Yes.
5. Then you made a fresh application? Yes; the gold-mining lease was cancelled. I was obliged to wait until it was gazetted.
6. When the forfeiture was gazetted you made a fresh application? Yes, through the late Mr. Farnell.
7. *Mr. Wall.*] Do you know the date of your first application? No.
8. Your personal application was made before your application by an agent? Yes.
9. You do not know how long before? No; I was obliged to wait until the land was gazetted.
10. *Chairman.*] The dates of your different applications would be correctly shown in the petition which you some time ago presented to Parliament? Yes.
11. The second application through the late Mr. Farnell was made to the Crown Lands Agent at Carcoar? Yes.
12. And your application for these two blocks was granted? Yes.
13. What was the area? The two blocks consisted of 40 acres each.
14. You made the necessary payments and went into possession? Yes.
15. About how long did you remain in possession? Two or three years.
16. Do you know about the amount you paid? No, I forget. I shall be able to obtain other evidence on that point.
17. You commenced mining operations upon the land? Yes.
18. Did you commence those operations within a reasonable time, or did you hold for the purpose of sale? I commenced operations at once. We had freehold property adjoining these blocks and the men were working there.
19. You had some freehold property adjoining these blocks, and you worked the whole as one mining property? Yes.
20. You took up these two additional blocks in order to make your first selection valuable? Yes.

Mr. P. Brown. 19 Jan., 1892.

21. During the two or three years that you held this land did you expend much money in working the mine? Yes.
22. Could you give the Committee any idea as to the amount? Not at the present time. I was not prepared to give evidence to-day.
23. Have you any witnesses who could give the information? Yes.
24. You worked these blocks as a kind of company did you not? Yes.
25. Who was the manager of the company? Mr. T. B. Walker.
26. While you were working the mine was any offer made to you by anybody to purchase it? Yes.
27. Was there a large sum or a small sum offered for it? £21,000 was offered for it by a Melbourne company.
28. And you were willing to sell for that? Yes, but a lawsuit cropped up.
29. What were the grounds of the lawsuit—the ground was jumped, was it not? Yes, by some gold-miners under their miners' rights.
30. What did you do with them? We went to law with them.
31. What was the first legal step you took? I forget now.
32. Did you proceed against them in the Appraisement Court? There was an Appraisement Court held at Carcoar, but I was not there.
33. The case came before that Court? Yes, we gained it there.
34. Did the jumpers leave? No.
35. What did you do after that? We went to the Court of Equity, I think, for an injunction.
36. You went to one of the branches of the Supreme Court? Yes.
37. What were the names of the jumpers? Patterson and party.
38. Then the case which was tried in the Supreme Court of Brown and others *versus* Patterson and others was your case? Yes.
39. When you went to the Supreme Court, did you get a decision in your favor in the first instance? Yes.
40. And afterwards the two Judges sitting as a Full Court set that aside, I think? Yes, they set it aside on the ground, I think, that I did not make the application in person. The question arose after two or three days trial. Sir James Martin asked the question, "Did Patrick Brown go up in person to take this up?" and of course I said "No." It had been the custom for more than twenty years to grant selections on applications made by agents.
41. Eventually you lost the land in consequence of the decision of the Supreme Court? Yes.
42. And your recollection of the matter is that the Court decided that the Crown Lands Regulation No. 24 was *ultra vires* and illegal? Yes.
43. *Mr. Wall.*] You said you were offered a certain price for the land by a Melbourne company? Yes; before the action took place.
44. Was that for the whole of the land, including these two blocks and the original freehold? Yes.
45. Was it in consequence of your not getting a title for the two blocks that you failed to dispose of the land? Yes; that is exactly the case.
46. Could you make any distinction with regard to the value of the different portions? No; I could not. They were all connected together. There were four 40-acre blocks and a 20-acre freehold.
47. What was the extent of the land the title to which was refused? It consisted of two 40-acre blocks.
48. Then that was not quite one half of your holding at the time? Not quite one half.
49. Did any special value attach to these two blocks more than attached to the other portion of the land? We found the reef going right through it.
50. There was no special value attached to them beyond the value which attached to the other portions? I do not think so.
51. The whole of the land was of equal value in the market at the time? Yes. It was all copper ground. The gold-miners discovered gold upon the portion that became the subject of dispute.
52. Was the gold discovered after you leased the land or prior to it? At the time when we took them off the ground when they found the gold.
53. Could you obtain the evidence of any of the persons to whom the land was offered for sale? Yes; I think so. Mr. Walker would know more about that.
54. *Chairman.*] Do you produce a copy of the report of a judgment by His Honor the Primary Judge in Equity delivered when the case of Brown and others *v.* Patterson and others was heard in his Court? Yes; I hand in a report of His Honor's judgment taken from the *Sydney Morning Herald.* [*Appendix* A.]
55. The proposed sale to the Melbourne company fell through in consequence of your losing the suit? Yes.
56. And you were also prevented by the loss of these two blocks from the profitable working of your land, and you were practically compelled to abandon everything? Yes.
57. *Mr. Farnell.*] Did you spend any money with the view of developing the property? Yes; thousands of pounds.
58. You say you discovered a payable reef going through the identical 80 acres? Yes.
59. You say that the late Mr. Farnell made an application on your behalf for the additional mineral conditional purchase? Yes. The department had been granting leases on the application of agents for over twenty years, and Sir James Martin in his summing up said it was a hard case for me, that mine was the only case that came before the Court. The same week after I lost my case, the Government brought in a Bill, and passed it through the House, validating all the conditional purchases made under similar circumstances, but omitting mine. Sir James Martin said that the leases granted for the past twenty years were null and void, and therefore the Government were compelled to bring in a bill validating those leases.
60. They did so, but omitted to validate your selection? Yes.
61. I believe that this is not the first occasion on which you have asked for the appointment of a Select Committee to inquire into your case? I have been applying for the appointment of a Select Committee for the last four years, but this is the first Committee that has been appointed. On previous occasions the motion for a Select Committee always fell through in consequence of the prorogation of Parliament and other causes. On one occasion, Mr. M'Millan took the matter up, but was unable to carry it through, having accepted the position of Colonial Treasurer.

THURSDAY,

THURSDAY, 21 *JANUARY*, 1892.

Present:—

MR. O'SULLIVAN, | MR. PERRY,
MR. TORPY.

J. C. NEILD, ESQ., IN THE CHAIR.

Alfred Salwey called in, sworn, and examined:—

Mr. A. Salwey. 21 Jan., 1892.

62. *Chairman.*] You are an officer in the Lands Department? Yes, I am head of the Conditional Sales Branch, Department of Lands.
63. Do you produce the papers from the department with reference to the mineral selections of Patrick Brown? Yes. I may say that the original document referring to the conditional purchase in dispute is in the Supreme Court.
64. What is the general nature of the papers you produce? I have copies of the original and letters and correspondence in the matter, and a copy of the judgment of the Supreme Court taken from the *Sydney Morning Herald*.
65. Do the papers contain a copy of the regulations of the department under which additional selections were made by agents? Yes. I may say in the first place that the land in question was not an additional conditional purchase under the 21st section. It was taken up under the 19th section. There are no additional conditional purchases under the 19th section. There is no limit to the area a man may take up under the 19th section. The instructions to Crown Land Agents quoted in the petition by Mr. Brown does not apply.
66. *Mr. Perry.*] Mr. Brown in his petition presented to the Legislative Assembly in 1884, makes this statement, "That the Government and the public have for twenty years been acting under the Minister's interpretation of the Act, that mineral conditional purchases could be made by an agent;"—Is that statement correct? I cannot answer that. I have been trying to find out whether there was anything about that prior to that date, but I cannot.
67. Has the legality of such applications ever been previously questioned? Not that I am aware of.
68. Does the petition referred to fairly state the case? Yes, except that the regulation quoted in the 4th paragraph does not apply in any way to conditional purchases under the 19th section of the Act.

Thomas Benjamin Walker called in, sworn, and examined:—

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69. *Chairman.*] You are an accountant? Yes.
70. And you were manager of a company that was interested in the ownership of certain mineral selections made by Mr. Patrick Brown? Yes.
71. Had you a knowledge of the circumstances connected with the taking up of the ground? Yes, from documentary evidence.
72. Can you tell the Committee whether Mr. Patrick Brown, now present, was the selector of the ground in question? Yes; he was.
73. You know that a petition was presented to the Assembly some time ago by Mr. Brown, seeking redress for alleged loss in connection with two selections? Yes.
74. Are you well acquainted with the contents of that petition? Yes; I drew it up, subject to the revision of a solicitor.
75. You are prepared to swear to the accuracy of the facts set out? Yes.
76. It is in evidence before the Committee that these two blocks of 40 acres each were selected at the end of 1879? Yes.
77. And it is also in evidence that the application and the survey-fees were duly paid to the Crown Lands Agent at Carcoar? Yes; I have the receipts here, if you would like to see them.
78. And that Mr. Brown went into possession of the ground? Yes.
79. Do you know whether the Crown put him in possession or whether he merely went into possession as the result of the acceptance of his application? I do not think anybody went up there to put him into possession, but he went into possession to work for copper ore.
80. Was there more than one payment made? Yes; I think there were three or four payments made.
81. So that the Crown must have known that he was in possession? Yes.
82. How long did he remain in possession? I think about three years altogether—until the end of 1882.
83. He went into possession and expended money upon the ground? Yes.
84. Could you tell us roughly, without the production of papers, about what sum was spent on this mining property? On the whole mining property I suppose they spent about £13,000.
85. I think that is the sum named in the petition? Yes. I have prepared a statement which I hand in to the Committee giving particulars of the expenditure, a large portion of which consisted of law costs and other expenses.
86. This statement shows the receipts and disbursements by Patrick Brown and party in respect of these mineral conditional purchases? Yes, and the property generally. [*Appendix* B.]
87. *Mr. Torpy.*] How much of the £13,000 was spent in mining? I think £9,000 or £10,000.
88. In developing the mine for copper? Yes.
89. Did you get any copper out of it? Yes; we got about £6,000 worth of copper out. The copper would have paid us pretty well so far as that is concerned.
90. *Chairman.*] During Brown and party's ownership of this land—during their undisturbed possession of it—was any offer made to purchase it from them? Yes.
91. You are aware of that of your own knowledge? Yes, the offer was made to me.
92. What was the sum that was offered? They offered £15,000; we wanted £20,000 and an interest in the property. We were in want of capital at that time, and could not go on. These parties from Victoria and Adelaide were at Mount Macdonald looking out for properties, and through Mr. Wright, the engineer, they made us that offer of £15,000. We considered it, and we thought it was not good enough. We wanted £20,000 and an interest in the mine.
93. Had the negotiations terminated when the ground was jumped? They made that offer on condition that we gave them a clear title, and about that very time the gold-diggers jumped the ground.
94. It was jumped before the negotiations finally terminated? Yes.
95. Then the jumping disturbed your title? Yes.

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96. Did you take any step on the jumping of the ground? We first served them with a notice that they were on private land. Then we commenced an action against them for trespass in the Supreme Court in Sydney.
97. Were there any local proceedings? When we gave them notice of the commencement of our action for trespass, they made an application to the Minister for Lands or the Warden for an Appraisement Court to set aside our claim to the land for various reasons. An Appraisement Court was held at Carcoar, and a decision was given in our favour, the Court holding that we were properly entitled to the land.
98. Did the jumpers go out of possession? No
99. They remained in possession and then you commenced an action in the Supreme Court? Yes.
100. What was the first stage? In the first instance the Court gave us a verdict with damages, subject to appeal to the full Court on certain legal points.
101. The case went to the Full Court which set that verdict aside—on what grounds? That the land had not been taken up by Patrick Brown in person.
102. Were there any further legal proceedings? By that decision the ground was declared to be Crown land. The jumpers still continued there. We gave notice of appeal to the Privy Council, and in the meantime we took the case to the Equity Court and asked for an injunction to restrain these men from doing anything on the ground. The Equity Court granted the injunction, and the other side again appealed to the Full Court which set the injunction aside.
103. Is the printed paper produced to the best of your knowledge and belief a copy of the judgment of the Equity Court in which the injunction was granted? Yes.
104. Then after the injunction was granted the jumpers went to the Full Court again, and the Full Court set aside the injunction? Yes, and the jumpers remained in possession. We had, as it were, nominal possession with them, but they still went on working.
105. Then you lost these two selections wholly? Yes.
106. Did the loss of those two selections cause you to discontinue work on the other selections? Yes; it caused the loss of the whole thing. If we had not been dispossessed of those two selections, we should have got the capital to go on with. The two selections contained carbonate or grey ores, and in the principal mine we were working chiefly sulphide ores, and, except at great expense, we could not work these ores without the use of carbonate and grey ores, which we knew to exist in the two 40-acre blocks, because they had been working it there.
107. You did not take the case to the Privy Council? No; we had not any money. We applied to the Government to see if they would give us the money for the purpose, and they declined. All that correspondence was carried on through Messrs. Slattery and Heydon who have the letters with the Minister's answers.
108. *Mr Torpy.*] What is the name of the mine locally? The original 40-acre block was called the Milburn Creek Mine.
109. Is this the old Milburn Creek? Yes, the mine is; but we have nothing to do with any of the Milburn Creek party.
110. This is not the Milburn Creek Mine about which there was a dispute? Yes; the mine in which Baker and party were concerned; but we had nothing whatever to do with them.
111. Did that dispute take place before you were interested in the property? Yes.
112. You took up an abandoned mine then? No; it was never abandoned. When Baker and party were put out the right man was put in, and that was Patrick Brown.
113. And his title was questioned? Not his title to the original mine, which he held as a freehold under the Real Property Act, but his title to these two outside blocks.
114. *Chairman.*] When you speak of the Milburn Creek Mine you do not refer to either of the blocks that are the subject of the inquiry by this Committee? No; the Milburn Creek had nothing whatever to do with these blocks.
115. But you refer to an adjoining block of land held by Mr. Brown? Yes.
116. He owned the block that was originally the Milburn Creek Mine, and selected the two outside blocks? Yes.
117. And these two blocks, now under the consideration of the Committee, have no possible connection with the Milburn Creek claim? No connection at all. They were mineral conditional purchases selected long afterwards in order to secure the whole property.
118. To secure a class of ore that would enable Mr. Brown's other lands in the vicinity to be properly worked? Exactly.
119. Just, for instance, as a man with an iron mine might make additional selections in order to obtain lime? Yes. I had nothing whatever to do with the mine in the Milburn Creek time.
120. Then the substance of your evidence is this; that Mr. Brown not only lost his mine, and about £13,000 expended upon it, and in legal proceedings in his endeavour to obtain it, but he also lost the chance of selling the mine? Yes.
121. And you make these statements to the Committee from your own personal knowledge as manager of the property? Yes. Mr. Brown and the other gentlemen connected with him had full confidence in me and left the management of matters in my hands; in fact they appointed me trustee to the property. Mr. Brown had so much worry and fatigue over the matter that he really could not recollect events properly, so they said they had better have a business man who understood the whole matter and they left the thing to me. Of course we had a Board of Directors who met occasionally.
122. You acted as trustee for all parties? Yes.
123. Has any previous application been made to Parliament in reference to this case? I think Mr. Brown has been trying to bring the matter before Parliament ever since 1883 or 1884.
124. Has there ever been a Select Committee appointed? I think one Committee was appointed, but owing to the prorogation or dissolution of Parliament it did not sit.
125. *Mr. Torpy.*] Is the mine in work now? I do not think it is. The mortgagees subsequenty seized it.
126. I mean the gold-mine? I do not think it is.
127. Was it worked for any time after the miners jumped it? Not very long.
128. It was a failure as a gold-mine? Yes. They simply tried to black-mail us, and if we had bought them out we would have had to buy out half a dozen more.
129. Do they still claim the land? I do not think there is anything doing there at all.

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130. It is anybody's claim? I could not say of my own knowledge—I have not been up there for five or six years. My son was there a year and a half ago, and he said there was nobody at work then. I am almost certain there is no work going on in that block now, although there is on Mount M'Donald, beyond. At the time they jumped this land, there had been a great rush to Mount M'Donald, and there were a great many failures, and the consequence was there were a lot of loafing miners about, ready to pick up anything, and they jumped our ground in order to get us to pay them to go off. But I would not do anything of the sort. I thought we had better have a fight at the first going off, and about forty or fifty of them clubbed together, with the storekeepers in the locality, and they fought us, with the result that we lost.

131. They had a syndicate, then? Yes; I found it out afterwards from the storekeepers, who told me that they were very sorry, as their action had had the effect of destroying the industry in that locality.

132. Did it pay you as a copper-mine? It paid us as far as it went. We got a certain quantity of copper out that paid us. The copper paid us for getting it.

133. But did you exhaust the lode? No, the lode is there still.

134. Is it payable? I do not think it is without the other ores round about. It wants a lot of money to work it. I would not advise anybody to go in for it with any sum under £15,000 or £20,000. There is a big lode running right down—sulphide ores.

135. To prove a claim for compensation it would be necessary to show that a loss in value has been sustained; and if the mine never paid and never would pay, where would the loss come in? It was paying, but we had to knock off.

136. And it has never been worked since? We have never worked it since. At the time the men jumped the two blocks, the property was paying well. We could have worked it, and we could have raised capital on it, and we could have sold it.

137. Copper was higher in value then than it is now? Yes; at that time we were clearing £10 or £12 a ton on our copper.

138. At the time the land was jumped? Yes, they jumped it early. We were working the copper mine from 1879 until 1882.

139. What percentage of copper did the lode contain? It ran from 9 per cent. up to 13 and 14 per cent., and sometimes we would hit upon a plot of good grey ore, and when we got a good sprinkling of that in with our sulphide ore, we got a higher percentage.

140. Did the lode consist of carbonated or oxide ores, or of sulphide ores? The main lode in the 40-acre block contained sulphide ores.

141. What was the depth? We worked down to about 240 feet. There was a lot of water. We worked down to that depth, and we left off, I think, at 9 per cent. ore, or something like that. We ran out of funds, and could not go any further.

142. What class of ore had you on the surface? Gray ores and carbonates. The blow came up perpendicular, I suppose, from a very great depth, and then ran on the surface of the spurs.

143. What was the width of the lode? About 11 feet of solid sulphide ores.

144. Of what nature were the rocks on either side—slate or sandstone? They were not slate; I almost forget now.

145. How deep did you go? About 240 feet.

146. What was the width of the load at that depth? 11 or 12 feet.

147. And its value? I think we left off at 9 per cent. The purchasers from the mortgagees' official assignee have been working it since then; but what they have done I do not know. At the time the men jumped the land we were in a good paying position, but without the funds to go on with. We had the copper going home, but we wanted the money to go on exploring and opening up the rest of the ground—the outside blocks that were taken up, and we cast about to see how we could raise capital. We could have raised capital by shares, but the shareholders did not feel disposed to increase the capital and to throw fresh shares on the market. Then this offer was made to us to purchase, and we thought that if we could get £15,000 or £20,000 cash for the mine and a share in it as well, we would take it. They said, "We will give you £15,000 but you must give us a clear title." They knew that these men were jumping the land at the time. Of course we thought we had a clear title to give them and everything ready, and I was never more taken in in my life, because I have had a good deal to do with business, and I took such care in every possible way to see that there was no flaw in the title, either in connection with the Mines Act or the Lands Act. When we were dispossessed, I felt regularly knocked over, and I refused to take any money for my services.

148. *Mr. Perry.*] Who actually went to the land agent to take the land up? In the first instance Mr. Brown himself went. On the 24th July, he went up there to take up the land. Five blocks or 200 acres. He got notice subsequently to the effect that two of the blocks had not been formally cancelled according to the Act, and that he would have to wait until they were cancelled when he would have to take them up again. They were then cancelled, and the department wrote word down to say that, in accordance with the Land Act Regulations, Mr. Brown having been up there in the first instance, there was no occasion for him to go up again, and that, he being known at Carcoar, a land agent there could take up the land on his behalf. Mr. Brown was known to the Warden, Mr. North, and the land agent at Carcoar was also known, having been there for many years. The land was then taken up without Mr. Brown having to go up there a second time. A similar course had been adopted in the case of selections all over the country under the regulations issued under the Act.

149. Was any objection make by the Crown Lands Agent to the land being taken up by an agent? I knew the land agent personally and had long conversations with him and he never raised any objection to me.

150. *Mr. Torpy.*] What loss do you estimate you sustained? I reckon that we sustained altogether a loss of £13,000, without reference to anything prospective. We spent in hard cash down £6,000 or £7,000, and I reckon that Mr. Brown himself lost a similar sum. His share would be £6,600.

151. *Chairman.*] Mr. Brown's loss was £6,600 apart from any partner? Yes, and apart from any prospective value. He was to have got that sum of money out of the mine from the shareholders and others who joined with him.

152. It would appear from the papers that Messrs. Farnell and Martin were Mr. Brown's agents in Sydney? Yes. Mr. Farnell was Minister for Lands when the ground was first taken up, and he acted

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as our agent subsequently in taking up the mineral conditional purchases. We acted under his advice throughout the whole case, and I was very careful myself, and consulted not only the land agent, but the lawyers so that I could not go wrong.

153. You say that you do not know that the Crown put Mr. Brown in possession of the land. Did the Crown survey these blocks? I do not know of my own knowledge. I know that we paid the survey-fees and everything. They were measured portions.

APPENDIX.

A.

[*To the Evidence of Mr. Patrick Brown, 19th January*, 1892.]

LAW REPORT—SUPREME COURT.

In Equity. (*Before His Honor the Primary Judge.*)

BROWN AND OTHERS *v.* PATTERSON AND OTHERS.

THIS was a suit for an injunction to restrain the defendants from trespassing upon certain land, and from removing any minerals therefrom until the determination of plaintiffs' appeal to the Privy Council. The hearing took place on December 8, and on December 15 his Honor the Primary Judge granted the injunction.

M. Owen, Q.C., and Dr. Donovan, instructed by Messrs. Slattery and Heydon, for the plaintiffs; Mr. Lingen, instructed by Messrs. Shorter, Fitzgerald, and Asher, for the defendants.

His Honor Sir WILLIAM MANNING: This suit was instituted for the sole purpose of obtaining an injunction out of the Equity side of the Court to restrain the defendants from trespassing and mining upon certain lands claimed by the plaintiffs, until after the final determination of an appeal by the plaintiffs, to the Privy Council, against a judgment pronounced by this Court in favour of the defendants, in an action at law. The matter came on before me, upon a motion for the injunction as prayed, on the 8th of last month (December, 1882). The questions were whether this Court had power to grant an injunction pending an appeal to the Privy Council against a judgment of the Court at Common Law? and, whether this was a fit case for exercising the power if possessed? On the first point, council argued upon general principles, and could not refer to any previous decisions in this Colony or elsewhere; nor am I aware of any. The latter point was not very much discussed, but the difficulties surrounding it have pressed very strongly upon me in considering my judgment. At the close of the argument I inclined in favour both of the power and the propriety of exercising it, but I reserved the case for further consideration. On the 15th, I announced my decision to grant the injunction, but intimated that reasons should be given in writing, and that the defendants' right to appeal to Full Court, if so advised, should be retained until after publication. I have since given the case a great deal of attention, which, while it has confirmed my opinion on both points, has also led me to think that the importance and difficulty of the questions, and the respect due by me to the decision of the Court at Common Law, demand a full exposition of the case, and of the reasons for my decisions. The action at law was for trespasses upon 80 acres of land in the county of Bathurst, which the plaintiffs claim as their property. The defendants pleaded, amongst other matters, a plea to the effect:—That the land was, at the time of the alleged trespassing, "Crown land," and that they had lawfully entered into, and worked on it, as such, in virtue of "miners' rights" for the purpose of gold-mining. The cause was tried before Mr. Justice Faucett, in September last. It was shown at the trial that the plaintiffs and several other persons whose interests they now hold had, in November, 1879, taken up the land in question, which was then Crown land, by way of conditional selection, under section 19 of the "Crown Lands Alienation Act of 1861," "for the purpose of mining other than gold-mining," and had duly paid their deposit and otherwise conformed to the provisions of that Act in respect to such purchases; but that their application had not been "tendered in person," according to section 7 of the "Crown Lands Act Amendment Act of 1875" (39 Vict., No. 13). It had been accepted by the Crown, and the plaintiffs had long been in possession and engaged in copper-mining, when the defendants entered as gold-miners, in virtue of "miners' rights." The defendants' counsel contended that the said 7th section of the Act of 1875, which enacts that "every application for a conditional purchase must be tendered in person by the applicant to the land agent of the district," applied as well to conditional purchases for mining as to ordinary conditional purchases; and that a failure in compliance with that provision rendered the plaintiffs' purchase wholly void *ab initio*, so that the land consequently continued to be "Crown land," and was therefore open to the holders of "miners' rights." For the plaintiffs, it was urged that the enactment applied only to ordinary purchases under section 13 and 18 of the Act of 1861—that is to say, for personal occupation and residence, and for pastoral and agricultural and the like purposes. It was shown also that the regulations passed by the Governor in Council subsequently to the Act of 1875 confined the requirement of personal attendance to such purchases; and also that the practice of the Crown Lands Department, from the passing of that Act, had been to recognise and accept applications for mining purposes under section 19, without a tender in person by the applicants. It was also contended for the plaintiffs that if the enactment did apply to mineral selections, the requirement was a condition precedent only, and could be, and had been, waived by the Crown. His Honor the presiding Judge was disposed to adopt the defendants' objection, but he considered it advisable to reserve the point, and to let the case go to the jury for assessment of damages. Thereupon a verdict was returned for the plaintiffs, and the damages were assessed at £25, subject to a reservation of leave for the entry of judgment for the defendants by the Full Court, if it should consider the defendants' objection fatal. In the following term, the Court in Banco was moved accordingly, and the matter came on for argument before the Chief Justice and Mr. Justice Faucett sitting in Banco. Their Honors, after taking a few days to deliver judgment, decided in favour of the objection, and ordered final judgment to be entered for the defendant. The plaintiffs' counsel had pressed for the attendance of a third Judge to hear the case with their Honors, according to the ordinary course; but this being at the time inconvenient to the Bench, their Honors required the argument to proceed; and finding afterwards that they agreed in opinion, and were both clear in that opinion, they considered it unnecessary that the matter should be discussed in a fuller Court. Shortly afterwards the plaintiffs applied to the same learned Judges in Banco for leave to appeal to the Privy Council, and as the rights involved were of greater value than £500, the appeal was necessarily allowed, subject only to securities for costs. The defendants' counsel, at the same time, asked their Honors to dissolve an injunction which has been granted at an early stage of the action under section 47 of the "Common Law Procedure Act of 1857," restraining the defendants from trespassing on the land until further order; and the plaintiffs, on the contrary, prayed the Court to continue or regrant it until after the final determination of the case by the Appellate Court. Their Honors considered that the action had terminated upon the entry of their judgment, and that the existing injunction must fall with it; and upon examination of the Common Law Procedure Act, they were of opinion that it gave them no power to make an order for the injunction during the appeal. They therefore dissolved the existing injunction, and refused the plaintiffs' application; but the Chief Justice said, "This will not prevent the plaintiffs from applying in Equity, if they shall be so advised," and Mr. Justice Faucett stated that he concurred in the opinion of the Chief Justice, principally because they "had no power to act otherwise." Thereupon this suit in Equity was commenced. The ground on which I now uphold the power of this Court, notwithstanding its denial at common law, are that this branch of the Court possesses inherently by its constitution the general authority of the Court of Chancery in England, and that the principles of the jurisdiction of that Court in respect of injunctions, appear to me to apply to an appeal to the Privy Council from the colonial Court as much as to an appeal to any higher Court within the same territorial limits, and applies equally to the parties in an action at common law as to suitors in an Equity proceeding. Whatever may be thought as to the authority of the other branch of this Court to grant an injunction such as is now prayed here, it appears to me that an action at law, instituted in our Court must be regarded as still *subjudice* in the Supreme Court (in such a sense as Equity will recognise for the present purpose) whilst it is under appeal to the Privy Council. Indeed, it cannot be said to be in any sense finally removed out of our own general jurisdiction, seeing that there remains the duty to record and carry into execution the judgment which may be pronounced in the appeal; and that it will be within the power of this Court (and even at common law, as admitted, in case of a judgment for the plaintiffs) to grant, if necessary, a perpetual injunction for the better enforcement of that judgment. The jurisdiction at common law in respect to injunctions stands on a different footing from that of the Equity Court, inasmuch as it rests exclusively upon the terms of a statutory enactment, and is limited to the construction which that Court may put upon the precise language therein

therein used by the Legislature. Consequently the decision of their Honors in Banco leaves entirely open the question of what may be done here, and in no way conflicts with my assertion of jurisdiction in Equity. It may perhaps be that their Honors would themselves have continued or regranted the injunction if there had been that fusion of the jurisdiction in Equity and Law which has been adopted in England and in many of the British colonies, but not in this Colony, except partially by recent legislation, on the Equity side of its Supreme Court. The object of these injunctions simply is to prevent one litigant (without other prejudice to his rights) from doing acts which may be irrevocable, and perhaps irremediably injurious to the other, whilst their disputed claim are *subjudice* and undetermined; and as the right of appeal to the Privy Council adheres, by paramount authority, to all actions and suits in our courts in which the interest involved are of the value of £500 and upwards, the rights of the parties cannot be regarded as having been determined whilst an appeal to that tribunal is pending. It seems to me, also, that there may still be the same necessity for the power of restraint as before judgment here; for, if it were not possessed by this Court, but only by the Privy Council, there would always be long intervals of time before the aid of that Court could be obtained, and litigants might do irreparable injury to their opponents during those intervals. They might even practically nullify the appeal before its determination; as has happened within my own experience, from the refusal of an injunction during an appeal from the Primary Judge to the Full Court. So far as to the power which I assert. The question of its exercise in any particular case is very different. From the first this is in the discretion of the Court, and depends upon the circumstances of each case; and it cannot be that a peremptory appeal at the will and pleasure of a disappointed suitor can impair the discretion. On the contrary, the fact of a judgment having been given in either of our jurisdictions in favour of the party whom it is proposed to restrain, must weigh seriously against the exercise of the discretion to his prejudice; but the discretion must remain otherwise intact. The question for me now is, whether, having regard to that fact, the circumstances on both sides nevertheless justify me in staying the defendants' hands? Those on the defendants' side are certainly not such as to call for special tenderness, as their case rests upon a hard point of law in destruction of a prior title acquired by the plaintiffs bona fide, and in accordance with the regulations and established practice of the Crown; and at the same time the restraint will not interfere with any established possession on their part. Under such circumstances, the Court may be satisfied with a less amount of doubt as to what the decision will be on the appeal as a sufficient ground for keeping matters in *statu quo*; but still there must remain some reason for question whether the plaintiffs may not prove successful on the appeal. Upon this question I must act upon my own responsibility, however great the respect due to the opinion of their Honors in Banco. The clearness of opinion announced by them has, however, made it incumbent on me to examine the Acts of Parliament upon which the question depends very closely and critically, before venturing to express a judicial doubt in this Court as to their Honors' decision being upheld by the Appellate Court. I have now done this with the result, not only of a sufficient doubt on my mind to warrant the injunction, but of a strong inclination towards dissent from the judgment in Banco. I can now see that if I had been present as a third judge in Banco, I should certainly have had to submit some difficulties which their Honors would have considered before deciding the matter; and I think it probable that I should have been compelled to declare my dissent, or, at least, to have withheld concurrence. The question is, as already stated, whether the absence of a personal tender by the applicants invalidated the plaintiffs' application; and this depends upon whether the 7th section of the Act of 1875 applies to such an application as theirs, and is imperative. It must be admitted that *prima facie* a personal attendance was necessary, and that the decision *in banco* to that effect is in accordance with the letter of that section, seeing that the words are general as to "conditional purchases," and that the selection on which the plaintiffs rely certainly was a conditional purchase of one kind. But I have found it necessary to look outside that clause, and to inquire whether the generality of its words is not controlled by the spirit and intention of the Acts of which it constitutes a single feature, and by inferences from other clauses. I do not question that where the words of an enactment are absolute in themselves, and are not so controlled, our courts of justice are bound to interpret them in their strict grammatical sense, however much reason there may be to believe, from outside knowledge, that the words were used incautiously, and went beyond the actual intention of the Legislature. But where grounds exist for such belief, it seems to me that the courts should themselves tread with great caution, and should look around, perhaps astutely, to see whether the words are not susceptible of an interpretation in accordance with the actual intention, and whether the indications of the true meaning are not to be found in other parts of the Act or in its governing policy. If the actual intention existed, it is to be expected that a strict scrutiny of the entire legislation will bring into view that intention sufficiently to control any apparently adverse words. Here the question is not, strictly, as to the grammatical reading of the words of the section; for of this there is no doubt, but whether it is not shown elsewhere that its too general terms ought not to be so restricted as to exclude mineral selections—without depriving them of their full literal effect as regards ordinary conditional purchases. In considering this question I have first made the inquiry, so far as it may prove to be of any legal value, touching the actual intention of Parliament. The best evidence on this question is to be found in the Regulations of the Governor in Council, which were passed, with full knowledge of all preceding facts, within twenty days after the Act of 1875, and which were repeated in the later regulations of May, 1880, under the Act of that year; and in the subsequent tacit assents to them severally by both Houses of Parliament. The Lands Acts were the outcome of a prominent Ministerial policy, and were passed by both Houses under earnest attention to that policy. Hence it may be inferred that the Executive which was entrusted by those Acts severally with the issue of regulations for giving better effect to them, knew both their own policy and the understanding of Parliament; and as those regulations were required to be promptly laid before Parliament, and were so laid, but were not made the subject of any adverse action or protest, it may be inferred that both Houses recognised the regulations as faithful exponents of their actual intention in respect of their salient features, such as that under consideration. I might add, if necessary, the inferior testimony of my own personal familiarity with the understood policy of the Act of 1875 when it passed through the Legislative Council and through the Conference held between the two Houses; and my report would be that mineral selections were not thought of in the seventh and other restrictive enactments. But it is sufficient for the present purpose to say that the Regulations proceed most distinctly on the assumption that the Seventh section was intended to apply exclusively to "ordinary selections," *i.e.*, those involving occupation, residence, and improvement "in person." They distinguish and place under different heads "Purchases Conditional on Residence and Improvements" and "Conditional Purchases for Mining Purposes"; and with respect to the former, they provide (regulation 18) that the application shall be in a form given by a schedule, and shall be "tendered in person by the applicant" to the land agent of the district, between certain hours on certain days; whilst as regards the latter, the direction is (regulation 50) that the application "shall be *addressed* to the land agent" in the form also given in the schedule; and by that schedule the applicant is required to distinguish between an application for an "ordinary conditional purchase" and a conditional purchase for "mining purposes." Having such evidence of the actual intention, we may find in it a key to the interpretation of the Act;—a light, so to speak, which may help to bring into view what might have remained unseen under a purely literal construction of the particular clause on which this case has turned. It cannot of itself control the interpretation, but it is introductory to what I will now further state. In the first place it will be proper not only to read clause 7 of the Act of 1875 in its relations to the policy and to other clauses of the same Act, but also in relation to the earlier Act of 1861, and even to the later one of 1880 (43 Vic, No. 29), and to their general policies. The general legislative policy, commencing with the Act of 1861, and running through the other Acts, has its most distinctive expression in the 13th and 18th of the first Act, in conjunction. Those sections are in effect as much one enactment as if they had formed a single clause. Section 18 is to section 13 as the conditions of a lease to its words of demise, or as the defeasance of a bond to the obligation; and beyond doubt the two sections together contain the leading policy of the Act. That was to settle upon, and spread over, the Crown lands of the country, a class of yeomanry or settlers who should reside on their selections, and improve them for agricultural and pastoral occupation, or the like, under penalty of forfeiture; and for these purposes regard was necessarily had to the "person" of the purchaser. But in the case of conditional purchases under section 19, that policy has no application whatever; there the object was simply to promote the development of the mineral wealth of the country, without special regard to the persons engaged in the work. In the one case the policy operates (as it were) *in personam*, and in the other the object is *en rem*. Accordingly, the Legislature uses in the several provisions different words, which, as they are specially appropriate to the different objects in view, should the more emphatically be regarded as having been deliberate in their diversity. The 13th section says, "Any person may upon any land office day, tender, &c.," and in section 18, the "person" who has conditionally purchased, that is, under section 13, or his alienee, in person, is to occupy and to make the land his *bona fide* residence for three years, and is under restraints as to alienation, and is to improve the land to the value of £1 per acre. But in section 19 the words are impersonal, as follows:—"Crown lands may be conditionally purchased for the purposes of mining"; and it is observable that upon completion of the conditions under section 18 the land is to be granted to the purchaser with an express reservation of any minerals which it may contain, thus showing that these selections were intended to be for such yeoman purposes

purposes as agriculture and pasturage in contradistinction of, and to the exclusion of mining. Further, in the case of mining selections under section 19, though expressed to be "under section 13," and being so in some limited respects, the differences in substance are so marked as to place such selections altogether in a different category. The price and deposit per acre are twice as much as that on ordinary selections, and the conditions are almost wholly different. Under that section no residence is required, no restraint is made upon alienation, and in fact the only condition is that £2 an acre shall be spent upon the land (inferentially, within three years) "in mining operations other than gold mining;" and upon this single condition a grant may be claimed, upon payment of the balance of purchase money, without waiting for the expiration of three years; and (in view, no doubt, of the contingency of a limited portion only of the selections proving productive of minerals) the clause also gives the purchasers a right to claim a grant of any separated portion of the original area (not less than 40 acres) and to abandon the residue on proof of an expenditure of £5 per acre in mining operations on that portion. All that we find in this clause has what may be designated a commercial aspect, in which mining operations are alone in view, without the slightest regard to the persons of those who should conduct them. Again, it is obvious that the 13th and 18th sections in the Act of 1861, and others allied to them in the same and subsequent Acts, contemplate selections by single individuals, who are intended to fulfil, in their separate persons, the character of resident yeomen proprietors; but in the case of purchases for "mining purposes other than gold-mining" the operations involved are, almost invariably, of such a character as to be more suited to associations possessing capital for the employment of a body of miners and other labourers, than to the single applicants in their own persons. Accordingly there is not a word in those enactments to indicate any restriction as to the number of applicants or their movements; and indeed, in such cases a requirement of attendance in person would serve no single purpose of utility, and might be highly inconvenient; for if the requirement is applied at all to mineral selections, each and every member of the association would be required to present himself in person or be debarred of legal participation in the purchase. I next inquire as to the general policy of the Act of 1875, to see whether it has any more applicability to mining selections than that of the Act of 1861; and I find nothing of the kind. The leading purpose of this later legislation was to check "dummy" selections under sections 13–18 of the Act of 1861, and to impede the absorption of selections of that class into their hands—whereby the policy of the original Act was being defeated; and incidentally, to the same end, it was determined to prohibit purchases by or in the names of infants and other young selectors who could not, in their own persons, truly answer the purposes of settlement which that Act had in view. Such considerations obviously had regard only to ordinary selections. It was they that had been, and were being, made by servants and others for the benefit of and in trust for pastoral capitalists; and it was they alone that had been and were being absorbed by these large holders; and thus it was in reference to them alone that the policy of settling yeomen on the soil was being defeated. These selections, and even the improvements "to the value of £1" required upon them, were suited to the wants of the pastoral capitalist; whereas mineral conditional purchases at the price of £2 per acre, and at the cost of another £2 per acre of actual expenditure in mining operations exclusively, were not calculated to contribute appreciably to the mischiefs which this amending Act was intended to prevent. The history of intervening facts as to "dummyism" and absorption, and of the intervening decisions of the Court as to the rights of conditional purchasers to dispose as they chose of their selections, and to bind them by trusts in favour of capitalists, explains the legislation of 1875, and is virtually embodied in the preamble in the name of "doubts which had arisen in the construction of the Act of 1861"—and all these facts and decisions concerned ordinary selections alone. I find, further, that the general tenor of the enactments themselves points in the same direction. Passing over the earlier sections as to sales in virtue of improvements (which are not conditional), the first material enactment is in section 6, which enacts that the word "person" in the 13th section of the Act of 1861 shall mean only such a person of or over the age of 16 years. This enactment was occasioned by the decisions in "Drinkwater *v.* Arthur" and "Joachim *v.* O'Shanassy," &c., which concerned ordinary selections, and I am satisfied that the Legislature had here only in its mind the personal selections under section 13 in connection with section 18, and had no thought of mineral selections under section 19. It may be that the condition of age will, nevertheless, be held to apply to the latter from the force of the words; but I am now inquiring only as to the intention of this and other clauses as a guide to the better understanding of the enactment upon which the present question turns. It follows and is directly connected with the 6th section, and is obviously intended to confirm it in precluding such juvenile selections as in the decided cases to which I have referred. It first has the words requiring every application for a conditional purchase to be tendered in person, and then goes on to say that if the applicant is under 21 years he shall state in his application that he is the age of 16 years or upwards, under penalty of forfeiture for misstatement. The object, apparently, was to secure, by a personal view of the applicant, the sufficiency of his age for the conditions of section 18, and also opportunities for his identification, so as to compel a genuine performance of the conditions of residence, &c., in his own person. After this section, there is a series of clauses up to section 25 inclusive, all of which were intended to relate, in my opinion, to ordinary selections only, and of which the greater part palpably do so, inasmuch as they expressly refer to section 18, or to its conditions of residence and otherwise; and in all these the terms "conditional purchase," as in section 7, and "conditional purchaser" are used. But after section 25, there comes a shorter series of clauses having reference to mineral selections, and in all of them the terms "conditional purchase," &c., *simpliciter*, are dropped, and the terms employed are—"Lands conditionally purchased for the purpose of mining" (in section 26); "mineral conditional purchases" (in section 27); and "mining conditional purchase" (in section 28); and in sections 26 and 28 they are also described as purchases under section 19 of 1861—in evident contrast to sections 13, 18. This careful use in the Act of 1875 of distinguishing terms in reference to selections under section 19 affords very strong ground (in connection with the policy) for holding that the words "every conditional purchase" (in section 7) were not intended to comprehend them. It is equally worthy of attention that the same distinction between a "conditional purchase" and a mineral conditional purchase is observed in the later Act of 1880—thereby strengthening the above inference. That Act considerably alters the conditions of selection under sections 13-18 in the two directions of encouragement to *bonâ-fide* selectors of the class to which those combined clauses belong, and of restrictions on the absorption of their selections by capitalists. The compulsory improvement are reduced from "the value of £1" to 10s., and longer time is given for making them; but, on the other hand, the term of residence is increased to five years, and the right of alienation is postponed from one year to five years. A change is also made as to payment of the balance of 15s. an acre after deposit. And I find that in every clause containing conditions of this character, and unquestionably applying to ordinary selections, the terms used are either "conditional purchase," "conditional purchaser," or "conditionally purchased"; but when the Act comes to lands taken for mining purposes, those terms *simpliciter* are dropped, as in the Act of 1875, and the words are "conditional purchases under the 19th section" (see section 6) and "mineral conditional purchases" (see section 7). It will even be found that a very marked contrast between the two classes of conditional purchases is presented by sections 5 and 6 of that Act. Section 5 is the clause which, amongst other matters, is applicable exclusively to ordinary selections by the name of "conditional purchases." Compulsory extends the period for personal residence to five years, and absolutely grants a like extension for the completion of improvements. Clause 6, relating to mineral selections by the name of "conditional" purchases under section 19 of the Act of 1861, of course says nothing about residence, and says that the Minister *may* extend the time for completing the expenditure of £2 in mining operations to five years on condition of a certain proportion of such expenditure having been made within three years. And in section 7, which is the clause postponing the capacity to alienate, there is also the following marked contrast on its face. It enacts that "no conditional purchase" made after that Act shall be transferable until after the "conditional purchaser" shall have *resided* thereon for five years; then follows a proviso that "nothing contained in this section shall apply to 'mineral conditional purchases.'" It will be seen throughout this Act and the prior one of 1875, that wherever ordinary selectors are in view, the provisions are founded on the double policy of encouragement or restriction to secure and maintain personal settlement on the land; and that wherever mineral selections are in view they are generally guarded against the restrictions intended for ordinary settlers, whilst such of the encouragements and ease to purchasers as are appropriate to their possible occasions in developing mineral wealth are extended to them optionally and distinctively. The two policies are opposite, and very reasonably so; and the enactment in section 7 of the Act of 1875 is of the restrictive class. It is not, however, to be denied that in various sections throughout the Acts, conditional purchases of all kinds are comprehended by that designation, but they relate to matters which are appropriate to all alike, and which are not the subject of distinctive policies. I must now say a few words as to the Regulations. The decision in Banco comes to this, that as interpretations they are erroneous, and as sub-legislation they are *ultra vires*. As already seen, I am not disposed to agree as to the former; as to the latter, I am very doubtful whether the Regulations do not possess legislative force of their own in this particular matter which must qualify the applicability of a rigid construction of them, as being derivative only. The several Acts under which they are made give the Governor in Council considerable power of sub-legislation for giving effect to the Acts, and I am disposed to be slow in rejecting as *ultra vires* Regulations thus made and afterwards laid before Parliament as directed. In this particular instance I am not at all prepared to say that an ambiguity in the

Act

Act of 1875 as to the meaning of "conditional purchase" in section 7, and the traces of the Legislature's intention on the subject, did not give scope for sub-legislative interpretation and direction by the Governor in Council. I do not, however, intend to express any judicial opinion upon this point beyond saying that, having regard to the terms in which the several Acts entrust the Governor in Council to make regulations in aid of the Acts, such regulations should not be deemed illegal without clear and strong grounds. Neither do I mean to express more than a strong inclination of opinion and dissent from their Honors in Banco upon the main question decided by them, and now under appeal. It is not necessary for the present purpose that I should go beyond expressing such a doubt as to the ultimate fate of the question as will warrant my restraining the defendants during the appeal. Thus much I may do without impugning judgment in Banco, and without presuming to anticipate the judgment of the Privy Council. In concluding this judgment, I wish to say that my examination of the several Acts and their policies has been elaborate and close, not only for the reason already stated, but because it has appeared to me that the true meaning of the Legislature could not be otherwise brought out; and because the conflict between the decision of the Court in Banco on the one hand, and the regulations of the Governor in Council and the practice of the Government, demanded that my reasons for so strongly inclining to dissent from the former and to concur with the latter should appear fully. Perhaps, also, this statement of reason may be considered by the Privy Council, together with those which the two Judges who sat in Banco have probably furnished; and may thus contribute to the purposes for which the reasons of the Judges of the Colony are required to be supplied. My order and decree in this case is, that an injunction shall issue out of this Court in the terms of the plaintiffs' prayer, save only that liberty be reserved to the defendants to perform such acts upon the land, if any, as may be indispensably necessary for maintaining their status under the gold-mining regulations, until the determination of the appeal. I reserve further directions, if any, and costs.

B.

[*To the Evidence of Mr. Thomas Benjamin Walker, 21st January*, 1892.]

STATEMENT showing Receipts and Disbursements by Patrick Brown and Party in respect of Copper-mine and Mineral Conditional Purchases—Mine Block 40 acres freehold, M.C.P.'s 120 acres and 80, parish Dunleary, county Bathurst.

Dr. *Cr.*

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
1880 to 1882.			1880—Jan. 1 to Dec. 31, 1882.		
To Cash proceeds of sale of copper	6,873 16 1		By Cash expended on the Mine account—		
,, ,, horses, iron, &c. ...	37 4 0		Wages, rent, material, &c.	4,038 11 2	
,, for interest on promissory notes	12 1 10		Smelting Works' construction, wages, fuel, carriage, &c.	5,071 0 10	
,, for smelting for miners	30 1 0				
,, rent of huts	1 1 6				
		6,954 4 5			9,109 12 0
1880 to 1891.					
To Cash paid by Brown and Party from 1880 to 1891 to meet the losses.....	....	6,328 17 9	Rents, purchase money M.C.P.'s, management, stationery, printing, insurance, interest, legal and sundry expenses	.....	870 2 3
To amounts still owing— £ s. d.					
Accountant 25 0 0			Expenditure on account of the dispute, legal expenses, witnesses, agents, experts, men in charge, interest, costs in suits to defendants, and sundry expenses.....	.....	3,303 7 11
Land Agent..... 22 2 0					
T. B. Walker, Agency, &c. 344 15 6					
	381 17 6				
		£ 13,283 2 2		£	13,283 2 2

E. & O. E.,
Sydney, 20 January, 1892.

THOS. B. WALKER,
Accountant.

	£ s. d.	£ s. d.
In addition to the above loss in cash.....		6,328 17 9
Patrick Brown had an interest in the mine of one-half...	3,600 0 0	
Was to have been paid cash	2,400 0 0	
And purchase money of the M.C.P.'s	600 0 0	
		6,600 0 0
Total loss to P. Brown and Party		£12,928 17 9

THOS. B. WALKER.

Sydney: Charles Potter, Government Printer.—1892.

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT FROM THE SELECT COMMITTEE

ON

CLAIMS OF WILLIAM TOM, JAMES TOM, AND J. H. A. LISTER, AS THE FIRST DISCOVERERS OF GOLD IN AUSTRALIA;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
2 *September*, 1891.

SYDNEY: GEORGE STEPHEN CHAPMAN, ACTING GOVERNMENT PRINTER.

[6*d*.] 251—A 1891.

1891.

(SECOND SESSION.)

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE LEGISLATIVE ASSEMBLY.

VOTES No. 18. TUESDAY, 25 AUGUST, 1891.

18. CLAIMS OF WILLIAM TOM, JAMES TOM, AND J. H. A. LISTER AS THE FIRST DISCOVERERS OF GOLD IN AUSTRALIA:—*Mr. Melville*, for Mr. Torpy, moved, pursuant to *amended* Notice,—

(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the claims (if any) of William Tom, James Tom, and J. H. A. Lister, for remuneration as the first discoverers of gold in Australia.

(2.) That such Committee consist of Mr. Sydney Smith, Mr. Tonkin, Mr. Howe, Mr. Chanter, Mr. Barbour, Mr. Wright, Mr. Lee, Mr. Newman, and the Mover.

(3.) That the Report from the Select Committee on the same subject during the Session of 1890, together with Minutes of Proceedings, Evidence, and Appendices, be referred to such Committee. Question put and passed.

VOTES No. 22. WEDNESDAY, 2 SEPTEMBER, 1891.

8. CLAIMS OF WILLIAM TOM, JAMES TOM, AND J. H. A. LISTER AS THE FIRST DISCOVERERS OF GOLD IN AUSTRALIA:—Mr. Torpy, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, the Select Committee for whose consideration and Report this subject was referred on 25th August, 1891.

* * * * * * *

CONTENTS.

1891.

(SECOND SESSION.)

CLAIMS OF WILLIAM TOM, JAMES TOM, AND J. H. A. LISTER AS THE FIRST DISCOVERERS OF GOLD IN AUSTRALIA.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on the 25th August, 1891,—"*with power to send for persons and papers, to inquire into and report upon the claims (if any) of William Tom, James Tom, and J. H. A. Lister for remuneration as the first discoverers of gold in Australia,*" and to whom was referred on the same day "*the Report from the Select Committee on the same subject during the Session of* 1890, *together with Minutes of Proceedings, Evidence, and appendices,*"—have agreed to the following Report:—

Your Committee having carefully considered the Report referred to them, find as follows:—

(1.) That although Mr. E. H. Hargraves is entitled to the credit of having taught the claimants, Messrs. W. and J. Tom and Lister, the use of the dish and cradle, and otherwise the proper methods of searching for gold, which his then recent visit to the Californian gold-fields enabled him to do, your Committee are satisfied that the Messrs. Tom and Lister were undoubtedly the first discoverers of gold obtained in Australia in payable quantity.

(2.) It has been alleged that the existence of gold in the Colony of New South Wales was known and that small quantities or "colours" had been found; but, so far as your Committee have been able to gain any information on the subject, what is now known to practical miners as "payable gold" was not known until the month of April, 1851, when the Messrs. Tom and Lister, after persistent and determined search, under very great difficulties, unearthed about 4 oz. of the precious metal, which being handed to Mr. E. H. Hargraves were by that gentleman exhibited to the then Colonial Secretary, Mr. E. Deas Thomson, whereupon Mr. Hargraves was thus recognised as the first discoverer of gold in Australia, and subsequently was rewarded by a gratuity of £10,000 from the Government of this Colony, and upwards of £2,300 from the Colony of Victoria, and in addition to these sums has been in receipt for several years of a pension of £250 per annum from this Colony.

(3.) Considering the severe depression, almost stagnation, of trade and of business generally, which existed prior to the discovery of gold, and the marked improvement which immediately followed and has since continued, enriching the Colonies to an extent that can scarcely be even estimated, your Committee are of opinion that the Messrs. Tom and Lister have not received that consideration which the magnitude and importance of their discovery entitled them to.

(4.) Mr. Hargraves appears to have abandoned the search for gold after his first course of prospecting with the Messrs. Tom and Lister, until they informed him that they had found the 4 oz. of gold, which, according to his own evidence, they discovered when he was not within 100 miles of them; and as he acknowledges to having received such 4 oz. of gold from them on the 6th May, 1851, and that he immediately took it to the Colonial Secretary, your Committee have no doubt that this was the cause of the issue of the famous proclamation of gold announcing the discovery eight days afterwards, on the 14th May, 1851, from which may be dated the new era and the commencement of the sudden and marvellous increase in the value of all kinds of property and of the great strides in progress which the Colonies have since made.

(5.) Your Committee regret that they have to report the death of one of the party, Mr. J. H. A. Lister, who expired on the day upon which he was to have given his evidence; but a few days before his death he had written a full statement of his case, which is appended to the former Report, and which your Committee believe to be quite truthful.

(6.) Your Committee therefore recommend the claim of Messrs. William Tom, James Tom, and J. H. A. Lister to the favourable consideration of the Government.

JAMES TORPY,
Chairman.

No. 2 *Committee Room,*
Sydney, 2 *September,* 1891.

PROCEEDINGS OF THE COMMITTEE.

WEDNESDAY, 2 *SEPTEMBER*, 1891.

MEMBERS PRESENT:—

Mr. Chanter, | Mr. Newman,
Mr. Torpy.

Mr. Torpy called to the Chair.

Entry from Votes and Proceedings appointing the Committee, and referring the Report from the Select Committee of Session 1890, on the same subject to the Committee, *read* by the Clerk.

Printed copies of the Report referred before the Committee.

Committee deliberated.

Motion made (*Mr. Chanter*), and question,—"That the Report from the former Committee, and dated 17th December, 1890, be the Report of this Committee,"—put and passed.

Chairman to report to the House.

Sydney: George Stephen Chapman, Acting Government Printer.—1891.

251—B

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINING.

(CORRESPONDENCE BETWEEN MR. CHRISTIAN KNOBLANCHE AND THE MINING DEPARTMENT, RELATIVE TO THE DISCOVERY OF GOLD, SILVER AND COPPER AT NARANGARIE.)

Ordered by the Legislative Assembly to be printed, 19 *November*, 1891.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 24th September, 1891, That there be laid upon the Table of this House,—

"Copies of all correspondence between Mr. Christian Knoblanche, of "Mudgee, and the Mining Department, relative to the discovery of gold, "silver, and copper at Narangarie, County of Napier, &c., near Denistown."

(*Mr. Copeland.*)

SCHEDULE.

No. 1.

Mr. C. Knoblanche to The Under Secretary for Mines.

Cudgegong, 23 May, 1882.

Sir,

I do myself the honor to report that myself and mate have discovered seven distinct quartz-reefs in the parish of Narangarie, county of Napier, and we have ascertained the fact that each of these reefs contain silver in payable quantities, together with a small proportion of gold. The reefs are of considerable thickness, from 2 feet up to 18 feet. I have also to report that at my suggestions and advice four mineral selections were made of 40 acres each block, the deposit money for which is going to be paid at the Land Agent's, of Coonabarabran, on Thursday next.

We have also marked out about seven mineral areas to be applied to be leased.

I think it very probable that a "rush" will set in to the locality as soon as the discovery becomes known in mining centres. I would most respectfully suggest to you that a geologist may be sent to the

 locality

locality, and his report be made public, as well as the locality to be proclaimed a mining district. The Gulgong Mining Office is only between 35 and 40 miles distant from the locality, whereas Coonabarabran is something like 80 miles distant. The land spoken of by me as having been selected under the mineral clauses of the Land Act will be held by the persons who have selected, and there will be interested therein the following gentlemen and capitalists, viz.:—Hon. G. H. Cox, Esq., M.L.C., H. Crossing, Esq., S. H. Wilton, Esq., E. Clarke, Esq., G. Clarke, Esq., T. Brooke, Esq., J. O. Miller, Esq., D. Cameron, Esq., — Wilton, Esq., and myself.

I have, &c.,
CHRISTIAN KNOBLANCHE.

The necessary steps may be taken in regard to herein contained subject.—A.R., 25/5/82. The Geological Surveyor.—H.W., 25/5/82.

In view of the reefs recently discovered I recommend that the Gulgong Gold-field be extended so as to include the parish of Dunedoo, county of Lincoln, and the parishes of Narangarie, Mumbedah, and Coolah in the county of Napier; also that the parish of Narangarie be reserved from C. P. on account of mining.—C.S.W., Geological Surveyor, 30/5/82.

Mines, 31/5/82. The Lands Department may be asked to proclaim the extension recommended by the Geological Surveyor.—H.W., 1/6/82. Submitted. Refer as advised.—A.R., 2/6/82. Lands Department asked, 3/6/82.

No. 2.

The Under Secretary for Mines to The Under Secretary for Lands.

Sir,

Sydney, 3 June, 1882.

I have the honor to inform you that it is deemed desirable, in view of mining interests, that the Gulgong Gold-field be extended, so as to include the parish of Dunedoo, county of Lincoln, and the parishes of Mumbedah and Collah, in the county of Napier; also that the parish of Narangarie be reserved from conditional purchase.

I am accordingly directed by the Secretary for Mines to request that you will be good enough to move the Secretary for Lands to cause steps to be taken to make the extension and the reserve as named above.

I have, &c.,
HARRIE WOOD,
Under Secretary.

No. 3.

The Under Secretary for Lands to The Under Secretary for Mines.

Sir,

Sydney, 8 July, 1882.

In reference to your letter of the 3rd ultimo, requesting that the Gulgong Gold-field be extended so as to include the parish of Dunedoo, county of Lincoln, and the parishes of Mumbedah and Collah, in the county of Napier, and also that the parish of Narangarie be reserved from conditional purchase, I have the honor to point out that the parish of Dunedoo does not in any way adjoin the parishes of Mumbedah and Narangarie, and to request that you will be good enough to inform me whether it is intended to include the parish of Bullinda, county of Lincoln, which intercepts the continuity of the land in the proposed reserve.

I have, &c.,
CHARLES OLIVER,
Under Secretary.

The Geological Surveyor.—H.W., 12/7/82. The parish of Bullinda should be included in the gold-field extension open to conditional purchase.—C.S.W., Geological Surveyor, 18/7/82. Submitted.—H.W., 20/7/82. Inform.—A.R., 21/7/82. Informed, 22/7/82.

No. 4.

The Under Secretary for Mines to The Under Secretary for Lands.

Sir,

Sydney, 22 July, 1882.

Referring to your letter of the 8th instant (Misc. 82-8,605) respecting the extension of the Gulgong Gold-field, I have the honor to inform you that the parish of Bullinda, which intercepts the continuity of the land between the parishes of Dunedoo and Mumbedah, should be included in and form part of the gold-field extension open to conditional purchase.

I have, &c.,
HARRIE WOOD,
Under Secretary.

No. 5.

The Under Secretary for Lands to The Under Secretary for Mines.

Sir,

Sydney, 7 October, 1882.

I have the honor to invite your attention to the proclamation, which appeared in the supplement to the *Government Gazette* of the 25th ultimo, proclaiming an extension to the Gulgong Gold-field, area about 160 square miles, situate in the parishes of Bullinda, Dunedoo, Mumbedah, Coolah and Narangarie, counties of Lincoln and Napier, under the 10th section of the Mining Act of 1874.

I have, &c.,
CHARLES OLIVER,
Under Secretary.

Is this as recommended by this Department.—G.E.H., 11/10/82. Mr. Campbell. Yes.—E.P.M., 17/10/82.

[*Enclosure*].

[*Enclosure.*]

NEW SOUTH WALES, } Proclamation by His Excellency The Right Honorable Lord AUGUSTUS WILLIAM FREDERICK SPENCER
to wit. } LOFTUS, Knight Grand Cross of the Most Honorable Order of the Bath, a Member of Her Majesty's
(L.S.) Most Honorable Privy Council, Governor and Commander-in-Chief of the Colony of New South Wales
AUGUSTUS LOFTUS, and its Dependencies.
Governor.

IN pursuance of the provisions of the "Mining Act of 1874," I, Lord AUGUSTUS WILLIAM FREDERICK SPENCER LOFTUS, Governor of the Colony of New South Wales aforesaid, with the advice of the Executive Council, do hereby proclaim that the following shall be deemed a Gold-field within the meaning and for the purpose of the said Act, that is to say :—

Counties of Lincoln and Napier, parishes of Bullinda, and Dunedoo, and Mumbedah, Coolah, and Narangarie, area about 160 square miles. The Crown Lands within the following boundaries : Commencing on the right bank of the Coolaburragundy River, at the north-east corner of portion No. 3, Nelson Lawson's 1,920 acres, parish of Coolah, county of Napier, and bounded thence by that river downwards to its confluence with the Talbragar River ; thence by the right bank of that river downwards to the south-west corner of portion No. 10, parish of Dunedoo, county of Lincoln ; thence on the west by a line partly forming the west boundary of portions Nos. 10 and 11 in the last-named parish bearing north to the south-west boundary of the parish of Bullinda, county of Lincoln ; thence by the south-west boundary of that parish bearing north-westerly to the left bank of the Merrygoen Creek ; thence by that creek upwards to the northern corner of the parish of Bullinda, county of Lincoln ; thence on the west by a line north to the range forming the parish boundary between the parish of Dalglish, and the parishes of Mumbedah and Coolah ; thence on the north-west by that range bearing north-easterly to a point due west of the north-west corner of portion No. 3 aforesaid ; and thence on the north by a line partly forming the north boundary of that portion bearing east, to the point of commencement.

To be called "An extension of the Gulgong Gold-field." [Ms. 82-11,311.]

Given under my Hand and Seal, at Government House, Sydney, this twenty-first day of September, in the year of our Lord one thousand eight hundred and eighty-two, and in the forty-sixth year of Her Majesty's Reign.

By His Excellency's Command,
JOHN ROBERTSON.

GOD SAVE THE QUEEN!

No. 6.

Mr. C. Knoblanche to The Under Secretary for Mines.

Sir, Cudgegong, 14 October, 1882.

I do myself the honor to make inquiry whether the communications made by me, from time to time since the month of April this year, to your Department respecting the discovery by me of auriferous quartz-veins, and the discovery of the "silver and gold" bearing lodes, now known as the Narangarie Silver-mine, in the county of Napier, near Denisontown, and your Departmental records of such communications have been destroyed by the late Garden Palace fire ?

I have, &c.,
CHRISTIAN KNOBLANCHE.

This is an inquiry whether certain papers have been lost by fire at the Garden Palace. Shall we send him a copy of the proclamation in *re* extension of Gulgong Gold-field ?—C.O.H., 18/10/82.
Yes.—G.E.H., 18/10/82. The attention of the Warden should also be called to the extension of the gold-field.—H.T., 20/10/82. Slips sent to Warden and Warden's Clerk, 21/10/82.

No. 7.

The Under Secretary for Mines to Mr. C. Knoblanche.

Sir, Sydney, 19 October, 1882.

Referring to your letter of the 14th instant and previous correspondence respecting your discoveries near Denisontown, in the county of Napier, I have the honor to forward herewith a copy of the proclamation of the extension of the Gulgong Gold-field for your information.

I have, &c.,
HARRIE WOOD,
Under Secretary.

No. 8.

The Under Secretary for Lands to The Under Secretary for Mines.

Sir, Sydney, 2 November, 1882.

I have the honor to invite your attention to the proclamation which appeared in the supplement to the *Government Gazette* of the 1st instant, reserving from conditional sale part of the Gulgong Gold-field extension, containing about 25 square miles, parish of Narangarie, county of Napier.

I have, &c.,
CHARLES OLIVER,
Under Secretary.

Is this as recommended by the Department?—G.E.H., 11/11/82. The Chief Draftsman. Yes.—E.P.M., 24/1/83.

[*Enclosure.*]

NEW SOUTH WALES, } Proclamation by His Excellency The Right Honorable Lord AUGUSTUS WILLIAM FREDERICK SPENCER
to wit. } LOFTUS, Knight Grand Cross of the Most Honorable Order of the Bath, a Member of Her Majesty's
(L.S.) Most Honorable Privy Council, Governor and Commander-in-Chief of the Colony of New South
AUGUSTUS LOFTUS, Wales and its Dependencies.
Governor.

IN pursuance of the provisions of the "Crown Lands Alienation Act of 1861," I, Lord AUGUSTUS WILLIAM FREDERICK SPENCER LOFTUS, the Governor aforesaid, with the advice of the Executive Council, do hereby declare that the following lands (the same being within a proclaimed gold-field) shall be and they are hereby excluded from conditional sale under the said Act :—

County

County of Napier, parish of Narangarie, area about 25 square miles. The gold-fields on Crown Lands within the following boundaries: Commencing at the junction of the Coolaburragundy River with the Talbragar River, and bounded thence on the north-west by the boundary between the counties of Lincoln and Napier, bearing north-easterly to a point due west of the north-west corner of portion No. 65; thence on part of the north by a line partly forming the north boundary of portion No. 65, bearing east to the west boundary of water reserve No. 435, notified 1st November, 1874; thence on part of the east by part of the west boundary of that reserve bearing south to the north boundary of portion No. 6; thence on the remainder of the north by a line partly forming part of that boundary and the north boundary of portion No. 34, bearing east to a point north of the north-west corner of portion No. 7; thence on the east by a line partly forming the west boundary of portions Nos. 7, 50, and 27, bearing south to the Coolaburragundy River aforesaid; and thence by that river downwards to the point of commencement.

Within the Gulgong Gold-field Extension, proclaimed 21st September, 1882. [Ms. 82-13,194.]

Given under my Hand and Seal, at Government House, Sydney, this twenty-eighth day of October, in the year of our Lord one thousand eight hundred and eighty-two, and in the forty-sixth year of Her Majesty's Reign.

By His Excellency's Command,
JOHN ROBERTSON.

GOD SAVE THE QUEEN!

[3*d*.] Sydney: George Stephen Chapman, Acting Government Printer.—1891.

1891-2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINING LAWS.

(PETITION FROM CERTAIN MINERS OF NEW SOUTH WALES PRAYING THE HOUSE TO AMEND THE MINING ACT.)

Received by the Legislative Assembly, 9 *February*, 1892.

To the Honorable the Speaker and Members of the House of Assembly in the Colony of New South Wales in Parliament assembled.

The Humble Petition of the undersigned Miners of New South Wales,—

SHOWETH :—

That your Petitioners are bona-fide miners on Crown lands in this Colony, and beg respectfully to represent to your Honorable House that we are suffering great hardships, annoyance, and loss, consequent upon the present Mining Laws and Regulations acting prejudicially to our interests in many respects, the following amongst others, that is to say :—

1. That any quantity of land may be taken up and held for any length of time without working by simply marking out the same every consecutive ten days to the exclusion of others who would work and develop the ground.

2. That the present mode of application for a lease of Crown lands is surrounded with conditions wholly inoperative for the following, amongst many other reasons, that is to say :—The form of application is cumbersome, and entails upon the miner an unauthorised extra cost for making out by the Warden's clerk, as an office charge not prescribed by the Act or Regulations. Then the posting of the required notices is done at the risk of their being carried away immediately after by the wind, and when required to be proved as having been duly posted, one witness will state he posted them, while another will state he examined the board carefully and did not see them there, by causing doubt to arise in the mind of the Warden or Minister, and in many cases injury is inflicted on an innocent party.

3. That the lapse of time between the date of application and the issue of the lease by the Minister is, and has been, a very serious loss to your Petitioners and other miners, in many instances causing them to abandon good auriferous ground for want of means to properly develop its resources, and in a great number of instances when they ultimately receive the lease it becomes of no use to them, the opportunity for the proper working of the ground being lost to them, and in a vast number of cases ground is abandoned which would otherwise have been properly worked, thus hindering the development of its mineral resources, and destroying a means for the employment of labour.

4. That the present practice in relation to forfeiture is very unsatisfactory, entailing a course of correspondence in many cases with the Minister of a very dilatory nature, and extending over an unnecessary length of time, and we respectfully submit, all necessary information required could be better obtained and acted upon by the Warden or a Mining Inspector as hereinafter mentioned, on the spot without reference to the Minister with a right to appeal. Under the present system we respectfully submit there is virtually no appeal from the Minister.

5. That Rule No. 1 of Rules published and dated 21st July, 1874, now in operation, requiring the working miner to proceed for the recovery of his wages, or for any other cause of complaint, to the nearest Warden's Court to the defendants' residence is the cause of great injury and loss to your Petitioners.

6. That Rule No. 18, published and dated 13th July, 1874, requiring a deposit of £5 to be made by an objector is a very heavy tax upon a poor miner, and is the cause, in many cases, of his abandoning his just claims.

7.

7. That Rules 8 and 9, and the latter part of sub-section (*a*) of Rule 1, in Regulations dated 10th August, 1876, that is to say, the following words, "Interpretation of Terms," "and in every other case the person having the management of the mining operations carried on in any mine" have been held by the District Court Judges on several occasions as *ultra vires*, and consequently has been the means of entailing loss and injury to miners who have acted upon those Regulations as being of legal force and effect.
8. That Rule No. 1 of Regulations dated 31st March, 1882, requiring labour to be employed from date of taking possession, in many cases has resulted in heavy losses to ourselves and miners generally in consequence of the lapse of time from the date of application to, in many instances, its refusal, in which case the labour of months has been wholly useless.

Your Petitioners therefore humbly pray that your Honorable House will be pleased to cause such amendments to be made in the mining laws of this Colony to remedy the grievances complained of, so that the present practice of holding land for an indefinite period by marking out the same every ten days may be abolished, or that power may be given to the Warden to so restrict the same that the same person, and no member of his party, shall be allowed to make a second pegging of the same ground for the purpose of applying for a lease.

That the application for a lease may be made in a more simple form by first filing a notice in the Warden's office of having taken possession, to be afterwards entered into a book to be kept for that purpose, and during office hours always open for inspection by the public free of charge. That the form of application and declaration now in use be abolished, and a more simple one substituted, throwing the onus of proof upon the applicant of his having complied with the regulations on taking possession of the ground, which may form a subject of objection prior to the granting of such lease, but not afterwards. That notice of each application be published by advertisement in the local paper or papers to be declared, by the Governor by proclamation, a gazette or gazettes for that purpose, and that no other notices be required. That upon the expiration of the prescribed time (say 14 days from such publication) and no objection filed, the Warden may be given power (such power to be deputed to the Governor by statute to confer upon him) by proclamation, at his discretion to grant or refuse all leases applied for. That instead of such leases being encumbered with the covenants and conditions now in use, that all requisite covenants and conditions may be embodied in the Act and Regulations so that the said lease may, after the words giving the grant of right to occupy, conclude in the following manner:—"Subject to the said Act and the Mining Regulations made thereunder," or words to that effect.

That such power so given to the Warden may be made subject to a right of appeal.

That a Mining Inspector may be appointed for each Mining District whose duty shall be, amongst others, to direct the proper working of all mines within his district, so far as safety is concerned; and summon miners and others before the Warden for disobedience of his orders where the safety of the working miner is concerned, giving, at the same time, power to the Warden to inflict a fine. Also to declare any lease forfeited for non-compliance with the regulations without reference, but subject to appeal to the Warden. Also to report to the Warden on all applications for leases, stating any objections there may be to their being granted on public grounds only.

That Rule No. 1 of Regulations of 21st July, 1874, be repealed, and that it may be provided that service of any summons may be declared good service by affixing the same upon any conspicuous part of the workings of the mine.

That Rule No. 18 of Regulations dated 13th July, 1874, requiring a deposit of £5 on filing an objection be repealed, and in lieu thereof the Warden have power to inflict a fine and award full costs in case he finds on the hearing that such objection is frivolous or vexatious, but in all cases where the objector succeeds in his case that the Warden have power to award him the ground or share in a dispute.

That Rules Nos. 8 and 9, and that portion of Rule No. 1 referred to above, of Regulations dated 10th August, 1876, be so amended as to give them legal effect, your Petitioners not having the means to appeal to the Supreme Court to test their validity.

That Rule No. 1 of Regulations dated 31st March, 1882, be repealed, and a provision substituted enjoining the labour conditions to commence only on the issue of the lease.

And that your Honorable House will give such further and other relief as to your Honorable House may deem right.

And your Petitioners will ever pray.

[*Here follow* 103 *signatures.*]

[3*d*.]

Sydney: Charles Potter, Government Printer—1892.

1891–2.

NEW SOUTH WALES.

SYDNEY MINT.

DESPATCH RESPECTING.)

Presented to Parliament by Command.

The Treasury, New South Wales,
1st March, 1892.

SYDNEY BRANCH OF THE ROYAL MINT.

His Excellency the Governor directs the publication, for general information, of the following Despatch from the Secretary of State for the Colonies, covering certain documents in connexion with the Sydney Branch of the Royal Mint.

JOHN SEE.

Downing-street, 1st January, 1892.

My Lord,

I am directed by the Secretary of State to transmit to you, for the information of your Government, the documents specified in the annexed Schedule, on the subject of the Sydney Branch of the Royal Mint.

I have, &c.,
R. G. W. HERBERT.

The Officer Administering the Government of N. S. Wales.

Treasury to Colonial Office.

Treasury Chambers, 18th December, 1891.

Sir,

I am directed by the Lords Commissioners of Her Majesty's Treasury to transmit, for the information of the Secretary of State for the Colonies, the enclosed copy of a letter of the 11th instant, from the Deputy Master of the Mint, together with its accompanying report, on the Gold Coinage of the Sydney Branch of the Royal Mint for the year ended 30th June, 1891.

I am, &c.,
R. E. WELBY.

The Under Secretary of State, Colonial Office.

11th December, 1891.

Sir,

I have the honor to acquaint you, for the information of the Lords Commissioners of Her Majesty's Treasury, that the following Returns have been duly transmitted to this Department by the Deputy Master of the Sydney Mint, in conformity with the Order in Council of the 19th August, 1853.

I. Twelve Monthly Returns, showing the transactions in bullion of the Sydney Mint from July, 1890, to June, 1891, both inclusive. The amounts of coin issued to the public in these months were as follows:—

Month.	Sovereigns.	Half-sovereigns.	Month.	Sovereigns.	Half-sovereigns.
1890.	oz.	oz.	1891.	oz.	oz.
July	67,798.53	Nil.	January	49,310.23	4,365.80
August	51,107.56	Nil.	February	28,508.15	15,409.26
September	67,286.04	Nil.	March	77,561.72	Nil.
October	46,741.50	Nil.	April	40,065.42	Nil.
November	31,588.85	Nil.	May	62,665.55	Nil.
December	110,435.27	Nil.	June	82,182.56	Nil.

II. Four Returns of Waste in coining gold for the quarters ended—
30th September and 31st December, 1890; and
31st March and 30th June, 1891.

III. Four Returns by the Board of Verification to the Governor of the Colony on the state of the bullion and coin in the Mint on the—

30th September and 31st December, 1890; and

31st March and 30th June, 1891.

I have also to request you to submit to their Lordships a report, being the fifty-eighth, on the weight and fineness of the gold coins produced at the Sydney Mint during the year ended 30th June, 1891; this report being based on the assay of Pyx Pieces transmitted by the Deputy Master in accordance with the provisions of the Order in Council before referred to.

A copy of the report will be forwarded as usual to the Deputy Master at Sydney for his information.

I have, &c.,

The Secretary, Treasury. C. W. FREEMANTLE.

FIFTY-EIGHTH Report addressed to the Lords Commissioners of Her Majesty's Treasury on the weight and fineness of gold coins struck at the Sydney Branch of the Royal Mint, and transmitted by the Deputy Master for examination in accordance with the provisions of Her Majesty's Order in Council of the 19th August, 1853.

Pieces taken without preference by the Colonial Treasurer at the deliveries of the Sydney Mint:—

Half-year ending	Denomination of Coin.	No. of pieces.	Total weight.	Average weight of a piece.	Average proportion of gold in 1,000 parts.
			oz.	oz.	
1890.					
31 December	Sovereigns.....	302	77.565	.2568	916.611
1891.					
30 June	Sovereigns.....	275	70.628	.2568	916.650
30 „	Half-sovereigns	36	4 623	.1284	916.689

The standard weight of the sovereign is ·25682 oz, and of the half-sovereign ·12841 oz., and the standard fineness (in 1,000 parts) is 916·666.

C. W. FREEMANTLE,

Royal Mint, 11th December, 1891. Deputy Master and Comptroller.

Sydney: Charles Potter, Government Printer.—1892.

[3*d*.]

1891-2.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINT.

(RETURN SHOWING UNCLAIMED GOLD DEPOSITED AT THE.)

Ordered by the Legislative Assembly to be printed, 12 *January*, 1892.

[*Laid upon the Table of the House in answer to Question No.* 15 *of* 16*th December*, 1891.]

Question.

(15.) UNCLAIMED GOLD DEPOSITED AT THE MINT:—MR. KELLY (FOR MR. CHAPMAN) *asked* THE SECRETARY FOR MINES,—What amount of unclaimed gold has been deposited at the Mint from its establishment to the 1st January, 1891?

Answer.

Unclaimed Gold Deposited at the Mint.

Date.	Name of Depositor.	Gross Weight.	Value.
		oz.	£ s. d.
1856—October 31	Unknown	32·30	120 5 8
1857—March 19	W. Sotheren	13·00	45 19 10
1863—October 26	Unknown	4·73	19 0 9
„ „ 26	„	2·97	12 1 5
			£197 7 8

On the 12th July, 1870, the total amount (£197 7s. 8d.) was paid over to the Treasury on the recommendation of the Honorable the Treasurer, approved by His Excellency the Governor. The above is the only unclaimed gold deposited at the Mint from its establishment to the 1st January, 1891.

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

IMPORT AND EXPORT OF GOLD AND SILVER.

(RETURN SHOWING—DURING LAST TEN YEARS.)

Ordered by the Legislative Assembly to be printed, 26 *August*, 1891.

[*Laid upon the Table of the House in answer to Question No.* 17 *of* 19*th August*, 1891.]

Question.

(17.) IMPORT AND EXPORT OF GOLD AND SILVER:—MR. CRICK ASKED THE COLONIAL TREASURER,—
(1.) What is the value of all gold and silver (in coin or bullion) imported into New South Wales during the ten years ending 31st December, 1890?
(2.) The value of all gold and silver (in coin or bullion) exported during the same period?

Answer.

RETURN showing the amount of all gold and silver (in coin and bullion) imported into New South Wales, during the 10 years ended 31st December, 1890; together with the value of the exports of gold, silver, and silver lead for the same period. Laid upon the Table of the Legislative Assembly, in accordance with the reply to Questions No. 17, asked by Mr. Crick, on the 19th August, 1891.

IMPORTS.

Year.	Gold.		Silver.	
	Coin.	Bullion.	Coin.	Bullion.
	£	£	£	£
1881	5,945	1,198,518	31,164	1,365
1882	148,852	978,902	63,027	68
1883	434,069	754,304	55,916	1,000
1884	308,592	1,309,862	49,823	.....
1885	367,784	1,106,963	65,443	.....
1886	371,336	1,462,695	37,451	1,384
1887	266,808	1,858,087	7,040	.....
1888	138,500	1,805,027	12,943	20
1889	27,781	2,853,102	16,849	665
1890	53,808	2,564,697	43,707	600
Totals... £	2,123,475	15,892,157	383,363	5,102

EXPORTS.

Year.	Gold.		Silver.		Silver Lead.	
	Coin.	Bullion.	Coin.	Bullion.	Ore.	Bullion.
	£	£	£	£	£	£
1881	1,633,458	314,207	9,709	24,643	3,776	.....
1882	1,545,147	149,123	38,269	11,024	1,030	.....
1883	1,564,907	125,983	12,013	22,996	1,950	.....
1884	858,568	73,593	14,938	22,980	123,374	603
1885	1,384,534	71,539	5,225	161,987	85,391	25,650
1886	1,586,736	26,938	5,427	200,964	67,935	230,250
1887	1,278,162	34,184	6,134	35,193	91,462	479,016
1888	2,081,844	28,023	12,470	69,668	164,620	911,117
1889	3,157,965	44,649	5,810	74,501	334,227	1,565,290
1890	2,151,853	137,169	16,793	97,410	794,883	1,872,657
Totals.....£	17,243,174	1,005,408	126,788	721,366	1,668,648	5,084,583

Sydney : George Stephen Chapman, Acting Government Printer.—1891.

[3*d*.]

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINING ON PRIVATE PROPERTY BILL.

(MESSAGE No. 9.)

Ordered by the Legislative Assembly to be printed, 17 *September*, 1891.

JERSEY, *Message No.* 9.

Governor.

In accordance with the provisions contained in the 54th section of the Constitution Act, the Governor recommends for the consideration of the Legislative Assembly the expediency of making provision to meet the requisite expenses in connection with a Bill to provide for Mining on Private Lands for Gold and other Minerals, and for the Resumption, in certain cases, of Private Lands.

Government House,
Sydney, 17*th September*, 1891.

[8*d.*] 319—

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MINING ON PRIVATE PROPERTY BILL (No. 2).

(MESSAGE No. 11.)

Ordered by the Legislative Assembly to be printed, 8 *October*, 1891.

JERSEY,

Governor.

Message No. 11.

In accordance with the provisions contained in the 54th section of the Constitution Act, the Governor recommends for the consideration of the Legislative Assembly the expediency of making provision to meet the requisite expenses in connection with a Bill to provide for Mining on Private Lands for Gold and other Minerals; for the construction of races, roads, and ways upon or through such lands; for the conveyance of water or materials to or from mines on such lands, or on Crown Lands; and for the resumption, in certain cases, of private lands.

Government House,
Sydney, 8*th October*, 1891.

1891.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

COAL MINES REGULATION BILL.

(MESSAGE No. 6.)

Ordered by the Legislative Assembly to be printed, 5 August, 1891.

JERSEY,

Governor.

Message No. 6.

In accordance with the provisions contained in the 54th section of the Constitution Act, the Governor recommends for the consideration of the Legislative Assembly the expediency of making provision to meet the requisite expenses in connection with a Bill to make better provision for the regulation of Coal Mines and Collieries; and for other purposes connected therewith..

Government House,

Sydney, 30th July, 1891.