1910.

NEW ZEALAND.

MINES STATEMENT,

BY THE HON. RODERICK McKENZIE, MINISTER OF MINES.

Mr. SPEAKER,—

Sir,—In presenting to the House my second annual Statement on the mining industry of the Dominion, I desire to congratulate honourable members and the people generally on the satisfactory progress and continued advancement of this important industry in almost all its branches.

In reviewing our mining industry in my last Statement I took occasion to remind honourable members of its beneficial influence on the progress and prosperity of our people in the past, and it is now most gratifying to have to announce that, while this country, in common with other parts of the world, suffered some slight industrial depression, this branch of our industries was seldom in a more vigorous or prosperous condition than during the period under consideration; and, moreover, the increased energy in the development of our mineral resources has assisted materially in preventing congestion in our labour-market.

In concluding my observations on our mining industry last year I informed honourable members that the indications for the following year were exceedingly promising, and it is now most satisfactory to state that my expectations have been fully realized, the value of our mineral products during the year having exceeded that of the previous year by £255,456.

It will doubtless interest honourable members, sir, if I call their attention to the steady progress and satisfactory development of the mining industry under the fostering care and reasonable assistance given to it during recent years. During the last forty years there have been two distinct periods in the history of this most important industry: the first of these periods was the twenty years from 1870—when the industry may be said to have been at the zenith of its prosperity, and of its early development, when it produced £2,345,667—until 1890, when, through continued neglect and administrative indifference, the industry was nearly crushed out of existence, with the result that during the concluding year of this period of gradual decline the produce of our mines was reduced to £1,240,903, being a decrease in production between the first and last years of this deplorable period of £1,104,764, or nearly one-half.

From 1890, when this industry was at its lowest depth of depression, and produced only £1,240,903, until now, the industry has, under the protection of equitable legislation and generous assistance in developing mineral resources, passed through a period of general progress and annually increasing prosperity, with the result that last year our mineral productions amounted to £3,791,133, being an increase of £2,550,230 between the last year of the twenty-year period of neglect, decline, and depression, and the last year of the twenty-year period of fostering care, progress, and prosperity of our mining industry. I trust,

sir, that these figures will demonstrate to honourable members, and impress upon them, the enormous benefits derived by the community through the granting of judicious and generous assistance towards developing our vast mineral resources.

From the tables attached an analysis may easily be made of the decline of our mineral productions from 1870 to 1890, and also of their gradual progress between 1890 and 1909. An examination of these tables is both interesting and instructive.

I informed the House last year that some inquiries had been made by private parties with a view of obtaining water-rights for generating electrical energy for mining and other purposes: since then a water-power license to develop 10,000-horse power at the Horahora Falls has been granted to the Waihi Gold-mining Company.

In view of the scientific improvements in the most modern methods of generating and transmitting electrical energy, and the enormous possibilities of the numerous water-powers available in this Dominion, increased energy in the development of our mineral assets may safely be anticipated. Several of our mines have already installed, or are installing, electrical machinery for traction, lighting, pumping, and other purposes, and as soon as some of our easiest-exploited water-powers are utilized considerable expansion in electrical energy for mining purposes will certainly follow, and mineral areas which are at present useless will become valuable.

The increased energy displayed in our mining industry during the last year is evidenced by the very substantial increase of £255,456 in our mineral-output.

The coal-mines of the Dominion have had a period of activity, the output for the year being a record. It is also interesting to note that the coal-output of the Dominion has doubled during the last decade. Two of the large new collieries on the West Coast which were last year being developed are now coal-producers, and will add largely to our supply of bituminous coal.

While last year I had occasion to deplore the decline in our kauri-gum export, I am now pleased to inform honourable members that this branch of our industries shows a largely increased output. This may, however, be accounted for, to some extent at least, by considerable quantities of the gum having been held in store pending an improvement in the prices ruling in the European and American markets.

Slight increases have taken place in the production of gold and silver.

A small decrease is discernible in the outputs of copper-ore, antimony, scheelite, and other minerals; but, while the production of these has been proceeding for many years, they have not yet got beyond the experimental stage of development.

As our mining data is compiled up to the 31st December in each year, and not published until laid before Parliament several months afterwards, complaints are being continually made by British newspapers and parties interested in mining that the information contained in our official mining records becomes stale and often useless before it reaches people at a distance who are interested in our mining industry. I am of opinion that an improvement would be effected by authorizing the publication in the Government *Gazette* of the required information as soon as available.

MINERAL-PRODUCTION.

While New Zealand contains a large variety of minerals such as copper, iron, mineral oils, shale, scheelite, antimony, and many others, the attention of our mining community has hitherto been almost entirely confined to the development of gold, coal, and kauri-gum, and, during recent years, silver, which has become an important item in our mineral products. Amongst the undeveloped minerals our iron- and copper-ore deposits, together with our well-known mineral-oil resources, offer excellent opportunity for energetic operations.

The value of the bullion exported from New Zealand from January, 1853, until December, 1909, was £76,987,763, while the total value of the mineral-production of the Dominion up to the end of December last has been £107,849,896.

The gold entered for export during the year ended 31st December, 1909, was 506,371 oz., valued at £2,006,900, being an increase of £1,975 as compared with the production of the previous year.

The silver produced during the year shows a decided improvement, being an increase of £5,535 as compared with 1908.

COAL.

The large increase in the quantity of coal exported during the year is very satisfactory, and would be very important if the trade could be maintained and gradually increased, the quantity being 201,685 tons, as against 100,502 tons during the previous year; and the value £183,961, as against £85,846 in 1908.

SUMMARY.

The following table shows the quantity and value of the various minerals exported annually during the last two years, and also the quantity and value of New Zealand coal used for home consumption during the same periods:—

Product.	Year ending 31st December, 1908.		Year ending 31st December, 1909.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Gold	506,423 oz.	2,004,925	506,371 oz.	2,006,900
Silver	1,731,336 ,,	175,337	1,813,830 ,,	180,872
Copper-ore	13 tons	275	5 tons	100
Manganese-ore	..	..	6 ,,	29
Mixed minerals	1,690½ tons	16,179	1,836¾ ,,	11,709
Colonial coal exported, including that used by Home steamers	100,502 ,,	85,846	201,685 ,,	183,961
Colonial coal used in New Zealand	1,760,473 ,,	880,236	1,709,562 ,,	854,781
Kauri-gum	5,530 ,,	372,798	8,250 ,,	552,698
Coke	2 ,,	4	22 ,,	23
Antimony	5 ,,	73	2 ,,	60
Shale	1 ,,	4	..	..

	£
Total value of production for 1909	3,791,133
,, ,, 1908	3,535,677
Total increase	£255,456

GOLD-MINING.

In reviewing this branch of the industry it is very satisfactory for me to inform the House that our goldfields have kept well up to their previous records, and that the past year's operations have produced increased returns as compared with that of 1908. The Auckland and Nelson Mining Districts show decreases, and the West Coast, Otago, and Southland Districts show increases.

The yield of gold, to which must be added silver, which in this country is a product of our gold-mines, shows an increase of £7,510 as compared with that of 1908.

The details are shown in the following table :—

District.	Year ending 31st December, 1909.		Year ending 31st December, 1908.	
	Quantity.	Value.	Quantity.	Value.
	Oz.	£	Oz.	£
Auckland	288,614	1,142,098	296,971	1,171,375
Wellington	...	...	...	...
Marlborough	39	155	297	1,145
Nelson	2,572	10,286	3,196	12,783
West Coast	95,014	369,930	86,052	335,722
Canterbury	...	...	...	...
Otago and Southland	120,121	484,385	119,907	483,900
Unknown	11	46	...	...
Totals	**506,371**	**2,006,900**	**506,423**	**2,004,925**

ALLUVIAL MINING.

During the past year there has been considerable activity and increased prosperity in alluvial mining operations. A few years ago this branch of our mining industry was generally believed to be gradually declining ; it is therefore satisfactory to note that the last two years have shown a marked improvement in some branches of alluvial mining, and, while gold-dredging has declined during the year, other methods of alluvial mining, such as hydraulic sluicing, elevating, and driving, have improved considerably. This is to some extent due to the moderate assistance given by the State to this class of mining by way of assisting prospecting in difficult and expensive localities, and also by the assistance granted towards carrying out expensive operations in developing large mining enterprises.

There are at present 111 alluvial gold-dredgers, employing 893 men, in active operation. The gold produced during the year by these dredgers was valued at £327,676, being a decrease of £46,142 on the yield of the previous year. The number of working dredgers has decreased by twelve, and the average earnings by £87 per dredger during the year.

While there is a decrease in the number of men employed on our alluvial goldfields, the yields of gold produced by various processes other than dredging show a decided improvement, which may be accounted for by the improved methods of hydraulic sluicing and elevating now coming into more general use. A careful perusal of the reports of the Wardens and Inspectors of Mines, and my own personal observations while visiting many of our goldfields during the year, warrants me in assuring honourable members that there is a strong feeling of confidence in the future prospects of most of our alluvial goldfields. In Central Otago I found this feeling very pronounced amongst both miners and business men, and with a well-devised and carefully prepared scheme of water-conservation and the great possibilities of hydro-electric energy, I feel satisfied that this confidence in their future prospects is fully justified.

Alluvial mining generally in Otago and Southland has improved during the year, and several important development operations were in course of construction which, when completed, should in the immediate future add considerably to the returns from these goldfields.

The Muddy Terrace Sluicing Company, near Waikaia, Southland, have sufficiently advanced their development-works during the year to permit of both sluicing and elevating operations being started, I am informed, with very satisfactory results, and their future operations may be expected to add to the returns from our alluvial goldfields.

Throughout the West Coast alluvial goldfields steady progress with improved returns was noticeable as compared with those of the previous year.

The Ross Goldfields (Limited) have been engaged installing a hydro-electric pumping and winding plant. This work is now finished, and the once famous Ross Flat may be expected to make a substantial contribution annually to the gold-production of the West Coast.

On the alluvial goldfields of Nelson and Marlborough operations have been carried on with diminished returns. Some new mining enterprises, however, are in process of development which may be expected to improve matters in these mining districts.

QUARTZ-MINING.

It is very gratifying to inform honourable members of the satisfactory progress and development of the quartz-mines of the Dominion during the period under consideration, and there are indications of a long period of improvement and prosperity in this the most important branch of our mining industry. The present prospects of future expansion with profitable results are exceedingly promising.

The bullion produced by our quartz-mines during the year showed an increased value of £49,849, and the dividends paid an increase of £36,438, as compared with the previous year. The quantity of ore treated was 693,006 tons, as against 654,307 tons during the previous year, being an increase of 38,699 tons for the period. The bullion-value of the ore produced was £1,526,861, as against £1,477,012, the value of the ore produced during the previous year.

There was a decrease of 168 in the number of men employed in the northern quartz-mines as compared with the number employed during the preceding year. This reduction is accounted for by there being 230 fewer men employed at the Komata Reefs and Crown Mines, while the Waihi Grand Junction has increased its employees by sixty men, and small increases have taken place in other mines.

The West Coast quartz-mines had a very successful year, with substantial increases in output, bullion-value, and the number of men employed. During the year 108,136 tons of ore were treated, as against 95,156 tons during the previous year; the bullion produced being £214,876, as against £160,156 during 1908, being an increase of £54,720. The number of men employed in the West Coast quartz-mines during the year was 755, as against 675 during the previous year. Considerable activity and renewed energy was displayed in connection with quartz-mining in the Inangahua district, the main shaft of the Wealth of Nations having been sunk to a depth of 1,861 ft., and that of the New Big River Mine to a depth of 1,575 ft.; and active operations at these deep levels are now carried on with satisfactory results in both mines.

The Blackwater Mines (Limited) carried out extensive development-works in the mine, as well as substantial additions to the crushing plant, during the year. This new mine is now sufficiently developed to be a regular producer. Last year 29,955 tons of ore were treated at the battery, as against 9,169 tons during the preceding year; the bullion produced being £73,281, as compared with £17,647 during 1908. Judging by the energetic progress made in developing the underground workings of this mine, and the exceedingly satisfactory increase of 55,634 in the value of bullion produced last year as compared with that of the previous year, considerable expansion in the ore-production from this mine may be reasonably anticipated in the immediate future.

In the Otago Mining District the Barewood Gold-mining Company treated 5,477 tons of ore, for a return of £6,518, during the year, and the Taitapu Gold-mining Company, Collingwood, treated 1,299 tons of ore for a yield of £4,957, and paid £2,105 in dividends. Numerous quartz-mines in the experimental stages of development are in active operation in many parts of New Zealand, and considerable progress in prospecting various promising propositions on our auriferous-quartz fields in different parts of the Dominion was energetically carried on during the year.

Doubtless, the most convincing demonstration of the satisfactory progress and continued prosperity of our quartz-mining industry that I can place before honourable members is the fact that the ore treated during the year increased from 654,307 tons to 693,006 tons, and the value of bullion produced from £1,477,012 to £1,526,861, and the dividends paid from £561,833 to £598,271. It will readily be conceded that, when nearly one-third of the value of the bullion produced during the year was paid in dividends, a most satisfactory condition obtains in this branch of our mining industry.

In the following table the present position of our quartz-mining is summarized :—

Name of Company.	Tons of Quartz treated.	Value of Bullion.	Average Value per Ton.	Total Cost per Ton.	Dividends paid.		Number of Persons ordinarily employed.
					1909.	Total to End of December, 1909.	
Northern District—		£	£ s. d.	£ s. d.	£	£	
Waihi Gold-mining Company (Ltd.)*	416,813†	924,146‡	2 4 4‡	0 16 2·14	446,316	3,561,111	1,500
Waihi Grand Junction Gold-mining Company (Ltd.)	59,669	99,839	1 13 4¾	0 19 2	...	...	424
Waiotahi Gold-mining Company (Ltd.)	1,495	10,116	6 16 0	4 12 5	3,000	400,800	28
Talisman Consolidated (Ltd.) ...	46,456	208,886	4 10 0	2 0 4	105,000	356,250	325
Komata Reefs (Ltd.)	13,390	24,417	1 16 5½	§	...	33,333	70
May Queen (Ltd.)	1,315	3,520	2 13 6½	§	...	...	32
West Coast District—							
Keep-it-Dark Quartz-mining Company (Ltd.)	11,163	11,313	1 0 3	1 0 3½	...	158,667	45
Progress Mines of New Zealand (Ltd.)	35,414	52,030	1 9 4½	1 4 9·08	13,750	309,375	335
Consolidated Goldfields of New Zealand (Ltd.)	15,577	28,359	1 16 5	0 15 11·177	...	...	105
New Big River Gold-mining Company (Ltd.)	5,434	26,270	4 16 8	1 18 5	15,600	82,689	55
Blackwater Mines (Ltd.) ...	29,955	73,281	2 8 11	0 16 10·07	12,500	12,500	190
Golden Blocks Taitapu Gold-mining Company (Ltd.)	1,299	4,957	3 16 4	§	2,105	§	25
Southern District—							
Barewood Gold-mining Company (Ltd.)	5,477	6,518	1 3 9½	1 0 8·7	...	2,000	22
Other quartz-mines throughout New Zealand	49,549	53,209	1 1 5¾	§	§	§	571
Totals, 1909	**693,006**	**1,526,861**	**2 4 0¾**	§	**598,271**	§	**3,727**

* The total value of the output of this company at the end of the year was £8,180,218. The dividends here given are free of income-tax.

† Short tons of 2,000 lb. dry weight.

‡ In the annual report of the directors of this company for 1909 the value of the bullion production is stated to be £959,954, being an average value of £2 13s. 1d. per short ton; but the figures given in the table above are the official returns from the company to the Inspector of Mines. The ore reserves at the end of 1909 are estimated to be 1,335,586 short tons, as compared with 1,329,872 tons at the end of 1908.

§ Unknown.

COAL-MINING.

This branch of our mining industry has had an exceedingly prosperous period during the last year. The most remarkable feature connected with the operations of our coal-mines has been the very large increase in the production of bituminous, semibituminous, and brown coal, and the decrease in the production of pitch-coal and lignite. Doubtless owing to the unfortunate and prolonged strike in the coal trade in New South Wales, there was an abnormal increase in the coal exported from this Dominion, the quantity exported, including that used by Home steamers, having increased from 100,502 tons in 1908 to 201,685 tons in 1909, and the value from £85,846 to £183,961, being an increase of 101,183 tons and an increased value of £98,115. The total coal-production during the year was 1,911,247 tons, which was a record for the Dominion, and exceeds the output of the previous year by 50,272 tons.

The output of bituminous and semi-bituminous coal increased by 52,021 tons, and brown coal by 20,368 tons, whereas the output of pitch-coal and lignite decreased by 22,117 tons. It is very satisfactory to note that the coal-production of this Dominion has doubled during the last decade. This would, in a modest way, indicate a repetition of the history of the coal industry of the United States. Mr. H. St. Clair Putnam, one of America's most eminent engineers, dealing with this and kindred questions relating to motive power, fuel, and light, before a Conference of the Governors of all the States of the Union, says, "The coal-production of the

United States for the year 1906 was 414,157,278 tons; for 1907 about 450,000,000 tons. If the production of anthracite coal is continued at only its present annual rate, the supply will be exhausted in sixty to seventy years. Since the beginning of our coal industry the production has doubled approximately every ten years." If such has been the history of the American coal industry from its inception until now that it has reached the immense output of 500,000,000 tons annually, is there any reason why that history in a smaller degree should not apply to the future coal industry of this young country, which nature has endowed with great advantages and enormous resources for developing a variety of industrial pursuits not hitherto attempted? Prudence demands that we should without delay take the necessary precautions to preserve to the people all available means of producing heat, light, and motive power required for future use in transport and manufacturing purposes.

What may prove to be an important discovery of a good quality of lignite was made during the year a few miles from the Waimarino Station, on the North Island Main Trunk Railway. A good deal of exploration-work was carried out during the year under the Director of Geological Survey, but no conclusion as to the value of this discovery has so far been arrived at. The explorations undertaken up to the present disclose the existence of a considerable area of coal which may prove of a very good quality for household purposes. With a view to further proving the commercial value of this field the Government has arranged to start a few men soon to drive a small prospecting-tunnel from one of the outcrops. This work will be put in hand almost immediately.

The development of a new colliery is being promoted by the Waipa Railway and Collieries Company, with a capital of £80,000. The locality to be operated is favourably reported on as being extensive, and capable of economical exploitation.

The Taupiri Coal Company also propose opening a new mine in the same neighbourhood with as little delay as possible: these new developments will necessitate the construction of about six or seven miles of a branch railway from Huntly, including the erection of a large bridge over the Waikato River. The plans for this bridge are at present being prepared.

Further discoveries of coal-outcrops have been made during the year between the Wairoa and Hokianga Rivers. Pressure of other important and urgent work prevented a geological report being obtained on these outcrops, but attention will be given to them at the earliest opportunity.

STATE COAL-MINES.

The production of coal from the State collieries during the year was carried on with satisfactory results, the total output being 281,630 tons, being a decrease of 5,321 tons as compared with that of the previous year. There was a decrease of 18,406 tons in the output from the Point Elizabeth Mine owing to a cessation of work at the mine pending the arrangement of a new working-agreement: since this was settled work has proceeded under normal conditions.

The Seddonville Mine produced 74,180 tons during the year, being an increase of 15,137 tons over the output of the previous year. Prospecting-bores have been put down in a new section of this mine with satisfactory results; and further prospecting-bores will be put in during the year, as the present workings are being worked out. It is probable the development-works in this new section of this mine will require to be undertaken soon.

The development-work in connection with the Point Elizabeth No. 2 Colliery is making satisfactory progress: contracts were let some time ago for 6,338 ft. of tunnels on the haulage-road between the bins and the mine-adit, and 1,710 ft. of these tunnels were driven before the 31st March. The extension of the railway from Runanga to the bins is well advanced, and the erection of the new bins is now in hand. Headings are being driven in the mine, and the coal, in seams of from 12 ft. to 20 ft., is turning out to be of excellent quality. I expect that coal from this mine will be on the market within the next ten months.

The briquette-works were idle for several months of the year, owing chiefly to the demand for small coal having greatly increased in consequence of the strike in the New South Wales coal-mines.

The depots generally have had increased demands for coal, resulting in the extension of trade and more profitable results.

HYGIENIC CONDITIONS.

Complaints of insufficient ventilation and other unsatisfactory hygienic conditions in some of our mines are occasionally received by the Mines Department, and, while it is conceded that the sanitary conditions in the mines of this Dominion are generally satisfactory, exceptions always prove the rule; and, in order to definitely ascertain the exact conditions prevailing, the Government has decided to appoint a Royal Commission to examine into and report on the hygienic sanitary conditions of all mines about which complaints have been made, with a view to all necessary precautions being taken and remedial measures provided where necessary to protect the health and lives of the men employed in the underground workings of our mines.

Parliament legislated last session to prevent the medical examination of men seeking employment in coal-mines. I intend to ask honourable members this session to legislate in a similar direction for men looking for employment in or about quartz-mines.

MINERS' RELIEF FUNDS.

The Coal-miners' Relief Fund, established many years ago, has been of very great assistance to coal-miners and their widows and orphans in cases of accident, or the accidental death of the breadwinner of the family, and the relief granted from this fund has invariably proved an inestimable boon. After the passing of the Workers' Compensation Act extraordinary legal technicalities or complications arose, which actually transferred the benefits of this Accident Relief Fund from the miners and their families to the accident insurance companies taking miners' risks; and where miners were insured by their employers against accident the amount they were entitled to under the Miners' Relief Fund was deducted from the amount they were entitled to under the Workers' Compensation Act, with the result that the insuring company derived the full benefit of the Miners' Relief Fund. Parliament last session legislated to prevent a continuance of this injustice; but I regret that the clause dealing with the matter was found to be inoperative. I propose to submit amending legislation on this point to honourable members this session.

The Coal-miners' Relief Fund was originally instituted by Parliament, and made a charge on the produce of the mine where the miner was employed, as an insurance fund against the dangerous nature of his employment: it is now somewhat of an anomaly that by subsequent legislation the miner and his family should be deprived of the relief which was formerly provided against the dangerous nature of his calling, to the benefit of an accident insurance company.

During the present session I propose to submit legislation to honourable members providing an Accident Relief Fund to miners working in our quartz-mines, and also on our mining-dredgers. The conditions of employment and liability to accident in our quartz-mines are at least as objectionable and dangerous as in coal-mines, and accidents on mining-dredgers are more numerous than in any other class of mining in this country. This fund will be maintained by a small charge on the bullion-production of the quartz-mines and dredgers operating in the Dominion.

KAURI-GUM.

The fluctuations in the production and value of kauri-gum are somewhat surprising. In reviewing this section of our mining industry in my last Statement I pointed out the extraordinary fall in production, which amounted to no less than £207,090 for the year ending on 31st December, 1908. It is now my agreeable duty to inform honourable members that the kauri-gum industry has made a phenomenal recovery during the year, with the result that the quantity exported increased from 5,530 tons in 1908 to 8,250 tons last year, and the value from £372,798 to £552,698 during the same period. It is difficult to account for the remarkable fluctuations in the exports of kauri-gum, but the most feasible explanation is exploitation of the market,

MINERAL OILS.

For many years past numerous efforts have been made to develop the production of mineral oils in different districts in the Dominion, and considerable sums of money have been expended in efforts to "strike oil" in various localities. During the year energetic operations in boring have been carried on by enthusiastic prospectors in the Taranaki, Gisborne, Grey, and Southland districts, with variable results. It is now, however, satisfactory to inform honourable members that at last success appears to have been attained by at least one of the companies which so consistently carried out boring operations in the Taranaki oil region, and according to present indications it is anticipated that their efforts are about to be rewarded. If the present flow of oil continues it is expected that this company will soon be in a position to claim the bonus of 3d. per gallon which has for some years been offered by the Government. There are at least two important questions connected with the future development of the mineral-oil industry in this country demanding early and careful consideration. The first is the establishment of a mineral-oil refinery, and what assistance, if any, should be given by the State towards the development of this exceedingly important new industry. The second question demanding attention is legislative control of the flow, and storage of mineral oil in large quantities. There are at present probably 100,000 gallons of crude petroleum stored in concrete tanks in the vicinity of the Town of New Plymouth, and, while I am aware that every reasonable precaution is being taken, it is desirable to point out that this is an exceedingly dangerous practice. In no other country in the world that I am aware of is the manipulation of mineral oils permitted without control or regulation to insure public safety. To remedy this omission I propose to submit legislation to honourable members for consideration during the present session.

CINNABAR.

Some progress has been made during the year in the development of the cinnabar deposits in the vicinity of Mackaytown, near Karangahake. The Ascot Cinnabar Syndicate have erected a plant for the reduction of cinnabar, and, so far, their operations, which are on a small scale, appear to be meeting with some success, as they have recently notified me of their intention of claiming the Government bonus for the production of quicksilver, of which they had then produced a small quantity. The Inspector of Mines at Waihi has been appointed to certify to the quantity of quicksilver produced.

OTHER MINERALS.

Little or no progress has been made in the production of copper, scheelite, antimony, or manganese ore during the year. The scheelite-mines at Glenorchy, Macrae's Flat, and Mount Highlay produced about 139 tons of tungsten concentrates, and the Maoriland Copper Company, Nelson, produced 764 tons of ore, valued at £1,872. There was a decrease in the production of mixed minerals during the year amounting to £4,610.

GEOLOGICAL SURVEY.

During the season of 1909–10 detailed geological surveys were carried on in the Tairua-Waihi, Dun Mountain, and Greymouth Subdivisions. In the important mining areas included in the former subdivision it is hoped that the very careful investigations now being made will result in material assistance to the gold-mining industry. It is expected that field-work in this locality will be completed next January.

Field-work in the Dun Mountain Subdivision was finished last September, and a bulletin on the area has been prepared.

In the Greymouth district field-work is now completed, and a bulletin thereon is in course of preparation. A detailed examination of the Taranaki Oilfield, which was begun during the year, will, it is hoped, be brought to completion during the

coming year. In addition to the above surveys, short visits were made by the Director to a number of localities where it was desired that preliminary investigations should be made. The annual report, now in the press, will contain reports of these investigations, together with a preliminary report on a portion of the Taranaki Oilfield. Several bulletins written by officers of the Geological Survey Branch of the Department have been forwarded to the Printing Office for publication.

During the next field season it is intended to inaugurate a detailed survey of the Reefton Goldfield. After the work in the Tairua-Waihi Subdivision has been brought to a conclusion it is proposed to extend the Geological Survey southwards into the Te Aroha and adjoining districts. A reconnaissance of the little-known Lake Hauroto district, in south-western Otago, supposed to contain various minerals of economic value, will probably be undertaken, if opportunity permits, during the coming season.

PROSPECTING.

During the year subsidies amounting to £4,936 were granted to mining associations and prospectors in different parts of the Dominion. Prospecting operations were carried on energetically on all our mining fields, extending from Coromandel to Preservation Inlet. Considerable assistance was granted to parties of miners on all our goldfields for sinking prospecting-shafts and driving tunnels in localities recommended by the Inspectors of Mines, and the Geological Survey Branch of the Mines Department; and many of those assisted prospecting operations are at present in progress.

The three diamond drills, and the Keystone placer drill, owned by the Department, have been kept fully employed during the year, and there are numerous applications at present booked for the use of these drills. The Keystone drill was kept constantly in use on the Otago Goldfield during the whole period since its arrival in the country, and the applications for it have become so numerous that it has been decided to import another drill of the same description. This machine is now under order, and should arrive in the Dominion within a few months.

For most of the period two of the diamond drills were kept in use in the Waihi district; one is now in use at the Seddonville Colliery, and another in Southland, and the third will be in use shortly.

Early in the year details were arranged with the mining companies at the Thames by which an agreement was completed under which these companies contribute £12,000 and the Government £5,000 to the cost of driving a prospecting-tunnel at the 1,000 ft. level from the Queen of Beauty shaft for a distance of about 2,700 ft. to the Kuranui-Caledonian shaft, near the opposite side of the principal part of the old workings on the Thames Goldfield, and at a depth of about 250 ft. below the old workings. Subsidiary drives will extend from the main tunnel to the properties held by the companies interested. Besides prospecting the Thames field at the 1,000 ft. level, this undertaking will have the great advantage of draining the whole goldfield. This work is now commenced, and sanguine hopes of successful results are entertained by all who are familiar with the previous and present conditions on the Thames Goldfield.

ROADS AND TRACKS ON GOLDFIELDS.

Under this heading most valuable assistance to the extent of £40,830 has been granted for the construction of roads and tracks in the mining districts throughout the Dominion from North Cape to Stewart Island. Roads and tracks into the rugged ranges and gullies, where a great portion of our mining operations are located, are the most important assistance that can be rendered to our mining industry, not only to facilitate the economical development of mines in full or partial operation, but also to enable the prospector and the pioneer miner to penetrate further into the interior of our unexplored or partially explored mineral areas, and to permit of provisions and mining plant being brought into what has hitherto been in many instances almost inaccessible, if not impenetrable, country.

UREWERA COUNTRY.

The Urewera country has now been open to the prospector and the miner for over a year, but, so far, previous expectations as to the mineral possibilities of this formerly tabooed area have not been fulfilled.

While it is known that some prospectors have carefully, if somewhat superficially, examined the country, no mineral discoveries of any description have been reported to the Mines Department. It does not, however, follow that the Urewera is barren of mineral-values; and while, so far, pressure of other important investigations prevented any officer of the Geological Survey Branch of the Mines Department making any examination of this somewhat unknown portion of the country, I propose to take an early opportunity of getting at least a preliminary geological report made by one of the officers of the Department.

SCHOOLS OF MINES.

These schools in our mining districts, and the Dunedin School in connection with the Otago University, are rendering excellent services to the young generation of miners in this Dominion. The Government assistance granted to these schools during the year amounted to £3,261 8s. 4d., making a total of £44,619 granted since their inception in 1885, being an average of £1,777 a year during the twenty-five years of their existence. The results obtained can only be regarded as highly satisfactory. During the year 100 students from the different mining districts presented themselves for examination.

There are at present four scholarships available in connection with examinations in gold-mining subjects, and no scholarships in connection with coal-mining subjects. In only two years since their inauguration in 1895 have more than two of these scholarships been taken up in any one year. I now propose to establish two scholarships for passes in coal-mining subjects on similar conditions to the scholarships already available for gold-mining subjects.

BOARDS OF EXAMINERS.

Suggestions have been made regarding the amalgamation and reorganization of the two Boards of Examiners, and also as to the methods of examination, with a view to obtaining more uniformity and efficiency in administration. So far, no alteration has been made, but the matter will receive my early consideration. Mine-managers and battery-superintendents who qualify for the New Zealand Government certificate are now considered the most competent and best-qualified men available, and readily obtain the highest positions of trust and responsibility in every part of the world.

WATER-CONSERVATION.

Two parties of surveyors have been employed during the year in connection with water-conservation for mining and irrigation in Central Otago. The surveying and engineering details necessary for the consideration of several of the schemes dealt with are now ready for final examination. Some of them will, however, require to be considered in connection with the hydro-electric proposals to be submitted to Parliament this session, and will be further dealt with in the Public Works Statement.

WATER-RACES.

The returns from Government water-races on goldfields show a slight improvement during the past year. The extension of the Kumara Water-race across the Taramakau is now well in hand. Contracts have been let during the year for the necessary ditching, and the material for the pipe-line is under order from England. It is anticipated that this work will be completed during the present year. It is also probable that it will be found expedient to increase the carrying-capacity of the Mount Ida Water-race: this matter is at present being inquired into.

MINING-DEVELOPMENT.

Our present legislation practically prevents advances being made by the State-guaranteed Advances Board for the development of mining enterprises. Several applications for advances were received during the year, but all had to be reluctantly refused owing to the legal objections referred to. That there are many excellent mining ventures worthy of State financial assistance is invariably admitted. I propose to submit legislation for the consideration of honourable members this session in order to remove the existing legal obstruction.

ELECTRICAL REGULATIONS.

The new regulations for controlling the installation and use of electricity in mines appear to be working smoothly, and to be giving satisfaction to both mine-managers and employees.

CONCLUSION.

In concluding my review of the mining industry it is satisfactory to inform honourable members that never in its history were its prospects more promising than they are at present; it is, however, essential that generous assistance and fostering care should be given in developing our mineral resources.

This industry has since 1853 contributed approximately £108,000,000 to our national wealth, and no better investment is open to the people of this Dominion than granting reasonable assistance in extending prospecting-tracks into the wood-clad practically impenetrable ranges and gorges in which a large portion of our mineral resources are located; every encouragement should also be granted to the prospector and the pioneer miner in their arduous and strenuous efforts in discovering and developing new mining ventures. I anticipate substantial progress in developing our mineral resources during the present year, and can assure honourable members that we can look forward with confidence to the future expansion and prosperity of the mining industry.

No. 1.

TABLE showing COMPARISON in QUANTITY and VALUE of GOLD entered for EXPORTATION, also the QUANTITY and VALUE of other MINERALS, for the Years ended the 31st December, 1908 and 1909, as well as the TOTAL VALUE since the 1st January, 1853.

Name of Metal or Mineral.	For Year ending the 31st December, 1909.		For Year ending the 31st December, 1908.		Total from the 1st January, 1853, to the 31st December, 1909.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Precious metals—	Oz.	£	Oz.	£	Oz.	£
Gold	506,371	2,006,900	506,423	2,004,925	19,231,474	75,540,960
Silver	1,813,830	180,872	1,731,336	175,337	12,984,562	1,446,803
Total gold and silver	2,320,201	2,187,772	2,237,759	2,180,262	32,216,036	76,987,763
Mineral produce, including kauri-gum—	Tons.	£	Tons.	£	Tons.	£
Copper-ore	5	100	13	275	1,495½	19,198
Chrome-ore	..	..	..	..	5,869	38,002
Antimony-ore	2	60	5	73	3,748	54,849
Manganese-ore	6	29	..	..	19,359½	61,886
Hæmatite-ore	..	..	..	..	76½	444
Mixed minerals	*1,836¾	11,709	†1,690½	16,179	31,225½	217,188
Coal (New Zealand) exported	201,685	183,961	100,502	85,946	2,594,985	2,369,811
Coke exported	22	23	2	4	16,429	24,867
Coal, output of mines in Dominion (less exports)	1,709,562	854,781	1,760,473	880,236	26,424,779	13,120,272
Shale	..	..	1	4	14,423	7,215
Kauri-gum	8,250	552,698	5,530	372,798	297,807	14,948,401
Total quantity and value of minerals	1,921,368¾	1,603,361	1,868,216½	1,355,415	29,410,197	30,862,133
Value of gold and silver, as above	..	2,187,772	..	2,180,262	..	76,987,763
Total value of minerals produced, including gold and silver	..	3,791,133	..	3,535,677	..	107,849,896

* Including greenstone, 6 tons 14 cwt.; building-stone, 16 tons; auriferous ore, 182 tons; scheelite-ore, 58 tons; unenumerated, 7 tons; pumice-stone, 1,567 tons; wrought stone, tons unrecorded. † Including auriferous ore, 654 tons; scheelite-ore, 68 tons; unenumerated, 6 tons; ironsand, 2 tons; pyrites, 2 tons; stone, 30 tons; greenstone, 6½ tons; pumice-stone, 922 tons.

No. 2.

TABLE showing the QUANTITY and VALUE of GOLD entered for EXPORTATION from NEW ZEALAND for the Years ended the 31st December, 1909 and 1908, and the TOTAL QUANTITY and VALUE from 1857 to the 31st December, 1909.

District and County or Borough.	Year ending 31st December, 1909.		Year ending 31st December, 1908.		Increase or Decrease for Year ending 31st December, 1909.		Total Quantity and Value from January, 1857, to 31st December, 1909.	
	Quantity.	Value.	Quantity.	Value.	Increase.	Decrease.		
AUCKLAND—	Oz.	£	Oz.	£	Oz.	Oz.	Oz.	£
County of Coromandel ..	916	3,857	1,286	5,402	..	370	..	..
County of Thames ..	4,049	15,191	4,632	18,329	..	583	..	..
County of Ohinemuri ..	60,932	212,343	72,681	257,972	..	11,749	..	..
County of Piako	4	16	..	..	4	..	..	..
Borough of Thames ..	2,914	12,104	6,980	29,326	..	4,066	..	..
Great Barrier Island ..	1	4	..	..	1	..	..	..
Borough of Waihi ..	219,798	898,583	211,392	860,346	8,406	..	..	..
	288,614	**1,142,098**	296,971	1,171,375	..	8,357	**4,876,024**	**18,490,401**
WELLINGTON	..	..	..	..	..	..	**188**	**706**
MARLBOROUGH—								
County of Marlborough ..	**39**	**155**	297	1,145	..	258	**90,230**	**351,523**
NELSON—								
County of Waimea ..	7	28	14	55	..	7	..	..
County of Collingwood ..	2,459	9,834	3,023	12,091	..	564	..	..
County of Takaka ..	106	424	159	637	..	53	..	..
	2,572	**10,286**	3,196	12,783	..	624	**1,724,240**	**6,835,810**
WEST COAST—								
County of Buller	6,609	25,565	6,724	26,052	..	115	..	..
County of Inangahua ..	58,775	225,503	45,529	173,781	13,246	..	..	..
County of Grey	19,491	78,193	23,106	92,971	..	3,615	..	..
County of Westland ..	9,058	36,346	9,249	37,142	..	191	..	..
Hokitika Borough ..	..	..	3	12	..	3	..	..
Ross Borough	1,081	4,323	1,441	5,764	..	360	..	..
	95,014	**369,930**	86,052	335,722	8,962	..	**5,505,807**	**21,895,169**
CANTERBURY—								
County of Ashburton ..	..	..	..	..	..	..	**99**	**387**
OTAGO—								
County of Taieri	2,677	10,613	1,849	7,434	828	..	..	..
County of Tuapeka ..	20,315	82,226	23,371	94,653	..	3,056	..	..
County of Vincent ..	39,152	157,356	33,118	133,694	6,034	..	..	..
County of Maniototo ..	5,824	23,096	5,874	23,299	..	50	..	..
County of Waihemo ..	1,367	5,359	916	3,410	451	..	..	..
County of Waitaki ..	2,791	11,081	2,617	10,412	174	..	..	..
County of Bruce	116	460	106	421	10	..	..	..
County of Lake	2,979	12,247	3,698	14,906	..	719	..	..
County of Wallace ..	4,502	18,192	4,813	19,442	..	311	..	..
County of Fiord	45	179	50	198	..	5	..	..
County of Southland ..	39,661	160,724	43,495	176,031	..	3,834	..	..
County of Clutha.. ..	692	2,852	..	..	692	..	..	..
	120,121	**484,385**	119,907	483,900	214	..	**7,034,668**	**27,965,937**
Unknown	**11**	**46**	..	..	11	..	**218**	**870**
Totals	**506,371**	**2,006,900**	506,423	2,004,925	..	52	**19,231,474**	**75,540,808**

No. 3.

GOLD PRODUCED, 1857 TO 1909.

TABLE showing the TOTAL QUANTITY and VALUE of GOLD entered for EXPORTATION from the 1st January, 1857, to the 31st December, 1909. (This Return shows the Output of the various Goldfields. Gold entered at Nelson from Hokitika, Greymouth, and Westport is put under the Head of "West Coast," and Gold from Invercargill and Riverton under the Head of "Otago.")

Year.	Auckland.		Nelson.		Marlborough.		West Coast.		Otago.		Wellington.		Canterbury.		Grand Totals.	
	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value	Oz.	Value.
		£		£		£		£		£		£		£		£
1857 ..	..	..	10,437	40,422	..	..	..	..	..	..	..	..	..	..	10,347	40,422
1858 ..	308	1,192	13,226	51,272	..	..	..	..	..	..	..	..	..	..	13,534	52,464
1859 ..	..	..	7,336	28,427	..	..	..	..	..	..	..	..	..	..	7,336	28,427
1860 ..	..	..	4,538	17,585	..	..	..	..	..	..	..	..	..	..	4,538	17,585
1861 ..	..	..	6,335	24,552	..	..	..	..	187,696	727,321	..	..	..	..	194,031	751,873
1862 ..	1,239	4,098	10,422	40,386	..	..	..	..	399,201	1,546,905	..	..	..	..	410,862	1,591,389
1863 ..	4,483	13,853	9,580	37,120	..	..	..	..	614,387	2,380,750	..	..	..	..	628,450	2,431,723
1864 ..	3,448	10,552	14,410	55,841	24,838	95,231	1,463	5,560	436,012	1,689,653	..	..	..	..	480,171	1,856,837
1865 ..	5,449	17,096	12,137	47,030	7,952	30,814	289,897	1,127,370	259,139	1,004,163	..	..	..	..	574,574	2,226,474
1866 ..	5,814	17,463	7,650	29,643	469	1,818	552,572	2,140,946	168,871	654,647	..	..	..	..	735,376	2,844,517
1867 ..	6,637	18,277	9,123	35,918	501	1,978	511,974	2,018,874	158,670	623,815	..	..	..	..	686,905	2,698,862
1868 ..	53,660	168,874	5,999	38,396	404	1,616	405,762	1,608,844	171,649	686,596	..	..	..	..	637,474	2,504,326
1869 ..	132,451	434,687	10,631	42,524	666	2,664	317,169	1,269,664	153,364	613,456	..	..	..	..	614,281	2,362,995
1870 ..	85,534	319,146	12,244	48,692	1,852	7,408	280,068	1,121,525	165,152	660,694	30	120	..	..	544,880	2,157,585
1871 ..	330,326	1,188,708	10,014	40,056	1,867	7,468	232,882	931,528	154,940	619,760	..	..	..	..	730,029	2,787,520
1872 ..	104,890	369,341	8,175	32,700	2,057	8,228	172,574	690,296	157,574	630,696	..	..	..	..	445,370	1,731,261
1873 ..	119,449	437,123	13,697	54,786	1,274	5,050	188,501	756,442	182,416	734,024	..	..	..	..	505,337	1,987,425
1874 ..	76,910	305,068	5,642	22,158	1,198	4,748	157,531	631,203	135,107	542,154	..	..	..	..	376,388	1,505,331
1875 ..	69,485	262,156	4,577	17,866	1,159	4,636	158,678	635,480	121,423	487,632	..	..	..	..	355,322	1,407,770
1876 ..	56,057	221,905	14,018	55,862	450	1,796	133,014	531,274	118,477	473,491	..	..	..	..	322,016	1,284,328
1877 ..	99,081	403,627	5,367	21,092	870	3,197	153,198	612,823	113,169	455,341	..	..	..	..	371,685	1,496,080
1878 ..	55,982	220,454	4,463	17,223	404	1,617	144,634	578,508	105,003	422,277	..	..	..	..	310,486	1,240,079
1879 ..	37,901	154,295	2,993	11,424	879	3,460	142,822	571,061	102,869	407,868	..	..	..	..	287,464	1,148,108
1880 ..	42,720	176,416	3,222	12,223	1,550	5,650	144,090	575,258	113,666	457,705	..	..	..	..	305,248	1,227,252
1881 ..	35,516	141,326	3,453	13,039	1,378	4,531	127,544	509,971	102,670	411,923	..	..	..	..	270,561	1,080,790
1882 ..	33,059	131,007	3,289	12,494	1,352	5,400	130,048	519,978	83,446	333,804	10	37	..	..	251,204	1,002,720
1883 ..	41,291	163,618	2,064	7,724	636	2,524	116,905	467,152	87,478	352,334	..	..	..	..	248,374	993,352
1884 ..	36,087	143,564	2,159	8,002	1,079	4,306	111,686	446,517	78,810	318,932	101	380	24	96	229,946	921,797

No. 3—*continued.*

GOLD PRODUCED, 1857 TO 1909—*continued.*

TABLE showing the TOTAL QUANTITY and VALUE of GOLD entered for EXPORTATION from the 1st January, 1857, to the 31st December, 1909. (This Return shows the Output of the various Goldfields. Gold entered at Nelson from Hokitika, Greymouth, and Westport is put under the Head of "West Coast," and Gold from Invercargill and Riverton under the Head of "Otago")—*continued.*

Year	Auckland.		Nelson.		Marlborough.		West Coast.		Otago.		Wellington.		Canterbury.		Grand Totals.	
	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.	Oz.	Value.
		£		£		£		£		£		£		£		£
1885 ..	42,989	170,416	2,798	10,337	540	2,160	117,861	471,325	73,183	294,378	..	..	..	..	237,371	948,615
1886 ..	32,271	128,140	2,582	9,979	404	1,451	112,671	446,287	79,104	317,543	47	169	..	..	227,079	903,569
1887 ..	30,697	121,564	2,914	10,829	1,041	3,759	98,774	395,430	70,443	279,518	..	..	..	..	203,869	811,100
1888 ..	35,223	139,556	3,027	11,320	699	2,547	100,139	400,405	62,107	247,142	..	..	24	96	201,219	801,066
1889 ..	28,655	113,191	3,252	12,310	5,189	20,167	101,696	406,451	64,419	256,430	..	..	..	..	203,211	808,549
1890 ..	31,745	125,760	2,856	11,049	6,073	24,285	89,096	356,368	63,423	255,976	..	..	..	..	193,193	773,438
1891 ..	45,392	181,185	4,445	16,896	5,649	22,576	109,268	437,126	87,209	349,573	33	132	..	..	251,996	1,007,488
1892 ..	45,555	183,655	2,535	9,604	3,898	15,429	103,106	412,383	82,933	333,467	52	206	..	..	238,079	954,744
1893 ..	45,714	186,553	2,145	8,187	2,165	8,644	99,127	396,516	77,660	313,238	..	..	..	..	226,811	913,138
1894 ..	52,916	211,974	2,860	10,634	2,536	10,123	86,950	347,464	76,353	307,644	..	..	..	..	221,615	887,839
1895 ..	111,213	430,862	2,460	9,016	2,695	10,771	89,429	357,719	87,694	353,796	..	..	..	..	293,491	1,162,164
1896 ..	92,346	350,355	2,753	10,333	916	3,588	79,317	317,161	88,362	359,991	..	..	..	..	263,694	1,041,424
1897 ..	105,477	392,337	1,892	7,055	810	3,195	58,817	235,430	84,649	342,187	..	..	..	..	251,645	980,201
1898 ..	142,383	527,786	1,720	6,882	781	3,003	79,948	319,789	55,343	223,231	..	..	..	..	280,175	1,080,693
1899 ..	168,769	624,737	419	1,571	..	..	90,031	360,149	130,311	526,605	..	..	28	111	389,558	1,513,172
1900 ..	166,342	605,398	3,718	14,605	535	2,147	73,923	295,733	129,075	521,629	..	..	23	90	373,616	1,439,603
1901 ..	191,968	695,551	7,212	28,138	133	513	113,286	454,006	142,940	575,492	..	..	22	83	455,561	1,753,783
1902 ..	201,583	721,977	5,947	23,649	601	2,404	118,796	475,272	181,116	728,124	..	..	2	7	508,045	1,951,431
1903 ..	232,681	832,334	7,962	31,710	972	3,845	125,241	501,090	166,458	668,852	..	..	..	..	533,314	2,037,831
1904 ..	223,010	791,529	5,049	20,141	473	1,890	122,310	489,177	169,478	684,764	..	..	..	..	520,320	1,987,506
1905 ..	232,215	825,602	6,469	25,862	..	..	109,704	438,258	172,098	694,214	..	..	..	..	520,486	2,093,934
1906 ..	295,417	1,195,541	2,944	11,746	..	..	104,743	414,292	160,739	649,325	..	..	..	..	563,843	2,270,900
1907 ..	298,101	1,187,079	3,893	15,274	795	3,009	87,069	343,146	118,352	478,982	..	..	..	..	508,210	2,027,495
1908 ..	296,971	1,171,375	3,196	12,783	297	1,145	86,052	335,722	119,907	483,900	..	..	..	..	506,423	2,004,920
1909 ..	288,614	1,142,098	2,572	10,286	39	155	95,014	369,930	120,121	484,385	..	..	11	46	506,371	2,006,903
Totals ..	4,876,024	18,490,401	304,821	1,204,653	90,076	350,946	6,925,380	27,526,903	7,034,766	27,966,327	273	1,044	134	529	19,231,474	75,540,808

NOTE.—In 1871 and 1872 the gold duty was 1s. to 2s. 6d. per ounce; in 1873 and succeeding years the duty was 2s. per 20-carat, and in like proportion for gold of less value. From the 31st March, 1891, the gold duty was abolished in the South Island.

No. 4.

TABLE showing the TOTAL QUANTITY and VALUE of MINERAL ORES other than GOLD (the Product of New Zealand Mines), COAL, COKE, and KAURI-GUM exported from the Dominion up to 31st December, 1909.

Year.	Silver.		Copper-ore.		Chrome-ore.		Antimony-ore.		Manganese-ore.		Hæmatite-ore.		Mixed Mineral Ores.*		Coal.		Coke.		Kauri-gum.		Totals.		
	Oz.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Oz.	Tons.	Value.
		£		£		£		£		£		£		£		£		£		£			£
1853 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	830	15,972	..	830	15,972
1854 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 661	28,864	..	1,661	28,864
1855 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	355	4,514	..	355	4,514
1856 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,440	18,591	..	1,440	18,591
1857 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,522	35,251	..	2,522	35,251
1858 ..	..	..	351	5,000	3	25	..	..	..	..	..	..	..	..	2	4	..	..	1,811	20,037	..	2,167	25,066
1859 ..	..	..	245	2,605	8	120	..	..	..	..	..	..	..	..	..	..	..	..	2,010	20,776	..	2,263	23,501
1860 ..	..	..	137	1,590	116	1,440	..	..	..	..	..	..	..	..	1	2	..	..	1,046	9,851	..	1,300	12,883
1861 ..	..	..	110	1,300	52	520	..	..	..	..	..	..	..	..	..	..	..	..	856	9,888	..	1,018	11,708
1862 ..	..	..	51	1,024	3,843	24,719	..	..	..	..	..	..	..	..	..	..	..	..	1,103	11,107	..	3,997	36,850
1863 ..	..	..	..	..	595	4,318	..	..	..	..	..	..	..	..	..	..	..	..	1,400	27,026	..	1,995	31,344
1864 ..	..	..	..	..	768	4,910	..	..	..	..	..	..	..	..	..	..	..	..	2,228	60,590	..	2,996	65,500
1865 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,867	46,060	..	1,867	46,060
1866 ..	..	..	..	..	281	1,315	..	..	..	..	..	..	..	..	261	400	..	..	2,535	70,572	..	3,077	72,287
1867 ..	..	..	246	2,700	..	..	..	..	..	..	..	..	..	..	973	1,228	..	..	2,685	77,491	..	3,904	81,419
1868 ..	..	..	84	977	..	..	..	..	..	..	..	..	..	..	1,027	1,210	..	..	2,690	72,493	..	3,801	74,680
1869 ..	11,063	2,993	..	..	..	..	..	..	..	..	..	..	..	..	750	800	..	..	2,850	111,307	11,063	3,600	115,100
1870 ..	37,123	11,380	7	120	..	..	..	..	..	..	..	..	..	..	1,672	1,508	..	..	4,391	175,074	37,123	6,070	188,082
1871 ..	80,272	23,145	..	..	..	..	..	..	..	..	..	..	..	..	1,696	1,612	..	..	5,054	167,958	80,272	6,750	192,715
1872 ..	37,064	9,910	..	..	..	..	..	..	..	..	..	..	..	..	990	855	21	50	4,811	154,167	37,064	5,882	164,982
1873 ..	36,187	9,850	..	..	..	..	..	..	..	..	..	..	..	..	724	655	..	..	2,834	85,816	36,187	3,558	96,321
1874 ..	40,566	10,380	..	..	..	..	..	..	..	..	..	..	..	..	1,463	1,363	87	228	2,569	79,986	40,566	4,119	91,957
1875 ..	29,085	7,569	..	..	..	..	..	..	..	..	..	..	..	..	3,385	3,129	15	51	3,231	138,523	29,085	6,631	149,272
1876 ..	12,683	3,171	..	..	..	..	..	..	..	..	..	..	3,180	14,824	1,854	1,954	53	189	2,888	109,234	12,683	7,975	129,372
1877 ..	33,893	7,556	..	..	..	..	..	..	..	..	..	..	2,366	9,664	2,658	2,071	25½	72	3,633	118,348	33,893	8,682½	137,711
1878 ..	23,019	5,755	6	115	..	..	4	102	2,516	10,416	..	..	2	8	6,362	5,139	85	177	3,445	132,975	23,019	12,120	154,687
1879 ..	20,645	4,512	55	1,105	..	..	..	..	2,140	8,338	..	..	..	..	7,144	6,187	154	324	3,229	147,535	20,645	12,722	168,001
1880 ..	20,005	4,500	..	..	..	..	60	612	2,611	10,423	..	..	2,674	11,335	7,020	5,977	87	135	4,725	242,817	20,005	17,177	275,799
1881 ..	18,885	4,236	5	36	..	..	2	24	1,271	3,283	..	..	1,955	4,303	6,621	5,610	223	353	5,461	253,778	18,885	15,538	271,623
1882 ..	5,694	1,286	9	41	..	..	30	900	2,181	6,963	..	..	2,784	8,597	3,207	2,380	275	480	5,533	260,369	5,694	14,019	281,016
1883 ..	16,826	3,785	46	678	..	..	31	804	384	1,155	0½	12	22	110	6,522	4,879	1,430	2,057	6,518	336,606	16,826	14,953½	350,086
1884 ..	24,914	5,125	20	106	..	..	..	..	318	809	..	..	..	..	6,104	4,461	236	372	6,393	342,151	24,914	13,071	353,024
1885 ..	16,624	3,169	..	..	..	..	666	5,289	602	1,716	50½	208	114	993	43,893	51,257	267	385	5,875½	299,762	16,624	51,468¼	362,779
1886 ..	12,108	2,946	20	390	..	..	62	1,784	328½	1,316	..	..	445	1,846	46,136	52,133	497	715	4,920½	257,653	12,108	52,409½	318,783
1887 ..	20,809	3,453	..	..	..	..	134	3,989	305	895	..	..	144	4,142	44,129	44,650	183½	266	6,791	362,449	20,809	51,686½	419,844
1888 ..	403	71	2	75	..	..	376	6,246	1,085	2,404	..	..	162	2,955	68,087	64,971	953	1,646	8,482	380,933	403	79,147	459,301
1889 ..	24,105	4,043	..	..	..	..	493	5,319	1,080	2,569	..	..	199	9,985	86,405	84,347	2,132	3,407	7,519	329,590	21,105	97,828	439,260
1890 ..	32,637	6,162	..	..	..	..	515	11,121	482	1,004	1½	5	19	273	69,614	67,003	2,218	3,334	7,438	378,563	32,637	80,287½	467,465
1891 ..	28,023	5,151	0¼	4	..	..	413	4,950	1,153	2,634	..	1	2	6	91,664	91,173	2,544	3,658	8,388	437,056	28,023	104,164½	544,633
1892 ..	22,053	3,996	..	..	..	..	364	4,900	521	1,239	..	..	84	631	78,911	80,225	4,306	5,691	8,705	517,678	22,053	92,891	614,360

No. 4—*continued.*

TABLE showing the TOTAL QUANTITY and VALUE of MINERAL ORES other than GOLD (the Product of New Zealand Mines), COAL, COKE, and KAURI-GUM exported from the Dominion up to 31st December, 1909—*continued.*

Year.	Silver.		Copper-ore.		Chrome-ore.		Antimony-ore.		Manganese-ore.		Hæmatite-ore.		Mixed Mineral Ores.*		Coal.		Coke.		Kauri-gum.		Total.		
	Oz.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Oz.	Tons.	Value.
		£		£		£		£		£		£		£		£		£		£			£
1893 ..	63,076	9,743	..	..	..	..	331	3,467	319	943	..	..	37	650	69,136	72,699	51	53	8,317	510,775	63,076	78,191	598,330
1894 ..	54,177	6,697	..	..	..	..	44	761	534	1,156	..	..	25	353	75,004	73,438	107	160	8,338	404,567	54,177	84,052	487,132
1895 ..	85,024	10,679	..	..	..	..	54	1,486	210	525	..	..	62	880	85,987	83,342	288	715	7,425	418,766	85,024	94,026	516,393
1896 ..	94,307	10,589	..	..	..	..	21	450	65	205	..	..	37	1,335	79,524	71,984	105	263	7,126	431,323	94,307	86,878	516,149
1897 ..	183,892	20,872	..	2	..	..	10	157	180	541	..	..	1,561	5,892	76,073	69,595	..	..	6,641½	398,010	183,892	84,465½	495,069
1898 ..	293,851	33,107	2¼	70	..	..	..	..	217	703	..	..	1,828	4,792	56,332	50,381	9	14	9,905	586,767	293,751	68,253¾	675,831
1899 ..	349,338	40,838	..	..	..	..	..	..	135	407	..	..	1,309	6,591	89,480	83,085	18	9	11,116	607,919	349,338	102,058	738,849
1900 ..	326,457	38,879	12	45	28	110	3	101	166	588	..	..	2,126	12,751	112,707	98,136	..	..	10,159	622,293	326,457	125,201	772,903
1901 ..	571,134	65,258	3	105	..	..	30	136	208	614	..	..	696	7,775	159,643	142,176	..	..	7,541	446,114	571,134	168,121	662,178
1902 ..	674,196	71,975	..	..	175	525	..	..	..	..	17	116	415	4,422	188,677	154,747	..	..	7,430	450,223	674,196	196,714	682,008
1903 ..	911,914	91,497	6	123	..	..	..	..	70	210	..	1	625	7,014	152,332	128,927	..	..	9,357	631,102	911,914	162,390	658,874
1904 ..	1,094.461	112,875	..	..	..	..	..	..	196	570	7	96	1,404	10,168	165,220	139,898	..	..	9,203	501,817	1,094,461	176,030	765,424
1905 ..	1,179,744	120,542	4	17	..	..	..	..	55	165	..	..	632	8,136	122,817	107,062	15	15	10,883	561,444	1,179,744	134,406	797,381
1906 ..	1,390,536	143,572	..	..	..	..	..	..	16	40	..	..	1,297	18,421	141,641	122,614	5	6	9,154	522,486	1,390,536	152,113	807,139
1907 ..	1,562,603	169,484	56	595	..	..	98	2,118	5	26	..	5	1,492½	30,448	128,950	114,737	15	15	8,708	579,888	1,562,603	139,324½	897,316
1908 ..	1,731,336	175,337	13	275	..	..	5	73	..	..	..	..	1,690½	16,179	100,502	85,846	2	4	5,530	372,798	1,731,336	107,742½	650,512
1909 ..	1,813,830	180,872	5	100	..	..	2	60	6	29	..	..	1,836¾	11,709	201,685	183,961	22	23	8,250	552,698	1,813,830	211,806¾	929,452
Totals	12,984,562	1,446,960	1,495½	19,198	5,869	38,002	3,748	54,849	19,359½	61,886	76½	444	*31,225½	*217,188	2,594,985	2,369,811	16,429	24,867	297,807	14,948,401	12,984,562	2,970,995	19,181,606

* The following are the principal minerals included under this heading:—

Year.	Scheelite Ore.		Auriferous Ore.		Sulphur.		Mixed Minerals	
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
1898	..	..	22	380	1,765	4,097	..	315
1899	32	2,788	5	153	1,227	3,483	..	167
1900	54	2,635	219	4,450	1,692	4,824	..	842
1901	2	83	390	6,663	143	360	..	669
1902	39	1,200	231	2,560	100	475	..	187
1903	42	1,439	472	4,449	..	..	..	1,126
1904	17	791	977	8,898	..	..	..	479
1905	28	1,848	535	5,997	..	..	..	291
1906	55	3,407	1,186	13,940	..	..	..	1,074
1907	137	15,486	1,244	14,650	..	..	..	312
1908	68	6,055	654	6,993	..	..	..	3,131
1909	58	4,263	182	2,450	..	..	..	4,996

No. 5.

RETURN showing the QUANTITY and VALUE of COALS IMPORTED into NEW ZEALAND during the Quarter ended the 31st March, 1910.

Country whence imported.	Quantity.	Value.
	Tons.	£
United Kingdom	78	78
New South Wales	2,011	2,063
Totals	**2,089**	**2,141**

No. 6.

TABLE showing the INCREASE or DECREASE in the ANNUAL PRODUCTION of COAL and SHALE in the Dominion, and the QUANTITY of COAL IMPORTED since 1878.

Year.	Coal raised in the Dominion.		Coal imported.		
	Tons.	Yearly Increase or Decrease.	Tons.	Increase over Preceding Year.	Decrease over Preceding Year.
Prior to 1878 ..	709,931	..	..	..	..
1878	162,218	..	174,148	..	..
1879	231,218	69,000	158,076	..	16,072
1880	299,923	68,705	123,298	..	33,778
1881	337,262	37,339	129,962	6,664	..
1882	378,272	41,010	129,582	..	380
1883	421,764	43,492	123,540	..	6,042
1884	480,831	59,069	148,444	24,904	..
1885	511,063	30,232	130,202	..	18,242
1886	534,353	23,290	119,873	..	10,329
1887	558,620	24,267	107,230	..	12,643
1888	613,895	55,275	101,341	..	5,889
1889	586,445	*Dec. 27,450*	128,063	26,722	..
1890	637,397	50,952	110,939	..	17,124
1891	668,794	31,397	125,318	14,379	..
1892	673,315	4,521	125,453	135	..
1893	691,548	18,233	117,444	..	8,009
1894	719,546	27,998	112,961	..	4,483
1895	726,654	7,108	108,198	..	4,763
1896	792,851	66,197	101,756	..	6,442
1897	840,713	47,862	110,907	9,151	..
1898	907,033	66,320	115,427	4,520	..
1899	975,234	68,201	99,655	..	15,772
1900	1,093,990	118,756	124,033	24,378	..
1901	1,239,686	145,696	149,764	25,371	..
1902	1,365,040	125,354	127,853	..	21,911
1903	1,420,229	55,189	163,923	36,070	..
1904	1,537,838	117,609	147,196	..	16,727
1905	1,585,756	47,918	169,046	21,850	..
1906	1,729,536	143,780	207,567	38,521	..
1907	1,831,009	101,473	220,749	13,182	..
1908	1,860,975	29,966	287,808	67,059	..
1909	1,911,247	50,272	258,185	..	29,623

No. 7.

TABLE showing the OUTPUT of COAL from the various Mining Districts, and the Comparative INCREASE and DECREASE, for the Years 1908 and 1909, together with the TOTAL APPROXIMATE QUANTITY of COAL produced since the Mines were opened.

Name of District.	Output of Coal.		Increase.	Decrease.	Approximate Total Output of Coal up to 31st December, 1909.
	1909.	1908.			
	Tons.	Tons.	Tons.	Tons.	Tons.
Kawakawa and Hikurangi	98,415	112,826	..	14,411	1,913,016
Whangarei, Kamo, Ngunguru, and Whauwhau	36,542	34,579	1,963	..	701,284
Waikato	192,827	176,068	16,759	..	2,367,184
Mokau	6,415	5,989	426	..	69,582
Miranda	13,720	14,876	..	1,156	102,242
Drury	451	589	..	138	1,040
Pelorus	..	..	..	..	711
West Wanganui	12,750	5,961	6,789	..	142,777
Westport	718,419	671,716	46,703	..	9,051,032
Reefton	10,502	10,694	..	192	176,493
Greymouth	380,971	375,195	5,776	..	5,469,135
Canterbury	21,866	21,788	78	..	597,757
Otago	286,997	288,004	..	1,007	6,790,275
Southland	131,372	142,690	..	11,318	1,637,236
Totals	**1,911,247**	1,860,975	**50,272**	..	**29,019,764**

No. 8.

TABLE showing the DIFFERENT CLASSES of COAL from the MINES in the DOMINION.

Name of Coal.	Output of Coal. 1909.	Output of Coal. 1908.	Increase.	Decrease.	Approximate Total Output of Coal up to the 31st December, 1909.
	Tons.	Tons.	Tons.	Tons.	Tons.
Bituminous and semi-bituminous	1,257,233	1,205,212	52,021	..	17,054,379
Pitch	5,473	17,459	..	11,986	1,976,603
Brown	559,509	539,141	20,368	..	8,709,329
Lignite	89,032	99,163	..	10,131	1,279,453
Totals	**1,911,247**	1,860,975	**50,272**	..	**29,019,764**

No. 9.

RETURN showing the QUANTITY and VALUE of COAL IMPORTED INTO and EXPORTED FROM NEW ZEALAND during the Year ended the 31st December, 1909.

Imported. Countries whence imported.	Quantity.	Value.	Exported. Countries to which exported.	Quantity.	Value.
	Tons.	£		Tons.	£
United Kingdom	106	204	United Kingdom	138,429	134,227
New South Wales	257,271	252,404	Victoria	4,859	3,770
Victoria	2	8	New South Wales ..	27,769	21,366
South Australia	806	464	Western Australia ..	5,493	4,485
U.S.A. West Coast ..	..	1	Tasmania	3,450	3,277
			Fiji	5,108	4,281
			South Seas	16,577	12,555
Totals	**258,185**	**253,081**	**Totals**	**201,685**	**183,961**

No. 10.

NUMBER of PERSONS ORDINARILY EMPLOYED IN MINING during the Years ended 31st December, 1908 and 1909.

District.	Alluvial Miners. European.	Alluvial Miners. Chinese.	Quartz-miners. European.	Quartz-miners. Chinese.	Totals. European.	Totals. Chinese.	Grand Totals. 1908.	Grand Totals. 1909.
GOLD-MINES.								
AUCKLAND—								
Coromandel	..	..	115	..	115	..	130	115
Thames	..	..	241	..	241	..	487	241
Paeroa	..	..	475	..	475	..	718	475
Te Aroha	..	..	..	..	..	..	23	..
Tauranga	..	..	..	..	..	..	2	..
Waihi	..	..	1,947	..	1,947	..	1,904	1,947
	..	..	2,778	..	2,778	..	3,264	**2,778**
MARLBOROUGH—								
Blenheim and Havelock	48	..	..	..	48	..	51	**48**
NELSON—								
Takaka	..	..	..	..	..	..	20	..
Collingwood	30	..	25	..	55	..	61	55
Inangahua	133	50	785	..	994	50	1,030	1,044
Ahaura	250	35	..	..	250	35	300	285
Charleston	76	..	..	..	..	..	63	..
Westport, including Addison's, Northern Terraces, Waimangaroa, North Beach, Mokihinui, Karamea, and Lower Buller Valley	95	..	5	..	100	..	116	100
Lyell	15	..	43	..	58	..	60	58
Murchison .. .. Owen	120	21	..	..	120	21	152	141
	719	106	858	..	1,577	106	1,802	**1,683**

No. 10—*continued.*

NUMBER of PERSONS ORDINARILY EMPLOYED IN MINING during the Years ended 31st December, 1908 and 1909—*continued.*

District.	Alluvial Miners.		Quartz-miners.		Totals.		Grand Totals.	
	European.	Chinese.	European.	Chinese.	European.	Chinese.	1908.	1909.
GOLD-MINES.								
WESTLAND—								
Ross	16	..	5	..	21	..	24	21
Stafford and Goldsborough ..	130	30	..	..	130	30	180	160
Hokitika and Kanieri	102	23	..	..	102	23	269	125
Kumara	70	14	..	..	70	14	89	84
Greymouth .. .. / Arnold	300	70	5	..	305	70	405	375
Okarito	9	..	..	..	9	..	..	9
	627	137	10	..	637	137	967	774
OTAGO—								
Hindon	16	1	..	..	16	1	38	17
Tuapeka	10	..	..	..	10	..	280	10
Lawrence, Roxburgh, Black's, Alexandra, and Clyde	394	35	..	..	394	35	464	429
Cromwell	290	17	5	..	295	17	300	312
Tapanui	10	..	..	..	10	..	8	10
Waikaia	320	25	..	..	320	25	325	345
Wyndham	10	..	..	..	10	..	6	10
Waiau .. .. / Orepuki and Preservation / Roundhill	280	30	14	..	294	30	315	324
Wakatipu Goldfields—Arrow, Macetown, Cardrona, Kawarau, Bracken's, and Motatapu	49	3	..	..	49	3	100	52
Queenstown	131	8	6	..	137	8	147	145
Naseby .. .. / St. Bathan's .. .. / Hyde .. .. .. / Macrae's	249	33	56	..	305	33	358	338
Gore	220	..	..	..	220	..	260	220
	1,979	152	81	..	2,060	152	2,601	2,212
SUMMARY.								
AUCKLAND, NORTHERN INSPECTION DISTRICT	..	..	2,778	..	2,778	..	3,264	2,778
MARLBOROUGH / NELSON .. / WESTLAND — WEST COAST INSPECTION DISTRICT	48	..	..	..	48	..	51	48
	719	106	934	..	1,577	106	1,802	1,683
	627	137	10	..	637	137	967	774
OTAGO, SOUTHERN INSPECTION DISTRICT	1,979	152	81	..	2,060	152	2,601	2,212
Totals	3,373	395	3,803	..	7,100	395	8,685	7,495

SUMMARY of PERSONS ORDINARILY EMPLOYED in or about New Zealand Mines during 1909.

Gold-mines	7,495
Metalliferous	156
Coal	4,191
Total	11,842

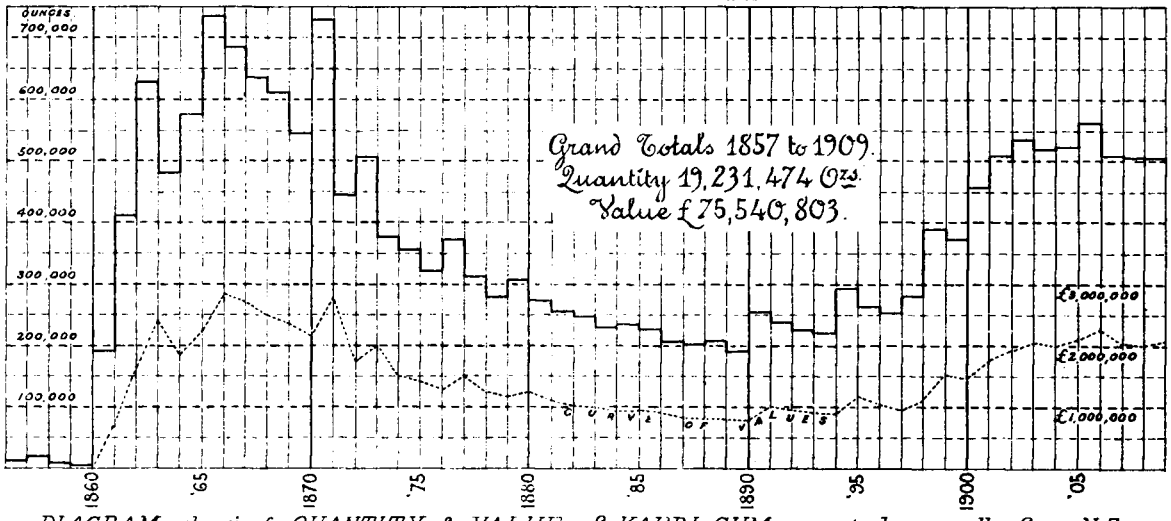
Approximate Cost of Paper.—Preparation, not given; printing (1,750 copies, including diagrams), £21 15s.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1910.

Price 9d.

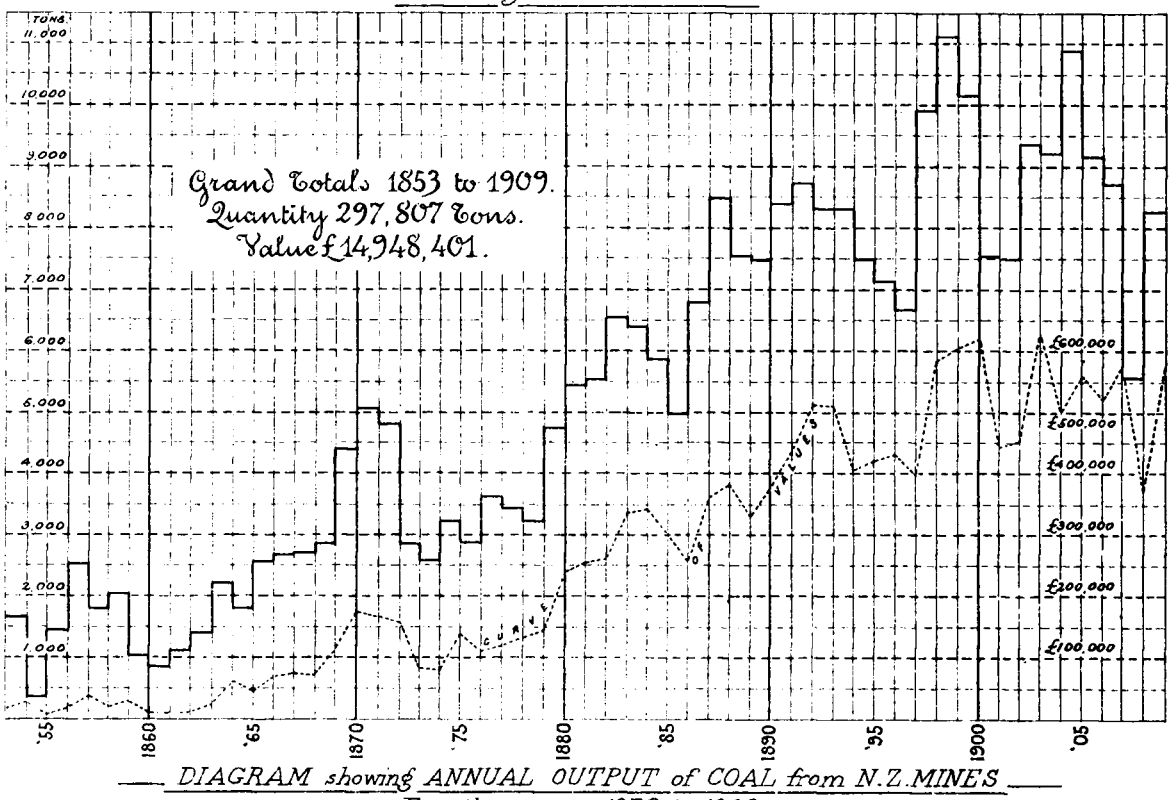
— DIAGRAM showing QUANTITY & VALUE of GOLD exported annually from N.Z. —

— For the years 1857 to 1909. —



— DIAGRAM showing QUANTITY & VALUE of KAURI GUM exported annually from N.Z. —

— For the years 1853 to 1909. —



— DIAGRAM showing ANNUAL OUTPUT of COAL from N.Z. MINES —

— For the years 1872 to 1909. —