

1881.

NEW ZEALAND.

# PUBLIC WORKS STATEMENT,

BY THE ACTING MINISTER FOR PUBLIC WORKS, THE HON. JOHN HALL,  
TUESDAY, 9TH AUGUST, 1881.

MR. SPEAKER,—

The loss, which I sincerely regret, of my late colleague the Minister for Public Works, Mr. Oliver, has imposed on me a heavy duty in the Statement I am now undertaking. Intimately acquainted as he is with every detail of the works to be spoken of, the task would, for him, have been a comparatively easy one: but, taking up the matter as I have done at an advanced date in the period under consideration, I am obliged to ask for special indulgence for the deficiencies which Mr. Oliver's absence is sure to cause.

## PUBLIC WORKS.

There will be attached to this Statement, in addition to the usual Tables and Statements of Expenditure and Liabilities, Reports from the Engineers-in-Charge of the North and Middle Islands, on Railways, Roads, Water-races, and Public Buildings; from the Marine Engineer on Lighthouses; and from the General Manager of Railways.

I shall deal with the subjects in the following order:—

I.—The progress of construction during 1880–81, of the several classes of Public Works.

(a.) Railways:—

(1.) Their construction;

(2.) Their maintenance and working, and the results of traffic.

(b.) Roads.

(c.) Harbour works and Lighthouses.

(d.) Coal fields.

(e.) Waterworks on Gold Fields.

(f.) Telegraphs. Public Buildings.

II.—Proposals for the current year 1881–82, in the same order.

## RAILWAYS.

The considerable expenditure of the year, amounting to £969,165, has been almost wholly upon works already begun before the period 1880–81. Including the expenditure during the first quarter of the current year, and the liabilities outstanding on the 30th June last, it has not exhausted the votes of last year. No single group of lines can be said to be absolutely finished and provided with suitable appliances; but I am glad to inform the House that the calls for additional accommodation and increased plant are diminishing in importance, the lines being for the most part equal to an extended traffic. Beginning in the North, I come first to the—

*Kawakawa and Whangarei Lines.*—The small coal line at Kawakawa (Bay of Islands) and that at Whangarei are making good progress. The former is now all under contract; the latter is finished to a point below the town wharf, but not to the deep-water wharf at one mile fifteen chains lower down the harbour. A contract for the extension to this point has been entered into.

*Kaipara.*—The Kaipara line was opened for traffic to Henderson's Mill on the 21st December last. There then remained but a short subsection (about eleven miles) to complete communication between Auckland and Kaipara, at Helensville, a distance of about forty miles. I am glad to say that this remaining section has since been completed, and the line was opened for traffic throughout from Auckland to Helensville on the 18th July.

*Auckland-Waikato.*—Of considerable interest to the colony at large is the advance (since the date of the last Statement), on the southern side of Auckland, to Awamutu, a point within three miles of the southern boundary of the confiscated territory in the Waikato District. The line thus extended is now close on one hundred miles in length, and, with the Kaipara line, will form a continuous railway of one hundred and forty miles.

*Waikato-Thames.*—Some progress has been made with this line. From the Auckland-Waikato Line at Hamilton, the formation towards Morrinsville is finished for a distance of fourteen miles, and the remaining four miles of the section are in hand. No part can be usefully worked until the bridge over the Waikato, at Hamilton, is erected. The ironwork for it has been already shipped. At the other end of the Thames-Waikato line, a contract has been let for the formation between Grahamstown and Kopu, where a deep-water wharf can be obtained.

*Napier-Wellington (Northern Division).*—The northern division of the trunk line between Hawke's Bay and Wellington has been lengthened by four miles thirteen chains, ending at Makatoko, opened last year. The gap in the trunk line is thus reduced to about eighty miles. The exact position of a portion of the work remaining to be constructed within the Seventy-Mile Bush has not been yet determined.

Some work has been done on the southern division of this railway, but no extension has been effected, and the northern terminus remains at Masterton.

*New Plymouth-Foxton.*—The northern division of this trunk line, being the portion from New Plymouth to Hawera, a length of about fifty-one miles, is completed; twelve miles, between Ngaere and Normanby, were opened for traffic during the last financial year, and the remainder will be opened in a few days.

The southern division of the New Plymouth-Foxton line, being the length between Hawera and Foxton, has now a total extension of ninety-eight miles, of which nineteen miles between Kai Iwi and Waverley have been opened during the year. The length remaining to unite Waverley and Hawera is twenty-five miles, of which the precise direction between Manutahi and Hawera is as yet undetermined. The present surveyed line passes near the coast, but we consider that it would be preferable to adopt one further inland if it should turn out to be economically practicable. The Wanganui Wharf has been finished, and has a total frontage available for vessels of about 940 feet. Steps are being taken to provide necessary station buildings on the reclamation, and to bring the new station into proper working order.

*Foxton-Wellington.*—The earthworks on this part of the trunk line (the total length of which is about seventy miles) were begun in the neighbourhood of Wellington by the labour of the "unemployed"; but funds not being available for its continuation, the works have been discontinued. The House will be aware that, with a view to carrying on the project, a Company has been initiated in Wellington. The promoters have been in treaty with the Government for terms, including the grant of lands on the line, of the earthworks executed, and of materials already provided. The Government propose also to undertake the definition and survey of the whole line, and, in any arrangement which may be made, to reserve to the colony the right of purchase. The completion of this work would open unbroken railway communication between Wellington and the whole Wanganui and Taranaki country, by a line of two hundred and forty miles. This matter will come before the Legislature in connection with a Bill to be introduced, empowering grants of land for purposes of this kind.

*Required to complete Trunk Line.*—Unsurveyed intervals of one hundred and twenty miles on the west, and one hundred and sixty miles on the east, separate the extremity of the Waikato line at Awamutu from Waitara (Taranaki)

and Napier respectively. The Government will lose no opportunity which may present itself for obtaining such information with regard to the intervening country, as will enable the best mode of completing this main arterial line to be determined.

*Picton-Hurunui.*—Crossing the Strait, we enter the Picton-Blenheim section, on which the only work completed during the year is the extension to the town of Blenheim, a distance of one mile and a quarter, including the Opawa Bridge and Blenheim Station.

*Nelson-Roundell.*—The works on this section are the formation of three miles extension from the inland terminus, Foxhill, to Belgrove, a forest country, from which a timber traffic may be calculated on, with very small increase to the working expenses. The permanent way is finished, and the station works are so far advanced as to admit of the line being opened immediately.

*Hurunui-Bluff.*—The main line, the longest continuous trunk in the colony, measuring from the Hurunui River, the old Provincial boundary of Nelson and Canterbury, to the Bluff, four hundred and forty-three miles (exclusive of branches), has, during the year, been completed from Amberley to Waipara, an extension of seven miles at the northern extremity, leaving nineteen miles to complete the whole distance to the Hurunui. The extension from Waipara to Waikari, a distance of nine miles, will, I hope, be completed in time for the ensuing grain and wool season; but the section from thence to the Hurunui awaits further survey.

*Branches.*—During the year, a portion of the Tinwald Branch to Mount Somers, ten miles sixty chains, has been opened for occasional traffic.

An agreement has been made with the Rakaia Forks Company, under which the Government work this company's line, twenty-two miles seven chains in length.

On the Waipahi-Heriotburn Branch, fifteen miles forty-three chains have been fully opened.

Arrangements have been made for interchange of traffic with the Waimea Plains Company (thirty-seven miles), under which the business is now carried on with through booking.

*Otago Central.*—Works have been prosecuted on the Hindon section of this line by "unemployed" labour. All hands, except a few who have small contracts, are now discharged. On the Wingatui contract, the formation is practically finished, excepting the small tunnels at the sixth and seventh miles. The working survey is finished to Hyde, and from Roughridge to near Lake Hawea. This important work is in an exceptionally favourable position for being prosecuted by a Company, aided by grants of land on the principle I have already referred to. I trust that by this means the work will be gone on with.

*Riverton-Orepuki.*—The works on the Riverton contract, six miles, which include ballasting and permanent way, are now finished.

*Otautau-Nightcaps.*—The Opio and a portion of the Waicola contracts are ready for the laying of the permanent way. The whole line to the Nightcaps Coal Field may be finished without difficulty during the present financial year.

*Total Increase of Working Lines in the Colony.*—Summing up the additions made to the working lines in both Islands during the year, we have a total of one hundred and six miles. This gives a length of twelve hundred and eighty-seven miles of trunk railways and branches now in work. To complete the main trunk lines in both Islands, the following additions will be required:—In the North Island, from Wellington to Foxton, seventy miles; from Waverley to Hawera, twenty-five miles; and from Waitara to Awamutu, one hundred and twenty miles; being a total of two hundred and fifteen miles, besides the gap of eighty miles on the Wellington-Napier line. In the Middle Island, a length of about one hundred and forty miles, between Blenheim and Waikari, will complete the trunk line from Picton to the Bluff.

#### WORKING RAILWAYS.

I now come to the review of the year's experience of the working railways. Important changes have been effected in the administration of this department.

For the two Railway Commissioners, one in each Island, one General Manager has been substituted, whose head-quarters are in Wellington; the two Accountants' Departments have also been amalgamated, as likewise the two Stores Departments. Independently of the considerable annual saving which has resulted from these changes, they are calculated to insure prompt and efficient management. They have also given to the Minister a more real control over the business of the department than he could possibly have under the former system.

The results of the traffic for the year have been on the whole satisfactory. In the passenger traffic there has indeed been a considerable falling-off, an indication in agreement with that furnished until recently by the Customs and other revenue returns, of the general depression in which this colony has shared, and the forced economies that have been the result. The decrease has not been caused by any increase in passenger fares, which have not been raised: in some cases, reductions have been made. This falling-off has affected chiefly the busiest parts of the country. On the Hurunui-Bluff lines, which furnish three-fourths of the whole receipts, it nearly reached 10 per cent. on those of the preceding period, though the length of lines open to traffic has been augmented by above  $4\frac{1}{4}$  per cent.

There has been a contemporaneous and very general and large increase of the goods-traffic revenue, amounting to 24 per cent., and dependent not alone on the increase of the tariff but of tonnage also. On the two classes of receipts, namely passengers and goods, combined, there has been an increase of nearly 10 per cent.

Thanks partly to this augmentation, and partly to increased economy in management, the nett returns from the railways as a whole have, during the past year, been equal to £3 8s. 3d. per cent. on the cost of construction.

The decrease of train-mileage, consequent on the greater care everywhere visible in the administration, together with large economies in the Railway staff, have resulted in a considerable growth of the nett revenue. The gross revenue of the year 1880-81 amounted to £836,454, against £762,572 in 1879-80, an increase of £73,882. The nett revenue was £314,497, against £182,562 in 1879-80, an increase of £131,935, the difference between these two increases, £58,053, being due to the causes already pointed out. Notwithstanding the increase of mileage under work (9 per cent.), the total cost of maintenance and traffic was reduced from £580,010 in 1879-80 to £521,957 in 1880-81, a reduction exceeding 10 per cent., and as large, probably, as due care of the lines and plant will permit in the existing state of the traffic.

Only two openings for further economy seem suggested on the face of the copious returns as to the working management for the year. I refer, first, to the selection in future purchases of the types of locomotive which experience suggests as most suitable, and to the employment of the fuel which, having regard to its cost, has proved most effective. In this connection, it will be satisfactory to honorable members to know that New Zealand coal alone is now used on the locomotives, and that the returns show that the Westport coal may claim to rank, in point of value for locomotive purposes, above that obtained from the Newcastle, N.S.W., mines, which stands second on the list. Return No. 27 will be found to record experiments on an extensive scale, including a comparison of the effective work of the above two varieties of coal, used under similar conditions and by engines of the same type.

The second hope of economy is afforded by what appears at first sight the excessive proportion of locomotive expenditure under the head "Shunting." This seems to be owing to peculiarities of the traffic, and, to some extent, to the imperfection of station arrangements in places where the traffic has, in the course of time, outgrown the existing accommodation. The large number of stations, and of sidings independent of stations, the number of blind sidings and of short branch lines, and the inadequate water services, are also features of our system which swell the cost of locomotive work, by increasing the item "Shunting." The item in question is about one-fourth of the total (£137,000) of Class B, "Locomotive Power," in the Return No. 3; and, if a moderate additional expenditure in the extension and equipment of some of the stations would diminish the charge materially, the result would sensibly affect the nett revenue.



Doubts have been entertained and expressed in several quarters, whether the Government may not be deluding themselves and the country as to the true amount of profit on the working lines. It is thought, first, that the condition of the lines and plant is perhaps declining in some particulars; and, secondly, that payments which should be debited to maintenance have been placed to the account of construction. In reply to the first supposition, I request honorable members to refer to Return No. 5. From this table it will be found that the proportion of the whole working expenses due to maintenance is 35 per cent. Of this amount, the cost of the daily operations for keeping the permanent way true in form and level, absorb  $23\frac{1}{2}$  per cent.; the cost of material for repairs of the way is 5 per cent.; that of maintenance of bridges, signals, and other works of the kind, 5 per cent.; and the repairs of stations and buildings,  $1\frac{1}{2}$  per cent. Take again the analysis of locomotive expenses, which in the whole represent  $26\frac{1}{4}$  per cent. of the annual expenditure. It will appear that 21 per cent. is for running expenses (fuel, oil, labour, &c.), and  $5\frac{1}{4}$  per cent. for repairs and renewals of the locomotives. The next subdivision of the same return refers wholly to repairs and renewals of wagons and carriages, and these make  $5\frac{3}{4}$  per cent. of the total. We have then in all  $22\frac{1}{2}$  per cent. of the annual expenditure devoted to renewals and repairs of rolling stock, of permanent way, bridges, culverts, and buildings, in addition to the  $23\frac{1}{2}$  per cent. as already stated, for the daily operations in keeping up the gauge and levels of permanent way. I will not say that extra charges may not arise from time to time for entire renewals of sleepers or rails on sections of the system; but these will not, I think, come upon us on a scale to make us anxious. Our total mileage is now considerable. The lines have been opened at very different dates; the wear and tear due to traffic must be so various on different sections that this class of charges will arise gradually, will become almost as regular as other parts of the cost of maintenance, and should be fully met by the increased traffic to which we confidently look forward. Thirty-six miles of sleepers were replaced during the period just ended, upon a working length of 1,200 miles; that is to say, 3 per cent. of the sleepers were renewed. The normal average may be about 10 per cent., good timber being employed. Four miles and a-half of rails have been replaced, or about  $\frac{1}{3}$  per cent. of the total length. The average renewals will probably reach 5 per cent. when all the system has been some years at work. I exclude sidings and stations, on which old rails serve, after rejection from the running line. The charges that may be anticipated for renewal of our timber bridges are a less calculable matter, but they need not cause any anxiety. Bridges of the kind, erected in Europe thirty years ago, are still in existence on some railways; and it appears unlikely, from our local experience, that well-constructed bridges of colonial timber, carefully attended to from month to month, will become unserviceable in less than twenty to thirty years from the date of their erection.

As to the second doubt I have mentioned—whether maintenance may not, perhaps, have been sometimes charged to construction—it will, I think, be sufficient to remind the House that the construction and the working of the lines are now intrusted to absolutely independent departments, each properly solicitous for its own character for economy; and I may assure the Committee that each, as a matter of fact, jealously resists the attempt to charge on it any expenditure that may more fairly be charged to the account of the other.

While it may be possible to effect still further economy in working expenses, the main hope for improvement in the nett return from our railways must consist in an augmented traffic, which the lines with their present appliances are capable of carrying with but little increase of cost. A gradual revision of the present tariff, with a view to the encouragement of traffic by diminished charges, and the progressive adaptation of that tariff to the circumstances of the several parts of the system, are receiving constant consideration by the Government.

#### ROADS, 1880-81.

Following the order sketched, I now turn to the subject of roads begun or completed during the period 1880-81. These have been under the charge of two departments—Public Works and Crown Lands. The division has been in some

cases rather one of convenience than of proper classification. Some of the works carried on by the Engineers of the Public Works Department will give access to Crown lands not yet opened, whilst some of those of which the Surveyors of the Crown Lands Department have charge, are of political value. I think that there is no sufficient reason for altering the present arrangement, if due care be taken to avoid overlapping estimates and want of proper co-operation. It will probably be satisfactory to honorable members that I should glance at the whole, leaving my colleague the Minister of Lands to add whatever he may think right, to supplement my notes, when the occasion arises. Very interesting information relative to the work of the Crown Lands Department, as the pioneer of settlement, has already been afforded in the report from that department which has been laid on the table.

It will be most convenient to arrange my enumeration by localities, without regard to the department in charge of each work. Honorable members will find an arrangement by departments in the Public Works Estimates, which will shortly be placed before the House.

Much progress has been made with the road-works, but comparatively few have arrived at completion. I shall not detain honorable members long with the subject of past construction, which will be found detailed in the printed reports of the Engineers-in-Charge.

Of the works under the vote of £66,650 for roads, &c., north of Auckland, part have been carried on by the several County Councils of the district, under agreements as to the objects on which the several grants were to be expended. A portion of the vote has been applied to the construction of a main road between Auckland and Mangonui, and is being expended on this work under the superintendence of the Chief Surveyor, Auckland, Mr. Percy Smith. The works done on this road have made it fit for wheeled traffic as far as Wellsford, a distance of fifty-five miles and a-quarter, and they include three bridges of considerable size. On the next two sections, contracts are in progress in the neighbourhood of Whangarei.

Thence to Kawakawa, Whangaroa, and Mangonui, works are also in progress; and, between Mangonui and Awanui, contracts are completed or in progress over about eighteen miles. These, when finished, will make a road between the two last-named places fit for wheeled traffic.

Of the whole distance from North Shore to Awanui, about forty miles of new road will, on completion of the contracts now in hand, have been formed, a portion of which has been metaled.

*Aroha Drainage.*—In Waikato and Thames, the most important works are the Aroha drainage, in which considerable progress has been made. About eight and a half miles of drains remain to be done.

*Whatawhata Bridge.*—The bridge across the Waipa at Whatawhata, on the Hamilton—Raglan Road, in length 520 feet, was opened in April last.

*Te Rore Bridge.*—The Te Rore Bridge across the same river, two miles and a-half below Alexandra, providing communication between Kawhia and the Waikato and Auckland Railway, is under contract and progressing satisfactorily.

*Mountain and Coast Roads, Taranaki.*—On the Taranaki promontory, the road at the back of Mount Egmont has been metaled for a distance of nearly eighteen miles. The formation of the coast road, or that leading from the Waingongoro through the Waimate Plains and the Parihaka Block, to Stony River, has been completed during the year. It is now practicable for wheeled vehicles throughout its entire length, and for more than half that length is already graveled. Honorable members are aware that, in addition to facilitating settlement in a very promising district, this work is one of special political importance. It has been carried out to a large extent by means of the Armed Constabulary Force.

*Maintenance of certain North Island Roads.*—A number of other roads have been maintained, improved, extended, and surveyed in the North Island, for particulars of which the reports of the Engineer-in-Charge may be consulted by honorable members desiring fuller details. With one or two important exceptions these are not new works.

*Nelson and Wairau to Amuri and the South.*—Turning to the South Island, considerable progress has been made with the road from the Tophouse through the Upper Wairau Valley to Tarndale, on the way to the Amuri; and, so soon as the outstanding contract for improvements in the Wairau Gorge is completed, wheeled vehicles will be able, for the first time, to travel from Nelson, Picton, and Blenheim, to the Bluff and Riverton, in the extreme south. The road is now open from Tarndale southwards, although still interrupted by some unbridged rivers of considerable magnitude.

*Pelorus Valley, Nelson, to Picton and Blenheim, by the Rai Valley.*—Of this road fourteen miles and a-quarter are being formed and graveled, and will shortly be finished. The Wakamarina and Kaituna Bridges are finished. Twenty miles, including the Rai Valley Road, remain to complete a carriage road between the Nelson and Wairau Districts.

*Nelson and Buller Valley.*—Two contracts for forming and graveling on the Nelson and Buller Valley Road will complete the communication for vehicles between Nelson and the West Coast. It is expected this work will be finished during the present month. It will not, without further expenditure, be a high-class road; in particular, the Matiri and Owen Rivers and Granite Creek require bridging.

*Reefton-Greymouth.*—The bridge over the Inangahua at Reefton is nearly finished. It has five spans of 60 and four of 15 feet.

*Haast Pass Bridle-track.*—This track is open, and communication exists between the Lake Wanaka District (Otago) and Westland. Some considerable works are still required to finish the line satisfactorily.

*Christchurch-Hokitika.*—Considerable work has been necessary to repair damages by flood on this road, and to place parts of it in more security against future casualties of this kind.

#### HARBOUR WORKS.

The great works authorized under this head being almost all under the direction of Local Boards, the only important expenditure that comes within the scope of the present Statement is that for the improvement of the river at Greymouth. These operations are being carried out on the plans of Sir John Coode, are progressing satisfactorily, and have already had a beneficial effect on the channel. The training-wall has been extended to a total length of 924 feet, the greater portion of this having been done during the year. The wall has perfectly resisted the heavy seas and floods. A new and larger dredge, constructed by Messrs. Kincaid, McQueen, and Co., of Dunedin, and put together by them at Greymouth, is nearly finished. The entrance to the lagoon has been enlarged and bridged during the year. Tables furnished by the Harbour Masters at Westport and Greymouth show an average improvement of depth on the bars of these rivers of 1 foot and 9 inches respectively. The increase in the former case is due to the operation of natural causes: it is proposed to incur some expenditure with a view to secure the permanency of this improvement.

#### LIGHTHOUSES.

*Cape Egmont.*—The lighthouse removed from Mana Island has been re-erected at Cape Egmont, and was put in action on the 1st August. I may fairly congratulate the House on the completion of a work which has been long urgently required, but which for political reasons it would have been imprudent to undertake at an earlier date.

#### COAL FIELDS.

The operations of the Department of Public Works affecting this important industry have been limited to the construction of the railway lines, already referred to under another head, and to the adoption of New Zealand coal as fuel in their working. The inspection of the mines, with a view to the security of the miners, is actively carried on, needful precautions being enforced, and suggestions for more systematic working being made. Thoroughly effective and economical mining can only be expected when the development of the mines has advanced

so far as to attract capital and abundant technical experience of the first order from Europe. In the meantime the progress is encouraging. From the long list of mines, most of them very small, which is attached to the report upon the control and inspection of mines, I extract a few facts regarding the most important. The largest output of coal during the year 1880, it will be observed, is from the Kawakawa Mine, Bay of Islands, which produces a "glance coal," largely used by the Union Steam-ship Company.

Kawakawa Mine,	opened 16 years, yielded	...	...	54,865 tons.
Kamo (Whangarei),	" 4	" ...	...	6,382 "
Taupiri (Waikato),	" 5	" ...	...	14,817 "
Waikato (Waikato),	" 4	" ...	...	15,849 "
Waimangaroa (Buller),	" 5	" ...	...	880 "
Banbury (Buller),	" 2	" ...	...	3,892 "
Brunner (Grey),	" 16	" ...	...	32,505 "
Coalpit Heath (Grey),	" 4	" ...	...	14,330 "
Springfield (Malvern),	" 4	" ...	...	7,060 "
Homebush (Malvern),	" 8	" ...	...	7,873 "
Prince Alfred (Otago),	" 2	" ...	...	1,089 "
Prince Alfred, No. 2 (Otago),	" 2	" ...	...	2,030 "
Shag Point (Otago),	" 18	" ...	...	36,066 "
Walton Park (Otago),	" 10	" ...	...	19,370 "
Abbotsroyd (Otago),	" 5	" ...	...	8,216 "
Kaitangata (Otago),	" 5	" ...	...	15,830 "
Kaitangata No. 1 (Otago),	" 3	" ...	...	10,799 "

It will be observed that up to the 31st December last, the date to which the returns are made, the output from the great Buller coal field, of which so much has been, on good grounds, expected, had not been extensive. Since that time, however, the yield has largely increased, being from the Banbury Mine upwards of 10,000 tons for the half-year ending 30th June. No doubt this important field will fully justify the large expenditure which has been incurred for its development. I am informed that one of the difficulties obstructing the development of these mines is likely to be diminished shortly, steamers having been ordered, designed specially for service to Westport, as colliers and passenger boats; and, if the management of the mines keeps pace with the improvement in the means of transport, next year will probably show an important advance in the working of this field, which supplies a coal that competes favourably in the Victorian market with the coal from any other field in this hemisphere.

The total output of the coal mines of the colony is 300,000 tons for the year 1880, showing an increase of 68,700 tons on the yield of 1879, and of 137,700 tons on that of 1878. As I have already stated, New Zealand coal is now exclusively used on New Zealand Railways.

A list of accidents during the year is given among the reports already quoted. Death was caused in two cases, and injury to the person in twenty. The majority of the accidents were from falls of coal or roof, and from causes all but inseparable from labour connected with machinery. Two accidents arose from explosions of gas. Assiduous inspection, with increased care among the managers, should prevent any serious increase of casualties of this kind.

#### WATERWORKS ON GOLD FIELDS.

The expenditure on the maintenance and improvement of the existing works in Westland has been:—Maintenance, £5,137, defrayed by the Gold Fields Department; construction, including liabilities, £20,744. The new works undertaken consist mainly of portions of the Mikonui Water-race and the Kumara Sludge-channel.

Two contracts for the continuation of the Mikonui Water-race, which were in operation at the end of last year, have since been completed; tenders for further sections have been accepted and the works carried out, and others are still in progress. The total expenditure on this race to the 31st March, 1881, has been £9,800.

The first section of the Kumara Sludge-channel, 46 chains long, is finished, and the remainder, 39 chains, is under contract: the whole is expected to be completed and in full working order in three or four months. The total cost of the channel, to its completion, will be about £16,000. This work is expected

to confer great benefit, especially on the district immediately concerned, as it enables ground to be worked that would otherwise remain unprofitable, and so gives employment to a large number of miners who have made this part of the colony their home.

## SURVEYS.

*Otago Central Railway.*—The working survey of the Otago Central Railway has been continued and completed, except the part between Hyde and Roughridge, which will not take long to complete.

*Passes of Southern Alps.*—A reconnoissance survey of the passes at the heads of the Rakaia and Hokitika Rivers has been made, which has afforded important and satisfactory results. There has also been a further examination of several northern passes, at the instance of the promoters of a company, in course of formation at Christchurch, for connecting Westland with Canterbury and the southern trunk line of railway. The heights of the passes thus determined are as follow:—

Whitcombe Pass	...	...	4,180 feet.	Hope Pass	...	...	...	3,230 feet.
Mathias	„	...	4,230 „	Lewis	„	...	...	2,870 „
Arthur's	„	...	3,014 „	Ada	„	...	...	3,300 „
Hurunui	„	...	3,150 „					

The distances from Brunner to Christchurch by several of the lines suggested would be about—

Whitcombe Pass	...	...	184 miles.	Arthur's Pass	...	...	...	142 miles.
Mathias	„	...	184 „	Hurunui	„	...	...	151 „

The route by the Lewis Pass is longer, having in view Christchurch as the terminus; that by the Ada exceeds it by about thirteen miles, according to the character of the line adopted. None of the passes of the Southern Alps offers a fitting gradient on the western side, without a long detour or zigzags. A consideration that must not be lost sight of, when the proposals come to be practically dealt with, is the importance of the districts on either side to be opened and benefited by railway communication. The promoters of the projected railway advocate the route by the Ada Pass.

## TELEGRAPHS.

The telegraph system of the colony is already so far advanced that but little in the way of addition has been found necessary during the past year.

Between Stony River and Opunake, the gap which has existed for several years has at last been filled up. The greater part of the work was performed by members of the Armed Constabulary Force. The total length of this addition to the line is twenty-eight miles.

From Motueka to Collingwood, a line has been constructed forty-eight miles in length, with an intermediate office at Takaka. This line is worked by the Edison-Bell telephone.

From Port Chalmers to Seacliffe, a line carrying two wires has been erected for the Railway Department. This line is the first in New Zealand on which old iron rails are used as poles, and, in point of cheapness and stability, is a great success. The line was erected at a cost of £16 16s. 8d. per mile.

From Riverton to Otautau, telegraph wires have been erected along the railway line, and offices opened at Thornbury Junction and Otautau.

The removal of the difficulties which so long interfered with the opening of the Komata Road, in the Valley of the Thames, will enable the Thames-Waikato telegraph to be shifted to a line on which the maintenance will be much more economical than in the very difficult country through which it is now carried.

## PUBLIC BUILDINGS.

In the North Island, the principal buildings which have been completed during the financial year are the new Supreme Court and offices, and the Police Station, in Wellington. A considerable number of Police Stations have been erected in various parts of the country, as well as four new Post and Telegraph offices.

The Lunatic Asylums at Auckland and Wellington, and the Gaols at Wellington and Gisborne, have been extensively altered and added to.

In the Middle Island, about forty buildings have been in course of erection, or been altered or repaired, during the year. The more important of the new works are the Lunatic Asylums near Christchurch and Dunedin, Courthouses and other public offices at Timaru, Invercargill, Christchurch, and Ashburton, and General Post and Telegraph Offices.

#### REDUCTION IN PUBLIC WORKS STAFF.

A considerable reduction has been effected during the last fifteen months in the staff of the Public Works Department throughout the colony, the number of officers dispensed with being 95, the aggregate of whose salaries amounted to £21,664 annually. Owing to the extent of country over which operations of this department have to be carried on, the staff is still numerous, but during the current year further reductions may be found practicable.

#### PROPOSALS FOR THE CURRENT YEAR.

My honorable friend, the Colonial Treasurer, was able to place before the House a very gratifying statement of the condition and prospects of the ordinary finances of the colony. The improvement he was able to announce will in due time have its effect on the resources at our disposal for the prosecution of public works. With regard to the loan expenditure, however, we have now reached the period when the operation of the pledges on the subject of further borrowing, which were required of us in 1879, are to be practically felt, and our expenditure on public works must be less than it has been for some time past. The balance remaining of the Public Works Fund on the 31st March last, was £1,860,373; of this sum £645,793 is absorbed by the expenditure between 1st April and 30th June, and by liabilities, irrespective of Native land purchases, outstanding on the latter date. There remains, therefore, but £1,214,580 available for additional public works and for engagements in respect of Native land purchases. For the last-named purpose £87,623 will be required during the current year, and £100,000 should be reserved for further liabilities. When honorable members call to mind that the payments out of the Public Works Fund during the nine months of 1879–80 amounted to £1,750,350, and during 1880–81 to £1,958,351, and when they are aware that, of the expenditure we can now afford, a considerable share must be devoted to the completion of works already in hand, and to the further equipment of railways already being worked, they will not be surprised to learn that we are compelled to disappoint some reasonable expectations, and to postpone, for the present, some important undertakings the value of which is admitted. I trust, however, that this limitation of direct Government expenditure will to a considerable extent be compensated for, by the operations of companies availing themselves of the facilities we propose to offer for the construction of railways by the system of land grants.

Our proposed expenditure will, in the course of a day or two, be laid before the House in detail, in the Public Works Estimates. As already stated, a large part of most of the votes to be asked for is required in respect of works, or contracts for works, entered upon under previous authority.

It will also be found that a considerable proportion of the expenditure of the year will be devoted to roads and bridges. This is partly with a view to facilitate settlement on Crown lands, and partly to render justice to those portions of the colony which have benefited but little by railway expenditure.

#### RAILWAYS.

I now come to the proposed Railway works.

1. *Kaipara-Waikato, Auckland-Helensville*.—It is proposed to finish the equipment and minor works still necessary on the Kaipara line, of which the last section has just been opened. The vote to be taken will cover all expenditure at present necessary between Auckland and Helensville.

2. *Waikato-Thames*.—This vote will cover the cost of the bridge over the Waikato at Hamilton, and continue the line for a great part of the distance towards the Thames at Aroha; it will also provide for the construction of the Thames portion of the line as far as Kopu.

3. *Hamilton to Cambridge*.—Upon this branch, about thirteen miles in length, it is proposed to break ground. The country is easy, and the line will be much below the average in cost. It will demand little additional plant, and possesses considerable political as well as commercial importance.

4. *Napier-Wellington*.—The works towards Tahoraite, on the northern division, will be carried on; and for completing outstanding contracts and engagements as regards the southern division, a considerable sum will be required.

5. *Wellington-Foxton*.—A small vote is required to wind up accounts on these works, including payments for land.

6. *Foxton-New Plymouth*.—The vote asked for the northern division of this line will complete the works now in hand. The vote for the southern division will provide for the formation of the line between Waverley and Patea, and from thence to Manutahi. It will also provide for the survey of the unfinished section between Hawera and Patea, and cover outstanding liabilities.

7. *Nelson-Roundell*.—£6,200 will finish the expenditure on the extension of three miles to Belgrove.

8. *Greymouth to Nelson Creek*.—This line is in the direction of Reefton, and is completed as far as Stillwater. It is anticipated that its continuation will form part of the scheme of the Company which is projected for the construction of a line between the East and West Coasts.

9. *Westport-Ngakawau*.—Additional rolling-stock is required for this line, as well as some expenditure for land, and sundry small works.

10. *Picton-Hurunui*.—A vote will be proposed for liabilities and sundry work on the Blenheim extension, and for at length breaking ground on the great trunk line to the south.

11. *Hurunui-Waitaki and Branches*.—It is proposed to complete the extension to Waikari, which has been some time on hand, and to proceed with the short length to the Hurunui.

12. Votes will be asked for on account of the branch lines now in progress to Fairlie Creek, Upper Ashburton, and Little River.

13. The completion of the junction between the Oxford and Springfield Branches will have valuable economical results, and we propose to push on this work.

14. *Waitaki-Bluff and Branches*.—A considerable vote is asked for works and liabilities on the main line, and on the Duntroon, Ngapara, Port Chalmers, Brighton Road, Outram, and Lawrence Branches.

15. Also votes to meet engagements on the Ngapara-Livingstone, Palmerston-Waihemo, Catlin's River, Waipahi-Heriot Burn, and Edendale-Toitois branches, and the Otago Central line.

16. For the Southland lines, including the completion of the branch to Otautau and to the Nightcaps Coal Field, and the continuation of the Orepuki line to a point at which it will become useful, a sufficient amount has been placed on the Estimates.

Of the total proposed expenditure on railways, I may inform honorable members that a considerable amount (about £436,000) is to cover outlay during the first quarter of the current year, and liabilities on the 30th June last. There will be only about £580,895 for further expenditure on railways during the remaining nine months of the period 1881-82.

It must not be supposed, however, that the expenditure of the last financial year was in excess of the votes for the year. Those votes amounted to £1,572,000. The expenditure brought to book on the 31st March last (covering the liabilities coming over from the previous year, 1879-80) amounted to £969,165, and this sum, together with the expenditure of the March-June quarter, and the outstanding liabilities on 30th June, amounts to about £1,405,906, or £166,094 within our last year's authority, after an expenditure of five quarters, and provision for all claims existing at the end of that time. The aggregate of the votes now

to be asked for amounts to a large sum, but the House may depend upon their being carefully husbanded, with due regard to the period over which their expenditure should be spread.

I have already said that negotiations have been opened with the promoters of companies for carrying out lines from Wellington to Foxton, and from Canterbury to Westland, and that one part of the proposals is a grant of Crown lands by way of subsidy. The Government are assured that subsidies in the form of land-grants would induce capitalists to undertake useful works of this character, which the condition of the Public Works Fund and of the revenue, and the pledges of the colony, preclude the Legislature from proceeding with at present. Although, with regard to the Otago Central line, no definite proposals have yet reached the Government, I do not doubt that so favourable an opportunity for the employment of private enterprise will be taken advantage of. It appears, also, far from improbable that the continuation of the line north of Auckland, which has already been partly surveyed, may, at no distant date, be undertaken on similar conditions. With this view, I shall bring down a Bill authorizing such grants, within limits to be laid down, and under arrangements to be subject to the approval of Parliament. This mode of engaging private capital in the development and colonisation of the country, is, as the House will be well aware, no novelty. It has been adopted on the largest scale in the United States, in Canada, and also in Queensland, and with good results. The method of dividing the territory abutting on the proposed lines in alternate blocks, of moderate area, for grants to the railway company and for retention by the State, removes all possibility of the lands being acquired, or advantageously occupied, in very large areas—a danger which in any case would not be serious, since the peopling of the adjoining lands is the most obvious mode of making such railway enterprises profitable.

#### ROADS.

I continue to bring all our proposals under this head within one view, whatever department may be charged with their execution. But there is a distinction between our other suggestions and those for roads to open Crown lands. The full amount required for the roads of this class, viz., £150,000, will be shown in the Estimates, but it is proposed to extend the construction over three years, and not to expend more than some £50,000 during the current year.

The total vote asked for roads and bridges, including expenditure in the March-June quarter, and all liabilities to the 30th June, amounts to about £260,000. As in the case of the railway proposals, the Estimates will show the sums proposed to be spent in each provincial district. To enumerate at length the several works proposed to be undertaken and gone on with under this head, would, I fear, weary the Committee. A statement like the present, however, when in print, finds its way more readily to the public than estimates and returns, and may be the means of communicating to a large number of persons, interested in one or other of the projects, information more important to them than that which refers to more costly enterprises. I have therefore given, in a Schedule to be attached to this Statement, a full account of the road-works which we propose, and will now confine myself to a general reference to their character and distribution.

Beginning with the most northerly, and taking them in geographical order, it is proposed to run a road through the fertile region extending from Kawakawa to Okaihau and Victoria Valley; also, to continue the line recently opened between Victoria Valley and Herd's Point on to Kaihu, Wairoa, both by the coastal line *via* Maunganui Bluff and the inland line over the Waiokū Plateau. In the Counties of Mangonui, Whangarei, Rodney, and Waitemata, there are blocks at present inaccessible which will be opened by cross roads from the main line. In this manner, more than a hundred miles of new road will penetrate the Crown lands lying north of Auckland, which comprise an area of 1,200,000 acres.

Passing south of Auckland to the Waikato basin, we have two roads penetrating the Awaroa Survey District, from points on the railway system, and a line to open the Huihuitaha Block.

In the Thames District, a very necessary road has at length been obtained



through the Komata Block, and is now under construction. When it is finished, there will be a summer coach road from the Thames through Te Aroha, Hamilton, and Whatawhata to Raglan.

It is of importance to complete the drainage of Te Aroha Block, and to continue to improve the coastal main line of road from Tauranga to Opotiki and East Cape; also, to follow up the construction of the important line from Cambridge to Rotorua, which, when available for wheeled traffic, will complete a coach road from Wellington to Auckland. Another important section, between Cambridge and Taupo—which will form part of a future main line from Waikato to Hawke's Bay—should not be lost sight of. Sums varying in amount will be asked for these works, as will also a moderate amount to improve a set of roads in the Bay of Plenty, branching inland from the coastal main road. These are, from Matata (Richmond) to Te Teko, and from Whakatane to Te Teko, and its continuation to Galatea, on the edge of the Kaingaroa Plains.

The importance of opening the extensive East Coast District has received much consideration. The road-line from Opotiki to Gisborne has been under construction during the past year; it is very desirable to complete it, and so establish communication between the Bay of Plenty and Poverty Bay. Branching from this road, an inland line has been explored and surveyed to the Valley of Waiaapu. Another road is to connect Gisborne with the Waimata Blocks; and that from Gisborne to Wairoa, with branches to Crown lands, requires forming, so as to afford the opportunity of settling a country which, for the present, may be said to be hermetically sealed from settlement.

Coming to Hawke's Bay, it is proposed to open a road from Wairoa to some considerable areas of Crown lands on the Mohaka, and to assist in the opening of the Puketitiri Bush by a road, the local bodies co-operating. The road-lines through Crown lands, begun in the Seventy-Mile Bush, are to be extended from several points according to demands of settlement.

The Sheep Quarantine Reserve of 59,000 acres, in the south-east corner of Hawke's Bay, being no longer required for that purpose, is to be laid out preparatory to settlement.

In the Taranaki Provincial District, the great success of recent sales is an encouragement to the further opening out of the fertile lands still remaining for disposal there. With this view, road-clearings will continue to be made through the forest lands in the West Coast District.

Coming down the West Coast, to the Wellington Provincial District, and taking the railway line as a base, it is proposed to run cross roads inland from several points to Crown lands. With this view, roads are projected from Waverley to Moumahaki, Wanganui to Tokomaru, and a line to Murimotu (an inland line, originating at Marton); another extending the Kimbolton Road from the borders of the Feilding Settlement through the Waitapu and Otamakapua Blocks; and a line opening out the Pohangina and Fitzherbert Blocks.

The only other works projected on the West Coast of this Island are a line connecting Crown lands now under survey, with Otaki; and the completion of the bridle-track connecting Waikanae with Mungaroa—Upper Hutt.

In another part of the Wellington District are branch lines, connecting the country between the Hutt and Porirua with the railway-stations; and, in the County of Wairarapa West, cross roads from the Masterton—Woodville coach road to extensive areas of Crown lands in the Pahiatua, Mangaone, Rangitumau, and Mauriceville Blocks.

The northern and western districts of the Middle Island being but scantily provided with railway communication, have a fair claim to a reasonable amount of expenditure on the construction of main lines of road and necessary bridges. Our proposals are framed accordingly. Commencing at Cook Strait, there are three arterial lines of communication which require opening up or completing: (1.) The road along the East Coast from Blenheim, by Kaikoura and the Greenhills, to the Waiau Township. (2.) A road through the middle of the Island, from Nelson, by the Upper Wairau, Acheron, and Upper Clarence, to the Hammer Plains; and (3.) From Nelson, by the Hope and Buller Valleys to Westport and Greymouth. Another important line is the main road from Blenheim, Picton, and Havelock, by the Pelorus and Rai Valleys, to Nelson, which will render available a considerable tract of valuable timber land in the Rai Valley.

As shown by the Estimates, and the detailed statements which will be laid before you, it is also proposed to open up communication by means of roads and tracks with all the outlying districts in the Island where settlement is going on. The principal works of this kind not included in the main roads just mentioned are as follow :—In the Provincial District of Marlborough—Awatere Shearing Reserve. In Nelson—Aorere Valley, Wakefield to Stanley Brook, Matakītaki to Maruia Valley, Grey Valley to Teremakau, Cobden to Seventeen-Mile Diggings. In Westland and Canterbury—Dillman's Town to Christchurch Road, Upper Ashley Valley. In Otago—Hindon, Beaumont to Miller's Flat, Mount Benger, Greenvale, Seaward Forest; and a large number of roads to open up runs, the leases of which will shortly fall in, and which will be available for settlement.

The expenditure for giving effect to the proposals for opening up Crown lands will, as already stated, be spread over a period of three years; it is intended that it should be commenced without delay. If Parliament agrees to place at our disposal the funds necessary for carrying out these works, there can be no doubt that the result will be important and satisfactory progress in the work of settling the waste lands of the colony.

#### HARBOUR WORKS.

*Greymouth.*—There can be no doubt that the condition and effects of the works at the mouth of the Grey River, and the importance of the coal deposits of the district, warrant and call for the necessary expenditure for continuing the operations advised by Sir John Coode.

*Westport.*—I ask also for a vote for experimental works at Westport, which will probably be found necessary, and the erection of which may be justified by reasons of the same class as those relating to the operations at Greymouth. The River Buller, though a third-rate port, is already the most accessible one on the West Coast, and cautious experiments in the way of directing the land-floods, which are the worst features of the port, may do something towards developing the coal fields, which have a special and valuable character.

#### LIGHTHOUSES.

The recent melancholy loss of life in Foveaux Strait has brought home to us the urgent necessity which exists for an additional light in that locality. Instructions have been given to have the neighbourhood of Waipapapa and Slope Points carefully examined, for the purpose of determining the precise site which should be adopted. A vote is proposed for the erection of the lighthouse, and steps will at once be taken to procure suitable apparatus.

The light and apparatus which have for some time been in store at Auckland, for erection on one of the islands, as a guide to the entrance of the Hauraki Gulf, will now be utilized for that object; and the necessary vote will be found in the Estimates.

Small sums will also be asked for the erection of leading lights, already in store, at the entrance of Tory Channel, and for placing a substantial beacon in the French Pass.

#### WATERWORKS ON GOLD FIELDS.

The Kumara Sludge-channel will be finished, and it is proposed to augment the water supply by the construction of another reservoir in the Kapitea Valley.

It is intended to make a diversion of the Argyle Water-race near its head, and to substitute a tunnel for the open race and fluming, which at this place are very costly to maintain.

The Mikonui Water-race, in its entirety, involves such an exceedingly large outlay, that the Government are unable to proceed at present with the general scheme. They propose to have further inquiries instituted as to the benefits to be derived from the work, and as to whether some less costly provision is not practicable. The section in hand between Ross and Donnelly Creek will be finished, as it will eventually be of some service in working the higher levels of auriferous ground.

#### PUBLIC BUILDINGS.

Further expenditure is desirable for the purpose of providing in several parts of the colony proper accommodation for the transaction of public business. This expenditure is, however, of a character which, in view of the present position of

the Public Works Fund, will have to be deferred, in all but urgent cases. With the exception, therefore, of additional school-buildings, for which a less sum is asked than last year, and of increased accommodation in some of the Lunatic Asylums, votes will only be asked to meet a few pressing cases where, for some time past, the public service has seriously suffered for want of proper office accommodation.

#### IMMIGRATION.

Operations under this head have been almost suspended during the past year. The state of the labour market is still such that we should not be justified in attempting to renew a large assisted immigration. Believing, however, as we do, that a considerable addition to the population of New Zealand is as necessary for the development of its resources as for the prosperity of those who are now settled within its borders, we look forward to being able at no distant date to again afford facilities for the introduction of suitable immigrants. But, at present, circumstances do not permit us to do more than to assist a number of persons who have been to some degree surprised by the suspension of subsidized immigration, and to extend this assistance to a very limited number of single women, and of nominated immigrants who are anxious to join their relations in the colony. The Government look on State immigration operations as involving a higher degree of moral responsibility than, perhaps, any other with which they are charged. The vote asked for, including a minimum staff in the colony and in England, and the maintenance of buildings, is £24,973.

Before concluding, Sir, it will probably be expected, in a statement coming after the budget of my honorable colleague the Colonial Treasurer, that I should, to some extent, develop the idea under which he asked the House to model the finance of the colony. I refer, of course, to the suggestion for continuing the construction of the public works which have occupied our attention during the last ten years. The Government are quite agreed in the view taken by my honorable colleague of the immediate financial prospects of the colony, and they are not disposed to leave it a mere declaration of opinion. Watching the financial progress of the country with constant attention, and noting every political indication in the North that may have a bearing on the subject, they will occupy themselves early and seriously with the study of plans for completing the great works in which the colony is so deeply interested. The character of the proposals to be made on the meeting of the next Parliament must depend to a great degree on the financial experiences of the current year. But I wish now to affirm a few principles which will be observed in our propositions, should we be honored with the continued confidence of the country, and should our finance, as we anticipate, justify our immediate forward movement. Firstly, we shall make our proposals as Ministers of the whole colony, although not neglecting the claims, needs, and prospects of any one of its varied districts. Secondly, we shall ask the Legislature to define its future undertakings with all possible precision, and to give the fullest guarantee in its power that the undertakings so defined shall be faithfully carried out. Thirdly, we shall ask that future borrowing operations be limited strictly in amount by the calculable prospects of the country, and that borrowed money be employed only for works which give reasonable promise of being remunerative within such a period as is consistent with sound finance.

There are indications of a great and early change in the prospects of New Zealand, and especially of the northern districts—signs that one long-standing obstacle to their progress is about to disappear. There are few parts of this favoured land of which we may not rationally hope, not to say calculate, that their special advantages of climate or soil, accessibility, mineral or other wealth, will in due time make them populous and prosperous. It is the interest of all to open every part of the land to enterprise and industry; and, in asking authority to make the expenditure out of the Public Works Fund necessary for the study of the works to be undertaken, we hope in the early future, we are asking the Legislature to act in a hearty national spirit—to resolve that the waste spaces shall be developed—that a yet wider field shall be opened for our children, as well as for a multitude of our countrymen and race in this land, unsurpassed for its climate, its soil, and the variety of its resources.

## SCHEDULE OF PROPOSED ROAD WORKS REFERRED TO IN THE PUBLIC WORKS STATEMENT.

### NORTHERN PENINSULA, AUCKLAND.

1. *General*.—The Legislature in its last and previous session took into special consideration the condition of the long peninsula north of Auckland, as having received little advantage from the expenditure of the Public Works Fund, and as being unlikely for many years to enjoy railway communication. The greater part of the vote then granted has been expended or contracted for, but renewed authority is wanted for £22,877 4s. 1d., most of which is for the expenditure of the last quarter, April–June, and the liabilities on the 30th June.

2. *Kaihu to Kaikohe Bridle-track*.—A further expenditure is proposed within the peninsula for a bridle road to connect the basin of the Wairoa (Kaipara) with Hokianga and the Bay of Islands; length about twenty-five miles; opening 100,000 acres of somewhat rugged but fairly fertile lands of the Crown.

3. *Mangonui Homestead Blocks*.—In the same district are proposed short roads to four blocks in part occupied on the Auckland homestead system, and opening 8,000 acres. It is proposed that the County of Mangonui should share the work with the colony.

4. *Pakiri Block*.—To connect Crown lands with road constructed by County of Rodney.

5. *Wairua to Sandy Bay*.—Cross-roads opening up homestead blocks.

6. *Wairua to Helena Bay*.—Cross-roads opening up homestead blocks.

7. *Whangarei through Taheke Block*.—To open up Crown lands at present inaccessible.

8. *Purua*.—8,000 acres surveyed. Bridge required over Wairua River, to connect block with district roads.

9. *Tangihua Blocks*.—To open connection with district roads.

10. *Kaihu to Maunganui Bluff*.—Opens about 8,000 acres of good land, and is the outlet of a large district.

11. *Takahue to Mangamuiowai*.—Principally liabilities in respect of work done.

12. *Takahue to Herd's Point*.—Principally liabilities in respect of work done.

13. *Okaihau to Victoria Valley*.—Will open out large extent of Crown lands in the centre of Hokianga County.

14. *Bridge over Kaipara, near Helensville*.—A block of 4,000 acres of Crown lands, on the opposite side of the Kaipara River to Helensville, and close to the township, is for the moment inaccessible, and cut off from occupation by the tidal river. The land is rich, partly swampy, and when the bridge is determined on, will sell at good prices. It is estimated that the value will be raised by 20s. to 30s. per acre by the construction of this bridge.

### SOUTH OF AUCKLAND.

15. *Waikato to Block XVI., Awaroa*.—Will open 20,000 acres of land suitable for settlement.

16. *Waikato to Block VII., Awaroa*.—Will open 20,000 acres of land suitable for settlement.

17. *Hikutaiia to Ohinemuri by Komata (Thames)*.—This is the completion of the main road-line from Thames to Ohinemuri. Its construction has hitherto been opposed by Tukukino.

18. *Tauranga to Te Puke and Pukeroa*.—To open out Crown lands recently acquired.

19. *Opotiki*.—A vote of £480 has already been twice taken for this road, but not expended. It is intended for opening the purchased blocks inland of Opotiki.

20. *Opotiki to Ormond*.—This road has been begun at the ends by the Public Works and Crown Lands Departments. The country to be crossed is

rugged, and contains 121,000 acres of Crown lands. A small block of 2,700 acres is already under survey. This is the only land along this line in the hands of the colony, suitable for small holdings; the rest is principally forest and rough pasture. The value of the road, politically speaking, cannot be over-estimated, connecting, as the track does already, though imperfectly, the Bay of Plenty with Poverty Bay, and crossing the Uriwera country, which during every Native disturbance has furnished sympathizers with the malcontents, and a shelter for them.

21. *Te Aroha Drainage*.—To complete works already entered on.

22. *Waikato-Taupo*.—Cambridge to Taupo: Part of the main road, which must one day connect Hawke's Bay with Waikato and Auckland. Passing through the basin of the Upper Waikato, its construction will furnish the opportunity of making, at little cost, preliminary studies for the northern trunk line of railway. Napier to Cambridge: £1,000 is asked for the year; the length is about seventy miles.

23. *Cambridge to Tauranga*.—Passing close to the famed Patetere Block, this road is intended to give access from Tauranga to the Waikato Railway.

24. *Cambridge to Rotorua*.—A bridle-road already exists on this line, which it is proposed to improve and render passable for vehicles. It will bring the Hot Lakes country into connection with the Waikato Railway. The length is about fifty-five miles, of which thirty-one and a half miles are either finished or in construction.

25. *Tauranga to Opotiki and East Cape, by Coast*.—An important road in a political sense, uniting the coast settlements and the principal places of Native tribes, the most important groups of whom have been actively loyal. It is now used as a bridle-track, though an imperfect one, and the vote asked will improve it throughout where necessary, and make it in some parts fit for dray-traffic. The County Council of Whakatane has co-operated in forming the road within its limits, and will be asked to continue its co-operation.

26. *Whakatane-Te Teko*.—Part of the road from the Bay of Plenty to Taupo by the Rangitaheke Valley, crossing a large swamp, portion of which requires fascining to render the line passable for drays; total length, thirteen miles and a-half.

27. *Matata-Te Teko*.—A branch from the main road last mentioned, crossing the Tarawera River at Otakiri to the Township of Richmond, already open as a bridle-road; needs some considerable expenditure to make it available for drays.

28. *Te Teko-Galatea*.—A section, thirty-three miles long, of the road by the Rangitaheke Valley to Taupo, formed imperfectly by the Armed Constabulary, and bridged last year. It requires additional work fully to utilize the past expenditure and make it a dray-road. Galatea is a first-rate strategical point on the edge of the Kaingaroa Plain, Taupo, and commanding the track from Wairoa (Hawke's Bay) and Waikari Lake and Ahikereru in the Uriwera country to Taupo, as well as the settlements in the Bay of Plenty.

29. *Huihuitaha, Patetere*.—To provide access to Crown lands recently acquired, and now being surveyed for settlement.

30. *Ruakituri*.—To open 40,000 acres Crown lands, situate twenty-five miles north of Wairoa, Hawke's Bay.

## EAST COAST.

31. *Ormond to Waiapu*.—On the East Coast, it is proposed to connect Waiapu, near East Cape, the chief seat of the friendly Ngatiporou, with Poverty Bay. The road would open about 100,000 acres of Crown lands. The best lands, some very good, are held by Natives. The country is rugged, but a good grade is everywhere obtainable. The distance is about ninety miles. The road has a considerable political value, but the country is not likely to be early settled.

32. *Gisborne to Waimata Block*.—The block to be opened by this road contains 28,000 acres. It is proposed at once to survey 10,000 acres, including a village site,—the level land in lots of 50 to 100 acres, the hills in lots of 500 to 1,000 acres. The length of the road will be about eighteen miles.

33. *Gisborne to Wairoa*.—This line, which should be opened if for political reasons alone, would render available about 90,000 acres of Crown lands. Its

length would be about fifty-five miles. It crosses little or no land inviting for small settlers, but there is much that would probably sell in 500 to 1,000-acre blocks. The Waihau Block, 13,800 acres, about half-way between the extremities, should be opened first. It contains good timber and a site or sites for mills. A vote has already been taken for the work, but, Cook County and Wairoa County having failed to contribute, it was not expended.

## TABANAKI.

34. *Roads behind Waimate Plains, and Cross Roads, Parihaka.*—The forest lands behind the Waimate Plains are very good, and fetch high prices. The construction of roads through them would promote the sale and settlement of 90,000 acres.

35. *Roads East of Stratford, and Mountain Road.*—A vote for this group of roads was given in 1879–80, but £2,000 lapsed. A very large area of good bush land would be rendered accessible by the proposed expenditure.

## HAWKE'S BAY.

36. *Road.*—To open the Puketitiri Block of 11,000 acres, thirty miles distant from Napier; 3,000 bush, 8,000 pastoral.

37. To open Rotokakainga Block, on the Mohaka River; area, 16,500 acres.

38. *Extension of Roads in Seventy-Mile Bush.*—To open Puketoi Block, and other forest lands in Tahoraite, Ngamoko, and Ahuaturanga.

39. *Tutane Bush.*—To open 59,000 acres, known as Quarantine Reserve.

## WELLINGTON.

40. *Roads.*—To open Pahiataua and Mangaone Blocks in Seventy-Mile Bush, near Manawatu Ferry, and Crown lands adjacent to Mauriceville. £7,600 has already been spent on these roads, through the County Council of Wairarapa West, and has opened one-fourth of the Crown lands. The blocks are surveyed, but, for want of access, not half has been offered for sale; area, 60,000 acres.

41. *Repairs to Fitzherbert Bridge, Palmerston.*

42. *Roads through Fitzherbert Block.*—7,000 acres surveyed.

43. *Roads.*—To open Block XIII., Akatarawa, and the adjacent Crown lands between the Hutt and Porirua. Money has already been spent on these roads, through the Hutt County Council. The lands will probably sell well, although broken. The area to be improved includes about 5,000 acres of Crown lands, which the road will connect with the railway.

44. *Roads.*—Through the Kukutauaki Block, opening 5,000 acres near Otaki, along the new line of inland road selected by the County Council.

45. *Continuation of Kimbolton Road.*—Through Otamakapua Block, Manawatu County. The works will consist of felling 1 chain wide, and clearing 16 feet wide.

46. *Roads.*—To open Crown lands on the Pohangina River, between it and the Ruahine Mountains. The lands adjoin the reserve for the endowment of the Wanganui Harbour Board, now being improved by opening road-lines at the expense of that body.

47. *Roads.*—To open the Momahaki Block, of 7,000 acres of excellent land, mostly bush, already surveyed in sections, but cut off from the main road and railway-line by the deep valley of the Momahaki Stream. The sales were interrupted two years ago by threats of Natives, but the land would now find purchasers.

48. *Roads.*—To open the Tokomaru Block, inland of Wanganui and Kai Iwi, which contains 18,000 acres, and touches the River Wanganui about twelve miles above the town. The land is of good quality, though broken, and we are assured, on good local authority, 4,000 or 5,000 acres would be at once taken up were it rendered accessible. Surveys are begun.

49. *Wanganui to Murimotu.*—To give access to interior.

50. *Marton, inland.*—To give access to interior.

51. *Mungaroa to Waikanae.*—To open connection between Upper Hutt and coast.

52. *Rangitumanu Block*.—To improve connection between Masterton and Crown lands in this block.

## NELSON.

53. *Great South Road, Nelson and Upper Wairau to Canterbury*.—This proposal is for the completion of the road throughout. It includes improvement in the Ten-Mile Bush, the Wairau Gorge, and the Acheron Valley, and bridges over the Clarence and the Waiau-ua Rivers.

54. *Nelson and West Coast Road*.—It is necessary, for the complete utility of this road, to bridge the Owen, Matiri, Waituhu, and Little Grey rivers, and to make some less important improvements. A part only of this work can be completed during the present year.

55. *Cobden to Seventeen-Mile Diggings*.—A road through Coal Creek, opening Crown lands near Point Elizabeth, and giving access to the Seventeen-Mile Beach Diggings. It will open other level country, partly private lands, and partly the property of the Crown.

56. *Hampden-Matakitaki to Walker's Station, Maruia*.—To open a track through a large extent of Crown lands.

57. *Grey Valley to Teremakau, via Bell Hill and Bruce's Paddock*.—Will open about 40,000 acres of level Crown lands, part known to be auriferous.

58. *Wakefield to Stanley Brook, via Pigeon Valley*.—Will open out several thousand acres of Crown lands in Motueka Valley.

59. *Aorere Valley Road*.—To extend road to open country, Gouland Downs. Will be suitable for cattle, and is known to be auriferous.

## MARLBOROUGH.

60. *Road, Blenheim to Nelson*.—The continuation of the Pelorus Valley Road through the Rai Valley, to join the Wakapuaka-Nelson Road, and the completion of the existing Pelorus Valley Road.

61. *East Coast Road*.—To complete communication between Blenheim, Kaikoura, and the South. Votes are proposed for the Lower Clarence Bridge, and the improvement of the road between Kaikoura and the Waiau township.

62. *Awatere Shearing Reserve*.—This will open 12,000 acres, which, under an Act passed in 1879, will be disposed of as soon as the road is constructed. The vote will be refunded from sale of land.

## WESTLAND.

63. *Greymouth to Okarito, and southwards towards Jackson's Bay*.—This line forms part of the main road to Jackson's Bay. The road is formed as far as Lake Mapourika. A horse or dray-track branches off to Okarito, whence it follows the beach, and the inland formation is resumed at Mahitahi. The votes asked for are to continue the permanent road south of Okarito, and to extend the pack-horse-track from Lake Mapourika to Gillespie's Beach.

64. *Paringa Road to Haast River*.—The proposed votes will extend the road to Waita, six miles from the Haast River, by a good beach, and improve the Haast Pass Track. The line is important, both on account of the gold and minerals of the district, and would complete the bridle-track from Westland to Otago.

65. *Minor Road-works, County of Westland*.—These are mainly for the road, Dilman's Town to Christchurch Road, and various unimportant works on existing roads. The Dillman's Town route runs through some very good timber land, and will promote settlement along the line; its length is five miles.

## CANTERBURY.

66. *Road in Upper Ashley Valley*.—This line runs over the Kuku Pass to Waipara Valley, and thence through back country to Upper Ashley.

## OTAGO.

67. *Waikari-Waitati Road*.—It is proposed to complete the formation of this road, a work begun by the Provincial Government of Otago.

68. *Hindon to Village Settlement*.—This village site, 430 acres in area, is divided in sections from 10 to 20 acres. It is between a mile and a-half and two miles and a-half from Hindon.

69. *Beaumont to Miller's Flat.*—Following the east bank of the Clutha River, and opening Run No. 170, the lease of which falls in in 1883. The run could be divided into eight or ten small holdings, which in this country would certainly be taken up if the proposed road is constructed.

70. *Road through Gorge in Mount Benger Survey District.*—This road would open Blocks VIII. and X. and the back part of Run No. 200, which admits of advantageous division.

71. *Road.*—To open Run No. 106, the lease of which expires in 1882. 5,000 acres of it is good though broken land, and can be surveyed into sections for small settlers.

72. *Kelso to Block XIII., Greenvale.*—4,000 acres of Crown land have been sold on deferred payment recently. It is situated at a distance of four miles from Kelso Railway-station. Other 10,000 acres behind the block will come into the market in 1883, on the expiration of the present lease.

73. *Tapanui Railway-station to South Part of Run No. 140.*—The lease of Run No. 140 expires in March, 1883. Of this land, 8,000 acres have been set aside for settlement, and will be surveyed in sections from 300 to 1,500 acres. The soil is good, but the gullies intersecting it require its division into large sections.

74. *Roads to open out Crown Lands in Otago and Southland Runs.*—These runs have to be dealt with before March, 1883, and, to facilitate subdivision, formation of roads and tracks is required.

#### SOUTHLAND.

75. *Roads.*—To open Seaward Forest and coast line. They will bring into the market 40,000 acres of level land—dry, mossy, swampy, or bush. A vote of £3,000 has been employed in opening five miles of these roads and cutting outfall drains, and the extension of works is still going on. During the works 1,200 acres have been surveyed, sold, and occupied. The Land Board asks for the survey of 1,000 acres more. The vote asked will extend the road to the beach, making a continuous road from Toitoto to Invercargill. A block of 10,000 acres formerly surveyed, at Waituna, requires roads and drains before it can be advantageously disposed of. It is proposed to open a road-line from Bay Bush to Waituna.

76. *Forest Hill Tramway.*—To open 7,000 acres of Crown lands. The tramway leaves Winton and runs eastward six miles; it will possibly at some future time form a portion of a railway connecting the Invercargill-Kingston line at Winton with the main trunk line at Maitara.



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TABLE NO. 1.

SUMMARY showing the TOTAL EXPENDITURE ON PUBLIC WORKS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date

Number of Table containing Details.	Works.	Expenditure to 31st March, 1880 (see last year's Table No. 1).	Deduct Amounts recovered since 31st March, 1880, but which are for Services prior to that date.	Total Expenditure to 31st March, 1880.	Expenditure during 12 Months ended 31st March, 1881.	Total Expenditure to 31st March, 1881.	Liabilities, Authorities, Con- tracts, &c., 31st March, 1881.	Total Expenditure and Liabilities.	Works.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
2	Railways	8,495,074 6 2*	34,863 9 0	8,460,210 17 2	976,934 12 0	9,437,145 9 2	429,093 8 4	9,866,238 17 6	Railways.
5	Roads	803,897 9 2	173 15 9	803,723 13 5	179,599 15 9	983,323 9 2	74,411 2 5	1,057,734 11 7	Roads.
11 of 1877	Payments to Road Boards	225,000 0 0	...	225,000 0 0	...	225,000 0 0	...	225,000 0 0	Payments to Road Boards.
10 of 1878	Coal exploration and mine de- velopment	10,835 8 0	...	10,835 8 0	...	10,835 8 0	...	10,835 8 0	Coal exploration and mine de- velopment.
7	Water supply on gold fields	430,929 17 0	20 0 0	430,909 17 0	16,506 13 11	447,506 10 11	11,029 17 8	458,536 8 7	Water supply on gold fields.
8	Miscellaneous public works	474,928 5 7	...	474,928 5 7	84,091 3 0	559,019 8 7	38,591 8 10	597,610 17 5	Miscellaneous public works.
11 of 1877	Aiding works on Thames Gold Fields	50,000 0 0	...	50,000 0 0	...	50,000 0 0	...	50,000 0 0	Aiding works on Thames Gold Fields.
9	Telegraphs	368,763 11 9	1,498 2 10	367,265 8 11	45,381 8 4	412,646 17 3	1,500 0 0	414,046 17 3	Telegraphs.
10	Public buildings	652,019 10 7	...	652,019 10 7	205,733 14 5	857,753 5 0	33,249 18 5	891,003 3 5	Public buildings.
11	Lighthouses	85,203 3 9	...	85,203 3 9	2,635 15 3	87,838 19 0	100 0 0	87,938 19 0	Lighthouses.
...	Departmental	144,094 12 9	524 4 6	143,570 8 3	†13,772 13 8	157,343 1 11	647 18 3	157,991 0 2	Departmental.
	TOTALS	11,740,746 4 9	37,079 12 1	11,703,666 12 8	1,524,645 16 4†	13,228,312 9 0	588,623 13 11	13,816,936 2 11	TOTALS.

\* This amount does not include the expenditure on railways of the late Provinces of Canterbury and Otago, which were valued at £731,759 and £372,522 respectively, and were not paid for out of Immigration and Public Works Loan, but were taken in reduction of the provincial debts. For particulars see foot-note on Table No. 2.

† If the amount †£13,772 13s. 8d. (Departmental) be deducted from this sum, and £57,837 5s. 7d. Land Purchases expenditure be added, it will leave £1,568,710 8s. 3d., which will be found to agree with the audited statement of Expenditure on Public Works (vide Appendix A).

‡ Includes £113 12s. unauthorised expenditure.

W. A. THOMAS,  
Accountant, Public Works.

TABLE No. 2.

STATEMENT showing the TOTAL EXPENDITURE on RAILWAYS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that Date.

Lines of Railway.	Total Net Expenditure to 31st March, 1880, as per Table No. 3.		Expenditure during 12 Months ended 31st March, 1881.		Total Net Expenditure to 31st March, 1881, as per Table No. 3.		Liabilities on Authorities, Contracts, &c., 31st March, 1881, as per Table No. 4.		Total Expenditure and Liabilities.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
NORTH ISLAND (as per particulars below)	3,155,059	9 7	417,550	2 0	3,572,609	11 7	208,544	18 4	3,781,154	9 11
MIDDLE ISLAND (as per particulars below)	5,304,315	14 3	559,384	10 0	5,863,700	4 3	220,548	10 0	6,084,248	14 3
MISCELLANEOUS SURVEYS ...	470	17 11	...	...	470	17 11	...	...	470	17 11
UNAPPORTIONABLE ...	364	15 5	...	...	364	15 5	...	...	364	15 5
Total ...	8,460,210	17 2	976,934	12 0	9,437,145	9 2	429,093	8 4	9,866,238	17 6
NORTH ISLAND.										
Kawakawa ...	28,410	19 1	14,284	8 1	42,695	7 2	25,162	2 7	67,857	9 9
Whangarei to Kamo ...	3,434	19 7	29,488	17 6	32,923	17 1	7,082	9 3	40,006	6 4
Kaipara to Waikato ...	1,014,249	14 6	67,396	15 10	1,081,646	10 4	60,516	16 8	1,142,163	7 0
Waikato to Thames—										
Hamilton to Te Aroha ...	6,055	19 3	45,464	11 11	51,520	11 2	12,823	9 9	64,344	0 11
Te Aroha to Thames ...	17,268	1 8	22,269	18 11	39,538	0 7	6,656	2 7	46,194	3 2
Branch to Hamilton ...	4,000	3 6	832	1 6	4,832	5 0	105	0 0	4,937	5 0
Wellington to Napier—										
Napier to Woodville ...	435,431	15 1	23,532	13 6	458,964	8 7	6,079	9 7	465,043	18 2
Wellington to Woodville ...			58,358	3 11			17,994	19 8		
Greytown Branch ...			2,840	13 7			1,029	7 9		
Wellington to Foxton—										
Wellington to Johnsonville ...			7,977	19 4			150	12 9		
Johnsonville to Foxton ...	25,729	0 1	10,557	1 3	43,364	0 8	6,682	18 11	50,197	12 4
Foxton to New Plymouth—										
Foxton to Carlyle ...			76,777	15 0			41,422	2 4		
Greatford to Bull's	690,376	19 1			767,406	1 4			808,900	5 8
Taionui Branch ...			251	7 3			72	2 0		
Carlyle to Waitara ...	211,368	12 4	56,753	12 11	268,122	5 3	22,707	4 6	290,889	9 9
Total ...	3,145,103	14 1	415,886	0 6	3,560,989	14 7	208,544	18 4	3,769,534	12 11
PRELIMINARY SURVEYS:—										
Thames to Waikato ...	1,577	8 11	...	...	1,577	8 11	...	...	1,577	8 11
Mercer to Cambridge ...	528	17 3	...	...	528	17 3	...	...	528	17 3
Cambridge to Taupo ...	346	4 1	...	...	346	4 1	...	...	346	4 1
Masterton to Woodville ...	276	10 11	...	...	276	10 11	...	...	276	10 11
Hutt to Waikanae ...	1,717	16 5	...	...	1,717	16 5	...	...	1,717	16 5
Tokano to Napier ...	20	16 0	...	...	20	16 0	...	...	20	16 0
Waipukurau to Gorge ...	3,179	11 0	...	...	3,179	11 0	...	...	3,179	11 0
Waitara to Waitotara ...	87	10 0	177	15 7	265	5 7	...	...	265	5 7
Mountain Road to Opunake	1,220	6 2	598	10 6	1,818	16 8	...	...	1,818	16 8
Wellington to Foxton ...	69	1 7	...	...	69	1 7	...	...	69	1 7
Normanby to Hawera ...	29	3 4	...	...	29	3 4	...	...	29	3 4
Whangarei to Kawakawa ...	46	16 0	...	...	46	16 0	...	...	46	16 0
Napier to Wallingford ...	367	18 10	...	...	367	18 10	...	...	367	18 10
Auckland to Whangarei ...	431	10 0	570	14 3	1,002	4 3	...	...	1,002	4 3
Foxton to Carlyle ...	56	5 0	189	11 8	245	16 8	...	...	245	16 8
Bunynthorpe to Woodville ...	...	...	127	9 6	127	9 6	...	...	127	9 6
Total, North Island ...	3,155,059	9 7	417,550	2 0	3,572,609	11 7	208,544	18 4	3,781,154	9 11
MIDDLE ISLAND.										
Nelson to Greymouth—										
Nelson to Roundell ...	139,037	15 9	8,884	0 10	147,921	16 7	2,905	15 10	150,827	12 5
Greymouth to Nelson Creek, construction	207,397	18 5	14,081	18 0	241,997	15 6	4,489	13 10	249,608	19 8
Greymouth Harbour Works			20,517	19 1			3,121	10 4		
Greymouth to Hokitika ...	14,596	3 3	7,412	18 7	22,009	1 10	454	14 10	22,463	16 8
Westport to Ngakawau ...	209,360	5 4	2,349	0 1	211,709	5 5	2,506	19 1	214,216	4 6
Pieton to Hurunui—										
Pieton to Blenheim ...	172,832	5 0	16,946	2 6	189,778	7 6	156	8 2	189,934	15 8
Blenheim to Awatere ...	...	...	...	...	...	...	...	...	...	...
Hurunui to Waitaki—										
Railway Protective Works, Rakaia	...	...	...	...	...	...	7,119	4 11	...	...
Main Line ...			89,975	15 7			29,979	14 2		
Oxford Branch ...			50	17 0						
Eyreton Branch ...			25	0 0			300	0 0		
Lytelton Branch ...			6,972	9 10			2,938	1 8		
Southbridge Branch ...	1,692,551	9 10	392	13 11	1,793,534	9 6	267	0 0	1,835,449	9 4
Springfield Branch ...			2,588	7 7			230	11 7		
Whitecliffs Branch ...			1,827	15 9			305	0 0		
Opawa Branch ...			50	0 0			715	7 6		
Waimate Branch ...										
Carried forward ...	2,435,775	17 7	171,174	18 9	2,606,950	16 4	55,550	1 11	2,662,500	18 3

TABLE NO. 2—continued

STATEMENT showing the TOTAL EXPENDITURE and LIABILITIES ON RAILWAYS—continued.

Lines of Railway.	Total Net Expenditure to 31st March, 1880, as per Table No. 3.			Expenditure during 12 Months ended 31st March, 1881.			Total Net Expenditure to 31st March, 1881, as per Table No. 3.			Liabilities on Authorities, Contracts, &c., 31st March, 1881, as per Table No. 4.			Total Expenditure and Liabilities.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Brought forward ...	2,435,775	17	7	171,174	18	9	2,606,950	16	4	55,550	1	11	2,662,500	18	3
<b>MIDDLE ISLAND—continued.</b>															
Hurunui to Waitaki—continued.															
Main line to Upper Ashburton	8,984	13	5	2,241	0	9	11,225	14	2	2,010	2	2	13,235	16	4
Little River to Akaroa ...	12,348	15	3	11,006	14	10	23,355	10	1	4,492	2	4	27,847	12	5
Washdyke to Opawa	9,316	8	0	7,823	14	0	17,140	2	0	6,611	6	7	23,751	8	7
Canterbury Interior Main Line—															
Oxford to Malvern ...	2,245	13	7	9,865	16	5	12,111	10	0	1,760	13	1	13,872	3	1
Whiteriffs to Rakaia ...	217	8	6	30	15	10	248	4	4						
Temuka to Rangitata ...	3,601	12	8	1,550	10	0	5,152	2	8	314	14	0	5,715	1	0
Waitaki to Bluff—															
Main line ...				124,761	16	6				92,623	2	5			
Dunroon Branch ...				1,023	19	5				856	8	1			
Ngapara Branch ...				2,342	11	5				4,274	14	2			
Port Chalmers Branch ...				12,145	19	9	2,511,404	6	0	3,376	3	0	2,613,287	6	11
Brighton Road Branch ...				6	6	10				113	13	2			
Outram Branch ...															
Lawrence ...				137	1	2				639	0	1			
Ngapara Branch to Livingstone	16,882	14	6	14,385	0	7	31,267	15	1	1,123	5	10	32,391	0	11
Palmerston to Waihemo ...	5,474	2	4	2,582	3	4	8,056	5	8	161	7	7	8,217	13	3
Main line to Carlin's River ...	4,480	9	5	3,151	15	1	7,641	4	6	730	0	11	8,371	5	5
Waipahi to Heriot Burn ...	518	6	10	63,958	9	5	64,476	16	3	2,417	13	7	66,894	9	10
Edendale to Toitoto ...	7,880	17	6	2,781	7	10	10,662	5	4	536	17	0	11,199	2	4
Otago Central—															
Chain Hills to Taieri Lake ...	50,314	9	1	53,849	1	5	104,163	10	6	20,076	15	11	124,240	6	5
Invercargill to Kingston—															
Main line ...	239,215	11	11	1,444	16	0	240,660	7	11	1,611	17	5	242,272	5	4
Lumsden to Mararoa ...	2,245	8	6	7,574	0	6	9,819	9	0	437	4	8	10,256	13	8
Western Railways—															
Makarewa to Riverton ...				11,195	16	1				2,010	5	3			
Riverton Branch to Otatau ...	89,078	7	0	11,975	6	3	119,854	5	0	9,345	19	9	138,488	13	8
Riverton to Orepuki ...				7,604	15	8				7,278	3	8			
Otautau to Nightcaps ...	3,651	3	5	6,665	10	2	10,316	13	7	1,790	10	9	12,107	4	4
Purchase of wagons ...				22,000	0	0	22,000	0	0				22,000	0	0
Total ...	5,263,227	10	5	553,279	8	0	5,816,506	18	5	220,142	3	4	6,036,649	1	9
<b>PRELIMINARY SURVEYS:—</b>															
Foxhill to Brunner ...	3,277	4	0				3,277	4	0				3,277	4	0
Foxhill southwards ...	454	11	8	342	18	4	797	10	0				797	10	0
Greymouth to Christchurch ...	798	0	9	1,895	14	2	2,693	14	11	98	13	5	2,792	8	4
Greymouth to Hokitika ...	2,763	9	8				2,763	9	8				2,763	9	8
Hokitika to Christchurch ...	34	16	8				34	16	8				34	16	8
Hokitika to Malvern ...	468	0	3				468	0	3				468	0	3
Hokitika Office ...	1,200	0	0				1,200	0	0				1,200	0	0
Greymouth to Amberley ...	10,783	2	0				10,783	2	0				10,783	2	0
Amberley to Hurunui ...	576	7	1				576	7	1				576	7	1
Hurunui to Blenheim ...	726	12	11	320	18	11	1,047	11	10	76	5	1	1,123	16	11
Ashburton to Alford Forest	229	2	7				229	2	7				229	2	7
Waimate to Hakateramea ...	207	2	10				207	2	10				207	2	10
Dunroon to Hakateramea ...	1,435	0	0				1,435	0	0				1,435	0	0
Orari to Hilton <i>via</i> Geraldine	302	11	2				302	11	2				302	11	2
Whitecliffs to Rakaia Gorge	218	12	10				218	12	10				218	12	10
Albury to Fairlie Creek ...	370	6	3				370	6	3	0	17	3	371	3	6
Oamaru to Waiareka ...	493	6	9				493	6	9				493	6	9
Waiareka to Livingstone ...	8	2	6				8	2	6				8	2	6
Dunedin to Moeraki ...	2,175	2	4				2,175	2	4				2,175	2	4
Clutha to Mataura ...	115	9	6				115	9	6				115	9	6
Taieri <i>via</i> Strath-Taieri to Clyde	5,352	12	3				5,352	12	3				5,352	12	3
Taieri River <i>via</i> Brighton ...	3	0	0				3	0	0				3	0	0
Green Island Extension ...	93	2	0				93	2	0				93	2	0
Clutha River Survey ...	0	18	6				0	18	6				0	18	6
Waipahi to Cromwell ...	100	0	0				100	0	0				100	0	0
Waipahi to Waikaka ...	655	0	7	377	12	6	1,032	13	1	177	7	10	1,210	0	11
Riverton to Orepuki ...	807	9	1	156	5	0	963	14	1				963	14	1
Gore to Elbow ...	1,177	18	2				1,177	18	2				1,177	18	2
Otautau to Waiuau and Nightcaps	800	10	9	45	3	0	845	13	9				845	13	9
Lyttelton Station-ground ...	40	0	0				40	0	0				40	0	0
Lumsden to Mararoa ...	432	16	6	256	2	8	688	19	2				688	19	2
Edendale to Portrose ...	48	13	6				48	13	6				48	13	6
Edendale to Toitoto ...	436	12	7	311	1	8	747	14	3	19	11	9	767	6	0
Glen Tunnel to Rakaia Gorge	32	9	8				32	9	8				32	9	8
Carried forward ...	5,299,845	15	9	556,985	4	3	5,856,831	0	0	220,514	18	8	6,077,345	18	8

TABLE No. 2—continued.  
STATEMENT showing the TOTAL EXPENDITURE and LIABILITIES on RAILWAYS—continued.

Lines of Railway.	Total Net Expenditure to 31st March, 1880, as per Table No. 3.			Expenditure during 12 Months ended 31st March, 1881.			Total Net Expenditure to 31st March, 1881, as per Table No. 3.			Liabilities on Authorities, Contracts, &c., 31st March, 1881, as per Table No. 4.			Total Expenditure and Liabilities.			
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	
Brought forward ...	5,299,845	15	9	556,985	4	3	5,856,831	0	0	220,514	18	8	6,077,345	18	8	
<b>MIDDLE ISLAND—continued.</b>																
<b>PRELIMINARY SURVEYS—contd.</b>																
Malvern Branch ...		6	12	8	...		6	12	8	...		6	12	8		
Oxford to Malvern ...		22	16	0	...		22	16	0	...		22	16	0		
Aorere Tramway ...		5	15	0	...		5	15	0	...		5	15	0		
Little River to Akaroa ...		262	15	4	...		262	15	4	...		262	15	4		
Malvern Ferry Bridge ...		19	16	0	...		19	16	0	...		19	16	0		
Opawa Branch ...		90	18	2	49	4	0	140	2	2	...	140	2	2		
Oxford to Temuka ...		147	13	7	...		147	13	7	...		147	13	7		
Christchurch to Sumner ...		36	19	0	...		36	19	0	...		36	19	0		
Oamaru to Livingstone ...		236	5	0	...		236	5	0	...		236	5	0		
Winchester to Hilton ...		4	9	0	...		4	9	0	...		4	9	0		
Amberley to Cook's Strait ...		132	9	0	...		132	9	0	...		132	9	0		
Amberley to Brunner ...		771	19	10	1,153	18	10	1,925	18	8	...	1,925	18	8		
Sheffield to Kowai Pass ...		94	15	9	...		94	15	9	...		94	15	9		
Otago Central ...		1,413	13	1	424	8	11	1,838	2	0	...	1,838	2	0		
Orepuki Branch ...		108	6	8	...		108	6	8	...		108	6	8		
Fairlie Creek to Mackenzie Country ...		251	1	9	139	10	7	390	12	4	...	390	12	4		
Westport to Inangahua ...		636	1	2	20	14	6	656	15	8	...	656	15	8		
Waiau Valley Route (Western Railways) ...		180	0	0	...		180	0	0	...		180	0	0		
Nelson to Roundell ...		40	0	0	261	8	11	301	8	11	23	7	4	324	16	3
Waimea, Switzer's ...		...	...	...	350	0	0	350	0	0	...	...	...	350	0	0
Outram to Clarendon and Wangaloa ...		...	...	...	...	...	...	...	...	...	10	4	0	10	4	0
Incidental, general, &c. ...		7	11	6	...		...	7	11	6	...	...	7	11	6	
Total, Middle Island...	5,304,315	14	3	559,384	10	0	*5,863,700	4	3	220,548	10	0	6,084,248	14	3	

\* NOTE.—This amount does not include the expenditure on the railways of the late Provinces of Canterbury and Otago, which were valued as follows, viz. :—

CANTERBURY.				OTAGO.					
	£	s.	d.	£	s.	d.	£	s.	d.
<b>Lyttelton and Christchurch—</b>									
Fencing and ditching ...	4,024	0	0						
Culverts and diversions ...	6,215	0	0						
Level crossings ...	1,732	0	0						
Earthwork ...	10,000	0	0						
Heathcote Tunnel ...	186,462	0	0						
Bridges ...	2,214	0	0						
Lyttelton Station Reclamation ...	25,296	0	0						
Permanent way ...	48,088	0	0						
Station and other buildings ...	65,178	0	0						
Double narrow-gauge line, with earthwork & buildings ...	3,213	0	0						
Metalling, &c., in station yards ...	1,486	0	0						
Points, crossings, traverses, and turntable ...	14,473	0	0						
Plant, tools, and machinery ...	13,966	0	0						
				382,347	0	0			
<b>Christchurch and Selwyn—</b>									
Grading, with bridges and culverts ...	20,480	0	0						
Permanent way, with points and crossings ...	39,470	0	0						
				59,950	0	0			
<b>General—</b>									
Stations and other buildings ...	9,148	0	0						
Stores at Christchurch ...	11,139	0	0						
Platelayers' tools ...	785	0	0						
Telegraph and stores ...	4,758	0	0						
Furniture and station plant ...	2,907	0	0						
Land ...	91,357	0	0						
Water-services ...	852	0	0						
Rolling-stock ...	76,063	0	0						
				197,009	0	0			
<b>Opawa Branch, complete ...</b>									
Duplicates of engines and carriages ...				71,547	0	0			
Engineering and management, 5 per cent. on £365,000 ...				2,656	0	0			
				18,250	0	0			
				£731,759	0	0			
<b>Bluff and Winton—</b>									
Grading and permanent way ...	116,388	0	0						
Rolling-stock and machinery ...	15,410	0	0						
Station buildings ...	9,830	0	0						
Stock, plant, tools, and furniture ...	2,106	0	0						
Stores at Invercargill ...	338	0	0						
Level crossings and gates ...	325	0	0						
Points and crossings ...	1,920	0	0						
Bluff Wharf ...	9,223	0	0						
				155,540	0	0			
<b>Western Railways—</b>									
Works up to formation ...	32,721	0	0						
Permanent-way material ...	23,226	0	0						
				55,947	0	0			
<b>Awamoko Branch, complete ...</b>									
Waiareka Branch, complete ...				29,295	0	0			
Green Island Branch, complete ...				51,146	0	0			
Outram Branch, as completed up to 30th April, 1877 ...				9,693	0	0			
				27,313	0	0			
<b>General—</b>									
Rolling-stock and machinery ...	11,252	0	0						
Plants and tools ...	306	0	0						
Buildings, Port Chalmers and Clutha ...	1,360	0	0						
Permanent-way material in stock ...	1,065	0	0						
Stores at Dunedin ...	5,416	0	0						
Land ...	11,820	2	5						
Station plant and furniture ...	604	0	0						
				31,823	2	5			
<b>Engineering and management, 5 per cent. on work in New Zealand, £235,315 ...</b>									
				11,765	0	0			
				£372,522	2	5			

TABLE No. 3.

STATEMENT showing the TOTAL EXPENDITURE on RAILWAYS, out of Immigration and Public Works Loan, to 31st March, 1881.—CLASSIFIED.

LINES OF RAILWAY.	EXPENDITURE TO 31ST MARCH, 1880. (Vide page 9 of P. W. Statement, 1880.)	DEDUCT CREDITS ON ACCOUNT OF EXPENDITURE made prior to 31st March, 1880, but only received during 1880-81.	TOTAL NET EXPENDITURE TO 31ST MARCH, 1880.	NET EXPENDITURE DURING TWELVE MONTHS ENDED 31ST MARCH, 1881.	TOTAL NET EXPENDITURE TO 31ST MARCH, 1881.	CLASSIFICATION OF TOTAL NET EXPENDITURE TO 31ST MARCH, 1881.												TOTAL NET EXPENDITURE TO 31ST MARCH, 1881.	LINES OF RAILWAY.	
						LAND.	SURVEYS: PRELIMINARY AND WORKING.	CONSTRUCTION.					ROLLING-STOCK.		WORKSHOPS, STATIONS, AND WHARVES.	ENGINEERING AND OFFICE.	INCIDENTAL.			
								Grading.	Bridges and Culverts.	Fencing.	Permanent Way, New Zealand.	Permanent Way, England.	New Zealand.	England.						
<b>NORTH ISLAND.</b>																				
Kawakawa ...	£ 28,413 19 1	s. 3 0 0	£ 28,410 19 1	£ 14,284 8 1	£ 42,695 7 2	£ 59 19 9	£ 1,067 8 11	£ 6,398 12 0	£ 8,374 10 11	£ 7 0 0	£ 3,217 6 6	£ 10,640 2 2	£ 970 3 9	£ 6,807 6 2	£ 1,766 14 7	£ 3,216 16 2	£ 169 6 3	£ 42,695 7 2	Kawakawa.	
Whangarei to Kamo ...	3,434 19 7	...	3,434 19 7	29,488 17 6	32,923 17 1	2,080 2 10	21 14 9	6,661 11 0	2,442 0 0	1,926 5 3	3,128 3 8	4,882 1 0	58 14 6	8,117 11 0	2,421 13 3	1,089 18 1	94 1 9	32,923 17 1	Whangarei to Kamo.	
Kaipara to Waikato ...	1,031,470 19 6	17,221 5 0	1,014,249 14 6	67,396 15 10	1,081,646 10 4	51,638 19 2	11,636 11 7	257,629 0 0	109,783 19 10	18,296 15 2	146,022 13 8	153,199 11 8	38,448 3 11	86,624 6 4	149,075 15 7	53,371 13 2	5,919 0 3	1,081,646 10 4	Kaipara to Waikato.	
Waikato to Thames ...	27,330 13 5	6 9 0	27,324 4 5	68,566 12 4	95,890 16 9	2,364 3 10	823 13 3	21,944 2 11	3,523 16 1	2,596 14 8	12,343 14 8	27,555 1 9	50 10 6	21,003 17 8	1,289 14 1	2,322 10 3	72 17 1	95,890 16 9	Waikato to Thames.	
Wellington to Napier ...	1,151,730 0 3	7,520 15 3	1,144,209 5 0	84,731 11 0	1,228,940 16 0	38,687 17 3	23,682 6 3	314,198 12 8	173,593 16 3	29,176 17 8	137,019 13 7	196,109 13 7	27,962 13 3	105,825 15 4	133,564 0 0	47,776 14 1	1,342 16 1	1,228,940 16 0	Wellington to Napier.	
Wellington to Foxton ...	29,098 13 10	3,369 13 9	25,729 0 1	17,935 0 7	43,364 0 8	...	4,076 12 5	21,921 7 10	3,942 13 8	585 7 3	147 14 10	...	1 6 0	...	8,810 10 2	3,410 3 0	468 5 6	43,364 0 8	Wellington to Foxton.	
Foxton to New Plymouth ...	993,341 3 9	1,595 12 4	991,745 11 5	133,782 15 2	1,035,528 6 7	40,397 11 9	23,738 19 5	205,441 1 5	139,836 6 4	31,951 10 8	147,769 17 10	189,313 19 3	32,036 13 10	73,185 14 6	106,409 17 6	43,299 8 4	2,147 5 9	1,035,528 6 7	Foxton to New Plymouth.	
PRELIMINARY SURVEYS: North Island (for details see Table No. 2)	9,955 15 6	...	9,955 15 6	1,664 1 6	11,619 17 0	...	11,619 17 0	...	...	...	...	...	...	...	...	...	...	11,619 17 0	PRELIMINARY SURVEYS:— North Island (for details see Table No. 2).	
<b>TOTAL, NORTH ISLAND ...</b>	<b>3,184,776 4 11</b>	<b>29,716 15 4</b>	<b>3,155,059 9 7</b>	<b>417,550 2 0</b>	<b>3,572,609 11 7</b>	<b>135,228 14 7</b>	<b>76,667 3 7</b>	<b>834,194 7 10</b>	<b>441,497 3 1</b>	<b>84,540 10 8</b>	<b>449,649 4 9</b>	<b>581,700 9 5</b>	<b>99,528 5 9</b>	<b>301,564 11 0</b>	<b>403,338 5 2</b>	<b>154,487 3 1</b>	<b>10,213 12 8</b>	<b>3,572,609 11 7</b>	<b>TOTAL, NORTH ISLAND.</b>	
<b>MIDDLE ISLAND.</b>																				
Nelson to Greymouth ...	346,461 4 2	25 10 0	346,435 14 2	43,483 17 11	389,919 12 1	31,436 8 4	5,829 17 3	139,694 9 7	49,509 5 1	8,842 13 1	30,266 4 10	33,015 7 8	6,059 8 9	21,987 17 3	42,006 6 1	20,260 3 1	1,011 11 1	389,919 12 1	Nelson to Greymouth.	
Greymouth to Hokitika ...	14,596 3 3	...	14,596 3 3	7,412 18 7	22,009 1 10	1,743 18 0	450 4 0	9,763 18 8	5,659 7 0	131 18 5	828 1 6	...	62 17 9	...	138 5 6	2,741 4 7	489 6 5	22,009 1 10	Greymouth to Hokitika.	
Westport to Ngakawau ...	209,410 10 5	50 5 1	209,360 5 4	2,349 0 1	211,709 5 5	8,415 15 1	6,583 19 2	55,576 7 8	14,400 8 4	117 0 0	22,168 2 7	27,396 7 5	3,884 18 1	19,228 5 10	44,434 12 3	9,066 13 5	436 15 7	211,709 5 5	Westport to Ngakawau.	
Pictou to Hurunui ...	172,843 15 11	11 10 11	172,832 5 0	16,946 2 6	189,778 7 6	21,958 2 3	2,162 19 11	55,584 8 0	34,746 6 9	1,505 12 3	18,993 15 9	22,159 4 0	2,885 10 4	8,806 7 10	14,763 2 9	5,992 17 9	219 19 11	189,778 7 6	Pictou to Hurunui.	
Hurunui to Waitaki ...	1,723,399 0 7	197 14 1	1,723,201 6 6	122,954 9 3	1,845,255 15 9	59,814 0 10	14,277 5 0	179,343 19 4	356,813 0 8	47,674 18 6	269,259 12 9	338,103 19 5	57,046 15 9	215,776 17 9	254,082 0 6	48,492 4 3	4,571 1 0	1,845,255 15 9	Hurunui to Waitaki.	
Canterbury Interior Main Line ...	6,064 14 9	...	6,064 14 9	11,447 2 3	17,511 17 0	121 19 4	289 11 11	6,696 6 0	8,851 3 1	17 7 1	8 3 9	...	133 11 2	...	1 1 6	1,359 6 5	33 6 9	17,511 17 0	Canterbury Interior Main Line.	
Waitaki to Bluff ...	2,409,533 6 3	3,301 4 9	2,406,232 1 6	227,276 11 4	2,633,508 12 10	109,739 19 11	26,882 7 10	773,279 17 6	258,666 9 11	77,800 19 1	326,255 18 6	325,353 11 7	45,436 3 7	251,187 0 0	345,343 0 5	86,716 0 9	6,847 3 9	2,633,508 12 10	Waitaki to Bluff.	
Otago Central ...	51,684 8 11	1,369 19 10	50,314 9 1	53,849 1 5	104,163 10 6	1,718 14 11	3,381 13 5	79,254 14 3	11,845 15 5	2,161 15 2	479 8 6	...	...	...	482 19 6	4,817 18 6	20 10 10	104,163 10 6	Otago Central.	
Invercargill to Kingston ...	241,509 2 3	48 1 10	241,461 0 5	9,018 16 6	250,479 16 11	2,585 3 11	2,964 15 11	44,036 15 1	14,378 9 9	3,869 17 7	55,824 17 6	73,911 16 6	3,183 11 1	24,744 2 4	13,441 15 1	10,864 15 2	673 17 0	250,479 16 11	Invercargill to Kingston.	
Western Railways ...	92,871 17 7	142 7 2	92,729 10 5	37,441 8 2	130,170 18 7	5,537 13 10	369 10 2	28,802 19 9	12,952 9 2	5,241 6 3	34,312 7 3	17,919 16 5	1,924 11 1	8,748 12 0	8,498 10 5	6,547 14 4	215 7 11	130,170 18 7	Western Railways.	
Purchase of wagons ...	...	...	...	22,000 0 0	22,000 0 0	...	...	...	...	...	...	...	22,000 0 0	...	...	...	...	...	22,000 0 0	Purchase of wagons.
PRELIMINARY SURVEYS:— Middle Island (for details see Table No. 2)	41,088 3 10	...	41,088 3 10	6,105 2 0	47,193 5 10	...	47,193 5 10	...	...	...	...	...	...	...	...	...	...	47,193 5 10	PRELIMINARY SURVEYS:— Middle Island (for details see Table No. 2).	
<b>TOTAL, MIDDLE ISLAND ...</b>	<b>5,309,462 7 11</b>	<b>5,146 13 8</b>	<b>5,304,315 14 3</b>	<b>559,384 10 0</b>	<b>5,863,700 4 3</b>	<b>243,071 16 5</b>	<b>110,385 10 5</b>	<b>1,372,033 15 10</b>	<b>766,922 15 2</b>	<b>147,363 7 5</b>	<b>758,396 12 11</b>	<b>837,860 3 0</b>	<b>142,617 7 7</b>	<b>550,479 3 0</b>	<b>723,191 14 0</b>	<b>196,858 18 3</b>	<b>14,519 0 3</b>	<b>5,863,700 4 3</b>	<b>TOTAL, MIDDLE ISLAND.</b>	
<b>SUMMARY.</b>																				
<b>NORTH ISLAND:— Railways ...</b>	<b>3,184,776 4 11</b>	<b>29,716 15 4</b>	<b>3,155,059 9 7</b>	<b>417,550 2 0</b>	<b>3,572,609 11 7</b>	<b>135,228 14 7</b>	<b>76,667 3 7</b>	<b>834,194 7 10</b>	<b>441,497 3 1</b>	<b>84,540 10 8</b>	<b>449,649 4 9</b>	<b>581,700 9 5</b>	<b>99,528 5 9</b>	<b>301,564 11 0</b>	<b>403,338 5 2</b>	<b>154,487 3 1</b>	<b>10,213 12 8</b>	<b>3,572,609 11 7</b>	<b>NORTH ISLAND:— Railways.</b>	
<b>MIDDLE ISLAND:— Railways ...</b>	<b>5,309,462 7 11</b>	<b>5,146 13 8</b>	<b>5,304,315 14 3</b>	<b>559,384 10 0</b>	<b>5,863,700 4 3</b>	<b>243,071 16 5</b>	<b>110,385 10 5</b>	<b>1,372,033 15 10</b>	<b>766,922 15 2</b>	<b>147,363 7 5</b>	<b>758,396 12 11</b>	<b>837,860 3 0</b>	<b>142,617 7 7</b>	<b>550,479 3 0</b>	<b>723,191 14 0</b>	<b>196,858 18 3</b>	<b>14,519 0 3</b>	<b>5,863,700 4 3</b>	<b>MIDDLE ISLAND:— Railways.</b>	
<b>MISCELLANEOUS SURVEYS UNAPPORTIONABLE ...</b>	<b>470 17 11</b>	<b>364 15 5</b>	<b>470 17 11</b>	<b>...</b>	<b>470 17 11</b>	<b>...</b>	<b>470 17 11</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>364 15 5</b>	<b>...</b>	<b>...</b>	<b>470 17 11</b>	<b>MISCELLANEOUS SURVEYS UNAPPORTIONABLE.</b>	
<b>GRAND TOTAL ...</b>	<b>8,495,074 6 2</b>	<b>34,863 9 0</b>	<b>8,460,210 17 2</b>	<b>976,934 12 0</b>	<b>9,437,145 9 2*</b>	<b>378,300 11 0</b>	<b>187,523 11 11</b>	<b>2,206,228 3 8</b>	<b>1,208,419 18 3</b>	<b>231,903 18 1</b>	<b>1,208,045 17 8</b>	<b>1,419,560 12 5</b>	<b>242,145 13 4</b>	<b>852,043 14 0</b>	<b>1,126,894 14 7</b>	<b>351,346 1 4</b>	<b>24,732 12 11</b>	<b>9,437,145 9 2</b>	<b>GRAND TOTAL.</b>	

\* This amount does not include the expenditure on railways of the late Provinces of Canterbury and Otago, which were valued at £781,759 and £372,522 respectively, and were not paid for out of Immigration and Public Works Loan, but were taken in reduction of the provincial debts.





TABLE NO. 4.

STATEMENT showing the LIABILITIES on RAILWAYS, out of Immigration and Public Works Loan, on 31st March, 1881.—CLASSIFIED.

LINES.	RAILWAYS UNDER CONSTRUCTION.			ROLLING-STOCK.			MISCELLANEOUS PLANT.			Permanent Way on English Contracts.	TOTAL LIABILITIES.	LINES.
	On Authorities.		Total.	On Colonial Contracts.		Total.	On English Contracts.		Total.			
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.				
<b>NORTH ISLAND.</b>												<b>NORTH ISLAND.</b>
Kawakawa ...	363 19 2	23,732 9 10	24,096 9 0	975 13 7	...	975 13 7	...	...	90 0 0	25,162 2 7	Kawakawa ...	
Whangarei to Kamo ...	1,223 3 7	3,239 5 11	4,462 9 6	2,029 6 8	...	2,029 6 8	...	...	111 9 1	7,082 9 3	Whangarei to Kamo ...	
Kaipara to Waikato ...	22,537 16 4	31,818 4 1	54,356 0 5	348 5 11	1,458 0 0	4,400 0 0	3 17 6	6	0 12 10	60,516 16 8	Kaipara to Waikato ...	
Waikato to Thames ...	1,033 11 11	1,757 6 8	2,790 18 7	6,281 4 10	2,358 10 0	8,589 14 10	4,200 0 0	0	4,053 18 11	19,584 12 4	Waikato to Thames ...	
Wellington to Napier ...	8,985 12 2	4,506 14 4	13,292 6 6	1,130 17 7	339 15 0	9,209 16 10	961 17 0	0	169 4 1	25,103 17 0	Wellington to Napier ...	
Wellington to Foxton ...	808 6 8	5,907 1 6	6,775 8 2	...	...	58 3 6	...	...	...	6,833 11 8	Wellington to Foxton ...	
Foxton to New Plymouth ...	12,753 13 7	38,234 3 6	50,987 17 1	2,212 6 4	...	7,539 15 8	6 9 2	0	3,515 0 7	64,261 8 10	Foxton to New Plymouth ...	
<b>PRELIMINARY SURVEYS:—</b>												<b>PRELIMINARY SURVEYS:—</b>
North Island ...	...	...	...	...	...	...	...	...	...	...	...	North Island ...
<b>TOTAL, NORTH ISLAND ...</b>	<b>47,706 3 5</b>	<b>109,055 5 10</b>	<b>156,761 9 3</b>	<b>4,170 13 10</b>	<b>4,056 5 0</b>	<b>30,494 1 1</b>	<b>5,172 3 8</b>	<b>7,890 5 6</b>	<b>208,544 18 4</b>	<b>208,544 18 4</b>	<b>TOTAL, NORTH ISLAND ...</b>	
<b>MIDDLE ISLAND.</b>												<b>MIDDLE ISLAND.</b>
Nelson to Grey mouth ...	4,750 16 8	5,766 3 4	10,517 0 0	...	...	...	...	...	...	10,517 0 0	Nelson to Grey mouth ...	
Grey mouth to Hokitika ...	412 14 10	42 0 0	454 14 10	...	...	...	...	...	...	454 14 10	Grey mouth to Hokitika ...	
Westport to Ngakawau ...	2,330 10 0	...	2,330 10 0	176 9 1	...	176 9 1	...	...	...	2,506 19 1	Westport to Ngakawau ...	
Pictou to Hurunui ...	77 13 4	78 14 10	156 8 2	...	...	...	...	...	...	156 8 2	Pictou to Hurunui ...	
Hurunui to Waitaki ...	24,037 9 8	15,862 17 7	39,840 7 3	6,786 12 4	...	6,848 13 0	0 6 0	8	8,339 4 8	55,028 10 11	Hurunui to Waitaki ...	
Canterbury Interior Main Line ...	2,075 7 1	...	2,075 7 1	...	...	...	...	...	...	2,075 7 1	Canterbury Interior Main Line ...	
Waitaki to Bluff ...	44,022 14 9	40,925 16 10	84,948 11 7	12,004 7 2	...	12,066 7 10	0 6 0	5	9,837 0 5	106,852 5 10	Waitaki to Bluff ...	
Otago Central ...	1,703 15 2	18,373 0 9	20,076 15 11	...	...	...	...	...	...	20,076 15 11	Otago Central ...	
Invercargill to Kingstons ...	1,570 7 6	478 14 7	2,049 2 1	...	...	...	...	...	...	2,049 2 1	Invercargill to Kingstons ...	
Western Railways ...	1,683 4 2	9,968 14 10	11,651 19 0	168 0 0	...	168 0 0	...	...	8,605 0 5	20,424 19 5	Western Railways ...	
<b>PRELIMINARY SURVEYS:—</b>												<b>PRELIMINARY SURVEYS:—</b>
Middle Island ...	406 6 8	...	406 6 8	...	...	...	...	...	...	406 6 8	Middle Island ...	
<b>TOTAL, MIDDLE ISLAND ...</b>	<b>83,070 19 10</b>	<b>91,436 2 9</b>	<b>174,507 2 7</b>	<b>19,135 8 7</b>	<b>4,056 5 0</b>	<b>124 1 4</b>	<b>19,259 9 11</b>	<b>26,781 5 6</b>	<b>220,548 10 0</b>	<b>220,548 10 0</b>	<b>TOTAL, MIDDLE ISLAND ...</b>	
<b>SUMMARY.</b>												<b>SUMMARY.</b>
<b>NORTH ISLAND ...</b>	<b>47,706 3 5</b>	<b>109,055 5 10</b>	<b>156,761 9 3</b>	<b>4,170 13 10</b>	<b>4,056 5 0</b>	<b>30,494 1 1</b>	<b>5,172 3 8</b>	<b>7,890 5 6</b>	<b>208,544 18 4</b>	<b>208,544 18 4</b>	<b>NORTH ISLAND ...</b>	
<b>MIDDLE ISLAND ...</b>	<b>83,070 19 10</b>	<b>91,436 2 9</b>	<b>174,507 2 7</b>	<b>19,135 8 7</b>	<b>4,056 5 0</b>	<b>124 1 4</b>	<b>19,259 9 11</b>	<b>26,781 5 6</b>	<b>220,548 10 0</b>	<b>220,548 10 0</b>	<b>MIDDLE ISLAND ...</b>	
<b>GRAND TOTAL ...</b>	<b>130,777 3 3</b>	<b>200,491 8 7</b>	<b>331,268 11 10</b>	<b>23,306 2 5</b>	<b>4,056 5 0</b>	<b>30,618 2 5</b>	<b>57,980 9 10</b>	<b>34,671 11 0</b>	<b>429,093 8 4</b>	<b>429,093 8 4</b>	<b>GRAND TOTAL ...</b>	

TABLE No. 5.

STATEMENT showing the EXPENDITURE on ROADS (Class V.), out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date.

	Expenditure to 31st March, 1880.			Expenditure during 12 Months ended 31st March, 1881.			Total Expenditure.			Liabilities.			Total Expenditure and Liabilities.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
<b>ROADS, BRIDGES, AND WHARVES—NORTH ISLAND:—</b>															
Bay of Islands ... ..	33,151	6	9	200	0	0	33,351	6	9	1,100	0	0	34,451	6	9
Mangere Bridge ... ..	15,486	7	8	...	...	...	15,486	7	8	...	...	...	15,486	7	8
Thames ... ..	75	2	9	...	...	...	75	2	9	...	...	...	75	2	9
Waikato (less recovery, £150) ... ..	17,739	12	7	4,992	16	3	22,732	8	10	2,523	17	10	25,256	6	8
Bay of Plenty (less recovery, £3 15s. 9d.) ... ..	75,472	5	3	13,800	16	11	89,273	2	2	8,449	4	4	97,722	6	6
Poverty Bay ... ..	16,403	16	8	4,945	8	8	21,349	5	4	260	0	0	21,609	5	4
Taupo ... ..	9,273	4	5	...	...	...	9,273	4	5	...	...	...	9,273	4	5
Napier ... ..	24,139	1	1	8,110	7	9	32,249	8	10	722	17	5	32,972	6	3
Seventy-Mile Bush ... ..	45,750	18	2	...	...	...	45,750	18	2	...	...	...	45,750	18	2
Wairoa ... ..	1,212	7	8	...	...	...	1,212	7	8	...	...	...	1,212	7	8
New Plymouth—Inland ... ..	3,760	17	3	...	...	...	3,760	17	3	...	...	...	3,760	17	3
Hawera to Waitara ... ..	13,907	6	6	562	12	8	14,469	19	2	2 14	0	...	14,472	13	2
Wai-iti to Patea ... ..	58,566	6	9	...	...	...	58,566	6	9	...	...	...	58,566	6	9
Patea to Wanganui ... ..	36,246	5	4	...	...	...	36,246	5	4	...	...	...	36,246	5	4
Wanganui to Taupo ... ..	5,156	2	2	111	0	0	5,267	2	2	...	...	...	5,267	2	2
Manawatu ... ..	44,630	10	8	1,122	2	5	45,752	13	1	50	6	0	45,802	19	1
Opaki to Manawatu Gorge ... ..	58,063	7	5	8,720	0	0	66,783	7	5	200	0	0	66,983	7	5
Hutt to Lowry Bay ... ..	290	0	0	...	...	...	290	0	0	...	...	...	290	0	0
	459,324	19	1	42,565	4	8	501,890	3	9	13,308	19	7	515,199	3	4
<b>ROADS, BRIDGES, AND WHARVES—NORTH OF AUCKLAND:—</b>															
Auckland District... ..	41,240	17	0	43,772	15	11	85,013	12	11	20,381	5	3	105,394	18	2
<b>ROADS AND BRIDGES IN UNSETTLED DISTRICTS:—</b>															
Patea and Taranaki ... ..	1,183	1	3	25,370	12	7	26,553	13	10	9,767	16	6	36,321	10	4
Unapportionable—Tools, &c. ... ..	1,722	2	4	...	...	...	1,722	2	4	...	...	...	1,722	2	4
	2,905	3	7	25,370	12	7	28,275	16	2	9,767	16	6	38,043	12	8
<b>ROADS—NELSON SOUTH-WEST GOLD FIELDS:</b>															
Buller to Arnould ... ..	72,497	0	10	700	3	10	73,197	4	8	56	18	7	73,254	3	3
Main Road to Boatman's ... ..	844	10	0	...	...	...	844	10	0	...	...	...	844	10	0
Westport to Lyell ... ..	7,273	13	10	...	...	...	7,273	13	10	...	...	...	7,273	13	10
Ahaura to Amuri ... ..	6,210	13	10	...	...	...	6,210	13	10	...	...	...	6,210	13	10
Nile Bridge ... ..	1,115	16	4	...	...	...	1,115	16	4	...	...	...	1,115	16	4
Takaka Valley ... ..	2,000	0	0	...	...	...	2,000	0	0	...	...	...	2,000	0	0
Collingwood to Quartz Range ... ..	507	1	1	...	...	...	507	1	1	...	...	...	507	1	1
	90,448	15	11	700	3	10	91,148	19	9	56	18	7	91,205	18	4
<b>ROADS—NELSON TO GREYMOOUTH AND WESTPORT</b>															
	...	...	...	5,315	2	0	5,315	2	0	9,366	7	8	14,681	9	8
<b>ROADS—WESTLAND:—</b>															
Greymouth to Arnould ... ..	5,058	1	5	...	...	...	5,058	1	5	...	...	...	5,058	1	5
Greymouth to Okarito (less recovery, £10) ... ..	95,971	17	9	2,555	13	1	98,527	10	10	234	14	3	98,762	5	1
South Creek to Main Line ... ..	281	17	6	...	...	...	281	17	6	...	...	...	281	17	6
Junction Line ... ..	3,923	9	5	...	...	...	3,923	9	5	...	...	...	3,923	9	5
Greenstone to Lake Brunner ... ..	2,756	5	6	...	...	...	2,756	5	6	...	...	...	2,756	5	6
Marsden to Maori Creek ... ..	2,538	3	0	...	...	...	2,538	3	0	...	...	...	2,538	3	0
Marsden to Paroa... ..	798	8	0	...	...	...	798	8	0	...	...	...	798	8	0
Stillwater to Maori Gully ... ..	1,869	2	0	...	...	...	1,869	2	0	...	...	...	1,869	2	0
Kanieri Forks to Kanieri Lakes ... ..	1,578	1	0	...	...	...	1,578	1	0	...	...	...	1,578	1	0
Hokitika to Blue Spur ... ..	2,520	3	5	...	...	...	2,520	3	5	...	...	...	2,520	3	5
Kanieri Bridge ... ..	489	15	0	...	...	...	489	15	0	...	...	...	489	15	0
Waimea Bridge ... ..	207	12	6	...	...	...	207	12	6	...	...	...	207	12	6
Westland, general... ..	2,613	13	3	...	...	...	2,613	13	3	...	...	...	2,613	13	3
	120,606	9	9	2,555	13	1	123,162	2	10	234	14	3	123,396	17	1
<b>ROAD—HOKITIKA TO CHRISTCHURCH (less recovery, £10) ... ..</b>															
	44,941	18	4	7,167	16	1	52,109	14	5	4,543	12	5	56,653	6	10
<b>ROADS THROUGH LANDS RECENTLY PURCHASED</b>															
	15,395	19	2	2,220	18	0	17,616	17	2	7,805	2	4	25,421	19	6
<b>ROADS TO OPEN UP LANDS BEFORE SALE (see Table No. 6) ... ..</b>															
	28,859	10	7	49,931	9	7	78,791	0	2	8,946	5	10	87,737	6	0
<b>SUMMARY.</b>															
NORTH ISLAND ... ..	459,324	19	1	42,565	4	8	501,890	3	9	13,308	19	7	515,199	3	4
NORTH OF AUCKLAND ... ..	41,240	17	0	43,772	15	11	85,013	12	11	20,381	5	3	105,394	18	2
UNSETTLED DISTRICTS, PATEA AND TARANAKI ... ..	2,905	3	7	25,370	12	7	28,275	16	2	9,767	16	6	38,043	12	8
NELSON SOUTH-WEST GOLD FIELDS ... ..	90,448	15	11	700	3	10	91,148	19	9	56	18	7	91,205	18	4
NELSON TO GREYMOOUTH AND WESTPORT ... ..	...	...	...	5,315	2	0	5,315	2	0	9,366	7	8	14,681	9	8
WESTLAND ... ..	120,606	9	9	2,555	13	1	123,162	2	10	234	14	3	123,396	17	1
HOKITIKA—CHRISTCHURCH ... ..	44,941	18	4	7,167	16	1	52,109	14	5	4,543	12	5	56,653	6	10
THROUGH LANDS RECENTLY PURCHASED ... ..	15,395	19	2	2,220	18	0	17,616	17	2	7,805	2	4	25,421	19	6
TO OPEN UP LANDS BEFORE SALE ... ..	28,859	10	7	49,931	9	7	78,791	0	2	8,946	5	10	87,737	6	0
<b>GRAND TOTAL</b> ... ..	<b>803,723</b>	<b>13</b>	<b>5</b>	<b>179,599</b>	<b>15</b>	<b>9</b>	<b>983,323</b>	<b>9</b>	<b>2</b>	<b>74,411</b>	<b>2</b>	<b>5</b>	<b>1,057,734</b>	<b>11</b>	<b>7</b>

\* This amount is not included in the Statement of Liabilities, Appendix B, the vote being under the control of the Survey Department.

TABLE No. 6.

STATEMENT showing the EXPENDITURE on ROADS to open up Lands before sale, to 31st March, 1881, and the LIABILITIES on that date.

	Expenditure to 31st March, 1880.	Expenditure, 1880-81.	Total Expenditure to 31st March, 1881.	Liabilities on 31st March, 1881.	Total Expenditure and Liabilities.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>ROADS TO OPEN UP LANDS BEFORE SALE:—</b>					
<i>North Island.</i>					
Takahue to Hera Point ... ..	1,426 17 10	1,233 10 6	2,660 8 4	44 5 0	2,704 13 4
Purua and Mangakahia Districts ... ..	700 1 9	...	700 1 9	139 18 3	840 0 0
Block II., Tangihua ... ..	623 9 0	11 17 0	635 6 0	4 14 0	640 0 0
Lake Whangape to Block VII., Awaroa District	237 12 3	591 3 3	828 15 6	...	828 15 6
Waikato River to Block XVI., Awaroa District	11 14 6	1,600 18 2	1,612 12 8	...	1,612 12 8
Gisborne and Wairoa, road through Patutahi Block to Hangaroa Village site	386 13 0	...	386 13 0	...	386 13 0
Wairoa and Waikaremoana, bridle-track through the Waiapu District, Poverty Bay	304 18 6	240 0 0	544 18 6	...	544 18 6
Takahue to Manganuiowai ... ..	...	1,560 3 7	1,560 3 7	789 3 3	2,349 6 10
Maunganui Bluff ... ..	...	888 19 10	888 19 10	911 0 2	1,800 0 0
Te Puke ... ..	...	3,222 0 5	3,222 0 5	...	3,222 0 5
Te Aroha Block ... ..	157 10 3	2,190 7 7	2,347 17 10	173 6 0	2,521 3 10
Opotiki to Motu and Ormond ... ..	...	462 4 6	462 4 6	537 15 6	1,000 0 0
Mountain road to blocks under survey ... ..	...	890 14 0	890 14 0	...	890 14 0
Opening up Huiroa Block ... ..	581 5 0	324 15 9	906 0 9	...	906 0 9
Huiroa Block, bridge over Manganui River ...	647 1 3	134 0 0	781 1 3	...	781 1 3
Opening lands between Manganui and Patea Rivers	711 2 0	207 0 3	918 2 3	...	918 2 3
To complete bush-falling, Stratford ... ..	...	34 0 0	34 0 0	...	34 0 0
Cross roads at Stratford ... ..	...	760 9 6	760 9 6	...	760 9 6
Through parts of Blocks I., II., V., VI., X., Ngaire District	4 0 0	2,037 0 10	2,041 0 10	...	2,041 0 10
Through parts of Blocks III., V., X., Ngaire District	...	1,146 3 6	1,146 3 6	...	1,146 3 6
Block X., Huiroa ... ..	...	745 17 0	745 17 0	...	745 17 0
Egmont District ... ..	...	158 12 0	158 12 0	...	158 12 0
Tahoraiti District, Puketoi Blocks... ..	1,451 14 1	1,168 2 7	2,619 16 8	...	2,619 16 8
Norsewood District, Ngamoko Block ... ..	512 1 8	567 5 7	1,079 7 3	100 0 0	1,179 7 3
Tukituki to Waipawa, through Makaretu Reserve	125 4 7	35 8 6	160 13 1	414 7 0	575 0 1
Waitara Block ... ..	781 0 6	...	781 0 6	...	781 0 6
Woodville District, Ahuaturanga Block ... ..	464 7 1	549 8 10	1,013 15 11	...	1,013 15 11
Blocks V., VI., IX., and XIII., Kairanga Survey District, Palmerston North	1,505 4 6	2,233 3 6	3,738 8 0	1,321 12 9	5,060 0 9
Blocks II., III., VI., VII., X., and XI., Mongaone District, and Blocks XIV. and XV., Mangaho District, Forty-Mile Bush	4,545 0 0	1,015 0 0	5,560 0 0	...	5,560 0 0
Sandon Township, Manawatu District, Kiwitea Block	...	1,370 7 9	1,370 7 9	29 12 3	1,400 0 0
Blocks IV., X., and XIII., Wellington Country District	581 2 5	2,018 10 5	2,599 12 10	...	2,599 12 10
Pahiatua and Puketoi Blocks ... ..	...	2,000 0 0	2,000 0 0	...	2,000 0 0
Tokomaru Block ... ..	86 6 8	125 16 6	212 3 2	...	212 3 2
Otamakapua Block ... ..	...	600 0 0	600 0 0	...	600 0 0
Mungaroa to Waikanae ... ..	...	113 13 1	113 13 1	1,886 6 11	2,000 0 0
<i>Middle Island.</i>					
Aorere Valley, Collingwood ... ..	2,250 1 1	2,204 12 1	4,454 13 2	489 9 3	4,944 2 5
Ahaura to Kopara Flat ... ..	1,959 18 8	5 3 0	1,965 1 8	...	1,965 1 8
Reefton to Maruia, Matakītiki, and Buller ...	...	3,500 0 0	3,500 0 0	...	3,500 0 0
Road to Upper Ashley ... ..	704 15 0	4,295 5 0	5,000 0 0	...	5,000 0 0
Kokatahi River to Hokitika River ... ..	970 0 0	...	970 0 0	...	970 0 0
Mount Bonar to Poerua River ... ..	900 0 0	...	900 0 0	...	900 0 0
Mapourika Lake to Waihou River... ..	1,350 0 0	60 0 0	1,410 0 0	...	1,410 0 0
Mahitahi River to Haast River ... ..	...	3,454 8 1	3,454 8 1	1,180 2 6	4,634 10 7
Wataroa and Waitangi-taona ... ..	...	1,500 0 0	1,500 0 0	...	1,500 0 0
Otara to Waikawa and bridge over Tokanui Creek	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Benger District, from Minyon Burn Bridge up graded road-line to land under survey	...	500 0 0	500 0 0	...	500 0 0
Arrowtown to Crown Terrace ... ..	1,500 0 0	...	1,500 0 0	...	1,500 0 0
Waitahuna to Run 52c ... ..	600 0 0	600 0 0	1,200 0 0	...	1,200 0 0
Run No. 75 (Boyd's) ... ..	...	3,000 0 0	3,000 0 0	...	3,000 0 0
Opening up country between Seaward Forest and coast-line	1,780 9 0	75 7 0	1,855 16 0	924 13 0	2,780 9 0
Orepuki to Waiapu ... ..	...	500 0 0	500 0 0	...	500 0 0
<b>Totals</b> ... ..	<b>28,859 10 7</b>	<b>49,931 9 7</b>	<b>78,791 0 2</b>	<b>8,946 5 10</b>	<b>87,737 6 0</b>

TABLE NO. 7.

STATEMENT showing the EXPENDITURE for WATER-RACES on GOLD FIELDS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date.

LOCALITY AND NAME OF COMPANY.	EXPENDITURE.						LIABILITIES.						TOTAL EXPENDITURE AND LIABILITIES.									
	Survey and Construction, 1870-1880.		Subsidies, 1870-80.		Survey and Construction, 1880-81.		Subsidies, 1880-81.		Totals.		Authorities.			Contracts.		Subsidies.		Totals.				
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.		£	s. d.	£	s. d.	£	s. d.	£	s. d.	
NORTH ISLAND.																						
AUCKLAND PROVINCIAL DISTRICT:--																						
Thames	77,208	19 3	...	...	3,500	0 0	...	...	80,708	19 3	5 11 6	...	...	...	...	...	...	5 11 6	80,714	10 9		
MIDDLE ISLAND.																						
WESTLAND PROVINCIAL DISTRICT:--																						
Hobonui	3 7 0	1,955	12 1	...	...	...	...	...	1,958	19 1	...	...	...	...	...	...	...	...	1,958	19 1		
Hibernian	12 5 8	1,992	14 8	...	...	...	...	...	2,005	0 4	...	...	...	...	...	...	...	...	2,005	0 4		
New River	21 5 0	3,496	0 3	...	...	...	...	...	3,517	5 3	...	...	...	...	...	...	...	...	3,517	5 3		
Waimea	144,590	9 4	...	...	6,775	13 3	...	...	151,366	2 7	541 11 5	7,520 4 6	...	...	...	...	...	8,061	15 11	159,427	18 6	
Mikonui	£4,849	3 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Less recovery	20	0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Kanieri	4,829	3 10	...	...	4,970	9 0	...	...	9,799	12 10	39 5 8	896 19 2	...	...	...	...	...	936	4 10	10,735	17 8	
Nelson Provincial District:--																						
Nelson Creek	1 5 6	10,310	18 4	...	...	...	...	...	10,312	3 10	...	...	...	...	...	...	...	...	10,312	3 10		
Napoleon Hill	89,263	19 5	...	...	500	14 8	...	...	89,764	14 1	461 15 9	...	...	...	...	...	...	461	15 9	90,226	9 10	
Charleston Four-Mile	257	16 7	...	...	...	...	...	...	257	16 7	...	...	...	...	...	...	...	...	257	16 7		
Black's Point	6,833	10 0	...	...	117	7 10	...	...	6,950	17 10	1,548 8 8	...	...	...	...	...	...	1,548	8 8	8,499	6 6	
OTAGO PROVINCIAL DISTRICT:--																						
Mount Ida	62,666	3 8	...	...	244	9 0	...	...	244	9 0	...	...	...	...	...	...	...	...	244	9 0		
Arrow	...	...	612	10 0	...	...	...	...	62,666	3 8	...	...	...	...	...	...	...	...	62,666	3 8		
Beaumont and Tuspeka	...	...	640	0 0	4	6 2	...	...	612	10 0	...	...	...	...	...	...	...	...	612	10 0		
Carrick Range	...	...	9,249	13 1	...	...	...	...	644	6 2	...	...	...	...	...	...	...	...	644	6 2		
Waipori	11,263	1 0	...	...	...	...	...	...	9,249	13 1	...	...	...	...	...	...	...	...	9,249	13 1		
Mount Pisgah	...	...	200	0 0	...	...	...	...	11,263	1 0	...	...	...	...	...	...	...	...	11,263	1 0		
DEPARTMENTAL:--																						
Salaries, Travelling, Advertising, &c.	5,501	2 4	...	...	483	14 0	...	...	5,984	16 4	16 1 0	...	...	...	...	...	...	...	16 1 0	6,000	17 4	
TOTALS	335,243	9 4	28,457	8 5	13,596	13 11	...	...	366,797	11 8	2,607 2 6	8,417 3 8	...	...	...	...	...	11,024	6 2	377,821	17 10	
SUMMARY.																						
NORTH ISLAND	77,208	19 3	...	...	3,500	0 0	...	...	80,708	19 3	5 11 6	...	...	...	...	...	...	...	5 11 6	80,714	10 9	
MIDDLE ISLAND	335,243	9 4	28,457	8 5	13,596	13 11	...	...	366,797	11 8	2,607 2 6	8,417 3 8	...	...	...	...	...	...	11,024	6 2	377,821	17 10
TOTALS	402,452	8 7	28,457	8 5	16,596	13 11	...	...	447,506	10 11	2,612 14 0	8,417 3 8	...	...	...	...	...	...	11,029	17 8	458,536	8 7

TABLE No. 8.

STATEMENT showing the EXPENDITURE on MISCELLANEOUS PUBLIC WORKS out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date.

Service.	Expenditure to 31st March, 1880.	Expenditure during the Year 1880-81.	Total Expenditure to 31st March, 1881.	Liabilities.	Total Expenditure and Liabilities.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>NORTH ISLAND.</b>					
Road, Whangarei to Port Albert ...	3,000 0 0	...	3,000 0 0	...	3,000 0 0
Road, Raglan to Waikato ...	2,000 0 0	...	2,000 0 0	...	2,000 0 0
Road, Thames to Ohinemuri ...	5,000 0 0	...	5,000 0 0	...	5,000 0 0
Road, Tauranga to Opotiki ...	119 18 0	425 0 0	544 18 0	100 0 0	644 18 0
Road, Taupo to Tauranga ...	238 12 0	...	238 12 0	511 8 0	750 0 0
Road, Gisborne to East Cape ...	1,037 8 0	40 0 0	1,077 8 0	2 12 0	1,080 0 0
Road, Gisborne to Wairoa ...	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Waipoa River Bridge ...	4,180 10 2	...	4,180 10 2	...	4,180 10 2
Draining Patutahi Block ...	1,265 18 5	24 19 6	1,290 17 11	...	1,290 17 11
Road, Pukekohe to Waiuku ...	2,748 19 11	21 7 7	2,770 7 6	184 1 6	2,954 9 0
Road, Pukekohe to Bombay ...	980 14 8	60 18 4	1,041 13 0	6 6 4	1,047 19 4
Road, Hape to Karaka Creek ...	250 0 0	...	250 0 0	...	250 0 0
Bridge and Road, Karaka to Pukekohe East	...	150 0 0	150 0 0	...	150 0 0
Wharf at Pollock, Manukau Harbour ...	150 0 0	...	150 0 0	...	150 0 0
Road, Papakura to Wairoa ...	1,029 12 4	...	1,029 12 4	3 5 6	1,032 17 10
Coromandel Public Works,—					
Road, Thames to Hastings ...	500 0 0	...	500 0 0	...	500 0 0
Road to Tokatea Range ...	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Road, Coromandel to Hastings...	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Road, Mackaytown to Waikato ...	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Portage Road, Riverhead to Kaipara	250 0 0	...	250 0 0	...	250 0 0
Clearing Snags, Waikato ...	150 0 0	100 0 0	250 0 0	...	250 0 0
Pukekaroro Bridge, destroyed by flood ...	60 0 0	...	60 0 0	...	60 0 0
Contribution towards Bridge over Waikato, at the Narrows	300 0 0	...	300 0 0	...	300 0 0
Road, Mangaturoto to Waikiekie ...	500 0 0	...	500 0 0	...	500 0 0
Opening Road at Ruatangata ...	150 0 0	...	150 0 0	...	150 0 0
Wharf at Whangarei Heads ...	600 0 0	...	600 0 0	...	600 0 0
Road at Maungakaramea ...	500 0 0	...	500 0 0	...	500 0 0
Tramway at Kamo ...	1,992 10 0	...	1,992 10 0	7 10 0	2,000 0 0
Matakana Wharf ...	556 10 3	...	556 10 3	...	556 10 3
Main Road, Mahurangi to Whangarei ...	1,038 0 0	832 4 9	1,870 4 9	129 15 3	2,000 0 0
Bridge over Waikato, at Hamilton ...	3,000 0 0	218 17 2	3,218 17 2	281 2 10	3,500 0 0
Drainage Lagoon, Mount Eden ...	348 12 0	...	348 12 0	...	348 12 0
Clearing Snags, Wairoa River ...	109 15 0	...	109 15 0	...	109 15 0
Mangere Bridge, Repairs ...	197 11 3	1,392 14 6	1,590 5 9	37 16 0	1,628 1 9
Tamaki Bridge, Repairs ...	1,656 8 9	...	1,656 8 9	...	1,656 8 9
Straightening Waiuku Channel ...	357 11 6	...	357 11 6	...	357 11 6
Bridge over the Waipa, Raglan Main Road	...	2,809 11 3	2,809 11 3	961 19 0	3,771 10 3
Waimapu Bridge ...	...	...	...	5,500 0 0	5,500 0 0
Road, Ormond, Opotiki ...	...	250 0 0	250 0 0	750 0 0	1,000 0 0
Road, Te Awamutu Station to Township ...	...	156 16 0	156 16 0	493 4 0	650 0 0
Road to Buckland Station ...	...	...	...	300 0 0	300 0 0
Bridge over Ahuriri Harbour ...	5,723 13 2	5,880 14 9	11,604 7 11	93 17 7	11,698 5 6
Road, Napier to Taupo ...	85 19 2	226 9 5	312 8 7	1,181 0 0	1,493 8 7
Road, Wairoa to Waikaremoana ...	1,500 0 0	...	1,500 0 0	...	1,500 0 0
Mountain Road to Taranaki ...	12,212 16 11	962 4 9	13,175 1 8	...	13,175 1 8
Opening Mountain Road to Patea ...	4,000 0 0	...	4,000 0 0	...	4,000 0 0
Main Road, Stony River to Waitotara ...	2,585 17 0	414 3 0	3,000 0 0	...	3,000 0 0
Loan to Waitara Harbour Board ...	500 0 0	1,000 0 0	1,500 0 0	500 0 0	2,000 0 0
Clearing Snags, Waitara River ...	63 13 2	...	63 13 2	...	63 13 2
Road, Wainui to Waipukurau ...	2,000 0 0	...	2,000 0 0	...	2,000 0 0
Road, Wainui to Inland Settlement ...	500 0 0	...	500 0 0	...	500 0 0
Road, Seventy-Mile Bush, Opaki to Kopua, including Manawatu Gorge Road	4,926 10 7	73 9 5	5,000 0 0	...	5,000 0 0
Ruamahunga Bridge, Opaki Road ...	2,826 2 1	3,173 17 11	6,000 0 0	...	6,000 0 0
Road, Rangitamaui ...	715 4 6	284 15 6	1,000 0 0	...	1,000 0 0
Road and Bridge, Mungaroa to Waikanae ...	3,500 0 0	4,500 0 0	8,000 0 0	...	8,000 0 0
Road, Rangitikei to Murimotu, or Inland Patea	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Road, Taueru ...	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Road in Manchester Block ...	884 0 0	...	884 0 0	16 0 0	900 0 0
Road, Foxton to Otaki (inland) ...	1,274 14 10	1,482 1 10	2,756 16 8	243 3 4	3,000 0 0
Road, Masterton to Castlepoint ...	2,706 1 7	293 18 5	3,000 0 0	...	3,000 0 0
Road, Karere, Manawatu ...	100 0 0	200 0 0	300 0 0	...	300 0 0
Manawatu Bridge Approaches ...	184 6 7	...	184 6 7	15 13 5	200 0 0
Refund Expenditure, Manawatu Gorge Road	437 17 9	227 8 0	665 5 9	...	665 5 9
Combined Bridge over Waiohine ...	...	11 2 0	11 2 0	1,188 18 0	1,200 0 0
Bridge over Ruamahunga, at Hurinuioranga	2,429 3 4	570 16 8	3,000 0 0	...	3,000 0 0
Continuation of Kimbolton Road through Sandon Block (Kiwitea)	1,000 0 0	...	1,000 0 0	...	1,000 0 0
Trunk Roads, County Wanganui ...	1,500 0 0	...	1,500 0 0	...	1,500 0 0
Wanganui to Taupo Road ...	500 0 0	...	500 0 0	...	500 0 0
Manawatu Gorge Road ...	...	256 18 5	256 18 5	153 1 7	410 0 0
Road, Opaki to Manawatu ...	...	...	...	2,000 0 0	2,000 0 0
<b>MIDDLE ISLAND.</b>					
Road, Oronoko to Stanley Brook ...	327 0 0	673 0 0	1,000 0 0	...	1,000 0 0
Road, Takaka to Motueka, and Approaches to Wharf, Waitapu	1,178 14 0	...	1,178 14 0	21 6 0	1,200 0 0
Carried forward ...	93,930 6 11	26,713 9 2	120,643 16 1	14,682 0 4	135,325 16 5

TABLE No. 8—continued.

STATEMENT showing the EXPENDITURE on MISCELLANEOUS PUBLIC WORKS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date—continued.

Service.	Expenditure to 31st March, 1880.		Expenditure during the year 1880-81.		Total Expenditure to 31st March, 1881.		Liabilities.		Total Expenditure and Liabilities.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
MIDDLE ISLAND—continued.										
Brought forward ...	93,930	6 11	26,713	9 2	120,643	16 1	14,682	0 4	135,325	16 5
Takaka Tramway ...	...	...	...	...	...	...	2,000	0 0	2,000	0 0
Bridge over Wairoa and Waimea District ...	3,451	11 5	192	7 10	3,643	19 3	55	14 6	3,699	13 9
Wakamarina Road, County Marlborough ...	306	1 6	300	0 0	606	1 6	...	...	606	1 6
Road, Takaka to Motueka ...	...	...	700	0 0	700	0 0	...	...	700	0 0
Track, Motueka to Karamea ...	...	...	1,000	0 0	1,000	0 0	...	...	1,000	0 0
Road, Nelson to Havelock ...	300	0 0	...	...	300	0 0	...	...	300	0 0
Rai Road, County Marlborough ...	400	0 0	...	...	400	0 0	...	...	400	0 0
Rai Road, County Waimea ...	250	0 0	250	0 0	500	0 0	...	...	500	0 0
Kaikoura Jetty ...	...	...	1,012	8 5	1,012	8 5	340	9 11	1,352	18 4
Bridge over Clarence River ...	20	0 0	...	...	20	0 0	5,000	0 0	5,020	0 0
Bridge over Arnold River ...	1,500	0 0	...	...	1,500	0 0	...	...	1,500	0 0
Road, Nelson to Tophouse and Tardale ...	1,383	7 5	763	7 4	2,146	14 9	530	11 9	2,677	6 6
Bridge over Inangahua ...	...	...	2,176	10 8	2,176	10 8	2,244	6 10	4,420	17 6
Bridge over Ahaura River ...	10,248	7 3	57	3 0	10,305	10 3	...	...	10,305	10 3
Bridge over Nelson Creek ...	4,078	8 0	900	0 0	4,978	8 0	...	...	4,978	8 0
Road, Westport to Lyell, including Bridge over Ohiki River ...	4,555	17 10	...	...	4,555	17 10	...	...	4,555	17 10
Road, Nelson to Westport and Greymouth... ..	9,815	2 10	...	...	9,815	2 10	...	...	9,815	2 10
Road, Motupiko to the Lyell by the Hope... ..	...	...	...	...	...	...	...	...	...	...
Hokitika Harbour Improvement ...	17,000	0 0	8,000	0 0	25,000	0 0	...	...	25,000	0 0
Hokitika Harbour Works ...	...	...	3,000	0 0	3,000	0 0	...	...	3,000	0 0
Bridge over Teremakau, Kumara... ..	8,327	13 9	7	5 3	8,334	19 0	1,115	19 0	9,450	18 0
Bridge over Hokitika at Kanieri ...	7,906	11 6	1	0 0	7,907	11 6	...	...	7,907	11 6
Road by Coast from Hokitika to Haast Pass	2,985	2 6	1,679	2 7	4,664	5 1	183	10 5	4,847	15 6
Main Road near Longford ...	2,000	0 0	...	...	2,000	0 0	...	...	2,000	0 0
Buller Valley, Completion to Orawaiti ...	2,000	0 0	...	...	2,000	0 0	...	...	2,000	0 0
Bridge over Buller River on Nelson to Reef-ton Road	4,000	0 0	...	...	4,000	0 0	...	...	4,000	0 0
Removal of Rock, &c., Martin's Bay, &c. ...	5	0 0	...	...	5	0 0	...	...	5	0 0
Compensation to A. Stütt, Buller Road Con-tract	620	0 0	...	...	620	0 0	...	...	620	0 0
Jetty at Port Levy ...	250	0 0	...	...	250	0 0	...	...	250	0 0
Road, Port Levy to Pigeon Bay ...	500	0 0	...	...	500	0 0	...	...	500	0 0
Road, Purau to Port Levy ...	500	0 0	...	...	500	0 0	...	...	500	0 0
Main Road through Pelorus District	208	13 6	6,097	3 6	6,305	17 0	5,364	9 5	11,670	6 5
Ashley Bridge Approaches ...	...	...	500	0 0	500	0 0	...	...	500	0 0
Upper Waitaki Bridge ...	2,500	0 0	2,500	0 0	5,000	0 0	...	...	5,000	0 0
Kawarau Bridge at Junction, Arrow River... ..	6,155	9 0	3,819	11 0	9,975	0 0	25	0 0	10,000	0 0
Frankton Jetty ...	...	...	...	...	...	...	...	...	...	...
Portobello Road ...	432	10 6	...	...	432	10 6	67	9 6	500	0 0
Anderson's Bay Road ...	...	...	171	9 9	171	9 9	78	10 3	250	0 0
Hurunui to Greta Bridge ...	2,898	4 7	...	...	2,898	4 7	...	...	2,898	4 7
Purchase of Beaumont Bridge ...	3,000	0 0	17	10 0	3,017	10 0	1,982	10 0	5,000	0 0
Purchase of Bridge over Clutha at Clyde ...	5,000	0 0	...	...	5,000	0 0	...	...	5,000	0 0
Subsidy to complete Clutha Bridge ...	...	...	...	...	...	...	2,500	0 0	2,500	0 0
Purchase of Victoria Bridge over Kawarau... ..	4,000	0 0	...	...	4,000	0 0	...	...	4,000	0 0
Jetty at Toitoto ...	1,000	0 0	...	...	1,000	0 0	...	...	1,000	0 0
Road, Toitoto (inland) ...	1,000	0 0	...	...	1,000	0 0	...	...	1,000	0 0
Road, Wyndham to Toitoto ...	1,500	0 0	...	...	1,500	0 0	...	...	1,500	0 0
Road, Gore to Switzers ...	4,000	0 0	...	...	4,000	0 0	...	...	4,000	0 0
Road, Lawrence to Roxburgh ...	5,000	0 0	...	...	5,000	0 0	...	...	5,000	0 0
Road, Roxburgh to Clyde ...	2,500	0 0	...	...	2,500	0 0	...	...	2,500	0 0
Road, Waipori to Lawrence <i>via</i> Bungtown	400	0 0	...	...	400	0 0	...	...	400	0 0
Road, Fitzgerald to Dalhousie ...	500	0 0	...	...	500	0 0	...	...	500	0 0
Duthie's to Tuapeka Mouth <i>via</i> Tuapeka River	500	0 0	...	...	500	0 0	...	...	500	0 0
Main Road, Otago, Palmerston to Houndburn	2,500	0 0	...	...	2,500	0 0	...	...	2,500	0 0
Jetty at Balclutha ...	250	0 0	...	...	250	0 0	...	...	250	0 0
Manuherikia Bridge, St. Bathans... ..	500	0 0	...	...	500	0 0	...	...	500	0 0
Maerewhenua Railway Bridge ...	2,138	5 5	...	...	2,138	5 5	...	...	2,138	5 5
Main Road, Glenomaru to Catlin's River ...	1,000	0 0	...	...	1,000	0 0	...	...	1,000	0 0
Removal of Rocks, Catlin's River ...	153	10 5	124	8 7	277	19 0	548	13 11	826	12 11
Erection of Jetty and Shed, Catlin's River... ..	465	7 6	...	...	465	7 6	3	12 6	469	0 0
Road, Maori Kaika to Taiaroa Head Lighthouse	482	5 2	463	10 9	945	15 11	151	10 7	1,097	6 6
Bridge over Oreti at Elbow ...	5,834	1 6	94	5 6	5,928	7 0	71	13 0	6,000	0 0
Protective Works, Dipton ...	500	0 0	...	...	500	0 0	...	...	500	0 0
Completion of Road, Waikari to Waitati ...	1	1 6	3,006	10 0	3,007	11 6	...	...	3,007	11 6
Gore Bridge (liability) ...	1,254	16 7	...	...	1,254	16 7	...	...	1,254	16 7
Hungerford Bridge ...	...	...	2,000	0 0	2,000	0 0	...	...	2,000	0 0
Beacon at Queenstown ...	35	0 0	...	...	35	0 0	...	...	35	0 0
Jetty at Queenstown ...	...	...	297	8 0	297	8 0	302	12 0	600	0 0
Jetty at Jackson's Bay ...	...	...	32	6 4	32	6 4	...	...	32	6 4
Bannockburn Bridge ...	2,500	0 0	...	...	2,500	0 0	...	...	2,500	0 0
Bridge over Kaikorai Stream ...	...	...	...	...	...	...	400	0 0	400	0 0
Sundry compensations, &c. ...	1,736	10 10	...	...	1,736	10 10	...	...	1,736	10 10
Harbour Defences ...	34,513	13 9	904	6 2	35,417	19 11	942	14 11	36,360	14 10
Carried forward ...	270,793	1 2	66,781	3 10	337,574	5 0	38,591	8 10	376,165	13 10

TABLE No. 8—*continued.*

STATEMENT showing the EXPENDITURE on MISCELLANEOUS PUBLIC WORKS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date—*continued.*

Service.	Expenditure to 31st March, 1880.		Expenditure during the year 1880-81.		Total Expenditure to 31st March, 1881.		Liabilities.		Total Expenditure and Liabilities.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
MIDDLE ISLAND— <i>continued.</i>										
Brought forward ...	270,793	1 2	66,781	3 10	337,574	5 0	38,591	8 10	376,165	13 10
Roads in Deferred-payment Blocks disposed of prior to 1st January, 1878	9,970	0 0	...	...	9,970	0 0	...	...	9,970	0 0
Loans to Local Bodies to repair damages caused by floods	48,235	0 0	...	...	48,235	0 0	...	...	48,235	0 0
Railway Material, Gisborne to Ormond ...	4,975	1 7	...	...	4,975	1 7	...	...	4,975	1 7
Amounts payable to Counties in respect of Stoppages of Land Revenue—										
Canterbury ...	91,591	1 10	8,408	18 2	100,000	0 0	...	...	100,000	0 0
Otago ...	49,364	1 0	5,427	12 4	54,791	13 4	...	...	54,791	13 4
Railway Commission ...	...	...	2,732	0 3	2,732	0 3	...	...	2,732	0 3
Clutha, &c., Commission ...	...	...	567	14 8	567	14 8	...	...	567	14 8
Allowance to Widow of D. Marchbanks ...	...	...	164	7 9	164	7 9	...	...	164	7 9
Contingencies ...	...	...	9	6 0	9	6 0	...	...	9	6 0
Totals ...	474,928	5 7	84,091	3 0	559,019	8 7	38,591	8 10	597,610	17 5

TABLE No. 9.

STATEMENT showing the EXPENDITURE on TELEGRAPHS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that Date.

	Miles of		Expenditure to 31st March, 1880, as per Table No. 9 of last Year.	Deduct Amounts recovered since 31st March, 1880, but for Services prior to that Date.	Net Expenditure and Liabilities.
	Poles.	Wire.			
Expenditure, &c., to 31st March, 1880 ...	2,391	6,724	£ 368,763 s. d. 11 9	£ 1,498 s. d. 2 10	£ 367,265 s. d. 8 11
Riverton to Otautau ...	13	18	...	...	300 11 11
Nelson to Blenheim, reconstruction, additional expenditure ...	...	...	...	...	341 19 7
Richmond to Motueka, reconstruction, and new line Motueka to Collingwood ...	48	48	...	...	3,428 17 0
Oamaru to Timaru, railway wire ...	...	52	...	...	137 13 11
Reefton to Lyell, reconstruction ...	...	...	...	...	1,826 2 3
Port Chalmers to Seacliff ...	13	32	...	...	538 12 5
Feilding to Halcombe ...	18	18	...	...	953 8 6
Third wire, Wanganui to Hawera ...	...	58	...	...	1,082 4 0
New Plymouth to Stoney River, reconstruction, and new line Stoney River to Opunake ...	28	28	...	...	1,850 10 6
Wellington to Featherston, reconstruction ...	...	...	...	...	553 16 1
No. 3 Cable ...	...	...	...	...	22,232 2 4
New stations; expenditure on lines in course of construction not yet brought to charge; also sundry material lying in stock ...	...	...	...	...	12,035 9 10
Total expenditure to 31st March, 1881 ...	2,511	6,978	...	...	412,546 17 3
Liabilities on 31st March, 1881 ...	...	...	...	...	1,500 0 0
Total expenditure and liabilities to 31st March, 1881 ...	...	...	...	...	414,046 17 3

TABLE No. 10.

STATEMENT showing the EXPENDITURE on PUBLIC BUILDINGS, out of Immigration and Public Works Loan, to 31st March, 1881, and the LIABILITIES on that date.

	Expenditure to 31st March, 1880.		Expenditure for Year ended 31st March, 1881.		Total Expenditure to 31st March, 1881.		Liabilities on 31st March, 1881.		Total Expenditure and Liabilities to 31st March, 1881.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Judicial ...	78,498	11 5	55,401	17 7	133,900	9 0	3,950	19 7	137,851	8 7
Postal and Telegraphic ...	78,944	8 4	9,335	8 0	88,279	16 4	687	10 0	88,967	6 4
Customs ...	1,968	13 9	...	...	1,968	13 9	...	...	1,968	13 9
Offices for Public Departments ...	144,928	6 8	...	...	144,928	6 8	...	...	144,928	6 8
Lunatic Asylums ...	45,052	0 1	39,604	5 6	84,656	5 7	24,911	8 10	109,567	14 5
School Buildings ...	278,518	13 8	99,172	18 8	377,691	12 4	3,700	0 0	381,391	12 4
Hospitals ...	14,303	14 4	2,219	4 8	16,522	19 0	...	...	16,522	19 0
Miscellaneous ...	9,805	2 4	...	...	9,805	2 4	...	...	9,805	2 4
Totals ...	652,019	10 7	205,783	14 5	857,753	5 0	33,249	18 5	891,003	3 5

TABLE No. 11.

STATEMENT showing EXPENDITURE on LIGHTHOUSES, out of Immigration and Public Works Loan, to 31st March, 1881, and LIABILITIES on that date.

	Expenditure to 31st March, 1880.	Expenditure during the 12 Months ended 31st March, 1881.	Liabilities.	Total Expenditure and Liabilities on 31st March, 1881.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenditure on sundry works prior to 31st March, 1880 ... ..	85,203 3 9	...	...	85,203 3 9
Expenditure on the following works during 1880-81, viz. :—				
Cape Saunders Lighthouse ... ..	...	40 18 6	...	40 18 6
Marine Store ... ..	...	73 16 3	...	73 16 3
Tory Channel lights ... ..	...	50 0 0	...	50 0 0
Hokitika Lighthouse ... ..	...	51 19 6	...	51 19 6
Cape Egmont Lighthouse ... ..	...	2,419 1 0	100 0 0	2,519 1 0
Totals ... ..	85,203 3 9	2,635 15 3	100 0 0	87,938 19 0

TABLE No. 12.

STATEMENT showing the EXPENDITURE for REPAIRS and MAINTENANCE of ROADS, out of Consolidated Fund, 1st July, 1875, to 31st March, 1881, and the LIABILITIES on latter date.

Districts.	Expenditure to 31st March, 1880, out of Votes for 1875-80.	Expenditure, during the 12 Months ended 31st March, 1881.	Total Liabilities on Authorities and Contracts, 31st March, 1881.	Total Expenditure and Liabilities to 31st March, 1881.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenditure, 1st July, 1875, to 31st March, 1881,—				
Bay of Islands ... ..	1,456 13 6	1,133 2 8	1,970 0 0	4,559 16 2
Thames ... ..	2,161 16 3	40 0 0	...	2,201 16 3
Waikato ... ..	14,665 19 1	1,959 11 11	501 5 7	17,126 16 7
Bay of Plenty ... ..	11,234 11 8	3,384 17 8	4,733 7 1	19,402 16 5
Poverty Bay ... ..	2,038 16 11	2 10 0	40 0 0	2,081 6 11
Napier ... ..	2,761 16 9	78 17 10	1,255 17 6	4,096 12 1
Taupo ... ..	249 12 2	...	...	249 12 2
Manawatu ... ..	2,358 6 0	...	...	2,358 6 0
Opaki ... ..	1,184 14 5	...	...	1,184 14 5
Patea-Wai-iti ... ..	3,688 2 3	...	300 0 0	3,988 2 3
Wanganui ... ..	1,638 7 2	4,000 0 0	...	5,638 7 2
Mangere Bridge ... ..	63 0 9	...	...	63 0 9
Wairoa ... ..	58 11 9	...	...	58 11 9
Seventy-Mile Bush, Hawke's Bay ... ..	780 3 0	...	...	780 3 0
Stewart Island ... ..	100 0 0	...	...	100 0 0
Marlborough... ..	...	11 9 5	...	11 9 5
Great South Road ... ..	44,440 11 8	10,610 9 6	8,850 10 2	63,901 11 4
	4,837 17 7	1,862 8 9	288 8 8	6,988 15 0
Totals ... ..	49,278 9 3	12,472 18 3	9,138 18 10	70,890 6 4



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## APPENDICES TO THE PUBLIC WORKS STATEMENT, 1881.

## APPENDIX A.

## AUDITED STATEMENT OF EXPENDITURE ON PUBLIC WORKS OUT OF THE IMMIGRATION AND PUBLIC WORKS LOAN FOR THE YEAR 1880-81.

*Prepared in compliance with Section 9 of "The Public Works Act, 1876."*

SIR,—

Public Works Department, Wellington, 2nd June, 1881.

In compliance with the 9th section of "The Public Works Act, 1876," I enclose a statement of the expenditure during the preceding financial year upon all Government works authorized by Parliament under "The Immigration and Public Works Appropriation Act, 1880."

I have, &amp;c.,

JOHN HALL,

For Minister for Public Works.

The Comptroller and Auditor-General,  
Wellington.

STATEMENT OF NET EXPENDITURE ON GOVERNMENT WORKS for the Year 1880-81, out of IMMIGRATION and PUBLIC WORKS LOAN, to be forwarded to the Audit in compliance with Section 9 of "The Public Works Act, 1876."

CLASS.	SUMMARY.	NET EXPENDITURE.		
		£	s.	d.
III.	RAILWAYS ... ..	969,165	8	6
IV.	SURVEYS ... ..	7,769	3	6
V.	ROADS ... ..	179,599	15	9
VI.	LAND PURCHASES ... ..	57,837	5	7
VII.	WATERWORKS ON GOLD FIELDS ... ..	16,596	13	11
VIII.	TELEGRAPH EXTENSION ... ..	45,281	8	4
IX.	PUBLIC BUILDINGS ... ..	205,733	14	5
X.	LIGHTHOUSES ... ..	2,635	15	3
XI.	MISCELLANEOUS PUBLIC WORKS ... ..	84,091	3	0
	TOTAL NET EXPENDITURE ON WORKS OUT OF IMMIGRATION AND PUBLIC WORKS LOAN...	£1,568,710	8	3

Public Works Department,  
2nd June, 1881.

W. A THOMAS,  
Accountant, Public Works.

Examined and found correct with corrections as made. (See next page.)

JAMES EDWARD FITZGERALD,  
Controller and Auditor-General.  
22nd June, 1881.

## Enclosure in Appendix E.

## PUBLIC WORKS NET EXPENDITURE, 1880-81.

Vote.	Item.	Particulars.	Appropriation.			Expended out of Appropriation.			Expenditure in Excess of Appropriation.			Total Expenditure.		
			£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
<b>CLASS III.—RAILWAYS.</b>														
74		Kawakawa Coal-mine to shipping-place ...	47,000	0	0	14,284	8	1	...	...	14,284	8	1	
75		Whangarei-Kamo—Kamo Coal-mine to shipping-place	49,000	0	0	29,488	17	6	...	...	29,488	17	6	
76		Kaipara-Waikato—Helensville to Te Awamutu ...	131,000	0	0	67,396	15	10	...	...	67,396	15	10	
77		Waikato-Thames,— Hamilton to Te Aroha ...	69,000	0	0	46,296	13	5	...	...	46,296	13	5	
		Grahamstown to Kauaeranga ...	30,000	0	0	22,269	18	11	...	...	22,269	18	11	
78		Wellington-Napier,— Napier to Makatoko ...	37,000	0	0	23,532	13	6	...	...	23,532	13	6	
		Wellington to Opaki ...	85,000	0	0	61,198	17	6	...	...	61,198	17	6	
79		Wellington-Foxton,— Wellington to Johnsonville ...	18,000	0	0	7,077	19	4	...	...	7,077	19	4	
		Johnsonville to Wellington ...	18,000	0	0	10,557	1	3	...	...	10,557	1	3	
80		Foxton-New Plymouth,— Foxton to Carlyle ...	117,000	0	0	77,029	2	3	...	...	77,029	2	3	
		Carlyle to Waitara ...	82,000	0	0	56,753	12	11	...	...	56,753	12	11	
81		Nelson-Greymouth,— Port of Nelson to Roundell ...	13,500	0	0	8,884	0	10	...	...	8,884	0	10	
		Greymouth to Nelson Creek ...	23,090	0	0	14,081	18	0	...	...	14,081	18	0	
		Greymouth Harbour Works ...	30,410	0	0	20,517	19	1	...	...	20,517	19	1	
			*28,910	0	0	20,517	19	1	...	...	20,517	19	1	
82		Greymouth-Hokitika—Greymouth to Hokitika ...	7,000	0	0	7,000	0	0	412 18 7	...	7,412	18	7	
			*8,500	0	0	7,000	0	0	...	...	7,000	0	0	
83		Westport-Ngakawau—Westport to Ngakawau ...	7,000	0	0	2,349	0	1	...	...	2,349	0	1	
84		Pictou-Hurunui,— Pictou to Blenheim ...	10,000	0	0	10,000	0	0	6,946 2 6	...	16,946	2	6	
		Blenheim to Awatere ...	...	...	...	...	...	...	...	...	...	...	...	
85		Hurunui-Waitaki,— Waikari to Waitaki, with Oxford, Eyreton, Lyttelton, Southbridge, Springfield, White- cliffs, Opawa, and Waimate Branches, and Rakaia Protective Works	148,000	0	0	100,982	19	8	...	...	100,982	19	8	
		Main Line to Upper Ashburton ...	4,000	0	0	2,241	0	9	...	...	2,241	0	9	
		Southbridge Branch to Little River ...	16,000	0	0	11,006	14	10	...	...	11,006	14	10	
		Washdyke to Fairlie Creek ...	17,000	0	0	7,823	14	0	...	...	7,823	14	0	
86		Canterbury Interior Main Line,— Oxford to Malvern ...	14,000	0	0	9,865	16	5	...	...	9,865	16	5	
		Whitecliffs Branch to Rakaia ...	2,500	0	0	1,581	5	10	...	...	1,581	5	10	
		Temuka to Rangitata ...	...	...	...	...	...	...	...	...	...	...	...	
87		Waitaki-Bluff,— Waitaki to Bluff, with Duntroon, Ngapara, Port Chalmers, Brighton Road, Outram, and Lawrence Branches	265,000	0	0	140,417	15	1	...	...	140,417	15	1	
		Ngapara Branch towards Livingstone ...	12,000	0	0	12,000	0	0	2,385 0 7	...	14,385	0	7	
		Palmerston to Waihero ...	3,000	0	0	2,582	3	4	...	...	2,582	3	4	
		Main Line towards Catlin's River ...	4,000	0	0	3,151	15	1	...	...	3,151	15	1	
		Waipahi to Heriotburn ...	68,000	0	0	63,958	9	5	...	...	63,958	9	5	
		Edendale to Toitois ...	4,000	0	0	2,781	7	10	...	...	2,781	7	10	
88		Otago Central—Chain Hills to Taieri Lake	68,000	0	0	53,849	1	5	...	...	53,849	1	5	
89		Invercargill-Kingston,— Invercargill to Kingston ...	4,000	0	0	1,444	16	0	...	...	1,444	16	0	
		Lumsden to Mararoa ...	7,500	0	0	7,500	0	0	74 0 6	...	7,574	0	6	
90		Western Railways,— Makarewa to Riverton ...	37,000	0	0	23,171	2	4	...	...	23,171	2	4	
		Riverton Branch to Otautau ...	12,000	0	0	6,665	10	2	...	...	6,665	10	2	
		Otautau to Nightcaps ...	15,000	0	0	7,604	15	8	...	...	7,604	15	8	
		Riverton to Orepuki ...	22,000	0	0	22,000	0	0	...	...	22,000	0	0	
91		Purchase of wagons ...	22,000	0	0	22,000	0	0	...	...	22,000	0	0	
Total Appropriation and Expenditure, Class III.			1,497,000	0	0	959,347	6	4	...	...	969,165	8	6	
<b>CLASS IV.—SURVEYS OF NEW LINES OF RAILWAY.</b>														
93		Surveys—North Island ...	3,000	0	0	1,664	1	6	...	...	1,664	1	6	
94		Surveys—Middle Island ...	6,550	0	0	6,105	2	0	...	...	6,105	2	0	
Total Appropriation and Expenditure, Class IV.			9,550	0	0	7,769	3	6	...	...	7,769	3	6	
<b>CLASS V.—ROADS.</b>														
95		North Island ...	59,500	0	0	42,565	4	8	...	...	42,565	4	8	
96		North of Auckland ...	66,650	0	0	43,772	15	11	...	...	43,772	15	11	
97		Patea and Taranaki ...	48,816	18	9	25,370	12	7	...	...	25,370	12	7	
98		Nelson-South-West Gold Fields ...	1,650	0	0	700	3	10	...	...	700	3	10	
99		Nelson to Greymouth and Westport ...	15,000	0	0	5,315	2	0	...	...	5,315	2	0	
100		Westland ...	5,000	0	0	2,555	13	1	...	...	2,555	13	1	
101		Hokitika to Christchurch ...	15,427	19	5	7,167	16	1	...	...	7,167	16	1	
102		Through lands recently purchased ...	10,104	0	10	2,220	18	0	...	...	2,220	18	0	
103		To open up lands before sale ...	65,599	9	1	49,931	9	7	...	...	49,931	9	7	
Total Appropriation and Expenditure, Class V.			287,748	8	1	179,599	15	9	...	...	179,599	15	9	

\* £1,500 transferred by Order in Council, under section 38, of the Public Revenues Act, from Vote 81 to Vote 82.

## PUBLIC WORKS NET EXPENDITURE, 1880-81—continued.

Vote.	Item.	Particulars.	Appropriation.		Expended out of Appropriation.		Expenditure in Excess of Appropriation.		Total Expenditure.	
			£	s. d.	£	s. d.	£	s. d.	£	s. d.
104		<b>CLASS VI.—LAND PURCHASES.</b>								
		Land Purchases, North Island ... ..	122,147	3 9	57,837	5 7	...	...	57,837	5 7
		<b>CLASS VII.—WATERWORKS ON GOLD FIELDS.</b>								
		Water-races, North Island ... ..	3,505	11 6	3,500	0 0	...	...	3,500	0 0
		Water-races, Middle Island ... ..	23,210	13 1	13,096	13 11	...	...	13,096	13 11
		<b>Total Appropriation and Expenditure, Class VII.</b>	<b>26,716</b>	<b>4 7</b>	<b>16,596</b>	<b>13 11</b>	...	...	<b>16,596</b>	<b>13 11</b>
		<b>CLASS VIII.—TELEGRAPH EXTENSION.</b>								
		Telegraph extension ... ..	43,577	10 0	43,577	10 0	1,703	18 4	45,281	8 4
		<b>CLASS IX.—PUBLIC BUILDINGS.</b>								
		Judicial ... ..	63,429	0 0	55,401	17 7	...	...	55,401	17 7
		Postal and Telegraph ... ..	10,475	0 0	9,335	8 0	...	...	9,335	8 0
		Customs ... ..	900	0 0	...	...	...	...	...	...
		Lunatic Asylums ... ..	55,500	0 0	39,604	5 6	...	...	39,604	5 6
		Hospitals ... ..	4,000	0 0	2,219	4 8	...	...	2,219	4 8
		School Buildings ... ..	106,031	17 10	99,172	18 8	...	...	99,172	18 8
		<b>Total Appropriation and Expenditure, Class IX.</b>	<b>240,335</b>	<b>17 10</b>	<b>205,733</b>	<b>14 5</b>	...	...	<b>205,733</b>	<b>14 5</b>
		<b>CLASS X.—LIGHTHOUSES.</b>								
		Lighthouses ... ..	4,550	0 0	2,635	15 3	...	...	2,635	15 3
		<b>CLASS XI.—MISCELLANEOUS PUBLIC WORKS.</b>								
		<b>North Island,—</b>								
115	1	Bridge over Waipa, on Raglan Main Road ...	4,000	0 0	2,809	11 3	...	...	2,809	11 3
	2	Road, Tauranga to Opotiki ... ..	1,450	0 0	425	0 0	...	...	425	0 0
	3	Road, Taupo to Tauranga ... ..	1,261	8 0	...	...	...	...	...	...
	4	Waimapu Bridge ... ..	5,500	0 0	...	...	...	...	...	...
	5	Road, Gisborne to East Cape ... ..	42	12 0	40	0 0	...	...	40	0 0
	6	Road, Ormond to Opotiki ... ..	1,000	0 0	250	0 0	...	...	250	0 0
	7	Waipaoa River Bridge and approaches ...	42	17 6	...	...	...	...	...	...
	8	Draining Patutahi Block ... ..	25	0 0	24	19 6	...	...	24	19 6
	9	Road from Pukekohe Railway Station to Waiuku	205	9 1	21	7 7	...	...	21	7 7
	10	Road from Pukekohe Railway Station through East Pukekohe District to Bombay	45	16 2	45	16 2	15	2 2	60	18 4
	11	Road, Te Awamutu Station to township ...	650	0 0	156	16 0	...	...	156	16 0
	12	Road to Buckland Station ... ..	300	0 0	...	...	...	...	...	...
	13	Bridge on Road, Karaka to Pukekohe East ...	150	0 0	150	0 0	...	...	150	0 0
	14	Road from Papakura Railway Station to Waitara, improvement of	3	5 6	...	...	...	...	...	...
	15	Clearing snags, Waikato ... ..	100	0 0	100	0 0	...	...	100	0 0
	16	Tramway at Kamo ... ..	7	10 0	...	...	...	...	...	...
	17	Main Road, Mahurangi to Whangarei ... ..	962	0 0	832	4 9	...	...	832	4 9
	18	Bridge over Waikato at Hamilton, contribution	500	0 0	218	17 2	...	...	218	17 2
	19	Mangere Bridge, repairs ... ..	1,602	8 9	1,392	14 6	...	...	1,392	14 6
	20	Alexandra Bridge ... ..	300	0 0	...	...	...	...	...	...
	21	Wharf, Marsden Point contribution ... ..	300	0 0	...	...	...	...	...	...
	22	Road, Napier to Taupo ... ..	1,414	0 10	226	9 5	...	...	226	9 5
	23	Bridge over Ahuriri Harbour ... ..	6,276	6 10	5,880	14 9	...	...	5,880	14 9
	24	Mountain Road, Taranaki ... ..	962	4 9	962	4 9	...	...	962	4 9
	25	Main Road, Stoney River to Waitotara (within the Patea County)	414	3 0	414	3 0	...	...	414	3 0
	26	Loan to Waitara Harbour Board ... ..	1,500	0 0	1,000	0 0	...	...	1,000	0 0
	27	Clearing snags, Waitara River ... ..	5	14 7	...	...	...	...	...	...
	28	Road, Seventy-Mile Bush, Opaki to Kopua, including Manawatu Gorge Road	73	9 5	73	9 5	...	...	73	9 5
	29	Ruamahunga Bridge, Opaki Road ... ..	3,173	17 11	3,173	17 11	...	...	3,173	17 11
	30	Road, Rangitumau ... ..	284	15 6	284	15 6	...	...	284	15 6
	31	Road and bridge, Mungaroa to Waikanae ...	4,500	0 0	4,500	0 0	...	...	4,500	0 0
	32	Road in Manchester Block ... ..	16	0 0	...	...	...	...	...	...
	33	Road, Foxton to Otaki inland ... ..	1,725	5 2	1,482	1 10	...	...	1,482	1 10
	34	Road, Masterton to Castlepoint ... ..	293	18 5	293	18 5	...	...	293	18 5
	35	Road, Karere, Manawatu ... ..	200	0 0	200	0 0	...	...	200	0 0
	36	Manawatu Bridge approaches ... ..	15	13 5	...	...	...	...	...	...
	37	Refund expenditure on Manawatu Gorge Road	806	0 0	227	8 0	...	...	227	8 0
	38	Manawatu Gorge Road ... ..	550	0 0	256	18 5	...	...	256	18 5
	39	Combined bridge over Waiohine ... ..	1,200	0 0	11	2 0	...	...	11	2 0
	40	Bridge over the Ruamahunga at Hurunuioranga	570	16 8	570	16 8	...	...	570	16 8
	41	Road, Opaki, Manawatu ... ..	2,000	0 0	...	...	...	...	...	...
		<b>Middle Island,—</b>								
	42	Road, Oronoko to Stanley Brook ... ..	673	0 0	673	0 0	...	...	673	0 0
	43	Road, Takaka (within Takaka Road District) to Motueka, over Mount Arthur Range, and completion of approach to wharf, Waitapu	21	6 0	...	...	...	...	...	...
		<b>Carried forward ... ..</b>	<b>44,124</b>	<b>19 6</b>	<b>26,698</b>	<b>7 0</b>	...	...	<b>26,713</b>	<b>9 2</b>

PUBLIC WORKS NET EXPENDITURE, 1880-81—*continued.*

Vote.	Item.	Particulars.	Appropriation.		Expended out of Appropriation.		Expenditure in Excess of Appropriation.		Total Expenditure.	
			£	s. d.	£	s. d.	£	s. d.	£	s. d.
		Brought forward ... ..	44,124	19 6	26,698	7 0	...	...	26,713	9 2
		<b>CLASS XI.—MISCELLANEOUS PUBLIC WORKS—</b> <i>continued.</i>								
		Middle Island— <i>continued.</i>								
44		Takaka Tramway ... ..	2,000	0 0	...	...	...	...	...	...
45		Road, Takaka to Motueka ... ..	700	0 0	700	0 0	...	...	700	0 0
46		Track, Motueka to Karamea ... ..	1,000	0 0	1,000	0 0	...	...	1,000	0 0
47		Bridge over Wairoa, in Waimea District ... ..	848	8 7	192	7 10	...	...	192	7 10
48		Rai Road, County Waimea ... ..	250	0 0	250	0 0	...	...	250	0 0
49		Road, Nelson to Tophouse and Tarndale ... ..	1,293	19 1	763	7 4	...	...	763	7 4
50		Bridge over Inangahua ... ..	4,500	0 0	2,176	10 8	...	...	2,176	10 8
51		Bridge over Ahaura River... ..	251	12 9	57	3 0	...	...	57	3 0
52		Bridge over Nelson Creek ... ..	921	12 0	900	0 0	...	...	900	0 0
53		Wakamarina Road, County Marlborough ... ..	300	0 0	300	0 0	...	...	300	0 0
54		Main road through Pelorus District... ..	10,225	2 6	6,097	3 6	...	...	6,097	3 6
55		Bridge over Clarence River ... ..	5,080	0 0	...	...	...	...	...	...
56		Ashley Bridge approaches ... ..	500	0 0	500	0 0	...	...	500	0 0
57		Upper Waitaki Bridge ... ..	2,500	0 0	2,500	0 0	...	...	2,500	0 0
58		Hokitika Harbour improvement ... ..	8,000	0 0	8,000	0 0	...	...	8,000	0 0
59		Hokitika Harbour-works, to meet a sum of £5,000 to be raised by the Harbour Board ... ..	3,000	0 0	3,000	0 0	...	...	3,000	0 0
60		Bridge over Teremakau, Kumara ... ..	1,178	3 3	7 5 3	...	...	...	7 5 3	...
61		Bridge over Hokitika, at Kanieri ... ..	117	5 8	1 0 0	...	...	...	1 0 0	...
62		Road by coast from Hokitika to Haast Pass ... ..	2,018	1 0	1,679	2 7	...	...	1,679	2 7
63		Purchase of Beaumont Bridge ... ..	2,000	0 0	17 10 0	...	...	...	17 10 0	...
64		Kawarau Bridge, at Junction of Arrow River ... ..	3,844	11 0	3,819	11 0	...	...	3,819	11 0
65		Portobello Road ... ..	67	9 6	...	...	...	...	...	...
66		Anderson's Bay Road ... ..	250	0 0	171	9 9	...	...	171	9 9
67		Subsidy to complete Clutha Bridge... ..	2,500	0 0	...	...	...	...	...	...
68		Erection of jetty and shed at Catlin's River ... ..	34	12 6	...	...	...	...	...	...
69		Completion of road from Maori Kaika to Taia-roa Head Lighthouse ... ..	615	1 4	463	10 9	...	...	463	10 9
70		Bridge over Oreti, at Elbow ... ..	165	18 6	94	5 6	...	...	94	5 6
71		Completion of road, Waikari to Waitati ... ..	2,998	18 6	2,998	18 6	7 11 6	...	3,006	10 0
72		Hungerford Bridge, in lieu of advance out of Land Fund ... ..	2,000	0 0	2,000	0 0	...	...	2,000	0 0
73		Bridge over Kaikorai Stream ... ..	400	0 0	...	...	...	...	...	...
74		Queenstown Jetty ... ..	600	0 0	297	8 0	...	...	297	8 0
75		Allowance to widow of David Marchbanks, Inspector of Public Works ... ..	164	7 9	164	7 9	...	...	164	7 9
76		Roads in deferred-payment blocks disposed of prior to 1st January, 1880 ... ..	30	0 0	...	...	...	...	...	...
77		For loans to local governing bodies to enable them to repair damages caused by recent floods ... ..	1,565	0 0	...	...	...	...	...	...
78		Contingencies to be recovered from local bodies ... ..	200	0 0	9 6 0	...	...	...	9 6 0	...
79		Railway Commission ... ..	2,850	0 0	2,732	0 3	...	...	2,732	0 3
80		Clutha and other Commissions ... ..	750	0 0	567	14 8	...	...	567	14 8
81		Kaikoura Jetty ... ..	2,500	0 0	1,012	8 5	...	...	1,012	8 5
82		Jackson's Bay Jetty ... ..	10	0 0	10	0 0	22 6 4	...	32	6 4
83		Removal of rocks, Catlin's River ... ..	1,000	9 7	124	8 7	...	...	124	8 7
		Amounts payable to Counties in respect of Stop-pages from Surplus Land Revenue,—								
84		Canterbury ... ..	8,408	18 2	8,408	18 2	...	...	8,408	18 2
85		Otago ... ..	5,427	12 4	5,427	12 4	...	...	5,427	12 4
86		Harbour Defences ... ..	9,486	6 3	904	6 2	...	...	904	6 2
		<b>Total Appropriation and Expenditure, Class XI.</b>	<b>187,678</b>	<b>9 9</b>	<b>84,046</b>	<b>3 0</b>	...	...	<b>84,091</b>	<b>3 0</b>

## APPENDIX B.

STATEMENT of all LIABILITIES in respect of the Services of the Public Works Department outstanding at the close of the Financial Period ended 31st March, 1881, prepared in terms of Section 3 of "The Public Revenues Act, 1880," and forwarded, as therein provided, to the Audit Office.

## SUMMARY.

Class.	Votes.	Particulars of Service.	Amount.	Total.
		<b>IMMIGRATION AND PUBLIC WORKS LOAN.</b>	£ s. d.	£ s. d.
II.	71-73	Departmental ... ..	647 18 3	
III.	74-92	Railways ... ..	428,687 1 8	
IV.	93-94	Surveys of new lines ... ..	406 6 8	
V.	95-102	Roads ... ..	65,464 16 7	
VII.	105-106	Waterworks ... ..	11,029 17 8	
XI.	115	Miscellaneous public works ... ..	38,591 8 10	
		Liabilities of the Public Works Department on Immigration and Public Works Loan ... ..	...	£544,827 9 8
		<b>CONSOLIDATED FUND.</b>		
		Liabilities Vote I., item 48, and Miscellaneous Services, Class XI., Vote 62 ... ..	17,570 17 5	£17,570 17 5
		W. A. THOMAS, Accountant, Public Works. 30th April, 1881.		
II.		<b>DEPARTMENTAL PUBLIC WORKS.</b>		
	71	<i>Departmental Head Office,—</i> (Nil) ... ..	...	
	72	<i>Head Office, North Island,—</i> Contingencies ... ..	152 18 5	152 18 5
	73	<i>Head Office, Middle Island,—</i> Contingencies ... ..	494 19 10	494 19 10
		Total Class II. ... ..	...	£647 18 3
III.		<b>RAILWAYS.</b>		
	74	<i>Kawakawa,—</i> Contingencies ... ..	363 19 2	
		Contracts ... ..	23,732 9 10	
		Material ordered from England ... ..	1,065 13 7	25,162 2 7
	75	<i>Whangarei-Kamo,—</i> Contingencies ... ..	1,702 7 7	
		Contracts ... ..	3,239 5 11	
		Material ordered from England ... ..	2,140 15 9	7,082 9 3
	76	<i>Kaipara-Waikato,—</i> Salaries ... ..	104 2 8	
		Contingencies ... ..	22,708 7 9	
		Contracts ... ..	33,226 4 1	
		Land compensation ... ..	73 11 10	
		Material ordered from England ... ..	4,404 10 4	60,516 16 8
		Carried forward ... ..	...	92,761 8 6

STATEMENT of all LIABILITIES, Public Works Department—*continued.*

Class.	Votes.	Particulars of Service.	Amount.		Total.	
			£	s. d.	£	s. d.
		Brought forward ...	...		92,761	8 6
III.		<b>RAILWAYS—<i>continued.</i></b>				
77		<i>Waikato—Thames,—</i>				
		Contingencies ...	1,033	11 11		
		Contracts ...	4,065	16 8		
		Material ordered from England ...	14,485	3 9		
					19,584	12 4
78		<i>Wellington—Napier,—</i>				
		Salaries ...	6	11 3		
		Contingencies ...	10,091	6 8		
		Contracts ...	4,646	9 4		
		Land compensation ...	18	11 10		
		Material ordered from England ...	10,340	17 11		
					25,103	17 0
79		<i>Wellington—Foxton,—</i>				
		Contingencies ...	808	6 8		
		Contracts ...	5,967	1 6		
		Material ordered from England ...	58	3 6		
					6,833	11 8
80		<i>Foxton—New Plymouth,—</i>				
		Salaries ...	52	0 4		
		Contingencies ...	14,658	19 7		
		Contracts ...	38,234	3 6		
		Land compensation ...	255	0 0		
		Material ordered from England ...	11,061	5 5		
					64,261	8 10
81		<i>Nelson—Greymouth,—</i>				
		Salaries ...	45	0 0		
		Contingencies ...	4,617	15 8		
		Contracts ...	5,766	3 4		
		Land compensation ...	88	1 0		
					10,517	0
82		<i>Greymouth—Hokitika,—</i>				
		Contingencies ...	260	13 10		
		Contracts ...	42	0 0		
		Land compensation ...	152	1 0		
					454	14 10
83		<i>Westport—Ngakawau,—</i>				
		Contingencies ...	2,506	19 1		
					2,506	19 1
84		<i>Picton—Hurunui,—</i>				
		Contingencies ...	77	13 4		
		Contracts ...	78	14 10		
					156	8 2
85		<i>Hurunui—Waitaki,—</i>				
		Contingencies ...	30,694	0 8		
		Contracts ...	15,802	17 7		
		Land compensation ...	130	1 4		
		Material ordered from England ...	8,401	11 4		
					55,028	10 11
86		<i>Canterbury Interior Main Line,—</i>				
		Contingencies ...	2,075	7 1		
					2,075	7 1
87		<i>Waitaki—Bluff,—</i>				
		Contingencies ...	54,084	16 7		
		Contracts ...	40,925	16 10		
		Land compensation ...	1,942	5 4		
		Material ordered from England ...	9,899	7 1		
					106,852	5 10
88		<i>Otago Central,—</i>				
		Contingencies ...	1,691	4 10		
		Contracts ...	18,373	0 9		
		Land compensation ...	12	10 4		
					20,076	15 11
		Carried forward ...	...		406,213	0 2

STATEMENT of all LIABILITIES, Public Works Department—*continued.*

Class.	Votes.	Particulars of Service.	Amount.		Total.	
			£	s. d.	£	s. d.
		Brought forward ...	...		406,213	0 2
III.		<b>RAILWAYS—<i>continued.</i></b>				
	89	<i>Invercargill-Kingston,—</i> Contingencies ...	1,570	7 6		
		Contracts ...	478	14 7		
					2,049	2 1
	90	<i>Western Railways,—</i> Contingencies ...	1,843	14 2		
		Contracts ...	9,968	14 10		
		Land compensation ...		7 10 0		
		Material ordered from England ...	8,605	0 5		
					20,424	19 5
	91	Purchase of wagons (nil) ...	...			
	92	Works for unemployed ...	...			
					...	
		Total Class III.—Railways ...	...		£428,687	1 8
IV.		<b>SURVEYS OF NEW LINES OF RAILWAY.</b>				
	93	<i>Surveys, North Island,—</i> Contingencies (nil) ...	...			
	94	<i>Surveys, Middle Island,—</i> Contingencies ...	406	6 8		
					406	6 8
		Total Class IV.—Surveys ...	...		£406	6 8
V.		<b>ROADS.</b>				
	95	<i>North Island,—</i> Salaries ...		17 8 9		
		Contingencies ...	7,223	10 6		
		Contracts ...	4,064	19 3		
		Grants to local bodies ...	2,003	1 1		
					13,308	19 7
	96	<i>Roads North of Auckland,—</i> Contingencies ...	14,096	15 4		
		Contracts ...	4,597	3 5		
		Grants to local bodies ...	1,687	6 6		
					20,381	5 3
	97	<i>Roads and Bridges in Unsettled Districts, Patea and Taranaki,—</i> Contingencies ...	6,025	8 5		
		Contracts ...	3,742	8 1		
					9,767	16 6
	98	<i>Nelson South-West Gold Fields,—</i> Contingencies ...		56 18 7		
					56	18 7
	99	<i>Roads, Nelson to Greymouth and Westport,—</i> Contingencies ...	5,674	10 8		
		Contracts ...	3,691	17 0		
					9,366	7 8
	100	<i>Westland,—</i> Contingencies ...		234 14 3		
					234	14 3
	101	<i>Hokitika-Christchurch,—</i> Contingencies ...	3,356	12 5		
		Contracts ...	1,187	0 0		
					4,543	12 5
		Carried forward ...	...		57,659	14 3



STATEMENT of all LIABILITIES, Public Works Department—*continued.*

Class.	Votes.	Particulars of Service.	Amount.	Total.
			£ s. d.	£ s. d.
		Brought forward ... ..	...	57,659 14 3
V.		ROADS— <i>continued.</i>		
	102	<i>Opening up Roads through Lands recently purchased,—</i>		
		Contingencies ... ..	5,036 1 0	
		Contracts ... ..	1,269 1 4	
		Grants to local bodies ... ..	1,500 0 0	
		Total Class V.—Roads ... ..		7,805 2 4
				<u>£65,464 16 7</u>
VII.		WATERWORKS ON GOLD FIELDS.		
	105	<i>Water-races, North Island,—</i>		
		Land ... ..	5 11 6	
	106	<i>Water-races, Middle Island,—</i>		
		Contingencies ... ..	2,607 2 6	
		Contracts ... ..	8,417 3 8	
		Total Class VII.—Waterworks on Gold Fields ... ..		11,024 6 2
				<u>£11,029 17 8</u>
XI.	115	MISCELLANEOUS PUBLIC WORKS.		
		Contingencies ... ..	7,192 1 10	
		Contracts ... ..	8,998 7 10	
		Grants to local bodies, balance of amount... ..	22,400 19 2	
		Total Class XI.—Miscellaneous Public Works ... ..		38,591 8 10
				<u>£38,591 8 10</u>
XI.		CONSOLIDATED FUND.		
		Liabilities of 1879–80, Vote I., item 48, and Class XI., Miscellaneous Services ... ..	...	
		Contingencies ... ..	9,007 15 6	
		Contracts ... ..	3,835 0 8	
		Land ... ..	1,561 16 0	
		Grants to local bodies ... ..	3,166 5 3	
		Total Class XI.—Miscellaneous Services ... ..		17,570 17 5
				<u>£17,570 17 5</u>

## APPENDIX C.

## ANNUAL REPORT ON RAILWAYS IN THE NORTH ISLAND BY THE ENGINEER IN CHARGE.

The ENGINEER IN CHARGE, North Island, to the Hon. the MINISTER for PUBLIC WORKS.  
SIR,— Public Works Office, Wellington, 31st March, 1881.

I have the honor to forward the annual report on railway works executed and in progress during the year ending 31st March, 1881.

The expenditure on railways in the North Island up to that date,	£	s.	d.
exclusive of preliminary surveys, was ... ..	3,560,989	14	7
The amount of contracts let and other liabilities ... ..	208,544	18	4
Total expenditure and liabilities ... ..	£3,769,534	12	11

Below is a table showing lengths of lines and miles opened for traffic in the North Island, with expenditure and liabilities on each; and at the end of this report is another table, giving list of railways and contracts completed or in progress, times of completion, &c.

During the year a length of 69 miles has been opened for traffic.

NAME OF RAILWAY.	Expended to 31st March, 1881.			Liabilities on 31st March, 1881.			Length.		Open for Traffic.	
	£	s.	d.	£	s.	d.	M.	ch.	M.	ch.
NORTH ISLAND.										
Kawakawa ... ..	42,695	7	2	25,162	2	7	7	79	2	68
Whangarei-Kamo ... ..	32,923	17	1	7,082	9	3	6	52	4	50
Kaipara-Waikato ... ..	1,081,646	10	4	60,516	16	8	146	45	130	31
Waikato-Thames ... ..	95,890	16	9	19,584	12	4	62	1	1	1
Wellington-Napier ... ..	1,228,940	16	0	25,103	17	0	221	39	138	57
Wellington-Foxton ... ..	43,364	0	8	6,833	11	8	71	15	...	...
Foxton-New Plymouth ... ..	1,035,528	6	7	64,261	8	10	217	68	157	13

## AUCKLAND DISTRICT.

## KAWAKAWA RAILWAY.

*Taumarere Contract* (1 mile).—This is now nearly completed. The contract time expired on 2nd instant, but it will probably be the middle of May before all the work will be finished.

*Kawakawa Contract, No. 3* (4 miles 5 chains).—This includes the remainder of the formation, the terminal wharf in deep water (21 feet at low-water springs), and the plate-laying complete. The whole has been let by contract, to be completed by the 6th June, 1882. The contractor is making satisfactory progress.

## WHANGAREI-KAMO RAILWAY.

*The Kamo Contract* (2 miles 55 chains) and the *Whangarei Contract* (5 miles 25 chains), described last year, have both been finished, as has also a temporary branch (40 chains long) to the town wharf. This was laid to give present facilities for shipping coal, pending the completion of the line to a permanent wharf in deeper water. It was opened for coal traffic 28th October, 1880, and for passenger traffic on the 3rd March, 1881.

The site for the terminal wharf has been surveyed and decided on. It is situated in the long reach about 1 mile 60 chains below Limeburners' Creek, reckoning by the river. There will be about 9 feet alongside at low water, and about 15 feet at high water.

The wharf and the remainder of the line is now advertised for public tender (5 miles 25 chains to 6 miles 40 chains).

## KAIPARA-WAIKATO RAILWAY.

*Waitakerei Contract* (12 miles 64 chains; between 10 miles 0 chains and 22 miles 69 chains at the Kumeu Junction).—This should have been finished 11th September, 1880, but much time was lost in beginning the tunnel and in other ways. It is expected that it will be ready for traffic about July next, and the line will then be opened through from Auckland to the Kaipara (Helensville). A portion of this contract was opened for public traffic on 21st December, 1880—viz., from 10 miles to 11 miles 5 chains (Henderson's Mill).

*Newmarket Junction Station Contract* (58 chains).—This has been satisfactorily completed, and a commodious and roomy station-ground is the result. The work was finished and opened for traffic on 11th December, 1880.

*Newmarket Workshops Site*.—This work was completed satisfactorily on 25th November, 1880.

*Reclamation Contract, Auckland Harbour.*—This work is now being carried on under a second contract, the first having been determined. The contractor is making good progress, the front retaining-wall being the principal and important part of the work.

The main sewers, which according to the first design discharged into the space between the Queen's Wharf and Railway Wharf, will now discharge to the east of the Railway Wharf. This is under a special arrangement with the city authorities, at whose desire the change was made.

*Ohaupo Contract* (6 miles 20 chains).—This work has been completed, and the line was opened for traffic on the 1st July, 1880, completing the entire length of railway southwards in the Waikato to Te Awamutu, within two or three miles of the confiscated boundary.

#### WAIKATO—THAMES RAILWAY.

The several formation contracts described last year have all been completed; and, with a view of extending the formation from Hamilton towards the Thames, the line has been resurveyed from the end of the "Waikato contract," 14 miles, to Morrinsville, about 18 miles, and tenders will shortly be called for this work.

A similar survey has been made in the Thames Valley, with the view of extending the formation to Kopu, where there is a wharf.

*Hamilton Railway Bridge.*—Advices have been received from England as to the near completion of the piers and superstructure for this bridge, and of the shipment of a large proportion of the materials. Tenders will shortly be called for for the erection of the bridge.

#### MISCELLANEOUS WORKS.

*Mangere Bridge Repairs.*—This contract has been completed.

#### SURVEYS.

*From Auckland Northwards.*—This was described as being in progress last year, and a report furnished. The survey has since been completed to Whangarei, and attached to this is the remainder of the report, with map in explanation.

*Hamilton-Cambridge.*—A careful resurvey of this line will be made, and plans and sections will probably be ready by June.

#### HAWKE'S BAY DISTRICT.

##### NAPIER—WOODVILLE.

*Makatoko Permanent-way Contract* (65 miles 57 chains to 69 miles 70 chains).—This contract has been completed, and the line was opened for traffic to Makatoko on the 9th August, 1880.

*Matamau Section* (4 miles 20 chains).—With the view of affording work to the unemployed settlers in the Seventy-Mile Bush, the works on this length of railway were begun in December, 1880. Employment was offered to married men at the rate of 4s. per day of eight hours (or piecework corresponding to that rate), and about 22 responded to the offer. The numbers have since gradually increased to about 40 to 45. It was found that the character of the work was not favourable to piecework, and the men generally were not inclined to work together as partners, so that the work, as a rule, has been done by day-labour.

#### SURVEYS.

The suggested survey of the alternative line mentioned in last year's report (76 miles to 85 miles) has been completed as far as the field work is concerned, and the line is now being plotted: it would appear that this line is an improvement on that first surveyed, although it involves the construction of one more large viaduct, and the purchase of freehold land through which it would pass.

The line has been definitely pegged off from 69 miles 70 chains to 93 miles 20 chains, or within  $3\frac{1}{2}$  miles of Woodville Township, and there joined on to the old trial line.

#### MISCELLANEOUS WORKS.

*Port Ahuriri Bridge, at Spit, Napier.*—The contract for this work was satisfactorily completed on contract date, 13th August, 1880, and the bridge was opened on the 16th of the same month for public traffic.

*Training-wall at Eastern Approach of Spit Bridge.*—The object of this work is to cause a current along the face of the breastwork, where the shipping lies, and so remove, or partially so, the mud and silt which had gradually accumulated there. The supply and delivery of the stone for this work was let by contract, and the placing of stones has been done by day-labour. About 4 chains of the work have been completed, and the whole (about  $8\frac{1}{2}$  chains) will probably be done by the end of May.

#### MANAWATU DISTRICT.

*Foxton Station Contract.*—This includes new wharf, which, with the old portion, gives 500 feet of frontage for vessels; new railway-station yard,  $3\frac{1}{2}$  acres; also, 1 mile 31 chains of new railway deviation, passenger-station buildings, goods-shed, engine-shed, cattle-pens, and other conveniences. The work is progressing satisfactorily, and the contract time expires on the 18th August, 1881.

*Wanganui Wharf and Reclamation Contract.*—This has been satisfactorily completed since last report. The wharf has been in use for some time; but the railway traffic has not yet been brought into the new station, as some additions to the buildings and other accommodation have been found necessary, and must be completed before the station can be used beneficially.

*Workshops Contracts.*—All completed, and the machinery erected and set to work.

*Waitotara Contract* (13 miles 5 chains).—This contract, after great delay, has been completed, and the section was opened for public traffic on the 20th September, 1880.

*Waverley Contract* (6 miles 70 chains).—This work has also been completed, and the section was opened for public traffic on the 23rd March, 1881.

## SURVEYS.

*Waverley to Carlyle.*—The survey for this section of railway is in hand. Two lines will be submitted for approval: one closely adhering to the original trial line, inland; the other taking a direction from Waverley towards the coast, then rounding the cliffs and entering the Patea Valley near the sea, and joining the new station now being constructed at Carlyle. It may be found that it will be better to adhere to the inland line, as being shorter, and lying within settled and improved lands, likely to give a much larger amount of traffic to the railway than the coast-line.

*Bunnythorpe—Woodville.*—The survey of this trial line has been completed through the Manawatu Gorge from 8 miles to 12 miles 30 chains, and the plotting is now in hand. It crosses the Pohangina River, a branch of the Manawatu, and then follows the north bank of the Manawatu, thus avoiding the crossing of that river.

*Land Plans, Waitotara to Waverley.*—These have been completed.

*Palmerston to Horowhenua* (25 miles 4·66 chains).—This trial survey has been completed, and plans and sections plotted. It is thought that some portion of this line may be revised with advantage to avoid flooded lands, and this work will be undertaken at a favourable time.

*Foxton to Horowhenua.*—A deviation to avoid a large extent of flooded land has been surveyed (5 miles 19·61 chains), and will be a great improvement.

The distances on these trial lines are,—

Foxton Station to Horowhenua Junction, by first survey, 11 miles 20 chains; by deviation, 13 miles 5 chains.

From Palmerston (making use of 4 miles 5 chains of the opened line towards Foxton) to Horowhenua Junction, 29 miles 9·66 chains.

From Palmerston *via* Foxton to Horowhenua Junction, by first trial line, 34 miles 50 chains; the same by the deviation above described, 36 miles 35 chains.

Foxton to Palmerston, by opened line, 23 miles 30 chains.

## PATEA—NEW PLYMOUTH RAILWAY.

## (SOUTHERN SECTION.)

*Carlyle Station Contract.*—This includes about one mile of railway formation and plate-laying, with bridge over the Patea River, the construction of a wharf or breastwork of 540 feet frontage, and the reclamation of sufficient ground for a railway-station: the latter will be on the south side of the Patea River, immediately below the bridge on the main line of road. The work was let on 29th September, 1880, and is rather more than half finished: the date of completion is 29th September, 1881.

*Works Executed by Parties of Unemployed.*—Several parties of these were sent from Wellington, commencing in July, 1880: these were divided into three camps, and set to work between Carlyle and Manutahi (a distance of about 8 miles), and were working up to the end of December. During this time they completed about two miles of formation, representing about 49,000 cubic yards of earthwork. Including wages, hire of drays, and all incidental expenses, the average cost of this was about 1s. 6d. per cubic yard, which, under the circumstances, may be considered a good result, the work being begun in midwinter, the men for the most part being unused to such work, and the average lead exceeding 15 chains.

*Earthwork Contracts.*—No. 1, 47 chains, and No. 2, 45 chains, are completed; No. 3, 6 chains, No. 4, 36 chains, and No. 5, in two pieces of 31 chains and 57 chains respectively, are in hand; three other contracts for bridges and large culverts are completed; and Earthwork Contracts Nos. 6 and 7 are now being advertised. These works, together with that done by Public Works labour (unemployed), will complete about 5 miles of formation, exclusive of 1 mile in the Carlyle Station contract. The earthwork under the "petty contracts" has cost about 1s. 1d. per cubic yard, the leads as a rule being long.

Beyond the above only one more culvert, 3-foot diameter and 230 feet long, will be required between Carlyle and Manutahi; and no other bridges beyond those already let or finished.

It is proposed shortly to prepare and advertise for public tender a contract for permanent way, stations, and other works necessary to complete this section (Carlyle—Manutahi, about 6 miles) for public traffic.

## PATEA—NEW PLYMOUTH RAILWAY.

## (NORTHERN SECTION.)

*Mangawhero Contract* (22 miles 20 chains to 29 miles).—About 3¼ miles of this was opened for traffic on the 27th September, 1880, and the remainder was completed on 30th November, the portion extending to 28 miles 20 chains (Eltham) being opened for traffic on 7th February, 1881. A road was opened through the bush from Eltham Station to the Mountain Road, about 40 chains, to render this station accessible.

*Waingongoro Contract* (29 miles to 33 miles 34 chains), *Formation and Permanent Way.*—This contract should have been completed by 31st March, but it will be some time longer; it is expected, however, that the line will be linked in and finished sufficiently in a week or two to allow of the passage of permanent-way materials for the extension of the line to Hawera, intended to be opened for traffic by the end of June.

The earthworks on the Waingongoro contract are the heaviest on this line, and demanded the most vigorous exertions on the part of the contractors to complete them within the required time.

*Normanby Section* (33 miles 34 chains to 37 miles 34 chains).—The formation of this portion of the line is completed.

*Hawera Formation Contract* (37 miles 34 chains to 40 miles 68 chains).—This should have been completed by 31st March, but some work still remains to be done.

*Hawera—Normanby, Permanent-Way Contract.*—This extends over the two last-named formation contracts. Its provisions are that the line shall be ready for traffic as far southwards as Normanby on

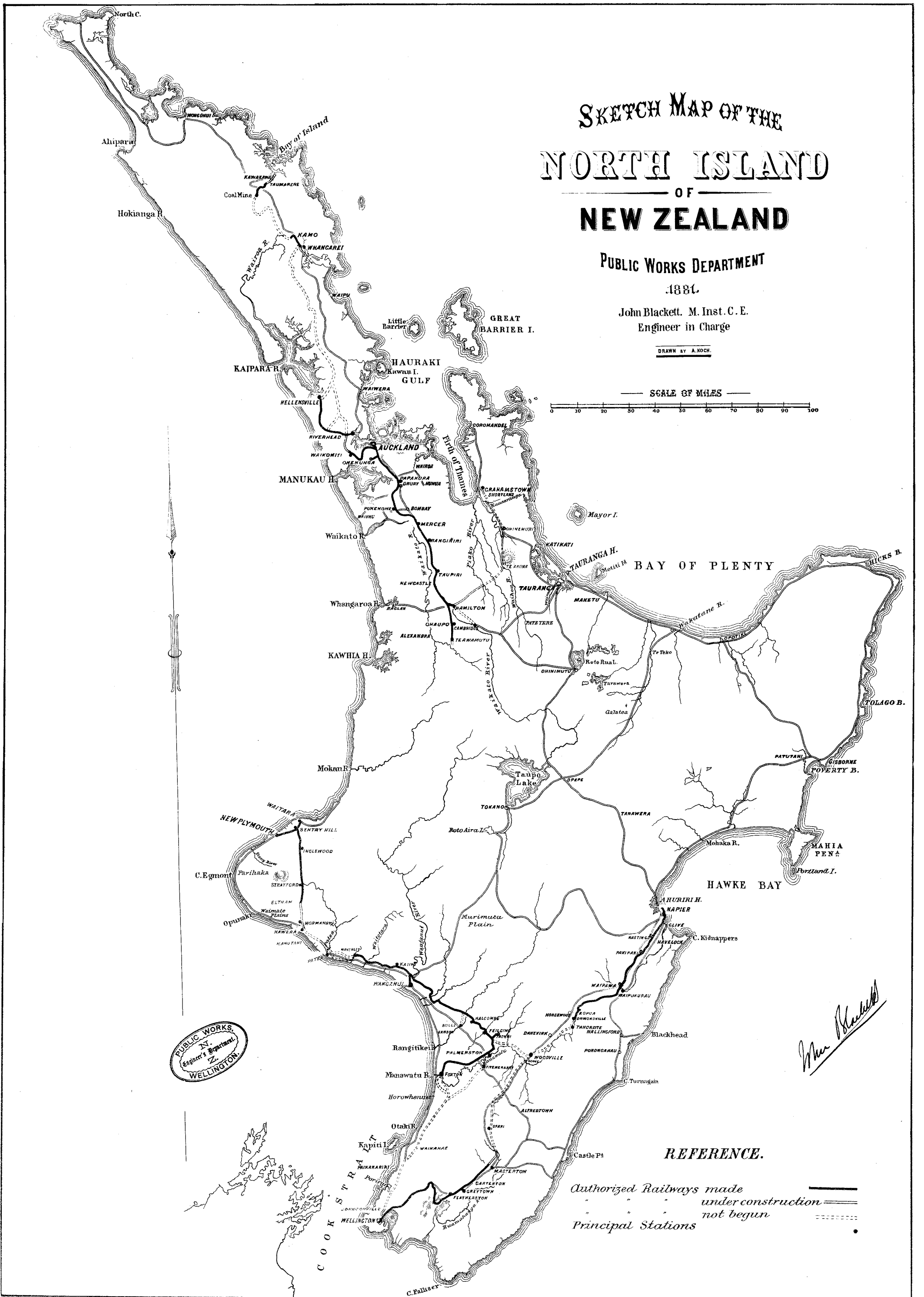
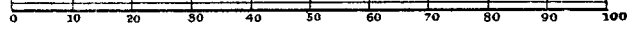
# SKETCH MAP OF THE NORTH ISLAND OF NEW ZEALAND

PUBLIC WORKS DEPARTMENT  
1884.

John Blackett, M. Inst. C. E.  
Engineer in Charge

DRAWN BY A. KOCH.

SCALE OF MILES



PUBLIC WORKS  
N.Z.  
Engineers & Surveyors  
WELLINGTON

*John Blackett*

## REFERENCE.

Authorized Railways made  
under construction ————  
not begun .....  
Principal Stations



the 30th May, and to Hawera one month later. These dates will however be later by some weeks, as the delivery of the permanent-way to the contractors did not commence at the stipulated time.

*Workshops, Sentry Hill.*—The machinery in these has been erected and set to work, and the formations and rail-laying in the workshops yard have been completed.

*Rolling-stock.*—Two 6-wheel composite and one 6-wheel second-class carriages have been erected and handed over to the Railway Department. Two cattle-vans have been altered to carry horses. One second-hand Class D locomotive engine has been added to the stock; as also two new engines of the same class. Ten low-side wagons and six timber trucks are being erected.

#### WELLINGTON DISTRICT.

*Carterton Contract* (20 miles 41 chains).—This work has been satisfactorily completed, and the line throughout to Masterton was opened for public traffic on the 1st November, 1880, and is now in good working order.

*Opaki Section.*—This lies immediately beyond Masterton. A small number of “unemployed” were sent from Wellington in March, 1880, and were kept at work on it until the end of December, 1880. No other work has been done since.

*Wellington Railway-station.*—The works under contract were sufficiently advanced to allow of the line and the passenger-stations being used by the 1st November—on the occasion of the line being opened to Masterton—and the remainder of the necessary works have since then been pushed on as rapidly as possible, including a goods-shed, 150 feet long, and the platelaying in numerous sidings, which is still being proceeded with.

*Station Buildings, Fencing, &c.*—Numerous small contracts have been let and completed for such works along the line, and some are still in hand.

#### SURVEYS.

*Wellington-Foxton Railway.*—These have been carried on beyond Paikakariki to beyond Otaki, and it is expected that by the middle of May the surveyors will have reached the junction with the other lines already surveyed southwards from Foxton and Palmerston, at Horowhenua.

*Land Plans.*—These have been prepared for the extension of the line beyond Masterton to Opaki; Clareville Station; Wellington Station and reclaimed land; and on the Wellington-Foxton Railway for the section from Kaiwarra to Johnsonville.

#### MAPS.

One outline map of the North Island, showing railway line, &c., is attached to this report; also one map in illustration of exploration survey north of Auckland.

I have, &c.,

JOHN BLACKETT,

Engineer in Charge North Island.

The Hon. the Minister for Public Works.









## Enclosure 2 in Appendix C.

## FURTHER REPORT ON EXPLORATION for a RAILWAY LINE from HELENSVILLE to WHANGAREI.

Mr. C. B. KNORPP, Inspecting Engineer, to the ENGINEER IN CHARGE, North Island.

Public Works Office, Wellington, 31st March, 1881.

THE tunnel,  $6\frac{1}{2}$  chains long, mentioned in last year's report, is the summit between the Waitepoko and a branch of the Kikowhiti, which flows into the Mangonui. From this tunnel the line follows the valley of this stream and then of the Kikowhiti in a rather circuitous course, with moderate grades and work; then passes through the first Mareretu Gum Field, across the Taipo Stream, near the road-bridge; through the second Mareretu Gum Field, across the Mangonui River, a short distance below the road-bridge; along the right bank of that river, through the Waikiki Gum Field, through three short deep cuttings to the watershed between the Mangonui and Tauraroa, where there will be heavy earthwork and a viaduct of considerable size near it. From this watershed easy grades with light work can be obtained by following the left bank of the Homaiwhare, a tributary of the Tauraroa, up to the road from Mangapai to Tangahua, crossing this stream, and then along the foot of the spurs, crossing and recrossing the Tauraroa, and running along the latter and a small tributary to it past Mr. James's homestead, through the watershed between the Tauraroa and the Otaika. The line would then follow the valley of the Puera, a tributary of the Otaika, to its junction with the latter; then the right bank of the Otaika to a little below the road-bridge, cross that stream, cut through a low ridge between it and Limeburners Creek, run along the right bank of Limeburners Creek, cross this creek, and join the Whangarei-Kamo Railway about half a mile north of Limeburners Creek.

From the tunnel to the junction with the Kamo Railway grades of 1 in 50 can be obtained, with the exception of the grade into the valley of the Tuera, where a landslip of considerable extent will probably force the line to be taken below that slip, necessitating a grade of 1 in 40.

Except in two places the earthwork and bridging will be below the average of North Island railways.

The country all round the northern side of the Wairau basin has been examined, but no point lower than 450 feet above sea-level and suitable for a tunnel could be found. About 2 miles is the greatest length that can be obtained from sea-level to any of these places. It is therefore impossible with ordinary grades to get through the ranges on the north-east side towards Waipu and the East Coast.

At the request of Port Albert settlers a cursory inspection has been made of a route starting from above the junction of the Mainene and Tepuna Creeks. It is proposed to cross the Mainene a little above Mr. Nicholson's saw-mill, and run along the east bank of the Tepuna to join the line to the north. The Mainene is here about 400 feet wide at high water: the Kaipara Steam Navigation Company's steamers run up to the mill, and smaller craft go above it. The nature and size of the bridge will depend on the question whether the navigation above it can be stopped for all but small boats. To the south the proposed line would skirt along the western slope of a tidal creek till it reached the swamp at the foot of Mount Brane. This swamp is about 80 feet above high water, and there is ample length for an easy grade. There will probably be some short high banks and sharp curves on this piece. From the swamp it would run up a valley to Hexam's Saddle, to Moore's Saddle, along the right bank of the Te Kakaho Creek, cross this creek near Markroft's road-bridge, and then run down to Mr. Newcome's store. To this point grades of 1 in 50 could be obtained, and, except near the Te Kakaho, the work would not be heavy. From the store the line could be brought along the coast to the Te Pane River. From this river inland, *via* Mr. Newcome's homestead to the Oteo River, the heights are too great and the distances too short to allow workable grades; and keeping along the coast does not promise better here. A short tunnel near the left bank of the Oteo would lead into country where a good line with moderate grades and work could be obtained to a short distance south of the Areparera River. Thence the country to the Makarau River becomes very broken, and workable grades cannot be obtained unless the line be taken along the coast, which, from the configuration of the country, does not appear advisable.

At the request of Waiwera settlers the following route has also been explored: This route would start from the junction of the Helensville-Riverhead and Newmarket Railways at the Kumeu, and run along the right bank of the Waitemata Stream, past Mr. Lamb's dam, to a saddle which is about 200 feet above the Kumeu Valley. There is, I believe, sufficient length between the junction and the saddle to allow of a grade of 1 in 50, but there will be some sharp curves on this piece and a deep gully to cross near the saddle. From the saddle the line would run down a branch of the Ararimu Stream, which it would cross above the road-bridge at a level of about 250 feet below the saddle; a grade of about 1 in 50 could probably also be obtained here, and no very heavy earthworks would have to be constructed. From the Ararimu crossing the line would again rise with a grade of about 1 in 50, skirting the south-eastern side of a steep spur, locally called the "Peak," to a second saddle, which is about 260 feet above the Ararimu road-bridge; near this saddle also a deep gully would have to be crossed. The rest of the earthwork need not be very heavy. A great many small streams will have to be crossed both going down into and rising from the Ararimu Valley. From the second saddle the line would run down in the valley of a branch of the Waipukakaho to near its junction with the Waipapakauri, descending a height of about 230 feet, with probably a grade of 1 in 50, and moderate earthwork. After crossing the Waipapakauri the line would run for some distance in easy ground along the left bank of the Kaukapakapa Stream, and then cross the Waitoki and run along its right bank to a saddle east of the Flat Top Mountain. This saddle my aneroid readings make 345 feet above high water. There appears to be length enough to allow a grade of about 1 in 50, but for about 3 miles south of this saddle the ground is very much broken up by gullies, and only further instrumental investigation can lead to the adoption of the best ground available. This last saddle forms the watershed between the Waitoki, which joins the Kaukapakapa, and one of the smaller branches of the Makarau. To the north-west of it lies the locally-termed "First Ti-tree Flat," through which my cut line from Kaukapakapa goes; and the line under report, shown in *red* on the accompanying sketch, would join my cut line, shown in *blue*, about 1 mile further north between the "First" and "Second Ti-tree Flats." The length

of the *red* line from this point to its junction with the Helensville–Newmarket Railway at Kumeu will be about 18 miles, all of which will have yet to be constructed. There will be one rise of 200 feet, one of 260 feet, and one of 280 feet to be got over, but there will be no tunnel on it. The earthwork on the 3 miles south of the last saddle will be heavy, on the rest moderate. The cost of the bridges over the Kumeu, Ararimu, Waipapakauri, and Waitoki will not much exceed the cost of the bridge over the Kaukapakapa on my first line *blue*. The drop of about 100 feet on the *blue* line in the “First Ti-tree Flat” will also be avoided. The height of haulage over the watershed between the Kaukapakapa and the Makarau will be 275 feet above high water on the *blue* line, and about 325 feet on the *red* line. The country from the Kumeu to near the Kaukapakapa River on the *red* line is perhaps the most sterile gum-field country north of Auckland. To the north of the Waipapakauri the country improves rapidly, and includes the Wainui Settlement. The first saddle north of the Kumeu can be avoided by following the *yellow* line, which would run in the valley of the Ararimu and Waikookoo, and join the Helensville and Newmarket Railway at the Waimaukau Station. This line would probably be about 2 miles shorter, but all traffic would have to be hauled the distance (3 miles 40 chains) between the Waimaukau Station and the Kumeu Junction. The Waimaukau Station is very inconvenient for a junction. On my first (*blue*) line, the length of new line to be constructed will be about 11 miles 40 chains from Helensville Wharf to junction with the *red* line, through country described in a former report (November and December, 1879), but on which, I beg to remind you, there will be a tunnel of at least 12 chains in length. In addition to this 11 miles 40 chains, all traffic will have to be hauled 12 miles 60 chains, the distance between Helensville and Kumeu Junction, or a total of 24 miles 20 chains.

I have also examined the country from the Waipapakauri to the road-bridge over the Kaukapakapa near that village, and find that, by keeping on the left bank of the Kaukapakapa Stream, as shown roughly by *brown* line, an easy and nearly level line can be obtained. This line would do away with the railway-bridge over the Kaukapakapa and the tunnel on the *blue* line, but would increase the distance by about 3 miles.

The above gives the following results with respect to lengths of new line to be constructed and lengths of haulage on each line to Kumeu Junction.

*Blue line*.—New line to be constructed, 11 miles 40 chains, haulage 24 miles 20 chains.

*Blue line to Kaukapakapa, then brown line, then red line*.—New line to be constructed, 14 miles 40 chains, haulage 27 miles 20 chains.

*Yellow line to Ararimu, then red line*.—New line to be constructed, 16 miles, haulage 19 miles 40 chains;

*Red line*.—New line to be constructed, 18 miles, haulage 18 miles.

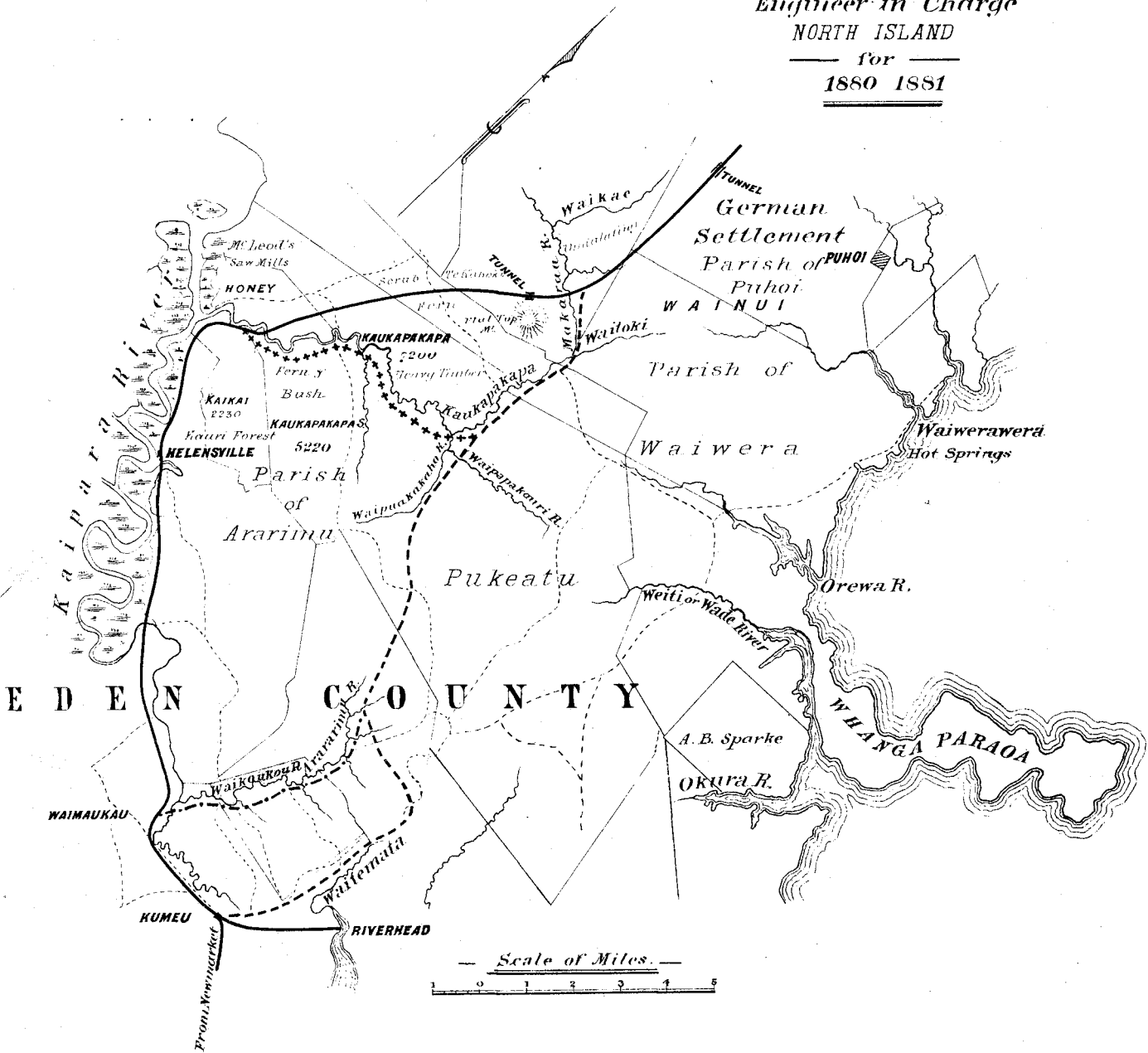
If the *red* line or the *yellow* and *red* line is adopted, then the piece from Kumeu Junction or from Waimaukau respectively to Helensville will become a branch line. It will thus be seen that each line has its pronounced advantages and disadvantages, and these are so diametrically opposed to each other in each line, that it will require considerable judgment to finally determine on the best line to be adopted, with due regard to engineering, cost of construction, local and through traffic, &c.; and I can at present only recommend that instrumental surveys of all these lines be made before the final decision is arrived at.

C. B. KNORPP,  
Inspecting Engineer.

*Sketch Map of the*  
**EXPLORATION FOR A RAILWAY LINE**  
*From*  
**HELENSVILLE TO WHANGAREI**  
*To accompany Annual Report*  
*of the*  
**Engineer in Charge**  
**NORTH ISLAND**  
*for*  
**1880 1881**

Reference

Blue line shown thus	—————
Red " " "	-----
Yellow " " "	-----
Brown " " "	+++++





## APPENDIX D.

## ANNUAL REPORT ON ROADS IN THE NORTH ISLAND, INCLUDING OTHER MISCELLANEOUS WORKS, BY THE ENGINEER IN CHARGE.

The ENGINEER in CHARGE, North Island, to the Hon. the MINISTER for PUBLIC WORKS.

SIR,—

Public Works Office, Wellington, 31st March, 1881.

I have the honor to forward annual report on roads and other miscellaneous works for the year ending 31st March, 1881.

## AUCKLAND.

*Great South Road.*—This has been kept in repair during the year.

*Cambridge-Rotorua Road* (55 miles).—Several contracts for formation and bridges have been let, and are finished or in progress through the open land, about 19 miles in all; and the line through the bush at the Rotorua end, about 12½ miles, has been felled and cleared by Native labour, so as to form a bridle-track. The road has been used by horsemen throughout for some time. After this track had been opened, an endeavour was made to have the bush felled at least 1 chain wide, and a wide track cleared by the Natives, under contract or piece work, but they declined to work except on daily pay of 6s., which was not acceded to, and the work remains in abeyance.

*Te Awamutu Railway-station Road* (66 chains long).—About one-half of this was metalled last year; the remainder, it is expected, will be finished in May or June next.

*Whatawhata Road Bridge* (over the Waipa River, on the Hamilton-Raglan Line of Road).—This work, which consists of two spans of 80 feet, seven spans of 40 feet, and four of 20 feet (520 feet total), has been satisfactorily completed under contract, and was opened for traffic on the 20th April last.

*Te Rore Road Bridge* (over the Waipa River, about 2½ miles north of Alexandra).—This bridge is now being erected under contract, and is progressing in a satisfactory manner. It consists of one span of 80 feet, four spans of 40 feet, and eight of 20 feet (402 feet total), with a long and high embanked approach on the eastern bank.

*Pokeno-Miranda Road.*—The contract for the formation of about one mile of this was completed satisfactorily on the 12th instant, and the portions of the road requiring it have been covered with river gravel.

*Cox's Creek Bridge.*—Tenders were invited for the execution of this work, but after they were received objections were made by a number of persons to the erection of the bridge, on the ground that it would interfere with navigation, and the matter still remains undecided.

*Te Aroha Block, Drainage.*—Contract No. 1, 3 miles 76 chains of drain, was satisfactorily completed on 10th September, 1880, and Contract No. 2 on 12th instant, making with No. 1 contract a total of 11 miles 78½ chains of drains.

## BAY OF PLENTY.

*Tauranga, East Cape.*—For convenience of description this has been divided into sections as below. On the *Te Kaka and Raukokou* section about 4 miles has been formed 4 feet wide by the Whakatane County Council on a line surveyed and laid off by the Public Works Department. The road is not at present in a good state for horse traffic; about 8 miles require forming, and the portion formed by the County Council requires to be made wider. Between *Raukokou and Kawakawa* (East Cape) is barely passable for horsemen. It is only a Native track, and a proper line has not yet been surveyed.

On the same line of road the portion between *Maraenui and Omaio* has been maintained by a Native contractor, and at present is in a good state for horse traffic; length about 6 miles, of which 4 are in bush, the remainder in open fern and manuka scrub: it is formed 8 feet wide.

The section between *Maraenui and Hawaii*, about 5½ miles in bush, and sideling, has been laid off, but not formed. Its formation would be a very great boon to travellers, as the present track is along a stony beach under perpendicular cliffs, and is often impassable.

Another section, *Opape-Torere*, 7 miles, and formed 8 feet, is in good order, having been maintained by a Native contractor: about 2 miles in bush, the rest in broken fern country.

The section between *Whakatane and Ohiwa* has been surveyed and laid off, 8 miles over very rough and broken country, 2¼ miles in bush, the remainder through manuka scrub and fern. When formed this will be an outlet for produce from Whakatane District to Ohiwa Harbour.

*Whakatane-Ohope.*—This section was put in thorough repair last April, and has since been maintained in a good state for horse traffic; length, 3½ miles; formation, 8 feet wide, through very rough and broken fern country.

On the same line of road, between *Matata and Maketu*, 8½ miles have been laid off and formed 12 feet wide, 6½ miles by Native contractors. This section consists of light side-cutting, swamp, and fern country. The work is not yet complete, only a portion being as yet fit for traffic.

*Matata-Te Teko.*—This road has been partially repaired during the year for horse traffic; it still requires a good deal of work to fit it for cart traffic. Its length is 15 miles, formed 14 feet; it lies through open, flat, and undulating fern country, its direction being inland from Matata on the coast.

*Te Teko and Galatea* (33 miles through open and broken fern country).—Four bridges have been erected on this road during the year, one 30-foot truss, one 22-foot plain, two 20-foot plain. This road is not in a good state of repair for cart traffic, having been only partly formed by the Armed Constabulary Force stationed at Te Teko and Galatea; some cuttings are yet required to make it fit for cart traffic.

*Whakatane-Te Teko Swamp Road* (13½ miles through swamp and open flat and undulating country).—Fifteen small bridges and five large culverts have been erected during the year, and 44½ chains of the old swamp formation have been fascined and covered with earth. It is not yet fit for cart traffic, but a tender has been accepted for fascining, &c., 150 chains of swamp, which will make it available.

*Opotiki-Ormond Road*.—Eleven miles of this road have been surveyed and laid off by the Public Works Department on a new line, at proper gradients, not exceeding 1 in 15; and 5½ miles of this have been formed by the Whakatane County Council, 12 feet wide, and cleared in bush 20 feet wide: 4½ miles are in undulating fern, and the rest in light flat bush. About 18 miles yet remain to be surveyed and laid off properly. The country is very mountainous and broken, and one through which it will be impossible to form a really good line of road. The present track is in a bad state, and almost impassable for horse traffic.

*Tauranga-Taupo Road*.—The work done on this road during the year consists of general repairs and maintenance. New bridges, however, have been rebuilt over the Te Reringa and Mangapouri Rivers, as the old ones were in such general bad repair; and the Waititi, Ngongotaha, Waikoro-whiti, Tokomango, Te Auo-o-te-Hapi, and four other smaller bridges have been put in substantial repair. The traffic on this road is steadily increasing, about nine horse-teams, six bullock-teams, and a number of coaches and buggies trading regularly. The road is in good repair throughout.

*Rotorua and Tarawera Road*.—This has been regularly maintained in good order, and traffic on it is increasing.

#### TAUPO-ATIAMURI—NAPIER-TAUPO.

*Kaiwhaka-Stony Creek* (31 miles).—This has been kept in good order during the summer months, and, although soft and muddy in places, it is passable for light loads during the winter. An average number of five men have been employed in maintaining this section.

*Stony Creek-Atiamuri* (69 miles).—The first 14 miles of this road, to *Runanga*, have been maintained by the Armed Constabulary; the next 22 miles, to *Opepe*, by day-labour; and the remainder by parties of Armed Constabulary. The whole is in a good state of repair. Preparations are being made to rebuild the Lower Waipunga Bridge, a work which is now really necessary.

*Taupo to Hot Springs* (3 miles).—This is in good repair.

#### EAST COAST.

The only roadwork done during the year in this district has been the metalling of the Makatoko branch road, 3½ miles: this was completed in July last. This road joins the Makatoko Railway-station with the main road in Seventy-Mile Bush.

#### MANAWATU DISTRICT.

*Manawatu Gorge Road*.—This has been maintained in good order for traffic.

*Kairanga Block* (Roads, &c., to open up Lands for Sale).—The following works have been executed or are now in progress: Outlet drain cut, 2 miles 17 chains; roads cleared of bush, formed, and drained, 8 miles; roads felled and cleared of bush, 4 miles 79 chains; roads cleared, forming and draining in progress, 4 miles 18 chains; outlet drain in progress, 1 mile 27 chains.

This block of land would have been difficult to settle without these works, lying low, with no easy natural outlet for drainage: the value of it for sale is consequently much enhanced.

*Motoa Swamp Drain, near Foxton* (total length, 1 mile 60 chains).—Seventy-four chains are complete, 50 chains in progress, 16 chains not yet begun. The work was greatly delayed by last season's floods.

#### TARANAKI DISTRICT.

*Manganui Cart-bridge*.—This was completed last year, but it has been found necessary to construct some protective works for the western pier, in the shape of a dry rubble masonry groin. The work will probably be finished in May.

*Mountain Road*.—It was found necessary to make a deviation of this road through the southern part of the Township of Stratford, County Patea, owing to the County Council having cleared and formed the road on a wrong line. The length of deviation was 67 chains. It was completed in May.

*Gravelling Contracts, Mountain Road, County Taranaki*.—Six gravelling contracts have been satisfactorily completed, making up a total distance of 10 miles 24·84 chains, over which there is now a first-class gravelled road between Inglewood and Stratford.

*Gravelling Contracts, Mountain Road, County Patea*.—Five contracts for this work were let and satisfactorily completed during the year, making a total of 7 miles 30 chains, extending from Patea River (Stratford) southwards to Mangawhero River.

*Urenui Road*.—Two contracts for road formation in connection with the Urenui Bridge have been let—one 54·58 chains, one 46·42 chains—to be completed by 4th June.

*Urenui Bridge*.—A contract for this work was let on 26th October, 1880, to be completed by 25th August, 1881. It consists of one span of 70 feet, two spans of 20 feet, and two spans of 15 feet (140 feet total). It is expected to be easily completed within contract time.

*Eltham Village*.—About 25 chains of a district road, which had been cleared by the Waste Lands Board, has been made available for coach traffic between the Mountain Road and railway-line to enable the coach to meet railway trains; but the coach has not yet used this road.

*Waitara Road Bridge*.—A survey of this bridge (reported to be much out of repair) has been



made, and plans and report furnished as to the best means of dealing with it. Copies of these have been sent to the Waitara Harbour Board for their information, and to assist in carrying out repairs.

*Approaches to District Roads from Mountain Road.*—Seven of these have been duly formed.

#### WAIMATE PLAINS AND ADJOINING DISTRICTS.

*Main Road.*—For convenience of description this has been divided into two sections, *Stony River to Opunake* and *Opunake to Waingongoro*.

*Stony River—Opunake* (length 22 miles).—Fifteen and a half miles have been cleared one chain wide. Of this about one mile is through bush, the remainder through fern, flax, and scrub. Fourteen miles have been graded and formed, including nine passable fords to the larger streams; seven dry rubble culverts with timber roadways, varying from 5 feet to 7 feet wide; five dry rubble culverts from 2 feet to 4 feet wide; and sixty-nine sets of stoneware drain-pipes; also two temporary bridges of 20-foot span and one of 15-foot span, where fords could not conveniently be made; also 8 miles of single side-drains of standard size. Six and a half miles have been gravelled, of which 54 chains are on the old road between Stony River and Werekino, and the remainder between Werekino and Pungarehu.

This completes the road from Stony River to Pungarehu, except at the river crossings, where the *permanent* grades cannot be completed until the bridges are erected. This section of road traverses generally level country, involving no very heavy works.

From Stony River to Pungarehu,  $8\frac{1}{2}$  miles, the road is in first-rate order for any kind of traffic. From Pungarehu to Umuroa,  $10\frac{3}{4}$  miles, the road is open for coach and dray traffic, but in places is rather rough for light vehicles, and being ungravelled will in wet weather be muddy, but not impassable.

Two miles near Opunake have been put in good repair, and two bridges repaired and refloored. This length is part of the old road, 3 miles, between Umuroa and Opunake.

Sixteen and a half miles, the length of the new part of this road (Stony River—Opunake), have been surveyed with compass bearings and a longitudinal section taken.

*Opunake—Waingongoro* (length, 22 miles).—This section of road had, some years back, been all cleared, formed, and bridges and culverts built. General repairs have been executed both to formation and bridges, eight of which have been refloored. The approaches to bridges have, as a rule, been improved by flattening them to 1 in 15.

Seven miles have been gravelled, in continuation of the same work done last year, making a total continuous length of  $9\frac{3}{4}$  miles from the Waingongoro River to the Otakeho Village site. Another mile has been gravelled at Oeo, making 3 miles in all, or  $1\frac{1}{2}$  miles on each side of village. The whole of this length is now in good order for all kinds of traffic; but where not gravelled it becomes muddy in winter.

*Normanby Road* (length, 6 miles).—The part of this road under construction lies between the Manaia Road and the Waingongoro River;  $2\frac{3}{4}$  miles are completed as to forming, draining, cuttings, and banks, including about a mile of side-cutting. It is all cleared.

The bridges over the Waingongoro and Waiokura Rivers have been let by contract: the work of erecting them has only begun. The road can now be used by horsemen.

*Manaia Road* (leading northwards from the township to edge of forest).—Two miles of this road have been formed, and it is now in good order for traffic.

*Cape Egmont Lighthouse Road* (length, 3 miles).—This lies in a direct east-and-west line, between the main south road, near Pungarehu, and the site of the lighthouse, on the coast: it has been cleared and roughly formed, with temporary culverts at stream-crossings, and is now used by drays, but will require a good deal of work to finish it.

*Stratford—Opunake* (24 miles in length).—This is a pack-track, lying in a nearly straight line between these two places, and, with the exception of about  $1\frac{1}{2}$  miles at the Opunake end, entirely through dense bush. The work was completed so far as to make it available for horse traffic in February. It crosses ninety-five watercourses, varying in width from 1 chain to 2 or 3 feet; none of these are deep, and the larger ones have hard boulder bottoms. Where practicable, fords have been made, in other places rough bridges and culverts of round timber and “pongas.” Where the ground was boggy the track was “corduroyed:” about  $2\frac{1}{2}$  miles are thus treated. Single side-drains to the extent of  $1\frac{1}{2}$  miles have also been cut. Twenty-one miles of this road were roughly surveyed and the lines cut during the year.

*Roads North of Auckland.*—These are under the supervision of the Chief Surveyor, Auckland, Mr. Percy Smith, who has supplied the following information, viz.:—*Great North Road*: The line is now open as a carriage-road from North Shore to Wellsford, a distance of  $55\frac{1}{4}$  miles. The works for the past season on this section consist in filling up gaps and widening out the former bridle-road, involving the building of three large bridges of a total span of 740 feet. From *Wellsford to Waipu*: Part of the road through the Gorge has been widened out to a carriage-road through heavy rock-cutting, and two contracts are still in progress on a new portion of the road, the completion of which will open it as a good bridle-road from Auckland. From *Waipu to Whangarei* two contracts are in progress, which will open that section as a bridle-road. *Whangarei to Kawakawa*: Works consist in widening old road and constructing an entirely new line on good grades. Two contracts in progress, and two more ready to let. *Kawakawa to Whangaroa*: Two bridges have been built, and a survey of some deviation, ready for contract, completed. *Whangaroa to Mongonui*: Two bridges in course of construction. *Mongonui to Awanui*: One contract of  $2\frac{1}{4}$  miles, and one bridge over Takuhe, completed, whilst five contracts are in progress for  $15\frac{1}{2}$  miles, which will make a carriage-road from Mongonui to Awanui. Altogether,  $40\frac{1}{2}$  miles of road have been completed, or are nearly so, of which  $5\frac{1}{2}$  miles have been metalled, 57 miles engineering survey made, and 37 miles permanent survey. The cost up to the 30th June, including inspection, surveys, compensation, and office expenses, is £19,564 8s.

The works proposed for the ensuing season are principally in filling up gaps in old road and widening out bridle-roads to cart-roads. On their completion a first-rate bridle-road will exist from Auckland to Awanui, a considerable portion of which will be available for cart-traffic. A good many delays have arisen through Native opposition.

## ARCHITECT'S BRANCH.

The annual report of the Architect on all works executed or in progress during the year is attached to this report.

The Hon. the Minister for Public Works.

I have, &c.,  
JOHN BLACKETT,  
Engineer in Charge North Island.

## Enclosure in Appendix D.

## ANNUAL REPORT ON PUBLIC BUILDINGS AND WORKS, NORTH ISLAND,

FOR YEAR ENDING 31st MARCH, 1881.

The ARCHITECT to the ENGINEER in CHARGE, North Island.

SIR,—

Public Works Office, Architect's Branch, 5th July, 1881.

I have the honor to report upon the various buildings designed, added to, or altered, together with contracts let, in progress, or completed, from 1st April, 1880, to 31st March, 1881, in connection with the Architect's Branch of the Public Works Service.

During the year designs have been prepared for the following new buildings—namely, Resident Magistrate's Court, Warkworth, as an addition to police station; post office and telegraph stations at Kamo and Otaki; lock-ups at Newton (Auckland), Otaki, and Mercury Bay; and a police station at Tinui. Drawings have also been made for alterations and additions to post offices and telegraph stations at Hokianga, Grahamstown, Gisborne, New Plymouth, and Cambridge; and for additions to the railway stations at Feilding, Palmerston North, and Carterton, for the accommodation of the postal and telegraphic departments; alterations to the Government Printing Office, Wellington; and for two storage reservoirs—one for Her Majesty's Gaol and the other for the Mount View Lunatic Asylum, Wellington.

Contracts for the following works have been completed: New Supreme Court and offices, Wellington; police stations at Wellington, Warkworth, Tauranga, Katikati, Hamilton, Tologa Bay, Opotiki, Maketu, Whakataane, Ohinemutu, Waitara, Waitotara, Inglewood, Normanby, Manutahi, and Carlyle; lock-ups at Newton (Auckland), Awanui, and Otaki; post offices and telegraph stations at Dargaville, Te Kopuru, Otaki, and Kamo.

Alterations and additions or repairs have been completed to the following buildings: Post offices and telegraph stations at Wanganni, Lower Hutt, Cambridge, Grahamstown, and Auckland; as also to the railway stations at Feilding and Palmerston North. The old Wesleyan Chapel, High Street, Auckland, and the Gymnasium at Cambridge, have been converted into Resident Magistrates' Courts and offices; and alterations and additions have been completed to the gaols at Wellington and Gisborne. Extensive alterations and additions have been completed to the lunatic asylums at Auckland and Wellington.

*Works in Progress.*—Alterations to Courthouse at Palmerston North; new police station at Tinui; additions to railway station at Carterton, for post and telegraph station; and a new laundry at the Whau Lunatic Asylum, Auckland.

*Miscellaneous Works completed.*—Repairs to immigration barracks, Wellington; alteration to Government Printing Office; the construction of storage-reservoirs at Mount View Lunatic Asylum and Her Majesty's Gaol, Wellington: besides various other works of a minor character, such as small alterations to post offices at Taranaki, Gisborne, Foxton, and Coromandel; repairs to Customhouse at Napier, Government House at Auckland, &c.

The total expenditure in the Architect's Branch during the year has been,—

	£	s.	d.
Judicial	37,975	4	2
Postal and Telegraphic	3,640	10	7
Lunatic Asylums	13,926	11	8
Miscellaneous	872	19	4
Sundry repairs, alterations, fittings, furniture, &c.	18,665	4	11
	<u>£75,080</u>	<u>10</u>	<u>8</u>

I have, &c.,

P. F. M. BURROWS,

The Engineer in Charge, North Island, Wellington.

Architect.

## APPENDIX E.

## ANNUAL REPORT ON THE PUBLIC WORKS OF THE MIDDLE ISLAND.

The ENGINEER IN CHARGE, Middle Island, to the Hon. the MINISTER for PUBLIC WORKS.

SIR,—

Public Works Office, Dunedin, 31st March, 1881.

I have the honor to submit the following report on the various works completed and in progress in the Middle Island during the financial year just ended.

Adhering generally to the arrangement adopted in previous years, the report will be divided into the following heads: 1st. Railways; 2nd. Roads and Bridges; 3rd. Water-races; 4th. Miscellaneous Works; 5th. Buildings; 6th. Surveys; and 7th. General Remarks.

## RAILWAYS.

## GENERAL.

The following statement shows the expenditure and liabilities on railways in the Middle Island up to the 31st March, 1881, including surveys and the valuation of the Provincial lines:—

	£	s.	d.
Total expenditure out of loan ... ..	5,863,700	4	3
Valuation of Provincial lines ... ..	1,104,281	2	5
<b>Total expenditure up to 31st March, 1881...</b>	<b>6,967,981</b>	<b>6</b>	<b>8</b>
Liabilities on 31st March, 1881 ... ..	220,548	10	0
<b>Total expenditure and liabilities ... ..</b>	<b>£7,188,529</b>	<b>16</b>	<b>8</b>

The details of the above, together with the lengths of railways authorized and open are given in the following table, the lines taken over from the Provincial Governments of Canterbury and Otago, and the expenditure on preliminary surveys, being included:—

Name of Railway.	Total Length on which Expenditure Authorized.	Open for Traffic.	Expenditure to 31st March, 1881.			Liabilities on 31st March, 1881.		
			£	s.	d.	£	s.	d.
AUTHORIZED BY "THE IMMIGRATION AND PUBLIC WORKS APPROPRIATION ACT, 1879:"—								
Nelson to Greymouth ... ..	M. chs. 70 0	M. chs. 27 52	389,919	12	1	10,517	0	0
Greymouth to Hokitika ... ..	24 0	...	22,009	1	10	454	14	10
Westport to Ngakawau ... ..	19 19	19 19	211,709	5	5	2,506	19	1
Picton to Hurunui ... ..	31 32	18 11	189,778	7	6	156	8	2
Hurunui to Waitaki ... ..	406 0	334 38	1,845,255	15	9	55,028	10	11
Canterbury Interior Main Line ... ..	41 0	...	17,511	17	0	2,075	7	1
Waitaki to Bluff ... ..	398 53	336 47	2,633,508	12	10	106,852	5	10
Otago Central ... ..	65 0	...	104,163	10	6	20,076	15	11
Invercargill to Kingston ... ..	107 16	86 84	250,479	16	11	2,049	2	1
Western Railways ... ..	64 0	29 13	130,170	18	7	20,424	19	5
Preliminary surveys ... ..	...	...	47,193	5	10	406	6	8
<b>Total ... ..</b>	<b>1,226 40</b>	<b>852 24</b>	<b>5,841,700</b>	<b>4</b>	<b>3</b>	<b>220,548</b>	<b>10</b>	<b>0</b>
Purchase of wagons ... ..	...	...	22,000	0	0	...	...	...
PROVINCIAL GOVERNMENT LINES:—								
Canterbury (lengths included above) ... ..	...	...	731,759	0	0	...	...	...
Otago " " ... ..	...	...	372,522	2	5	...	...	...
<b>GENERAL TOTALS ... ..</b>	<b>1,226 40</b>	<b>852 24</b>	<b>6,967,981</b>	<b>6</b>	<b>8</b>	<b>220,548</b>	<b>10</b>	<b>0</b>

The following statement shows the rate at which the several railways in the Middle Island have been completed during each financial year, further details being given in the table hereto appended (Enclosure No. 1):—

## LENGTHS OF RAILWAY OPENED IN MIDDLE ISLAND during Financial Year.

Up to June 30, 1872.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	Total.
M. chs. 76 36	M. chs. 27 62	M. chs. 11 21	M. chs. 127 03	M. chs. 249 44	M. chs. 154 12	M. chs. 93 41	M. chs. 58 33	M. chs. 18 56	M. chs. 35 36	M. chs. 852 24

## NELSON TO GREYMOOUTH RAILWAY.

*Section, Port of Nelson to Roundell.*—The only construction works of importance that have been in progress during the year on this section are the completion of the line from Nelson to the Port, and the Bellgrove Sub-section, an extension inland of the present railway for three miles,

The Port line was finished and opened for traffic in May, 1880, and the formation of the Bellgrove Sub-section has been completed in June, 1880. Contracts for plate-laying and stations on the Bellgrove Sub-section have been entered into, and the works are progressing favourably.

The permanent survey of the continuation of this railway to the head of the Blue Glen—19½ miles from Bellgrove—is completed; and, as previously reported, a trial survey has been made right across the range into the Buller watershed, near Roundell.

*Section, Greymouth to Nelson Creek.*—The principal works in progress during the year have been the formation of the Stillwater Sub-section—63 chains—and the enlargement and improvement of the Brunnerton Station-yard.

The Stillwater Contract has just been completed, and the works, which are very heavy, have been carried out in a satisfactory manner. No provision has yet been made for laying the permanent way on this sub-section, for it cannot conveniently be worked till another length is made.

The improvements at the Brunnerton Station, which were much wanted, are calculated to meet the requirements of the traffic for some time to come.

The working survey of the continuation of the line from Stillwater to Nelson Creek has been completed during the year. It shows the length to make to be 7½ miles, and that a good line is obtainable at a moderate cost. The earthworks will be rather heavy, it being necessary to keep clear of the Grey floods, which are very high at this place: the other works are, however, comparatively light.

*Greymouth Harbour Works.*—The work done on the Greymouth Harbour Works during the past year consists of the extension seaward of the south training-wall for a distance of 944 feet, the construction of a bridge over the Erua Moana Lagoon, dredging the river-bed and lagoon entrance, and depositing the materials in the reclamation inside the wall. A new dredge has also been built in Dunedin for the works.

The quantity of materials deposited in the wall and reclamation works during the year is as follows: Rock, 28,700 tons; quarry rubbish, 7,000 tons; and shingle from the dredges, 117,200 tons. The average cost per ton has been—rock, 3s. 1d.; quarry rubbish, 1s. 9½d.; and shingle, 11¼d. The above figures show the average cost of the quarried materials to be 2s. 10d. per ton as against 3s. 2d. the previous year. On the other hand the dredging is a little dearer, the price for 1879–80 being only 11d: this increase is attributable to the work being now somewhat more difficult.

The training-wall is out to a length of 14 chains, and, although subjected to heavy seas and floods, it is standing admirably. The wall is already credited with having beneficially affected the channel and bar. Although not impossible, I think it is premature to come to this conclusion; but I have no doubt a sensible effect will result from every advance that is made in future, and that a permanent improvement will be effected so soon as the wall reaches the line of the beach—about 10 chains distant.

The Greymouth harbour works are in very good working order, the various operations are carried on in a systematic manner, and the work is done very cheaply. A suitable face having been got on the quarry, hand-drilling and small blasts have been superseded by drives and large blasts. Two of these have been fired during the year; the first took down about 11,000 tons; the second is not yet worked out. The large blasts not only reduce the cost of quarrying, but they furnish heavier stone for the sea-wall—a most important consideration.

The rate at which the sea-wall progresses and its cost depend almost entirely on the depth of water at the tip-head, which varies occasionally to an extent of 10 or 12 feet, according to the set of the river. This variation in the depth affects the cost to an extent of from £150 to £250 per chain of wall. These facts lead to the conclusion that it would be desirable to push on the work with all possible speed when the water is shallow, and go slowly when it is deep.

The bridge over the lagoon above referred to, which is in accordance with Sir John Coode's plans, gives access to the sea-wall from the shore without interfering with the tidal flow in the lagoon.

The large dredge manufactured in Dunedin by Messrs. Kincaid, McQueen and Co., and put together by them in Greymouth, is all but finished. She is expected to be ready for work in a week or two.

The following table shows the depths of water on the Grey bar at each high water of spring and neap tides every month from June, 1879, to March, 1881, inclusive. The table is compiled from information kindly supplied by the Harbourmaster at Greymouth:—

MONTH.	1879-80.		1880-81.	
	Spring-tides: Height on Bar, in feet.	Neap-tides: Height on Bar, in feet.	Spring-tides: Height on Bar, in feet.	Neap-tides: Height on Bar, in feet.
April ... ..	...	...	12 and 13	9½ and 12
May ... ..	...	...	12 and 12	11½ and 9½
June ... ..	12 and 11	11	6 and 11	9 and 9
July ... ..	10 and 7	...	10 and 10	9 and 8½
August ... ..	9 and 10	8 and 6	10 and 10	7½ and 9
September ... ..	9, 10, and 11	8 and 10	10 and 10	9, 10, and 9
October ... ..	10 and 10	10 and 11	12 and 8½	10½ and 9
November ... ..	10 and 11	10 and 7	10 and 10	9½ and 8
December ... ..	11 and 12	11 and 11	12 and 12	11 and 11½
January ... ..	13 and 10	8 and 10	11 and 11½	9½ and 9
February ... ..	10 and 10	9 and 7	10 and 10	8 and 9
March ... ..	12 and 11	9 and 9	11½ and 12	9½ and 10

PICTON TO HURUNUI RAILWAY.

*Section, Picton to Awatere.*—The formation and permanent way of the extension of this line from Opawa to Blenheim was completed and opened in May, 1880, but the Blenheim Station-buildings were not finished till November. The only work now remaining unfinished between Picton and Blenheim is the protection of the northern bank of the Opawa River, above the railway-bridge.

A contract survey has been made for a short section of the extension of the line southwards from Blenheim, and a trial survey run to the Dashwood Pass, the water-shed between the Wairau and Awatere Valleys. The trial survey shows a good line to be obtainable at a moderate cost.

WESTPORT TO NGAKAWAU RAILWAY.

The only construction-work of any importance done on this line during the year is the extension of the Waimangaroa Bridge for 171 feet. The extension was necessitated by an encroachment of the river on its banks.

The Buller Relief Channel, cut in 1879, continues to act satisfactorily: it has undoubtedly been the means of relieving the railway and the adjoining country from the heavy floods which periodically caused great damage and threatened to cut a fresh channel for the Buller between Westport and the hills. The original width of the channel at the bottom was only 6 feet, but it has been widened by successive floods to an average of about 200 feet.

The survey for the land plans of the Westport-Ngakawau Railway has been completed during the year.

The following table, compiled from information kindly furnished by the Harbourmaster, shows the depth of water on the Buller bar at each high water of spring- and neap-tides from June, 1879, to March, 1881, inclusive:

MONTH.	1879-80.		1880-81.	
	Spring-tides: Height on Bar, in feet.	Neap-tides: Height on Bar, in feet.	Spring-tides: Height on Bar, in feet.	Neap-tides: Height on Bar, in feet.
April... ..	...	...	13 and 13	11 and 10
May ... ..	...	...	12½ and 14	10, 11, and 12
June ... ..	14½ and 14	12 and 12½	12 and 14	12 and 12
July ... ..	13½ and 12½	11½ and 10½	12 and 14	11 and 12
August ... ..	12 and 13½	11 and 11¾	12 and 13	11 and 12
September ... ..	13 and 12	11 and 11½	13 and 14	11 and 11½
October ... ..	12½, 13¾ and 13	10 and 11¼	14 and 14	12 and 12
November ... ..	13½ and 12	10½ and 10¾	15 and 13½	13 and 11½
December ... ..	12½ and 11½	11½ and 11¾	14 and 13	12½ and 11
January ... ..	12¼ and 12¼	10¼ and 9¾	15, 14, and 14	12 and 13
February ... ..	12¾ and 12½	11¼ and 10	13 and 15	10½ and 11½
March ... ..	14¼ and 13½	11¼ and 10	15 and 14	11 and 10

HOKITIKA TO GREYMOUTH RAILWAY.

The last of the small piecework contracts in progress at the date of the last annual report was finished in July, and no new works nor surveys have been undertaken since.

HURUNUI-WAITAKI RAILWAY, WITH BRANCHES.

*Main Line.*—The new sections in progress during the year comprise the Waipara contract and Weka Pass section—an extension of the line from Amberley to the Waipara River and across the intervening range to the Waikari Plain.

The Waipara section was completed and open for traffic in October, the works having been carried out in a satisfactory manner.

The Weka Pass section, originally reserved for the “unemployed” of Christchurch, was carried on by them till December last, when the works were stopped altogether and the men paid off. The total expenditure on the Weka Pass section during the year was about £13,800. The average cost of the work has been, for labour only: earthwork, 8d. per cubic yard; loose rock, 1s. 6d.; and solid rock, 2s. 10d. The average number of men employed was 160.

With the exception of the completion of large cuttings at Pigeon Rock and the Summit, and the construction of a viaduct over the main gully, the formation is practically finished. It is now proposed to let these larger works by regular contract, and finish up the formation at other places by piecework or day labour.

A stationmaster's house has been erected at Waikari, it being, in the meantime, occupied by the officers of this department in charge of the works.

The land survey and plans for the Weka Pass section are completed, and the survey of the extension of the line to the Hurunui has been ordered. The proper location of this section is of considerable importance; for, although there is no difficulty, so far as the section is in itself concerned, it involves the question of the future extension and ultimate destination of the railway. I have, on several occasions, inspected the country and otherwise given the matter some personal attention, so I hope to be able to make a definite recommendation when I get the results of certain surveys now ordered.

The principal works that have been in progress on the open portions of the main line during the year are: the extension of the Rakaia Bridge, the erection of a locomotive-erecting shop, boilerhouse,

and other buildings at Addington, protective works at the Rangitata and Timaru, and minor additions to stations.

The Rakaia Bridge is being lengthened at its southern end for 1,460 feet, in accordance with the recommendations of the Commission appointed to inquire into the question of the river encroachments. The contract was only entered into this month, so the work is just beginning.

The erection of the new buildings at Addington, and the removal of others, has enabled the workshops to be transferred entirely from Christchurch. With the exception of a few minor works and appliances, the Addington shops are now very complete, and they are capable of doing a great amount of work.

The protective works at Timaru, rendered necessary by the encroachment of the sea on the railway, have cost about £1,200 during the year.

The other works done on the open lines are, generally, additions to station buildings and sidings, and the erection of signals and other appliances required by the increasing traffic.

Preparatory to its being remodelled and extended, a complete survey and plan has been made of the Timaru Station. It is now proposed to utilize, as far as possible, the reclamation made by the sea on the south side of the breakwater for the new station; this will give more room clear of the street traffic, and save the purchase of a considerable amount of private property.

*Little River—Akaroa Branch.*—The formation of the Ellesmere section, 17 miles, was finished at the beginning of the year, and since then two contracts for plate-laying have been let; the first was completed in December and the second is well advanced. After the present contract is finished the only works of importance required to complete the line to the seventeenth mile, are the plate-laying and ballasting on  $1\frac{1}{4}$  miles; ballasting alone on 8 miles; a small quantity of rock-facing on the slopes of embankments along Lake Ellesmere, and the necessary station accommodation, which is comparatively small.

The working survey of the continuation of the line to Little River, a distance of about 6 miles, has been completed.

*Ashburton Branch.*—The Ashburton section,  $10\frac{3}{4}$  miles, was finished and opened for traffic in April. A contract for the formation on another section of  $8\frac{1}{2}$  miles was let in November, and the works are now nearly completed. A contract for laying the permanent way on a sub-section of the latter length is now in preparation. As previously reported, the works on the whole of the Ashburton branch are particularly light.

*Opawa Branch.*—The Albury contract, which comprised the construction of a bridge over the Opawa River, with approaches thereto, was completed early in the year. The Albury Downs section, originally reserved for the “unemployed” and closed during the autumn of 1880, was re-opened for them in July and kept open till December. About £6,300 was expended on the work, the average number of men employed was 83, and the average cost of earthwork, for labour only, has been 9d. per cubic yard. A contract for bridging the two main channels of the Tengawai River was let in January, and the work is now in progress. The bridging consists of 26 spans of 40 feet and 8 spans of 11 feet, of the usual type of timber bridge.

#### CANTERBURY INTERIOR MAIN LINE.

The only works in progress on this line during the year are on the Oxford—Malvern section. They consist of the Eyre Bridge and the Waimakariri Gorge section. The Eyre Bridge alluded to in my last annual report was satisfactorily completed early in the year. The Waimakariri Gorge section was opened to the unemployed in July last and kept open till December, about £5,900 being expended. The average number of men employed was 108, and the average cost of the cuttings, labour only, about 1s. 1d. per cubic yard.

#### WAITAKI—BLUFF RAILWAY WITH BRANCHES.

*Main Line.*—The principal works in progress on the main line during the year are as follows: Reclamation for new station and enlargement of workshops at Dunedin; increased wharfage and station accommodation at Port Chalmers; protective works at Balclutha; and additions to wayside stations.

In consequence of objections raised by the adjoining boroughs to the removal of material from the sandhills, at all, and a misunderstanding with the contractors about the exact place where the material was to be taken from, the work of reclamation has not progressed so rapidly as it ought to have done. The first block, extending from Rattray Street to the line of Jetty Street, is, however, practically completed, so that an instalment of the goods-station can now be gone on with.

Extensive additions have been made to the Dunedin Railway Workshops during the year, and an extra piece of land has been acquired for still further extensions when necessary. All the buildings have been added to. The engine-repairing shop has been almost doubled, the carriage-repairing shop doubled, and the carriage-painting shop trebled in size. The machinery is now in course of erection. When this is done, and a few minor wants supplied, the shops will be able to execute any work required of them.

The new steamer wharf at Port Chalmers has been completed in a very satisfactory manner, and authorities in shipping matters consider it well adapted for the requirements of the trade and port. It is necessary to deepen the berths alongside the new wharf, and the channel leading to it, by dredging. Arrangements are now being made to have the work done, but in the meantime the wharf can be used by a great majority of the vessels frequenting the port. The completion of the new station-yard, and the laying of sidings to the steamer wharf, are in progress.

The protective works at Balclutha, referred to at length in the report of the Commission appointed to investigate the question, and in my last annual report, are now approaching completion. The stone facing, the flood-bank, and a large groin are finished, and two smaller groins are in progress. These constitute all the works recommended by the Commission as necessary for the protection of Balclutha and the railway, except some openings in the railway itself. It is proposed to have the openings made during

the ensuing year. So far as can be judged from the small floods that have occurred since their construction, these works will afford protection to the town and railway from the serious damage that is done by great floods; and they have had the immediate effect of stopping the encroachment of the river on its bank, which threatened to carry away, piecemeal, the peninsula occupied by Balclutha and the railway.

In addition to ordinary extensions of a minor character, the following larger station works have been carried out: Refreshment-rooms and extension of passenger-station at Oamaru; and goods-sheds at Lovell's Flat, Waiwera, and East Gore. Preparations are also being made for enlarging the engine-sheds at Oamaru, Palmerston, and Balclutha, and building a new one at Invercargill.

*Duntroon Branch.*—After a considerable delay, satisfactory arrangements have just been made for acquiring the land on the extension of this line across the Maerewhenua River. Instructions have therefore been given to finish the works as soon as possible. It is expected that they will be completed to admit of the line being opened early in June. The Duntroon and Hakateramea Railway is a continuation inland of the Duntroon Branch; so the completion of the link across the Maerewhenua River opens up railway communication between Oamaru and the Waitaki Valley as far as the Hakateramea junction.

*Ngapara—Livingstone Branch.*—The works on this line, originally opened for the "unemployed" in July, 1879, and stopped in January, 1880, were re-opened in April, 1880, and finally closed in December last. During last year the number of men employed ranged from 75 to 175. The total expenditure to date—including the year 1879–80—is about £34,600, and the total quantities executed of the principal works are: Earthwork, 325,500 cubic yards; rock-cutting, 51,700 cubic yards; and masonry, 4,200 cubic yards. The average cost has been: Earthwork, 11½d. per cubic yard for labour only; rock-cutting, 1s. 5d. for labour and blasting-powder; and masonry, 30s. per cubic yard for labour and materials.

With the exception of the tunnels and approaches, which are not yet begun, the formation on the first twelve miles of the Ngapara—Livingstone Branch is nearly finished.

*Palmerston—Waihemo Branch.*—With the view of dispersing them through the country, about 50 of the men on the Livingstone line were transferred to the Palmerston—Waihemo Branch in October. They were kept on till December and then paid off, other work being plentiful. A small quantity of excavation taken out by them is the only work done on this line during the past year.

*Catlin's River Branch.*—The Invertiel contract, which was in progress at the end of last year, was satisfactorily completed a short time afterwards. As in the case of the Palmerston—Waihemo Branch, a lot of the "unemployed" were transferred from the Otago Central to this line during summer, and shortly afterwards discharged: the quantity of work done by them was very small. The detailed survey of the remainder of this branch from the seventh mile to the terminus at Catlin's River is in progress.

*Waipahi—Heriot Burn Branch.*—The Tapanui section, comprising the first 15½ miles of this branch, and extending from the main line to Kelso, was opened for traffic on the 1st December last. Some minor station works, which were then incomplete, have since been provided, so the line is in good working order and well equipped.

*Edendale—Toitoto Branch.*—The Wyndham contract—the first section on this line—was finished satisfactorily in June, 1880. A gang of the "unemployed" was sent from Hindon in November, and kept on this line for a month and then discharged. The small quantity of excavation done by them is the only new work undertaken during the year.

The detailed survey of another section of this branch from Wyndham towards Toitoto is in progress. The line adopted is the one known as the inland route. It leaves the Mataura Valley at the crossing of the Wyndham River, and runs up the small lateral valley at Brand's Homestead and the Kuriwao Valley to near the Glenham Station; then follows the low undulating ground to near the Pine Bush Hotel, and from thence into the Waimahaka Valley.

#### OTAGO CENTRAL RAILWAY.

*General.*—The working survey of this line is finished from its commencement to near Hyde, and again from the Rough Ridge to the Hawea Lake; but the preliminary survey is only made of the intervening length from Hyde to Rough Ridge. The party that was engaged in making the working survey on the latter section was recalled in August last.

*Wingatui Contract.*—The formation is practically completed, with the exception of the tunnels and approaches, on which little has yet been done. The works are being carried out in a very satisfactory manner, and there has hitherto been no serious difficulty from slips or similar mishaps.

*Hindon Section.*—This is the section on which the great majority of the "unemployed" in Otago were set to work. At the end of last financial year the number of men on the works was about 400. They increased during April to 500, and the maximum was reached in August, when there were 700 at work. The wages of single men being then reduced to 18s. a week, about 120 left of their own accord. After this, gangs were sent to Port Chalmers, Catlin's River, Edendale, and Orepuki, and gradually discharged; so in December none remained on the works except about 115, who had contracts for the whole of their cuttings. A number of these contracts have since been worked out, and there are now only about 60 men on the works. These also will leave piecemeal within the next few months, as their contracts get finished.

The total expenditure to date on the Hindon section, including the year 1879–80, is about £64,900; and the total quantities of the principal works executed are: Earthwork, 450,900 cubic yards; rock-cutting, 291,700 cubic yards; and masonry, 4,700 cubic yards. The average cost has been: Earthwork, 10½d. per cubic yard for labour only; rock-cutting, 1s. 5½d. per cubic yard for labour and blasting-powder; and masonry, 30s. per cubic yard for labour and materials.

With the exception of the small tunnels—which are untouched—nearly all the formation on the Hindon section will be finished to the Deep Stream, when the small contracts above referred to run out. The Deep Stream is 20 miles from the commencement of the railway at the Chain Hills.

## INVERCARGILL-KINGSTON RAILWAY, WITH BRANCH.

*Main Line.*—The only construction works in progress on the main line were a few unimportant additions to stations, which do not call for special comment.

*Lumsden-Mararoa Branch.*—The formation of the first 6 miles of this line—known as the Lumsden contract—was completed in August, and the Oreti Bridge was finished in January, both works having been done in a satisfactory manner. A contract for the platelaying of the first 2½ miles, across the river to the Elbow Township, was also finished in February. It is proposed to work this as a goods siding only.

## WESTERN RAILWAYS.

*Riverton and Otautau Lines.*—During the year additions have been made to eight stations: they comprise one goods-shed, three platforms and shelter-sheds, a telegraph office, and various smaller improvements.

*Otautau-Nightcaps Line.*—The formation on the Opio section was finished in June, 1880. The Waicola formation section (7½ miles), contracted for in April, 1880, is now so far advanced as to admit of the permanent way being commenced on a portion of it. Tenders are therefore called for the platelaying on 8 miles—the 3 miles of the Opio section and 5 miles of the Waicola section. The railway ought to be ready for opening to the Nightcaps Coal Field during the ensuing year.

*Riverton-Orepuki Line.*—The Riverton contract (6 miles in length), which includes formation and permanent way, is fast approaching completion; little now remains to be done but the ballasting. The whole section is expected to be finished at the beginning of June.

About 50 of the “unemployed” were sent from Hindon to commence a further section of the Orepuki line. They were kept on for about two months, during which time they did about 1½ miles of bush-felling and a small quantity of earthwork.

## ROADS AND BRIDGES.

## NELSON DISTRICT.

*Tophouse and Tarndale Road.*—The section of the road between Tophouse and the Woolshed Flat, about 5 miles, has been finished this year, so drays can get as far as the Rainbow without difficulty. A contract has also been let for a short section through the Wairau Gorge. This will make it possible for drays to go all the way to Tarndale, and is, in fact, the last link in the communication for vehicles between the two ends of the Middle Island. The communication will, however, be of a very indifferent character till the road is formed through the whole length of the Gorge, and at other bad places in the Wairau watershed. The road is already open for vehicles all the way from Tarndale to Canterbury, and nothing is required to make it passable at all seasons but the bridging of the Wairau and Upper Clarence, and the cutting of some spurs to avoid the crossing of the Acheron. If the works above referred to were carried out, the journey from Christchurch to Nelson could be performed in two days.

*Pelorus Valley Roads.*—The Wakamarina and Kaituna Bridges are completed, and a small one over Cooper's Creek is in progress. Six miles of the road are finished, and further sections of the aggregate length of 9½ miles are in hand, making a total of 15½ miles. Of this length, 3 miles are in the Wakamarina Valley, but the remainder is on the main line of road between Blenheim and Nelson. The length of road to make between the present terminus and Nelson *via* the Rai Valley would be about 20 miles.

*Nelson to Buller Valley Road.*—Two contracts have been let on this road during the year—one for re-forming and gravelling 19 miles of the section between the Motreka Valley and the Hope junction, and the other for forming and gravelling 1½ miles in the Buller Valley below the Matiri. The works are in both cases well advanced. The first calls for no special remark: the contract consists simply of the re-forming and gravelling of a road that was previously in existence. The other contract is for forming the last section of the road: it removes the only obstacle to wheel traffic between Nelson and the West Coast. The work is expected to be finished in July. Although it will after this be quite passable for ordinary traffic, a great deal remains to be done to make it anything like a first-class road. The Owen and Matiri Rivers, and Granity Creek, require bridging, and the road wants widening in many places.

*Aoreve Valley Road.*—Six miles of the pack-track made last year have been converted into a dray-road, and a dray-bridge, 70 feet long, built over the Silverstream.

## WESTLAND DISTRICT.

*Westport-Reefton Road.*—There have been no works in progress by the Government on this road during the year. Contracts have, however, been prepared, and tenders are now advertised, for bridges over Coal Creek, Orawaiti Overflow, and Nine-Mile Creek. The bridges are all small, and of the usual construction.

*Reefton-Greymouth Road.*—The only work in progress on this road during the past year is the bridge over the Inangahua River, at Reefton, which is fast approaching completion. It has 5 spans of 60 feet, and 4 spans of 15 feet. The work, which was somewhat difficult, has been carried out in a satisfactory manner.

*Greymouth-Okarito Road.*—A few minor works, such as the horse bridge over Okarito River, deviation of road at the Teremakau, and foot-bridge over Duffer's Creek, have been in hand during the year. They call for no special remark.

*Haast Pass Track.*—The bridge over the Wills River was finished early in the year, and the track has been improved throughout. Communication is therefore established between the Wanaka District and the West Coast. The track wants still further improvement in places to make it passable in all seasons, but the cost of doing so would be comparatively small.

*General.*—Hereto is appended a statement (Enclosure No. 2) prepared by the Resident Engineer, showing the works executed on roads in Westland to 31st March, 1881. The works still required



to complete the communication between Nelson and all parts of the West Coast are the three bridges in the Buller Valley already referred to; and bridges over the Inangahua near its junction with the Buller; Larry's Creek, Waituhu, or left branch of Inangahua; and Little Grey, at Devery's Terrace. The latter is the only river unbridged between Greymouth and Reefton. Some of the residents are advocating the bridging of the Buller itself. I do not consider this of so much importance as the bridging of what may be termed the secondary rivers. With proper ferries the Buller can always be crossed, except in extreme floods; but the least rise interrupts the traffic at the smaller rivers.

#### CHRISTCHURCH—HOKITIKA ROAD.

The weather on the West Coast during the past year was exceptionally fine; consequently the maintenance of the road was comparatively light. A few slips occurred on the eastern side, where the weather was not so favourable, but they were not of a serious character.

A deviation of the road in the Otira Valley for a distance of  $3\frac{1}{2}$  miles has been made to clear the encroachment of the river on its banks. Wire bridges for the convenience of foot-passengers are also in course of construction over the Porter and Broken Rivers.

If it is intended to uphold this, the main line of communication between the East and West Coasts in anything like an efficient manner, it will be necessary to consider the question of bridging some of the rivers which so frequently and quickly interrupt the traffic. The Taipo and some of the other rivers on the west side of the range are particularly bad in this respect.

#### CANTERBURY DISTRICT.

*Rakaia Gorge Bridge.*—At the date of my last annual report it was intended to erect the bridge by day-labour, no practical result having followed the calling for tenders on two different occasions. Subsequently it was represented to the department that the depression in business would cause more competition if tenders were again called for. This was done. Ten tenders came in, and the contract was given to the lowest tenderer. The work is not progressing rapidly. The excavations for the anchor-shafts, and foundations for abutments are nearly finished, and a quantity of cement has been brought on the ground, but nothing has yet been done to the actual work of erection.

#### OTAGO DISTRICT.

*Waikari to Waitati Road.*—About  $3\frac{1}{2}$  miles of this road has been cleared and formed; this brings it about two miles past the Saddle, on the Blueskin side. The work was done by the "unemployed," on the same terms as the railway works.

*Maori Kaika Road.*—The whole of the vote for this work has been expended, and a good road formed round the beach, from the Kaika towards Taiaroa Heads. The resident Natives have, so far as possible, been employed on the work, and they have carried it out in an economical and workmanlike manner.

#### WATER-RACES.

In accordance with the usual practice, I enclose the Resident Engineer's report on the Westland water-races in full (Enclosure No. 3).

As will be seen from the report, the only new works of importance that were in hand during the year are the Kumara Sludge-channel and the Mikonui Water-race, both of which have proceeded as rapidly as the available funds would permit.

The Gold Fields Department will be dealing at length with the question of the working of the Government races and the yield from them; so I will not, as in former years, enter into it more than to remark that this year shows a falling-off not only in the revenue, the yield, and the number of men employed, but also in the average earnings of the miners.

#### MISCELLANEOUS WORKS.

The miscellaneous works executed and in progress during the year are of little importance. The only ones worth mentioning are—the extension of the jetty at Queenstown; the building of the dredge for Greymouth, already referred to; making coal-boxes for Auckland; and the manufacture of sundry articles of railway plant at the various centres.

A contract is also in preparation for the Forest Hill Tramway, in Southland. It is intended to connect the Crown lands and settlement at Forest Hill with the Township of Winton, the distance being about 6 miles.

#### BUILDINGS.

The total expenditure on public buildings in the Middle Island during the past financial year is as follows:—

	£	s.	d.
Judicial ... ..	10,291	9	8
Postal and Telegraph ... ..	3,547	18	2
Offices for Public Departments ... ..	3,232	17	6
Lunatic Asylums ... ..	24,211	10	3
Miscellaneous ... ..	16,816	16	7
<b>Total</b> ... ..	<b>£58,100</b>	<b>12</b>	<b>2</b>

I append hereto a table (Enclosure No. 4) giving a summary of what has been done during the year, and showing the state of the work on each building. This table shows that forty buildings have been in course of erection, or altered or repaired; they comprise twenty judicial, ten post and telegraph, five buildings for public offices, two lunatic asylums, and three miscellaneous. Of this

number, the following are entirely new buildings: six judicial, four post and telegraph, two buildings for public offices, two lunatic asylums, and one miscellaneous.

The most important public buildings in progress during the past year are the extensions to the Lyttelton and Addington Gaols; Lyttelton Police Office; Courthouses at Christchurch, Ashburton, and Invercargill; public offices at Timaru; and lunatic asylums at Sunnyside and Seacliff. The works do not, however, call for special comment. They are all either satisfactorily finished or progressing favourably.

### SURVEYS.

*General.*—Any surveys made on railways portions of which are under construction have been referred to under their respective heads. Those now to be considered are surveys of lines that are as yet only proposed.

*East and West Coast Railway.*—In compliance with representations made by the residents of Hokitika a reconnaissance survey has been made of the passes in the main range near the head waters of the Rakaia and Hokitika Rivers. Two saddles occur in this locality: the Whitcombe Pass, 4,180 feet high, and the Mathias Pass, 4,230 feet high. Neither of them offers any facilities for railway construction not possessed by the routes farther north, and in the matter of height and distance the advantages are all in favour of the latter. The altitudes of the saddles on the principal routes farther north are as follow: Arthur's Pass, 3,014 feet; Hurunui, 3,150 feet; Hope, 3,230; and Lewis, 2,870 feet. The distance between Brunnerton and Christchurch is 184 miles by the Whitcombe and Mathias routes, as against 142 by Arthur's Pass, 151 by the Hurunui, and 150 by the Hope.

A private company, which is now being floated in Christchurch to make a railway between the East and West Coasts, advocates the Ada Pass saddle as the best route across the main range. This is a mere local deviation of the Lewis or Cannibal Gorge route, referred to at length in my report of 1879. Mr. O'Connor has made a reconnaissance survey of the Ada Pass saddle, and he is preparing a special report on the subject. The result of his investigation is that the route does not present any advantages to counterbalance its extra length and the extra height of the range at the crossing-place. With lines of the same character the Ada route would be 13 miles longer than the Lewis one, and the saddle in the latter case is 2,870 feet as against 3,300, the height of the Ada Pass. It will be seen from my report of 1879 that the chief objection to the Lewis route was its excessive length. The distance from Brunnerton to Christchurch is 76 miles longer by the Ada Pass than by Arthur's Pass, and 106 miles longer to Rolleston and all places south of the Malvern branch.

It may be set down as a general conclusion that a workable gradient cannot be got on the western side of the range on any of the routes without unduly increasing the length of the railway. Therefore, if such gradients are a *sine quâ non*, it is better to get them by making zigzags on a direct route, than by making a long detour through an unproductive country.

A detailed preliminary survey has been made for the Department by Mr. G. P. Williams, C.E., of that portion of the Arthur's Pass route between the Waimakariri Gorge Bridge and the Bealey River. The survey shows the line to be exceedingly rough, particularly for the 11 miles from Camping Gully to Avoca. The earthworks are not extravagantly heavy, but the bridging is altogether beyond bounds and there is a large amount of tunnelling. The survey has been made to  $7\frac{1}{2}$ -chain curves, and 1 in 50 gradients. A very large saving could of course be effected by adopting a lower standard, and this is quite permissible, for the steep gradients would be in favour of the heavy traffic. It is possible that a better line could be got, by keeping on the southern side of the Waimakariri all the way from Springfield to the Broken River. This country also seems very rough; but a correct idea cannot be formed of its suitability for a railway till a detailed survey is made.

If a good line is not got down the Waimakariri River, the Arthur's Pass line can be brought to the Canterbury Plains by way of the Rakaia valley. It would leave the Waimakariri Valley at Lake Pearson, and go by Cragieburn Saddle, Blackball Creek, and the Porter River to Lake Lyndon; thence down the Acheron, and along the slopes of Big Ben Range to the Rakaia. A general inspection of this route shows it to be free from the serious engineering difficulties which were met with in the Waimakariri Gorge. A good line can apparently be got at a moderate cost. There is, however, a great objection to it in its excessive length; it adds 15 or 20 miles to the distance between Brunnerton and Christchurch, without materially lessening the distance to the southern districts of Canterbury.

*Tapanui-Waikaka Railway.*—The survey of the two lines described in my last annual report, has been made by Mr. H. P. Higginson, C.E., for this department. It shows that a good line can be got on either route at a moderate cost. The inland line is a mile longer, and, on account of having to cross the Mataura, it will cost £10,000 more than the one running down the Waikaka Valley. It is, however, decidedly preferable, inasmuch as it opens up entirely new country remote from railway communication.

*Waimea-Switzers Branch.*—A detailed survey has been made of this line. As the country is so easy, the permanent survey was made at once. The length of the branch, from the Gore-Elbow Railway at Riversdale to the Township of Switzers, is  $13\frac{3}{4}$  miles; and its estimated cost, including a bridge over the Mataura but exclusive of rolling-stock, is £46,000. The minimum curve on the line is 12-chains radius, and the steepest gradient, 1 in 132.

### GENERAL REMARKS.

*Number of Men on Works.*—The average number of men directly employed on public works in the various districts of the Middle Island since June, 1879, is as follows. The averages for 1880-81 is only for the nine months ended this date; the return for the previous year being made up to 30th June:—

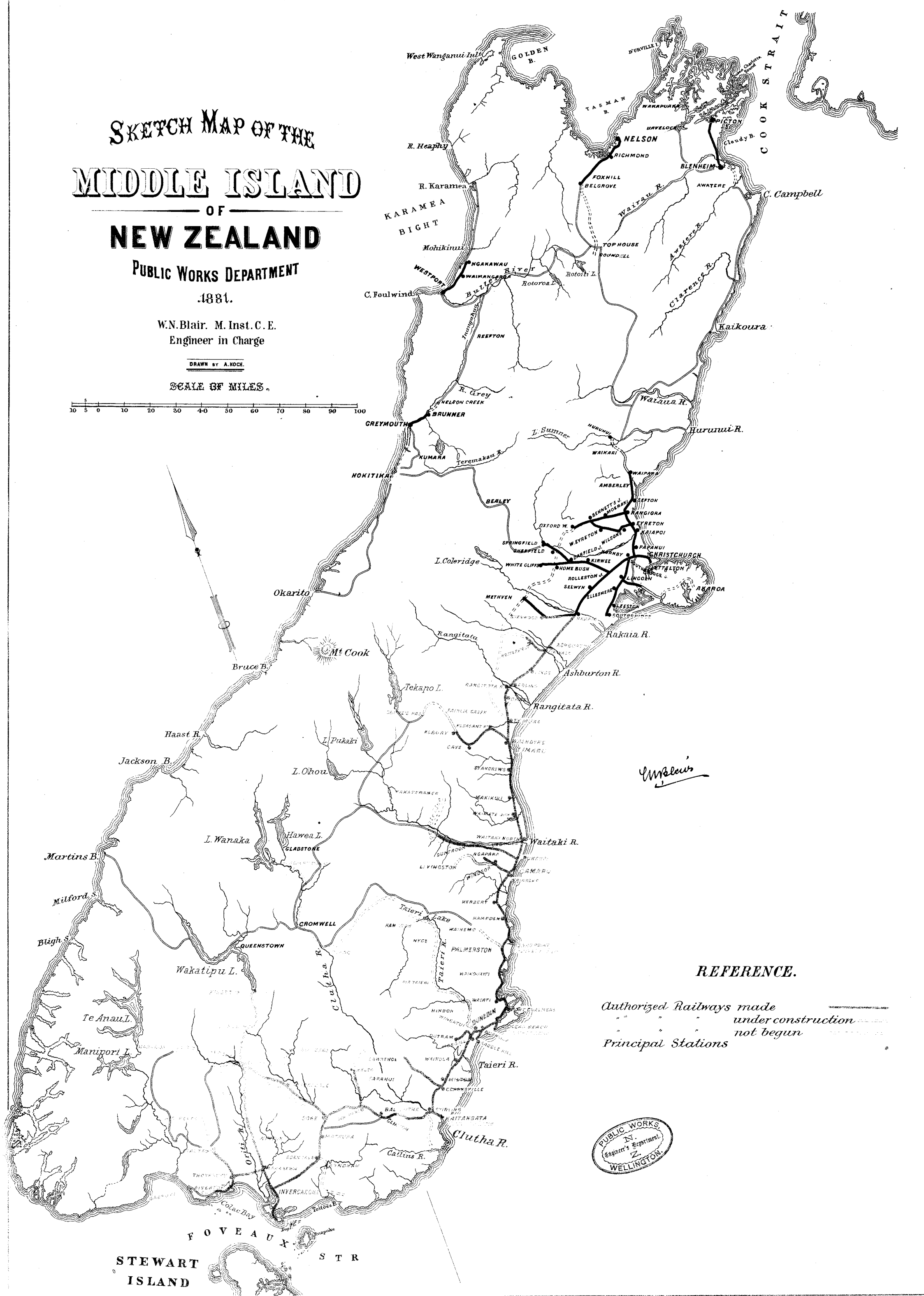
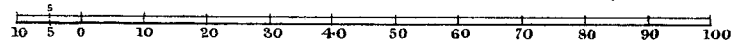
# SKETCH MAP OF THE MIDDLE ISLAND OF NEW ZEALAND

PUBLIC WORKS DEPARTMENT  
1881.

W.N. Blair, M. Inst. C. E.  
Engineer in Charge

DRAWN BY A. KOCH.

SCALE OF MILES.



## REFERENCE.

Authorized Railways made  
" " " " under construction  
" " " " not begun  
Principal Stations





DISTRICT.	Employed by Contractors.		Government Labour, including Surveys.		Total.	
	1879-80.	1880-81.	1879-80.	1880-81.	1879-80.	1880-81.
Nelson and Marlborough ... ..	85	82	15	6	100	88
Westland ... ..	180	162	125	131	305	293
Canterbury ... ..	285	59	260	293	545	352
Otago ... ..	405	231	765	602	1,170	833
Southland ... ..	200	153	10	18	210	171
Totals ... ..	1,155	687	1,175	1,050	2,330	1,737

These numbers do not include contractors' men employed off the works, nor men employed by the Working Railways Department on works chargeable to construction. There has also been an average of 87 men employed on public buildings during the year.

As shown otherwise by this report, the "unemployed" in the Middle Island were discharged altogether during the harvest months, and they have not again been taken on. In consequence of the general revival of trade, the question of providing employment for the surplus labour in the colony did not assume the large proportions that was anticipated, and the vote taken for the "unemployed" was not touched.

*Map.*—A map of the Middle Island, showing the authorized railways made, under construction, and not begun, is appended hereto (Enclosure No. 5).

*Enclosures.*—The following enclosures accompany this report:—

- No. 1. Lengths of Railways Authorized, Constructed, and Surveyed, &c., Middle Island.
- „ 2. Statement of Works executed on Roads in Westland.
- „ 3. Annual Report on Water-races.
- „ 4. Statement of Works executed on Public Buildings.
- „ 5. Map of Middle Island.

I have, &c.,  
W. N. BLAIR,  
Engineer in Charge, Middle Island.











**Enclosure 2 in Appendix E.**  
**ROADS in the WESTLAND DISTRICT.—STATEMENT of WORK DONE on each ROAD under Public Works Acts to 31st March, 1881.**

Length of Road Surveyed.	Length Cleared.	Length Formed.	Length Metalled.	Position.	Width of Formation.	Width of Metal.	Thickness of Metal.	Principal Bridge Works Executed on each.		State of Roads for Traffic.	Remarks.
								Ft.	In.		
M. ch. 0 24	M. ch. 0 19	M. ch. 0 19	M. ch. 0 19	At Ohika River ...	17	12	12	WESTPORT-REEFTON ROAD. 1 bridge, total length 200 ft., consisting of 3 60-ft. spans, trussed, and 1 18-ft. span, trussed		Good ...	Very difficult river to bridge; rise of water in floods, 39 ft.
0 20	...	0 15	0 15	At Inangahua River ...	17	12	12	GREYMOUTH-REEFTON ROAD. 1 bridge, 365 ft. long, consisting of 5 60-ft. spans, trussed, and 4 15-ft. spans, plain		Not quite finished	River carrying heavy timber; not otherwise very difficult to bridge.
0 50	0 39	0 39	0 39	At Grey River Junction ...	17	12	12	1 bridge, 785 ft. long, consisting of 6 55-ft. spans, trussed, and 1 47-ft. span, trussed, and 27 15-ft. spans, plain		Good ...	River very undefined; bad site for bridge.
0 41	0 29	0 29	0 29	At Ahaura ...	17	12	12	1 bridge, 760 ft. long, consisting of 11 55-ft. spans, trussed, and 10 15-ft. spans, plain		Good ...	Difficult river to bridge; mountain torrent; hard reef close below river-bed.
2 18	...	2 18	2 18	On Ahaura Plains ...	17	12	12	30 lin. ft. culvert covering; no bridges ...		Good ...	Traffic went across open plains before road was made.
3 9	3 9	3 9	3 9	At Nelson Creek ...	17	12	12	1 bridge, 260 ft. long, over Nelson Creek ...		Good ...	Easy stream to bridge; formation of approaches moderate.
6 58	3 77	6 30	6 30	Greymouth to Reefton ...	17	12	12	3 bridges, total length 2,170 ft. ...		Good	
6 15	5 71	6 15	6 15	STILLWATER TO MAORI GULLEY ...	9½	5	8	4 bridges, total length 79 ft.; and 187 lin. ft. culvert covering		Just passable	
2 11	2 11	2 11	2 11	Greymouth to Omotumotu ...	17	12	12	GREYMOUTH-ARNOLD ROAD. 124 lin. ft. culvert covering, retaining walls, and 20,400 cub. yds. rocky cutting		Good	
3 78	3 78	3 78	3 78	Omotumotu to Brunner-ton ...	17	12	12	8 bridges, total length, 206 ft.; and 233 lin. ft. culvert covering; also 10,000 cub. yds. rocky cutting		Good ...	About 1½ miles very heavy work; remainder about average.
0 34	0 34	0 34	0 34	Omotumotu to Brunner-ton (deviation at Wallsend)	17	12	12	13 lin. ft. culvert covering ...		Good ...	Very heavy timber; steep sidling cuttings, partly rock, and high embankments in places at crossings of deep ravines.
1 22	...	...	1 22	Brunner-ton to Stillwater ...	17	12	12	93 lin. ft. culvert covering ...		Good ...	Work consisted of reconstructing and widening old road, with new culverts.
0 68	0 68	0 68	0 68	Stillwater to Arnold ...	17	12	12	1 bridge, 25 ft. long, and 50 lin. ft. culvert covering		Good ...	Heavy embankment approaching Arnold River.
8 53	7 31	7 31	8 53	Greymouth to Arnold River ...	17	12	12	9 bridges, total length 231 ft.; 513 lin. ft. culvert covering, and 30,400 cub. yds. rocky cutting		As above ...	7 m. 31 ch. of new road along very difficult country, and reconstructing and widening old road for 1 m. 22 ch.; all new formed, 17 ft. wide, with 12 ft. width of metal, 12 in. thick.
10 2	9 41	10 2	10 2	Greymouth to Marsden ...	17	12	12	GREYMOUTH-OKAHITO ROAD. 13 bridges, total length 848 ft.; and 560 lin. ft. culvert covering		Fair ...	Average bush-felling.
7 17	7 17	7 17	7 17	Marsden to Hohonu ...	17	12	12	6 bridges, total length 441 ft., four of them being lattice trusses, with spans 50 ft. and over; and 246 lin. ft. culvert covering		Good ...	Average bush-clearing; very steep sidling ground throughout, necessitating heavy earthwork.

1	2	0 17	0 17	0 17	At Kumara	...	17	12	12	1 bridge, 590 ft. long, consisting of 9 55-ft. spans, trussed, and 6 15-ft. spans, plain	...	Good	...	River liable to heavy floods, and carrying large masses of timber.
3	63	3 31	3 35	3 35	Stafford to Arnhurs	...	17	12	12	1 lattice bridge, 45-ft. span, and 251 lin. ft. culvert covering	...	Good	...	Average bush, average earthwork.
1	67	1 67	1 67	1 67	Hokitika to Kanieri	...	17	12	12	1 bridge, 45-ft. span, and 101 lin. ft. culvert covering	...	Good	...	Average class of work.
0	25	0 12	0 12	0 12	At Kanieri	...	17	12	12	1 bridge, 810 ft. long, consisting of 13 55-ft. spans, trussed, and 6 15-ft. spans, plain	...	Good	...	River liable to heavy floods, and carrying large masses of timber.
16	21	16 19	16 18	16 18	Kanieri to Ross	...	17	12	12	7 bridges, two of them being 34-ft. spans, lattice trusses; total length 295 ft.; also 468 lin. ft. culvert covering	...	Good	...	Average class of work.
13	15	13 15	13 15	13 15	Bowen to Waitaha (Sections 1, 2, and 3, west end)	...	10	5	8	1 bridge, 45 ft. long, and 400 lin. ft. culvert covering	...	Good	...	Average clearing and forming.
30	33	30 33	30 12	30 12	Waitaha to Wataroa (Sections 4 to 12 inclusive, west end)	...	10	5	8	1 bridge, 42 ft. long, and 383 lin. ft. culvert covering; also 223 lin. ft. 4-ft. culverts, under banks	...	Fair	...	Average clearing and forming.
10	34	10 34	10 34	10 34	Wataroa to Okarito Forks (Sections 6 to 3 inclusive, south-east)	...	10	5	8	130 lin. ft. culvert covering; also 1 bridge, 52 ft. long	...	Fair	...	Average clearing and forming.
5	4	5 4	5 4	5 4	Okarito Forks to Okarito (Sections 1, 2, and 7, south-east)	...	12	8	8	4 bridges, total length 139 ft., and 55 lin. ft. culvert covering	...	Good	...	Heavy earthwork, moderate clearing.
39	43	39 50	39 73	39 73	Greymouth to Okarito	...	Various as above	above	above	37 bridges, total length 3,352 ft., and 3,094 lin. ft. culvert covering; also 223 lin. ft. 4-ft. culverts, under banks	...	As above	...	Heavy bush-clearing and grubbing, and moderate earthwork; of the total distances metalled, 39 m. 8 ch. is 12 ft. wide, 4 m. 78 ch. is 8 ft. wide, and 53 m. 67 ch. is 5 ft. wide; two of the bridges are long and difficult.
0	77	0 77	0 77	0 77	MARSDEN TO PAROA ROAD	...	15	10	12	47 lin. ft. culvert covering	...	Good	...	Very heavy timber; average earthwork.
5	50	5 50	5 50	5 50	MARSDEN TO MAORI CREEK	...	11½	8	8	52 lin. ft. culvert covering	...	Fair	...	Constructed on site of old track, which was partly cleared and formed.
8	4	7 62	8 4	8 4	POUNAMU TO LAKE BRUNNER	...	10	5	8	176 lin. ft. culvert covering	...	Fair	...	Average country.
4	65	4 65	4 65	4 65	JUNCTION TO CHRISTCHURCH ROAD	...	17	12	12	74 lin. ft. culvert covering	...	Fair	...	Easy country, average timber.
0	2	0 2	0 2	0 2	WALMEA, RIGHT-HAND BRANCH	...	8	...	...	1 bridge, 113 ft. long	...	Fair	...	Plain bridge.
4	46	3 56	4 46	4 46	HOKITIKA TO BLUE SPUR	...	12½	8	8	1 bridge, 58-ft. span, lattice truss, 344 lin. ft. culvert covering	...	Good	...	Easy country.
4	54	4 54	4 54	4 54	KANIERI FORKS TO LAKE	...	10	5	8	1 bridge, 41-ft. span, trussed, and 91 lin. ft. culvert covering	...	Good	...	Average country.
0	4	0 4	0 4	0 4	KANIERI TO KOKATAHI	...	12	...	...	1 bridge, 142 ft. long	...	Good	...	Plain bridge.
0	37	0 37	0 37	0 37	SOUTH CREEK—BRANCH TO MAIN LINE	...	17	12	12	7-ft. culvert covering	...	Good	...	Average earthwork, heavy timber.
3	76	3 76	3 76	3 76	OKARITO FORKS TO LAKE MAFOURIKA	...	12	8	8	1 bridge, 20-ft. span, and 89 lin. ft. culvert covering	...	Good	...	Average country.
6	11	4 72	5 60	5 60	OKARITO TO HAAST PASS	...	5	3	6	1 bridge, 1 span 97 ft., trussed; width 6 ft.	...	Passable	...	Cattle track round steep bluffs.
12	22	5 66	5 66	5 66	AHAURA TO KOPABA FLATS	...	5	3	8	259 lin. ft. culvert covering	...	Fair	...	Average country, heavy clearing.
31	miles, maintenance only				Rangiriri to Arthur's Pass	...	18	16	4 to 12	HOKITIKA—CHRISTCHURCH ROAD. Maintenance only	...	Fair	...	Precipitous country, mountain torrents, very liable to slips and inundations.
3	14	3 14	3 14	3 14	Kelly's Creek to 48 mile-post	...	17	12	12	57 lin. ft. culvert covering; no bridge; road under construction, but nearly completed	...	Fair	...	Moderate clearing and forming, mostly sidling.

## Enclosure 3 in Appendix E.

## WESTLAND DISTRICT.—ANNUAL REPORT ON WATER-RACES.

SIR,—

Public Works Office, Greymouth, 31st March, 1881.

I have the honor to report as follows upon the water-races in the Westland District for the financial year 1880–81. The water-races in question are—

*Nelson South-West Gold Fields—*

Four-Mile Water-race, Charleston District.

Nelson Creek Water-race, Grey Valley District.

*Westland Gold Fields—*

New River Water-race, Marsden District.

Hibernian Water-race, Marsden District.

Hohonu Water-race, Greenstone District.

Waimea Water-race, Waimea District.

Waimea Extension to Kumara, Kumara District.

Kanieri Lake Water-race, Hokitika District.

Mikonui Water-race, Totara District.

*Four-Mile Water-race.*—No works have been done on this race during the year, excepting the ordinary maintenance of the Argyle Race. The maintenance cost £461. Portions of the race are, however, now very dilapidated, and are badly in need of renewal. Plans were prepared, and tenders called for a deviation near the head of the Argyle Race, which would have the effect of avoiding a very insecure portion of it, besides reducing the length of the race very materially. The lowest tender received amounted to £2,206 6s., but was not accepted. In my last annual report, I explained the various works proposed in connection with this race, and, as the conditions of the case have not altered since (or any new proposals been made so far as I am aware), it will not be necessary for me to further report upon this matter at present, except to say that it will probably be necessary to execute very extensive repairs on the Argyle Race during next year in order to keep it open.

*Nelson Creek Water-race.*—Length, 16 miles 24 chains; capacity, 60 statute-heads. No construction-works have been done on this race during the year. The maintenance is entirely under the control of the Gold Fields Department. Its maintenance during last year cost £1,467.

*New River, Hibernian, and Hohonu Water-races.*—These water-races were subsidized by the Government many years ago, but the works have now been abandoned by the promoters, and there appears to be no present probability of their resuming occupation of them.

*Waimea Water-race.*—Length of main race, 16 miles 4 chains; capacity, 40 statute-heads. Length of branch race near Goldsbrough, 59 chains; capacity, 30 statute-heads. No construction-works have been done on this race during the year, but the maintenance of the race has been carried out. It has cost £758, which is defrayed by the Gold Fields Department.

A survey for a drainage tunnel from Kelly's Terrace, near Stafford Town, has been made during the year. Its purpose is to drain ground said to be auriferous, and which is commanded by the Waimea Race. The length of the proposed drainage tunnel would be about 103 chains, and its probable cost about £5,000. By the route set out a clear outfall on to the sea-beach would be obtained, and the fall in this direction is ample to drain the desired area. Other and shorter lines have been proposed, which would be also less costly; but they possess the disadvantage of not admitting of ample fall being given, and of the outfalls being into a creek the bed of which is continually filling up with tailings, which would very probably choke any outfall there. One other and principal reason for the selection of the line I recommend is, that it will, in the opinion of the miners conversant with the place, follow approximately the run of the gold; and it will follow from this that the lengths of the branch tunnels required to drain the claims will be reduced nearly to a minimum.

*Waimea Water-race (continued): Extension to Kumara.*—Length of main distribution race, 3 miles 1 chain; capacity, 20 statute-heads. Total length of branch distribution races, 4 miles 4 chains; capacities varying from 5 to 50 statute-heads. Supply race from Kawhaka Creek: length, 4 miles 60 chains; capacity, 30 statute-heads. The above races have now been opened for over three years. Their maintenance during last year cost £2,451, which is defrayed by the Gold Fields Department. The first section, 46 chains in length, of the sludge-channel at Kumara is now practically complete. It has been satisfactorily executed throughout. A most deplorable accident on the 5th July last, by which three men lost their lives in consequence of a fall of earth, is the only circumstance of consequence to mention in connection with it. The second section of the sludge-channel is 39 chains in length, and was let on the 15th November last to Mr. E. J. T. Price for £5,590. The tunnel along this portion of the channel is smaller than in the first section, owing to the traffic on the tramway being anticipated to be less. The work done up to end of year has been principally of a preparatory nature, consisting of sinking shafts and erecting winding machinery; only a short length of the tunnel itself having been driven. Matters are in train, however, for a rapid rate of progress from this forward. The total cost of the sludge-channel up to its completion will probably be about £16,000.

The dam in Kapitea Valley alluded to in last year's report has not yet been proceeded with.

*Kanieri Lake Water-race.*—This water-race, like the New River and other races before mentioned, was subsidized by the Government many years ago, and it has similarly been abandoned by its promoters with no present prospect of their resuming its use.

*Mikonui Water-race.*—Length of main race, 14 miles 40 chains; capacity, 40 statute-heads. Branch race and supply pipe to Ross: length, 60 chains; capacity, 20 statute-heads. The two contracts in operation at end of last year have since been completed, and a further batch of eleven sections were advertised for tender early in year; of which, tenders for nine sections were accepted. Of these nine sections, six have since been completed, and three are still in progress. These sections have consisted altogether of tunnelling; no other class of work having yet been put in hand. Some of the tunnels have been through hard rock, which has rendered their progress very tardy. The total length of tunnelling completed and under contract on this race is 1 mile 38 chains; the whole of which is situated between the lower end of the long tunnel and the termination of the main race. It will probably be

considered advisable to commence the construction of the long tunnel before any other works are undertaken on this race, as there does not appear to be any probability of a water-supply being obtainable until that portion of the work is carried out, and it will take some considerable time to complete it.

The collateral advantages derived from the water-races worked by the Government during the financial year have been approximately as follows:—

Race.	Number of Men employed.	Number of Ounces of Gold obtained.
Argyle Race ... ..	24	1,303
Waimea-Kumara Races ... ..	502	18,947
Nelson Creek Race ... ..	68	3,959
Total ... ..	594	24,209

The average annual income of each of the men so engaged would be £143.

The net revenue over and above working expenses has been as follows:—

Argyle Race ... ..	£256
Waimea-Kumara Races ... ..	1,255
Nelson Creek Race ... ..	596
Total ... ..	£2,107

I have, &c.,

F. W. MARTIN,  
Resident Engineer.

The Engineer in Charge, Middle Island, Dunedin.

#### Enclosure 4 in Appendix E.

### PUBLIC BUILDINGS IN MIDDLE ISLAND, STATEMENT OF WORKS EXECUTED DURING YEAR 1880-81.

#### NELSON DISTRICT.

##### JUDICIAL,—

Repairs, Picton Gaol ... ..	Finished.
Repairs, Blenheim Gaol ... ..	Finished.

##### POSTAL AND TELEGRAPH,—

Alterations to Post and Telegraph Office, Nelson ... ..	Finished.
Painting Telegraph Station, Cable Bay ... ..	In progress.
Painting Telegraph Station, Motueka ... ..	In progress.
Additions to Telegraph Station, Takaka ... ..	In progress.

##### OFFICES FOR PUBLIC DEPARTMENTS,—

Combined Courthouse and Post and Telegraph Office at Collingwood ... ..	Tenders called for.
Ceiling Contract, Government Buildings, Blenheim ... ..	Tenders called for.

#### WESTLAND DISTRICT.

##### JUDICIAL,—

Additions and alterations to Warden's Residence, Reefton ... ..	Finished.
Repairs and additions to quarters for Clerk to Magistrate, Maori Gully ... ..	Finished.
Repairs and fittings for Courthouse, Staffortown ... ..	Finished.
Outbuildings, fencing, and repairs to Resident Magistrate's House, Grey-mouth ... ..	Finished.

##### POSTAL AND TELEGRAPH,—

Post and Telegraph Office, Westport ... ..	Finished.
Post and Telegraph Station, Ahaura ... ..	Finished.
New roof to Post and Telegraph Station, Lyell ... ..	Finished.

#### CANTERBURY DISTRICT.

##### JUDICIAL,—

Additions to Lyttelton Gaol ... ..	In progress.
Additions to Addington Gaol ... ..	Completed.
Lyttelton Police Station ... ..	In progress.
Lock-up at Bingsland ... ..	Finished.
Lock-up at Papanui ... ..	Finished.
Additions and fittings for Courthouse, Christchurch ... ..	Finished.
Courthouse, Ashburton ... ..	Finished.
Fittings, fencing, and outbuildings for Courthouse, Ashburton ... ..	Finished.
Courthouse, Temuka ... ..	Plans being prepared.
Drainage, Burnham Industrial School ... ..	Finished.
Class-rooms for Burnham Industrial School ... ..	Finished.

## MISCELLANEOUS,—

Drainage, Lyttelton Orphanage	...	...	...	...	...	Finished.
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## POSTAL AND TELEGRAPH,—

Post and Telegraph Office, Sydenham	...	...	...	...	...	Finished.
Post and Telegraph Office, Akaroa	...	...	...	...	...	Finished.

## OFFICES FOR PUBLIC DEPARTMENTS,—

Fittings for Deeds Office, Christchurch	...	...	...	...	...	Finished.
Government Buildings, Timaru	...	...	...	...	...	Finished.
Gas and other fittings for Government Buildings, Timaru	...	...	...	...	...	Finished.

## LUNATIC ASYLUMS,—

Sunnyside, Christchurch (contract No. 1)	...	...	...	...	...	Finished.
Sunnyside, Christchurch (contract No. 2)	...	...	...	...	...	Nearly finished.
Sunnyside, Christchurch, repairs and painting North House	...	...	...	...	...	Finished.

## OTAGO DISTRICT.

## JUDICIAL,—

Additions to Police Barracks, Tapanui	...	...	...	...	...	Finished.
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## POSTAL AND TELEGRAPH,—

Removal of Post Office from Waitahuna to Balclutha	...	...	...	...	...	Finished.
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## LUNATIC ASYLUM,—

Seacliff	...	...	...	...	...	In progress.
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## OFFICES FOR PUBLIC DEPARTMENTS,—

Repairs to Government Buildings, Dunedin	...	...	...	...	...	In progress.
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## SOUTHLAND DISTRICT.

## JUDICIAL,—

Courthouse at Invercargill	...	...	...	...	...	Finished.
Additions to Invercargill Gaol	...	...	...	...	...	Finished.
New roof to Police Camp, Bluff	...	...	...	...	...	Finished.
Repairs to Courthouse, Riverton	...	...	...	...	...	Finished.

## MISCELLANEOUS,—

House for Natives, at the Bluff	...	...	...	...	...	Finished.
Repairs to Quarantine Barracks	...	...	...	...	...	Finished.

APPENDIX F.

SCHEDULE OF RAILWAY CONTRACTS CURRENT on the 1st April, 1880, and CONTRACTS ENTERED INTO by the Public Works Department during the Financial Year ended 31st March, 1881.

NORTH ISLAND.

Date of Contract.	Lines of Railway and Branches.	Name of Contract.	Particulars.	Length of Contract.	Length of Sidings in Contract.	Name of Contractor.	Contract to be Completed.	Date Contract was Completed.	Amount of Contract.	Remarks.
Mar. 1, 1880	Kawakawa	1 3-ton Steam-crane	Formation	M. ch. lk.	M. ch. lk.	Fraser and Tinne	Dec. 27, 1880	Dec. 27, 1880	£ 496 13 4	Part of contract for 3 cranes.
Mar. 9, "	"	Taumarere	F. P. L. and Wharf	1 0 0	"	William Sims	Mar. 2, 1881	"	9,274 9 10	
Dec. 10, "	"	Kawakawa, No. 3	Wharf	4 11 0	0 20 0	Larkins and O'Brien	June 6, 1882	"	23,957 0 0	
Mar. 10, 1879	Whangarei to Kamo	Kamo	Formation	1 70 0	"	Thomas Jones	Oct. 31, 1879	July 3, 1880	2,257 9 11	Part of contracts; balance, viz., £1,678 14s. 7d. charged to Miscellaneous Public Works.
Jan. 15, 1880	"	Conveyance of Rails and Sleepers	"	"	"	M. Niccol	Mar. 23, 1880	Dec. 30, "	"	At schedule rates.
Jan. 14, "	"	Cartage of Rails and Sleepers	"	"	"	W. S. Wrack	Not given	Aug. 17, "	"	At schedule rates.
Mar. 1, "	"	1 3-ton Steam-crane	"	"	"	Fraser and Tinne	Dec. 27, 1880	Dec. 27, "	496 13 4	Part of contract for 3 cranes.
Mar. 3, "	"	Whangarei	F. P. L. and Bldgs.	5 25 0	1 40 0	P. Langan	Mar. 1, 1881	Mar. 12, 1881	12,054 0 0	
Nov. 9, 1878	"	Freight on Locomotive	"	"	"	D. Gouk	"	July 31, 1880	44 0 0	
Mar. 21, 1879	Kaipara to Waikato	Ohaupo	F. and P. L.	6 21 0	0 60 0	Daniel Fallon	Feb. 5, 1880	July 1, "	25,972 5 6	
"	"	Waitakerei	F. P. L. and Bldgs.	12 64 0	1 45 0	Taylor and Damher	Sept. 11, "	"	36,001 5 2	
Dec. 31, "	"	Workshops Site, Newmarket	"	"	"	William Blewden	Sept. 24, "	Nov. 25, 1880	2,099 0 0	
Dec. 31, "	"	Newmarket Junction Station	"	"	"	Allen Maguire	Sept. 23, "	Dec. 11, "	6,870 0 0	
Mar. 1, 1880	"	1 3-ton Steam-crane	"	"	"	Fraser and Tinne	Dec. 27, "	Dec. 27, "	496 13 4	Part of contract for 3 cranes.
Mar. 9, "	"	Te Awamutu Station Road	"	"	"	Bearley and McConkey	April 27, "	July 5, "	171 14 6	
Mar. 23, "	"	No. 17, Station Buildings	"	"	"	Scott and Coombes	July 19, "	Aug. 18, "	1,889 0 0	
Mar. 30, "	"	Painting Bridges	"	"	"	James Gibson	June 25, "	June 10, "	365 5 2	
July 13, "	"	Auckland Reclamation	"	"	"	Daniel Fallon	Sept. 23, 1881	"	55,542 0 0	The amount of this contract was reduced by £31,787 before any work was commenced, and afterwards by £4,500; work for latter sum being done by Auckland Borough Council.
Oct. 16, "	"	60 Coal-boxes	"	"	"	Peter Birley	½ Jan. 12, ½ Feb. 12, 1881	"	990 0 0	
Nov. 4, "	"	No. 19, Station Buildings	"	"	"	D. Henderson	Dec. 29, 1880	Dec. 22, 1880	155 0 0	
July 16, "	"	60 Coal-boxes	"	"	"	R. S. Sparrow and Co.	½ Sept. 17, ½ Oct. 17, 1880	Feb. 15, 1881	909 0 0	
Jan. 17, 1881	Waikato to Thames.	No. 20, Station Buildings	"	"	"	Scott and Coombe	April 12, 1881	"	778 0 0	
Jan. 22, 1880	Hamilton to Te Aroha	Waikato	F.	12 64 0	"	Hunt and White	Jan. 19, "	Oct. 21, 1880	9,930 8 2	
Feb. 1, 1881	Grahamstown to Kaue-ranga	10 Low-side and 35 Cattle-wagons	"	"	"	James Campbell	Depends when material handed to contractor	"	585 0 0	
Feb. 1, "	"	60 Coal-wagons	"	"	"	H. P. Kavanagh	"	"	585 0 0	
Jan. 31, "	Hamilton to Te Aroha	"	"	"	"	J. J. O'Brien	Dec. 25, 1879	Sept. 6, 1880	569 5 0	
Jan. 31, "	Grahamstown to Kaue-ranga	Shortland	F. and Reclamation	0 73 0	"	J. J. O'Brien	"	"	569 5 0	
April 5, 1879	"	Kaueraanga Bridge	"	"	"	Alexander Watson	Feb. 24, 1880	April 15, "	8,393 1 4	
Oct. 1, "	"	"	"	"	"	"	"	"	763 7 6	

SCHEDULE of RAILWAY CONTRACTS CURRENT, &c.—continued.  
NORTH ISLAND—continued.

Date of Contract.	Lines of Railway and Branches.	Name of Contract.	Particulars.	Length of Contract.	Length of Sidings in Contract.	Name of Contractor.	Contract to be Completed.	Date Contract was Completed.	Amount of Contract.	Remarks.
Feb. 14, 1880	Wellington to Napier.	No. 1, Station Buildings	...	M. ch. lk.	M. ch. lk.	Angus Mackay	April 30, 1880	July 10, 1880	£ 1,656	s. d.
Jan. 5, "	"	Makatoko	P.L.	5 25	0 45	Wilkie and Crawford	June 30, "	June 23, "	2,020	0 0
April 1, "	"	Freight on Railway Carriage	...	...	...	McIntyre and Co.	4 weeks from receipt of material	June 22, "	91	15 0
June 15, "	"	2 Carriages	...	...	...	"	10 weeks ditto	July 15, "	120	0 0
Nov. 1, "	"	1 Carriage	...	...	...	James Campbell	6 weeks ditto	Nov. 10, "	50	0 0
Sept. 21, "	"	No. 2, Napier Workshops	...	...	...	Thomson and McLean	Oct. 11, 1880	Oct. 15, "	145	14 0
"	"	Freight on 2 Locomotives	...	...	...	D. Williamson	6 weeks from receipt of material	Feb. 9, 1881	180	0 0
Jan. 15, 1881	"	Erecting Smith's Forge	...	...	...	A. Ramsden	Feb. 8, 1881	Feb. "	29	10 0
April 6, 1878	Wellington to Opaki	Carterton	F. and P.L.	20 41	0 1	Public Works Department.	Mar. 22, 1880	Jan. 31, "	51,954	0 0
Mar. 31, 1879	"	Railway Wharf	...	...	...	James Lockie	Dec. 26, 1879	April 15, 1880	16,758	17 5
Dec. 23, "	"	Water-tanks, Petone Workshops	...	...	...	R. W. Watson	Mar. 15, 1880	April 3, "	179	0 0
Mar. 10, 1880	"	Fencing	...	...	...	William Strachan	April 19, "	July 16, "	173	16 0
Mar. 30, "	"	Wairapa Station Buildings	...	...	...	Bishop and Hawkins	June 24, "	Aug. 17, "	1,881	9 0
April 20, "	"	Wellington Railway-station	...	...	...	Alexander Reese	Oct. 17, "	Dec. 18, "	2,294	0 0
Oct. 20, "	"	Stationmaster's House, Masterton	...	...	...	J. A. Petherick	Dec. 20, "	Dec. 28, "	195	12 0
Oct. 13, "	"	Fencing, Wellington Railway-station	...	...	...	Henry Walker	Dec. 6, "	Dec. 6, "	308	10 0
Nov. 17, "	"	Goods-shed, Wellington Station	...	...	...	Andrew Compton	Feb. 16, 1881	"	620	0 0
Dec. 20, "	"	15 Sheep-vans	...	...	...	James Russell	Depends when ironw'k handed to contractor	"	630	15 0
Feb. 23, "	Greytown Branch	Greytown Branch Station Buildings	...	...	...	Ebenezer Gray	April 19, 1880	May 12, 1880	1,183	14 10
Mar. 27, "	"	Greytown Branch, Fencing	...	...	...	H. Stewart	May 23, "	June 12, "	500	0 0
Mar. 12, 1881	"	Fencing at Pakuratahi	...	...	...	T. Power	May 18, 1881	"	105	8 0
May 19, 1880	Wellington to Foxton.	Foxton Station	F. P.L., and Bogs.	1 32	0 0	J. Saunders	Aug. 18, "	"	15,164	16 0
Sept. 8, "	Wellington to Johnsonville	No. 1, Fencing	...	1 30	0 0	J. Farrell	Nov. 18, 1880	Dec. 16, 1880	141	11 8
Sept. 8, "	"	No. 2, "	...	1 31	0 0	Hilliard and Co.	Nov. 18, "	Nov. 18, "	135	19 6
Sept. 8, "	"	No. 3, "	...	1 49	0 0	"	Nov. 18, "	Nov. 18, "	158	0 6
June 7, 1878	Foxton to New Plymouth.	Waotara	F. and P.L.	12 70	0 0	E. W. Mills	Dec. 5, 1879	Sept. 17, "	39,791	14 3
April 17, 1879	"	Wanganui Wharf and Reclamation	...	...	...	J. Saunders	April 16, 1880	June 19, "	23,514	8 3
Jan. 5, 1880	"	Waverley	F. and P.L.	6 70	0 0	David Wilkie	Jan. 31, 1881	Mar. 21, 1881	12,429	4 0
Jan. 2, "	"	Waitotara Station Buildings	...	...	...	Robert McLean	May 1, 1880	June 15, 1880	1,785	16 3
Jan. 15, "	"	No. 2, Wanganui Workshops	...	...	...	Thomson and McLean	May 5, "	April 7, "	420	0 0
Feb. 21, "	"	Stationmaster's House, Waverley	...	...	...	Robert McLean	April 18, "	May 18, "	373	11 6
April 1, "	"	Freight on 2 Railway-carriages	...	...	...	McIntyre and Co.	6 weeks from receipt of material	July 3, "	110	0 0

Contractor R. Dixon was killed during progress of works. Contract was completed by the department.



May 7,	"	"	No. 1, Formation (Carlyle Branch)	...	...	...	O. Robinson ...	...	...	443 0 0	Petty contract.
May 10,	"	"	No. 2	...	...	...	J. Paterson ...	...	...	144 0 0	"
May 25,	"	"	Bridge	...	...	...	H. Harris ...	...	Jan. 22, 1881	1,043 12 6	"
June 15,	"	"	Freight on 7 Railway-carriages	...	...	...	McIntyre and Co.	...	Sept. 18, 1880	495 0 0	"
June 10,	"	"	"	...	...	...	Keith Ramsay	...	July 22, "	169 12 6	"
June 25,	"	"	Rails and Fastenings	...	...	...	McIntyre and Co.	...	Sept. 18, "	80 0 0	"
July 1,	"	"	Carlyle Station	...	...	...	Downes, Procter, and Co.	...	...	16,928 13 0	each, Foxton to Carlyle and Carlyle to Waitara
Aug 16,	"	"	Freight on Rails	...	...	...	J. H. Herton	...	Nov. 7, 1880	109 13 9	"
Sept. 29,	"	"	Waverley Station Buildings	...	...	...	McFarlane and Swinbourn	...	Mar. 18, 1881	1,125 0 0	"
Nov. 1,	"	"	Freight on Railway-carriages	...	...	...	R. S. Martin	...	Nov. 13, 1880	115 0 0	"
Nov. 17,	"	"	Locomotive, &c.	...	...	...	"	...	Dec. 11, "	93 4 0	"
Dec. 15,	"	"	Goods-shed, &c., Wanganui	...	...	...	James Tawse	...	...	552 0 0	"
Jan. 25, 1881	"	"	Freight on Rails, &c.	...	...	...	R. S. Martin	...	...	207 14 0	"
Jan. 28,	"	"	No. 3, Formation (Carlyle Branch)	...	...	...	H. Kearns ...	...	...	75 18 8	Petty contract.
Jan. 22,	"	"	No. 4	...	...	...	"	...	...	180 17 6	"
Feb. 1,	"	"	Mangahua Drain	...	...	...	McCall and Sobye	...	Mar. 31, 1881	146 10 0	"
Jan. 6, 1880	"	"	Mangawhero	...	...	...	W. G. Bassett	...	Nov. 30, 1880	9,950 0 0	"
Apr. 1,	"	"	Freight on 2 Railway-carriages	...	...	...	McIntyre and Co.	...	May 3, "	135 10 0	"
Apr. 15,	"	"	"	...	...	...	J. McLellan ...	...	May 13, "	360 0 0	"
Mar. 23,	"	"	Railway Material	...	...	...	Bullet and Green	...	June 4, "	685 0 0	"
June 17,	"	"	Sidings, Sentry Hill Workshops	...	...	...	Berry and Newman	...	...	13,400 0 0	"
June 10,	"	"	Waingoro	...	...	...	J. C. George ...	...	July 31, 1880	124 10 2	"
June 15,	"	"	Store, New Plymouth	...	...	...	McIntyre and Co.	...	Aug. 4, "	94 10 0	"
Aug. 5,	"	"	Freight on 1 Railway-carriage	...	...	...	Walton Pell ...	...	Nov. 16, "	1,641 10 0	"
Oct. 11,	"	"	Kakarama Culvert	...	...	...	H. Hooker ...	...	Nov. 20, "	87 15 6	"
Oct. 26,	"	"	Forge, Sentry Hill Workshops	...	...	...	Mace and Bassett	...	Jan. 28, 1881	897 17 0	"
Nov. 13,	"	"	No. 2 Culvert, Hukatere, Manutahi Section	...	...	...	McIntyre and Co.	...	Dec. 31, 1880	49 10 0	"
Dec. 9,	"	"	Freight on Wagon Ironwork	...	...	...	W. R. Williams	...	Feb. 23, 1881	595 0 0	"
Dec. 11,	"	"	Locomotives, Rails, &c.	...	...	...	G. Syme ...	...	Mar. 12, "	396 0 0	"
Jan. 17, 1881	"	"	Stationmaster's House, Hawera	...	...	...	Walton Pell ...	...	...	1,862 5 0	"
Feb. 23,	"	"	Hawera	...	...	...	"	...	...	2,230 8 0	"
Mar. 9,	"	"	Normanby - Hawera Station Buildings	...	...	...	McIntyre and Co.	...	May 12, 1881	259 17 6	"
Mar. 14,	"	"	Freight on Rails, &c.	...	...	...	"	...	...	204 3 9	"
Mar. 12,	"	"	"	...	...	...	Berry and Newman	...	...	405 0 0	"
Mar. 11,	"	"	Normanby Station	...	...	...	W. H. Brightwell	...	...	235 0 0	"
Mar. 23,	"	"	Fencing Normanby Section	...	...	...	Mace and Bassett	...	...	3,520 0 0	"
Mar. 28,	"	"	Normanby-Hawera Permanent Way	...	...	...	"	...	...	3,275 12 6	"
Mar. 15,	"	"	No. 5, Earthwork, Carlyle-Manutahi Section	...	...	...	Scalley and McLaughlin	...	...	44 0 0	"
Mar. 15,	"	"	No. 2, Formation, Normanby Section	...	...	...	E. Collins ...	...	...	44 0 0	"

SCHEDULE of RAILWAY CONTRACTS CURRENT on the 1st April, 1880, and CONTRACTS ENTERED INTO by the Public Works Department during the Financial Year ended 31st March, 1881.

MIDDLE ISLAND.

Date of Contract.	Lines of Railway and Branches.	Name of Contract.	Particulars.	Length of Contract.	Length of Sidings in Contract.	Name of Contractor.	Contract to be Completed.	Date Contract was Completed.	Amount of Contract.	Remarks.
May 26, 1879	<i>Nelson to Grey mouth.</i>	Bellgrove ...	F.	M. ch. lk. 3 0 0	M. ch. lk. ...	Peter Dey ...	May 26, 1880	June 4, 1880	£ 8,150 0 0	
Feb. 26, 1881	Nelson to Roundell ...	Bellgrove Permanent Way ...	P. L.	3 0 0	0 24	H. Shepherd ...	July 18, 1881	...	1,116 6 8	
Feb. 24, "	" "	Bellgrove Station Buildings ...	"	0 63	0 0	Mace and Bassett ...	Nov. 18, 1880	Mar. 14, 1881	1,323 5 0	
Aug. 22, 1879	Grey mouth to Nelson Creek	Stillwater ...	F.	...	...	William Rowe ...	Nov. 18, 1880	...	12,234 0 0	
Feb. 16, 1880	Grey mouth to Harbour Works	Dredge ...	"	...	...	Kincaid, McQueen, and Co.	Nov. 9, "	Dec. 17, 1880	4,139 0 0	
Jan. 28, "	" "	5-ton Steam-crane ...	"	...	...	Despatch Foundry Co. ...	April 7, "	July 20, "	574 0 0	
April 29, 1879	<i>Grey mouth to Hokitika</i> <i>Pictou to Haurangi.</i>	Grey mouth ...	F.	3 51 0	...	William Rowe ...	Feb. 23, "	May 8, "	8,440 0 0	
Jan. 7, 1879	Pictou to Blenheim ...	Blenheim ...	F. and P.L.	1 22 46	1 0 0	Henderson and Fergus ...	Mar. 27, "	May 22, "	9,969 4 0	
April 5, 1880	" "	Blenheim Station ...	"	...	...	Smith and Co. ...	Feb. 5, 1881	Nov. 4, "	2,482 6 2	
Nov. 23, "	" "	Raising Sinclair Street ...	"	...	...	" "	Jan. 3, "	Jan. 10, 1881	204 18 9	
Dec. 14, "	" "	Repairs, Pictou Landing-stage ...	"	...	...	" "	Jan. 19, "	Feb. 25, "	77 1 4	
Oct. 31, 1878	<i>Haurangi to Waitaki.</i> Main Line ...	Rolling-stock, No. 1 ...	"	...	...	John Anderson ...	½ Jan. 10, ½ Apr. 10, 1880	Oct. 31, 1880	6,685 12 6	Balance of contract, £6,685 12s. 6d., charged to Waitaki and Bluff Railway.
Mar. 26, 1879	" "	Waipara ...	F, P.L., and Bids.	6 77 0	0 35 0	Peter McGrath ...	Dec. 18, 1879	Sept. 21, "	21,493 1 0	
Feb. 28, 1880	" "	Sawing about 100,000 feet Timber	"	...	...	Jagger and Parker ...	As Engineer may decide	...	0 7 9	Per 100 feet.
May 22, "	" "	Locomotive-erecting Shop at Addington	"	...	...	Robert Meikle ...	Nov. 15, 1880	Nov. 13, 1880	2,385 16 2	
June 12, "	" "	Stationmaster's House, Walkari	"	...	...	Thomas Osborne ...	Aug. 9, "	Oct. 29, "	388 10 0	
Mar. 12, 1881	" "	Rakata Bridge Extension	"	...	...	J. and A. Anderson ...	Nov. 10, 1881	...	7,119 4 11	
Mar. 9, "	Whitecliff's Branch ...	Glentunnel Station Buildings, &c.	"	...	...	Anderson and Clarke ...	Mar. 30, "	...	65 0 0	
Nov. 30, 1880	Main Line to Upper Ashburton	Ashburton Branch Extension ...	F.	8 39 0	...	Grigg and Guild ...	Mar. 21, "	...	824 1 9	
July 19, "	Southbridge Branch, Little River	Ellesmere Permt. Way, No. 1	P. L.	3 74 0	0 26 0	Jesse Coates ...	Dec. 10, 1880	Dec. 8, 1880	4,543 12 0	
Feb. 12, 1881	" "	" "	"	...	...	" "	May 28, 1881	...	3,628 10 0	
June 2, 1879	Washdyke to Fairlie Creek	Albury ...	Formation and Bridge	1 28 0	...	William Paisley ...	Feb. 29, 1880	April 28, 1880	7,878 15 0	
Jan. 19, 1881	" "	Tengawai Bridge ...	"	...	...	H. McKenzie ...	July 17, 1881	...	4,166 8 0	
June 25, 1879	<i>Canterbury Interior</i> <i>Main Line.</i> Oxford to Malvern ...	River Eyre Bridge ...	"	...	...	Henderson and Fergus ...	Feb. 23, 1880	April 28, 1880	3,788 10 0	

Waikaki to Bluff.		Rolling-stock, No. 1 ...		John Anderson		Oct. 31, "		Balance of contract, charged to Huru-mui-Waikaki Railway.	
Oct. 31, 1878	Main Line ...	...	...	...	...	...	6,685 12 6	£6,685 12s. 6d.,	
June 17, 1879	"	Dunedin Station Reclamation ...	...	E. Pritchard and Co. ...	...	...	58,487 10 0		
Mar. 15, 1880	"	Cattle-pens, Palmerston ...	...	P. Sutherland and Co. ...	...	June 11, 1880	146 17 6		
Mar. 18, "	"	Goods-shed, East Gore ...	...	D. A. McLachlan ...	...	June 11, "	318 19 1		
Jan. 19, "	"	100 sets Points and Crossings ...	...	R. S. Sparrow and Co. ...	...	June 24, "	1,400 0 0		
April 20, "	"	Goods-shed, Waivera ...	...	Watson Rhodes ...	...	July 15, "	314 13 4		
May 22, "	"	Goods-shed, Lovell's Flat ...	...	McKinlay and Muir ...	...	Aug. 18, "	228 8 0		
Oct. 7, "	"	Freight on 10,000 Sleepers ...	...	E. P. Haughton ...	...	Dec. 28, "	416 13 4		
Jan. 19, 1881	"	Additions, Oamaru Station ...	...	Robert Hewat ...	...	...	542 10 5		
Feb. 26, "	"	Painting Hillside Workshops ...	...	Scanlan Brothers ...	...	...	210 0 0		
May 3, 1879	Port Chalmers Branch	Steamer Wharf and Reclamation, Port Chalmers ...	...	McGill and Forrest ...	...	Dec. 31, 1880	26,698 7 8		
April 2, 1880	Ngapara Branch	Freight on 10,000 Sleepers ...	...	Cuff and Graham ...	...	June 9, "	230 0 0		
April 2, "	Ngapara Branch to Livingstone	"	...	"	...	June 9, "	188 11 8		
Oct. 16, "	Palmerston to Waiheke	Supply of Tents and Tools ...	Formation	John Guthrie ...	...	Nov. 8, "	181 5 0		
April 28, 1879	Main Line to Cathr's River	Invertel ...	...	George Mackie ...	...	July 14, "	5,388 10 10		
July 30, 1878	Waipahi to Herioburn	Tapanui ...	F. P.L., 15 40 0	Proudford and McKay ...	...	Dec. 1, "	61,500 0 0		
Mar. 28, 1881	"	Cattle-pens at Pomabaka and Kelso	...	M. Gillies ...	...	...	531 10 0		
May 12, 1879	Edendale to Toitoto	Wyndham ...	Formation	James Shirley ...	...	June 19, 1880	9,723 9 0		
May 19, "	Chain Hills to Taieri Lake	Wingatui ...	6 65 0	D. McKenzie ...	...	...	48,839 7 10		
Oct. 15, 1880	"	Supply of Tents and Tools ...	...	Guthrie and Larnach Co. ...	...	Nov. 18, 1880	158 9 6		
April 17, "	"	Loading Banks at Lowther and Fairlight	...	Alexander Esson ...	...	May 25, "	79 0 6		
Dec. 14, "	"	Kingston Station Buildings ...	Formation	Watson Rhodes ...	...	Mar. 19, 1881	590 18 0		
July 10, 1879	Lumsden to Mararoa	Lumsden ...	6 0 0	D. W. McArthur ...	...	Aug. 7, 1880	3,616 11 4		
Feb. 2, 1880	"	Lumsden Bridge ...	...	J. M. Watson, assignee of T. Fergus ...	...	Jan. 10, 1881	4,422 18 10		
April 8, "	Makarewa to Riverton	Goods-shed and Loading-bank at Thorabury	...	George Weeks ...	...	July 15, 1880	389 7 6		
June 21, "	"	No. 3, Fencing ...	...	McIntosh and Co. ...	...	Sept. 30, "	147 0 0		
June 21, "	"	No. 4, " ...	...	"	...	Aug. 28, "	254 16 0		
April 8, "	Riverton Branch to Otautau	No. 3, Wayside Stations ...	...	"	...	May 20, "	178 6 3		
June 21, "	"	No. 1, Fencing ...	...	George Weeks ...	...	Oct. 23, "	151 10 0		
June 21, "	"	No. 2, " ...	...	McIntosh and Co. ...	...	Sept. 30, "	133 14 0		
June 20, 1879	Otautau to Nightcaps...	Opio ...	Formation	G. Mackie, assignee of James Innes ...	...	June 25, "	4,837 0 0		
April 22, 1880	"	Waicola ...	...	John Forde ...	...	...	4,394 2 4		
June 23, 1879	Riverton to Orepuki ...	Riverton ...	F. and P. L. 6 0 0	D. Robertson ...	...	...	21,700 0 0		

APPENDIX G.

SCHEDULE of SLEEPER CONTRACTS and DELIVERIES CURRENT on the 31st March, 1880, and CONTRACTS ENTERED INTO by the Public Works Department during the Year ending 31st March, 1881.

NORTH ISLAND.

Date of Contract or Agreement.	Contractor's Name.	Address.	No. of Sleepers Contracted for, and Class of Timber.	Rate per Sleeper.	Place of Delivery.	Rate per Month.	Date for Completion.	Total Delivered to Date.	Remarks.
9 June, 1879	Gibbons and Darrow	Grahamstown	100,000 kauri	s. d. 2 5	Shortland, Kirikiriri, and Puriri	One-tenth first six months, one-twentieth each succeeding month	3 June, 1881	94,953	
1 May,	J. B. Hay	Hunua	10,000 kauri	2 11	Hunua	..	..	2,364	Completed.
1 "	Buckland and Shiphevd	Auckland	5,000 puriri	4 0	Mercer	..	..	5,000	
1 "	William Thompson	Mauku	5,000 puriri	4 0	"	..	..	4,763	
16 September,	Elijah Hockin	Waiuku	400 puriri	3 9½	Onehunga	..	..	365	
17 December,	Vincent Walters	"	1,000 puriri	3 6	"	..	..	1,000	Completed.
17 "	John Wheeler	Mauku	400 puriri	3 6	Pukekohe	..	..	400	Completed.
16 "	James Wright	Pukekohe	250 puriri	3 6	"	..	..	250	Completed.
16 "	D. Fullerton	Mauku	200 puriri	3 6	"	..	..	200	Completed.
16 "	"	"	500 kauri	2 9	"	..	..	500	Completed.
16 "	John Hart	Pukekohe	200 puriri	3 6	"	..	..	200	Completed.
20 January, 1880	Albert Walker	Waiuku	600 puriri	3 6	Onehunga	..	..	600	Completed.
20 "	"	"	400 puriri	3 6	"	..	..	400	Completed.
19 "	John Moore	Patamahoe	800 puriri	3 3	"	..	..	800	Completed.
19 "	"	"	200 puriri	3 6	Pukekohe	..	..	200	Completed.
19 "	J. Matthews	"	500 kauri	2 9	"	..	..	500	Completed.
12 February,	W. H. Trail	"	500 puriri	3 6	"	..	..	500	Completed.
12 "	W. H. Reynolds	"	800 puriri	3 6	"	..	..	774	Completed.
12 "	Hugh Kerns	"	300 puriri	3 6	"	..	..	104	
16 "	W. Bailey	Waiuku	300 puriri	3 6	"	..	..	994	
24 "	William Howard	Mauku	1,000 puriri	3 6	Mercer	..	..	1,000	Completed.
25 "	A. Sherdin	Pukekohe	300 puriri	3 6	Onehunga	..	..	300	Completed.
26 "	E. Hockin	Waiuku	500 puriri	3 6	"	..	..	500	Completed.
26 "	C. Lernatz	"	1,000 puriri	3 6	Mercer	..	..	..	988
29 March,	W. Morrow	Pukekohe	100 puriri	3 6	Pukekohe	..	..	..	152
29 "	S. Bradley	Onehunga	152 puriri	3 6	Onehunga	..	..	..	201
29 "	"	"	201 puriri	3 6	"	..	..	..	700
29 "	T. Patterson	Pukekohe	700 puriri	3 6	"	..	..	..	411
29 "	J. Slatfor	"	450 puriri	3 6	"	..	..	..	500
13 April,	John Keith	Mauku	500 puriri	3 6	"	..	..	..	200
14 "	William Crawford	"	200 puriri	3 6	"	..	..	..	200
14 "	"	"	200 kauri	2 9	"	..	..	..	200
19 "	F. Wightman	Pukekohe	200 puriri	3 6	"	..	..	..	200

NEW PLYMOUTH DISTRICT.

31 July, 1880	David Wilkie ...	Waitotara ...	6,000 matai ...	s. d. 1 9	Between Ngaire and Manga- whero	One-half first three months, balance fourth month	1 November, 1880	6,000	Completed.
12 " "	J. Muirce	Inglewood ...	6,000 matai ...	1 6½	Ditto ...	Ditto ...	7 " "	5,400	
12 " "	W. Orr	" "	6,000 matai ...	1 5¼	Ditto ...	Ditto ...	7 " "	5,400	

WANGANUI DISTRICT.

5 April, 1879	J. and C. Bull	Rangitikei ...	{ 5,000 matai 20,000 totara	2 9	Aorangi, Siding and Greatford Station	One-eighth first month, one- eighth each succeeding month	13 December, 1879	26,900	Completed.
28 " "	P. Bartholomew	Feilding ...	{ 1,900 matai 3,000 totara	3 0	Feilding Station ...	...	28 January, 1880	6,000	Completed.
13 June, 1879	Thomas Pearce	Oroua Bridge ...	{ 3,000 matai 5,000 totara	2 10	Oroua Bridge ...	...	13 December, 1879	4,472	Completed.
13 May, 1879	A. F. Halcombe	Feilding ...	{ 3,000 totara 500 totara	2 0	Terrace End Siding ...	...	13 October, "	3,000	Completed.
16 " "	Patrick Maxwell	Palmerston North ...	{ 500 totara 500 matai	2 9	Awapuni ...	...	16 August, "	1,000	Completed.
10 July, 1879	West and Cooper	" "	{ 100,000 totara	2 0	Totara Reserve, Taonui Branch	4,000 first four months, 6,000 each succeeding month	17th July, 1881	26,132	*Cutting only.
16 March, 1880	George Hansen	Kopua ...	{ 1,000 totara 600 totara	2 0	On line at 66 m. 44 ch.	...	21 April, 1880	1,000	Completed.
16 " "	J. Barnes	" "	{ 1,200 totara	2 0	On line at 66 m. 30 ch.	...	21 " "	600	Completed.
16 " "	B. Billings	Makatoko ...	{ 3,260 totara	1 6	At Makatoko Station	...	21 " "	1,200	Completed.
Purchase	Anton Neilson	Danevink ...	{ 405 totara	1 6	On line near 81 m. 60 ch.	...	August, "	3,260	Completed.
" "	Christian Larsen	" "		1 6	" "	...	" "	405	Completed.

HAWKE'S BAY DISTRICT.

16 March, 1880	George Hansen	Kopua ...	{ 1,000 totara 600 totara	2 0	On line at 66 m. 44 ch.	...	21 April, 1880	1,000	Completed.
16 " "	J. Barnes	" "	{ 1,200 totara	2 0	On line at 66 m. 30 ch.	...	21 " "	600	Completed.
16 " "	B. Billings	Makatoko ...	{ 3,260 totara	1 6	At Makatoko Station	...	21 " "	1,200	Completed.
Purchase	Anton Neilson	Danevink ...	{ 405 totara	1 6	On line near 81 m. 60 ch.	...	August, "	3,260	Completed.
" "	Christian Larsen	" "		1 6	" "	...	" "	405	Completed.

MIDDLE ISLAND.

MARLBOROUGH DISTRICT.

19 May, 1879	N. and W. Bragge	Pictou ...	{ 1,000 matai 4,000 b. birch	2 3	Blenheim ...	One-third first three months, one- third each succeeding month	20 October, 1879	{ 1,000 4,000	Completed.
25 August, 1879	C. H. Mills	Havelock ...	{ 10,000 birch	2 6		One-twentieth ...	26 August, 1881	{ 1,100 8,900	Completed.
30 May, 1880	C. Holder and Co.	Greymouth ...	{ 587 r. pine and b. birch	3 3	{ Lyttelton, 1,100 ... Nelson, 8,900	...	July, "	587	Completed.
3 June, 1880	Kilgour and Perotti	" "	{ 447 r. pine and b. birch	2 7½	P.W. Office, Greymouth	...	August, "	447	Completed.
2 August, 1879	H. Hearn	Hokitika ...	{ 4,000 totara, kawhaka, matai, and silver pine	2 7½	Gibson's Quay, Hokitika	One-twentieth during the first five months, and one-twenti- eth during each succeeding month	7 July, "	4,000	Completed.

NELSON AND WESTLAND DISTRICTS.

1 February, 1881	Paterson and McGregor	Tapanui ...	{ 1,000	3 0	Dunedin ...	One-twentieth to be delivered in five months, remainder in equal monthly instalments	10 February, 1881	999	Completed.
3 June, 1879	D. and W. Lockhart	Invercargill ...	{ 30,000 black pine	3 3	On trucks at Centre Bush, Invercargill-Kingston Rail- way	One-twentieth to be delivered in five months, remainder in equal monthly instalments	3 June, "	29,561	
7 July, 1879	John Murdoch	" "	{ 60,000 black pine	3 5	Stacked alongside Mataura Railway and Bluff Harbour	One-twentieth to be delivered in five months, remainder in equal monthly instalments	7 July, "	58,013	

OTAGO DISTRICT.

1 February, 1881	Paterson and McGregor	Tapanui ...	{ 1,000	3 0	Dunedin ...	One-twentieth to be delivered in five months, remainder in equal monthly instalments	10 February, 1881	999	Completed.
3 June, 1879	D. and W. Lockhart	Invercargill ...	{ 30,000 black pine	3 3	On trucks at Centre Bush, Invercargill-Kingston Rail- way	One-twentieth to be delivered in five months, remainder in equal monthly instalments	3 June, "	29,561	
7 July, 1879	John Murdoch	" "	{ 60,000 black pine	3 5	Stacked alongside Mataura Railway and Bluff Harbour	One-twentieth to be delivered in five months, remainder in equal monthly instalments	7 July, "	58,013	

APPENDIX H.

SCHEDULE of CONTRACTS for ROADS and MISCELLANEOUS WORKS Current on the 1st April, 1880, and CONTRACTS entered into by the Public Works Department during the Financial Year ended 31st March, 1881.

NORTH ISLAND.

Date of Contract.	Line of Road or Work.	Name of Contract.	Name of Contractor.	Contract to be Completed.	Date Contract was Completed.	Amount of Contract.	Remarks.
						£ s. d.	
April 15, 1880	Roads, North Island	No. 1, Metalling Makatoko Road	Charles Baines	May 20, 1880	May 25, 1880	232 6 1	
April 15, "	"	No. 2, "	"	June 3, "	May 25, "	298 7 6	
April 15, "	"	No. 4, "	"	May 27, "	June 12, "	276 7 6	
June 19, "	"	Te Rore Bridge	F. H. Dwyer	April 2, 1881	Completed	2,591 19 6	
May 14, "	"	Terevenga and Mangapouri Bridges	J. J. O'Brien	Nov. 5, 1880	Completed	350 0 0	
July 26, "	"	Waihou Bridges	J. D. Brain	Jan. 16, 1881	Feb. 17, 1881	1,186 11 0	
Sept. 10, "	"	Repairs, Alexandra Bridge	Maunder Brothers	Nov. 9, 1880	Nov. 18, 1880	161 6 11	Balance of contract, £326 18s. 1d., charged to Roads in Native Districts.
Sept. 14, "	"	No. 1, Formation, Cambridge-Rotorua Road	Ramsay and Mercer	Jan. 12, 1881	Mar. 10, 1881	437 17 7	
Dec. 15, "	"	No. 2, "	James Coombes	June 6, "	Feb. 25, 1881	810 0 0	
Dec. 20, "	"	Pokawhenua Bridge	Maunder Brothers	Feb. 7, "	...	116 6 0	
Dec. 18, "	"	Waitoa Bridges	"	May 7, "	...	897 12 2	
Dec. 11, "	"	Pokono-Miranda Road	H. Lührs	April 7, "	...	299 8 0	
May 24, 1879	Roads, North of Auckland	Matakohe Cart-bridge	Richard Smith	Nov. 3, 1879	Aug. 31, 1880	1,010 18 0	
March 4, 1880	"	Mangapai Wharf Approaches	David Miller	April 26, 1880	May 8, "	314 17 0	
March 23, "	"	Repairs, Road between Waiwera and Orewa Rivers	William McElroy	June 23, "	July 31, "	294 0 0	
March 19, "	"	Section 3, North Shore to the Waide Road	Matthew Phillip	June 19, "	June 24, "	170 0 0	
April 9, "	"	Section 4, "	Bond and Co.	July 9, "	July 31, "	215 0 0	
April 10, "	"	Waivera-Puhoi Road	Paul and Co.	Nov. 10, "	Oct. 1, "	594 0 0	
April 12, "	"	Section 1, Hungry Creek Valley Road	"	Sept. 10, "	Dec. 4, "	216 0 0	
April 12, "	"	Section 2, "	"	Nov. 22, "	Dec. 4, "	547 0 0	
May 6, "	"	Bridges over Hadfield and Grut's Creeks	A. O. Davies	Nov. 6, "	Mar. 26, 1881	1,952 6 10	
May 10, "	"	Waivera Bridge	James Gibson	Aug. 6, "	Aug. 17, 1880	155 0 0	
May 25, "	"	Bridges between Kawakawa and Waiarue Bridges	James Clayden	Jan. 3, 1881	Jan. 7, 1881	1,139 0 0	
June 18, "	"	Bridge over Wade Creek, and Approaches	John Prior	Oct. 10, 1880	Oct. 9, 1880	213 0 0	
July 5, "	"	Warkworth-Maungaturoto Road	Bond, Vickers, and Scott	Dec. 23, "	Jan. 20, 1881	310 0 0	
July 8, "	"	Maungaturoto-Waipu Gorge Road	D. and P. Beecroft	Oct. 26, "	Sept. 30, 1880	130 10 0	
July 28, "	"	Widening Puhoi and Warkworth Road	M. W. McKenzie	Feb. 14, 1881	Mar. 31, 1881	2,537 0 0	
July 28, "	"	Section 3, Hungry Creek Road Deviation	A. O. Davies	Jan. 19, "	Dec. 15, 1880	411 0 0	
Nov. 30, "	"	Contract 42, Wade and Orewa Road	Moffat and Polkinghorne	Oct. 19, 1880	...	115 0 0	
Jan. 22, 1881	"	Section 2, Maungaturoto-Kaiwaka Road	J. A. McLeod	May 6, "	...	412 10 0	
Jan. 22, "	"	Section 1, Mongonui-Oruru Road	"	May 6, "	...	537 1 3	
March 21, "	"	Section 1, "	Thomas Jones	Aug. 9, "	...	631 1 4	
March 21, "	"	Section 2, "	"	July 21, "	...	488 18 4	

Jan. 31, "	"	"	"	Embankment across Hikurangi Swamp	Thomas Johnston	May 27, "	474 0 0	
Feb. 9, "	"	"	"	Bridge over Double Crossing at Awani	Joseph Evans	Not stated	309 6 11	
March 9, "	"	"	"	Fencing between Oropo and Kawakawa	Lemon and Marshall	July 2, 1881	197 3 0	
March 21, "	"	"	"	Fencing Road between Okura and Wade	Moffat and Grut	Not stated	350 12 6	
March 23, "	"	"	"	Metalling Road between Puhoi River and Postman's Hill	J. Wenzlick	June 15, 1881	145 17 6	
March 18, "	"	"	"	Metalling Road between Waivera and Puhoi Rivers	John Schollum	June 15, "	197 15 6	
March 22, "	"	"	"	Section 2, Waipou-Whangarei Road	William McDonald	Aug. 4, "	584 0 0	
March 30, "	"	"	"	Main Road near Kaiwaka	A. McMillan	June 26, "	91 10 0	
March 30, "	"	"	"	Bridge between Takataka and Stony Creek	G. Thomas	July 26, "	140 0 0	
March 22, "	"	"	"	Section 1, Waipou-Whangarei Road	W. McElroy	Aug. 11, "	620 0 0	
May 26, 1880	"	"	"	No. 4, Graveling Waingongoro River-Opunake Road	Gordon and Vincent	April 15, 1880	48 7 0	
Feb. 28, "	"	"	"	No. 5, "	Dingle Brothers	April 10, "	416 10 0	Works stopped during winter.
April 8, "	"	"	"	No. 6, "	John Johnston	June 7, "	696 0 0	"
April 26, "	"	"	"	No. 7, "	Hugh McDevitt	June 7, "	780 0 0	"
Jan. 12, 1881	"	"	"	No. 8, "	Daniel Hughes	June 12, "	892 10 0	"
May 11, 1880	"	"	"	No. 9, "	Murphy and McLoughlin	April 8, 1881	405 0 0	Contract papers not signed.
June 5, "	"	"	"	No. 1, Stony River-Opunake Road	Okey and Hart	May 26, 1880	156 12 0	Works stopped during winter.
Nov. 16, 1881	"	"	"	Drain-pipes for "	Berry and Newman	Completed	291 5 0	
Nov. 22, 1880	"	"	"	No. 2, Graveling "	N. H. Julian	Dec. 1, 1880	270 0 0	
Dec. 2, "	"	"	"	No. 3, "	A. Nathan	Dec. 22, "	255 0 0	
March 30, "	"	"	"	No. 4, "	W. H. Franklyn	Mar. 19, 1881	218 0 0	
Nov. 22, "	"	"	"	No. 1, Mountain Road, Taranaki	J. Cosgrave	Mar. 26, "	650 8 5	
Nov. 22, "	"	"	"	No. 2, "	Sangster and West	Feb. 28, "	634 1 3	
Nov. 22, "	"	"	"	No. 3, "	Joseph Mulree	Feb. 24, "	416 17 6	
Nov. 22, "	"	"	"	No. 4, "	"	Jan. 30, "	446 12 6	
Nov. 22, "	"	"	"	No. 5, "	"	Mar. 15, "	665 12 3	
Nov. 22, "	"	"	"	No. 6, "	"	Mar. 15, "	884 1 5	
Feb. 3, 1881	"	"	"	No. 1, Patea	D. Hughes	Mar. 24, "	474 0 0	Works stopped during winter.
Jan. 28, "	"	"	"	No. 2, "	A. Nathan	Mar. 24, "	444 0 0	
Jan. 31, "	"	"	"	No. 3, "	"	Mar. 12, "	444 0 0	
Jan. 28, "	"	"	"	No. 4, "	John Cosgrave	Mar. 15, "	477 0 0	
Feb. 14, "	"	"	"	No. 5, "	Thomas Denby	Mar. 27, "	379 10 0	
Feb. 14, "	"	"	"	No. 6, "	"	Feb. 24, "	524 11 8	
May 14, 1880	"	"	"	Waingongoro Road Bridge, Patea	"	Aug. 9, "	367 14 4	
May 14, 1880	"	"	"	Waikura Road Bridge, Patea	"	Aug. 9, "	326 18 1	
Sept. 16, "	"	"	"	Terevanga and Mangapouri Bridges	J. D. Brain	Completed	537 0 0	Balance of contract, £350, charged to Roads, North Island.
Aug. 18, "	"	"	"	Four Bridges, Te Teko-Galatea Road	Abbot and White	Dec. 23, 1880	69 5 0	
Oct. 26, "	"	"	"	Kohere Bridges, Waipa-Raglan Road	A. Ormsby	Oct. 12, "	981 12 11	
March 8, 1881	"	"	"	Urenui Bridge	James Cleary	Aug. 25, 1881	255 9 1	
March 10, 1879	"	"	"	No. 1, Formation, Urenui Road	Rowe and Buck	June 4, "	131 19 4	
Aug. 25, "	"	"	"	No. 2, "	"	June 4, "	1,678 14 7	
July 14, "	"	"	"	Kamo, formation for railway	Thomas Jones	Oct. 31, 1879	11,200 0 0	Balance of contract, £2,257 9s. 11d., charged to Whangarei - Kamo Railway.
Nov. 4, "	"	"	"	Ahuriri Bridge	Briton and Glendinning	Aug. 13, "	5,500 0 0	
June 10, 1880	"	"	"	Mangere Bridge Repairs	William Alexander	Sept. 22, "	1,485 5 6	
Feb. 28, 1881	"	"	"	Whatawata Bridge	D. Henderson	July 17, "	3,746 19 0	
March 30, 1880	"	"	"	Stone for Training-wall, Ahuriri Bridge	John McLean and Son	April 2, 1881	90 0 0	
March 8, "	"	"	"	Motoa Swamp Drainage	R. G. Graham	April 20, "	456 0 0	
	"	"	"	Painting Manawatu Gorge Bridge	W. Laneley	July 30, 1880	147 0 0	
	"	"	"	Provincial Liabilities	R. and E. Tingey	Not stated		

SCHEDULE of CONTRACTS for ROADS and MISCELLANEOUS WORKS, &c.—continued.  
MIDDLE ISLAND.

Date of Contract.	Line of Road or Work.	Name of Contract.	Name of Contractor.	Contract to be Completed.	Date Contract was Completed.	Amount of Contract.	Remarks.
						£ s. d.	
March 10, 1881	Road, Nelson to Greymouth and Westport	Nos. 1 to 9, Motupiko Section	John McLean	May 18, 1881	...	2,751 8 0	
Jan. 28, 1880	"	Matri Road	Cullen and May	June 17, "	...	1,832 9 0	
Dec. 18, 1880	"	Section 1, deviation between 45 and 48 miles	O'Maley and McKay	Mar. 13, "	...	1,050 0 0	
Sept. 2, "	"	Section 2, "	James Clarke	Nov. 30, 1880	Jan. 31, 1881	700 0 0	
June 12, "	"	Section 3, "	O'Maley and McKay	Sept. 4, "	Nov. 19, 1880	980 0 0	
Sept. 29, 1879	Mikonui Water-race	Section 9-1	John McQuilken	Jan. 24, "	April 26, "	514 16 0	
Oct. 3, "	"	Section 10-1	James Scott	Jan. 24, "	June 3, "	547 16 0	
June 15, 1880	"	Section 9-6	W. B. Stewart	Feb. 15, 1881	...	990 0 0	
May 25, "	"	Section 9-5	André Sabot	Oct. 29, 1880	Nov. 10, 1880	655 17 6	
May 25, "	"	Section 9-7	James Landers	Jan. 21, 1881	...	948 4 0	
May 25, "	"	Section 11-4	Patrick Moran	July 9, 1880	Sept. 16, 1880	482 19 0	
May 24, "	"	Section 11-5	Daniel Murphy	Aug. 6, "	Oct. 11, "	332 16 2	
May 26, "	"	Section 11-6	Joseph Haddock	Aug. 6, "	Nov. 11, "	300 8 0	
May 25, "	"	Sections 10-3, 11-3, and 11-7	John Maher	Jan. 21, 1881	...	1,729 19 2	
Sept. 30, 1879	Waimea Water-race	Section 1, Kumara Sludge-channel	John Maher	Sept. 26, 1880	...	5,830 0 0	
Dec. 1, 1880	"	Section 2, "	E. J. T. Price	Sept. 15, 1881	...	5,590 0 0	
Jan. 3, "	Miscellaneous Public Works	Wakamarina Cart-bridge	J. Gilbertson	July 30, 1880	July 24, 1880	1,673 13 4	
Jan. 20, "	"	River Wills Bridge	Gifford and Foot	April 13, "	Aug. 20, "	546 13 4	
March 3, "	"	No. 2, Tophouse and Tardale Road	J. McCulloch	April 28, "	April 28, "	130 0 0	
March 3, "	"	No. 3, "	R. Christian	April 28, "	April 14, "	155 0 0	
March 8, "	"	No. 5, "	R. Carter	April 28, "	April 24, "	150 0 0	
March 8, "	"	No. 6, "	"	April 28, "	April 24, "	55 0 0	
April 13, "	"	Katuna Cart-bridge	Atersten and Freeman	Oct. 26, "	Sept. 2, "	561 17 10	
May 31, "	"	No. 1, Havelock-Wairau River Road	Hughes and Hippolite	Sept. 30, "	Nov. 29, "	1,445 0 0	
May 29, "	"	No. 2, "	Williams and Alexander	Sept. 29, "	Nov. 29, "	803 8 10	
May 29, "	"	No. 3, "	"	Nov. 29, "	Nov. 29, "	606 9 1	
July 27, "	"	Inangahua Bridge and Approaches	Cochrane and Co.	Mar. 28, 1881	...	3,770 17 6	
July 21, "	"	Kaikoura Wharf	Foster and Co.	Dec. 16, 1880	Mar. 17, 1881	1,041 17 0	
Dec. 17, "	"	Removal of Rocks, Catlin's River	Hunter and Co.	May 14, 1881	...	546 16 0	
Dec. 31, 1881	"	Cape Horn Contract, Pelorus Roads	Whiting and Scalley	June 30, "	...	1,976 0 0	
Jan. 8, 1881	"	Additions, &c., Queenstown Jetty	T. Luckie	April 21, "	...	567 3 4	
Jan. 19, "	"	Painting Wairoa Cart-bridge	T. B. Louissou	April 11, "	Mar. 5, 1881	183 0 0	
March 3, "	"	No. 7, Havelock-Wairau River Road	Gorrie and Carter	Sept. 3, "	...	923 0 0	
March 3, "	"	No. 7A, "	"	Sept. 3, "	...	910 0 0	
March 30, "	"	Deep Creek Contract, Pelorus Roads	Christian and McCulloch	July 29, "	...	334 9 0	
June 17, 1880	Provincial Liabilities	Carving Rakaiwa George Bridge Material	J. Ronntree	Aug. 3, 1880	Aug. 19, 1880	232 0 0	
Nov. 5, "	"	Rakaua George Bridge	W. H. Barnes	Nov. 2, 1881	...	3,397 17 0	
March 11, 1881	"	Painting Motueka Cart-bridge	T. B. Louissou	June 4, "	...	193 6 8	



APPENDIX I.

SCHEDULE of CONTRACTS for ROADS and MISCELLANEOUS WORKS Current on the 1st April, 1880, and CONTRACTS entered into by the Survey Department during the Financial Year ended 31st March, 1881.

NORTH ISLAND.

Date of Contract.	Line of Road or Work.	Name of Contract.	Contractor.	Contract to be Completed.	Was Completed.	Amount of Contract.
June 16, 1880	Roads to open up lands before sale ...	Herd's Point to Takahue ...	Nui Hare ...	Oct. 31, 1880	Feb. 22, 1881	£ 709 0 0
Nov. 15, "	"	No. 25, Waikato River to Block XVI., Awaroa	Lovett and Cassidy	March 15, 1881	March 22, "	418 0 0
June 11, "	"	No. 16, Takahue to Manganiowai	J. Evans	Oct. 11, 1880	Sept. 28, 1880	699 1 4
April 8, "	"	No. 31, "	W. McDonald	Aug. 8, "	Sept. 17, "	416 4 0
Oct. 1, "	"	No. 43, "	R. Cochrane	Feb. 1, 1881	March 9, 1881	748 0 0
Jan. 4, 1881	"	No. 44, "	J. Finlayson	May 4, "	"	657 11 3
Jan. 4, 1880	"	No. 39, to Maunganni Bluff	N. J. Campbell	May 4, "	"	718 6 4
Aug. 13, 1880	"	No. 40, "	"	Jan. 13, "	March 28, 1881	471 15 0
Sept. 13, "	"	No. 32, Road-formation, Te Puke	Peter Grant	Feb. 13, "	Jan. 18, "	383 15 0
Nov. 5, "	"	No. 1, Drainage, Te Aroha ...	H. Adams	Feb. 5, "	March 28, "	819 10 5
March 10, "	"	No. 2, "	"	Sept. 10, 1880	Oct. 13, 1880	675 0 0
Jan. 6, 1881	"	No. 1, Road, Opotiki to Ormond	M. McLeod	Sept. 10, "	Oct. 13, "	975 0 0
Jan. 6, "	"	No. 2, "	"	March 17, 1881	April 2, 1881	380 19 0
June 21, "	"	No. 3, 4, "	Eru Matini	Sept. 21, "	April 2, "	338 5 0
April 20, "	"	No. 5, "	H. Hazell	Aug. 20, "	"	304 0 0
"	"	Maunganui Bridge	Chord and Jackson	"	"	448 0 0
Feb. 19, 1880	"	No. 1, Kairanga Drainage ...	D. A. Poole	July 19, 1880	Sept. 1880	100 0 0
June 12, "	"	No. 2, "	B. Sorenson	Nov. 12, "	April 21, 1881	1,029 8 6
Oct. 28, "	"	No. 3, "	Gladstone and Hogan	March 28, 1881	March 15, "	835 15 0
March 9, 1881	"	No. 4, "	Michael Shanahan	Aug. 9, "	June 15, "	457 4 3
April 16, 1879	"	Falling, &c., Road-lines, 2 and 5, Kairanga	Symons and Gribb	July 12, 1879	"	768 0 0
June 15, 1880	"	Section 1, Bridle-road, Churchill to Awaroa	Alberby and Irwin	Nov. 14, 1880	Nov. 14, "	187 10 0
March 1, "	"	"	Henrich Luhrs	June 1, "	May 31, "	496 17 4
MIDDLE ISLAND.						
July 12, 1880	Roads to open up lands before sale ...	Section 1, Roads, Aoreve Valley	G. Snow	Nov. 21, 1880	March 9, 1881	280 0 0
July 12, "	"	Section 2, "	McCulloch and Co.	Nov. 14, "	Jan. 20, "	296 0 0
July 19, "	"	Section 3, "	G. Coderman	Nov. 21, "	Jan. 20, "	280 0 0
Nov. 19, "	"	Section 4, "	"	March 30, 1881	May 23, 1881	256 1 0
Nov. 19, "	"	Section 5, "	G. Snow	March 30, "	May 23, "	195 6 0
Nov. 19, "	"	Section 6, "	Carter and Gorrie	Nov. 14, 1880	Jan. 20, 1881	278 5 0
July 12, "	"	Section 7, "	Sanders and Nelson	Nov. 23, "	"	280 0 0
July 12, "	"	Section 8, "	Gorrie and Carter	Jan. 14, 1881	Jan. 21, 1881	276 15 6
March 31, "	"	Section 1, Roads, Mahitahi to Haast ...	J. Clark	May 31, 1880	Sept. 21, 1880	50 11 0
April 26, "	"	Section 2, "	B. Doherty and Co.	May 31, "	Sept. 21, "	94 17 6
April 26, "	"	Section 4, "	E. Ryan	Aug. 26, 1880	Oct. 1, "	423 8 4
April 26, "	"	Section 5, "	"	Aug. 26, "	Oct. 1, "	433 5 0
April 26, "	"	Section 6, "	"	Aug. 26, "	Oct. 1, "	446 17 6
Sept. 4, "	"	Section 7, "	"	Jan. 4, 1881	March 7, 1881	376 0 0
Sept. 13, "	"	Section 8, "	M. Power and Co.	Jan. 13, "	Feb. 18, "	338 11 0
Sept. 9, "	"	Section 9, "	J. T. Ward	Jan. 4, "	May 3, "	305 10 0
Sept. 18, "	"	Section 10, "	M. Power and Co.	Jan. 18, "	Feb. 28, "	264 12 0
Sept. 18, "	"	Section 11, "	J. T. Ward	Jan. 18, "	May 3, "	245 5 0
Sept. 18, "	"	Section 12, "	"	Jan. 18, "	June 18, "	262 0 0
Oct. 20, 1881	"	Section 13, "	"	Feb. 20, "	"	454 0 0
May, 1881	"	Section 145, Seaward Moss Road	Marshall and Christie	Oct. "	"	502 10 0
May, "	"	Section 146, "	T. Kauckey	July "	"	91 5 0

## APPENDIX J.

## ANNUAL REPORT ON LIGHTHOUSE WORKS BY THE MARINE ENGINEER.

The MARINE ENGINEER to the SECRETARY, Marine Department.

SIR,—

Marine Office, Wellington, 31st March, 1881.

I have the honor to forward, for the information of the Minister having charge of the Marine Department, the annual report on works executed for new lighthouses, &c., during the year, viz. :—

*Cape Egmont.*—Instructions were received on the 27th August as to the removal of the disused Mana Island light, and its re-erection at Cape Egmont. An excellent site at the latter place had already been selected, consisting of a raised knoll, about 50 feet high, and about 12 chains back from the coast-line. Steps were at once taken to pull down the tower, remove it to the beach, and there ship it to New Plymouth, from whence it was carted on the proposed site. It is of cast iron, about 16 feet diameter at the base, and about 50 feet high. Materials for the dwelling-houses (two) and stores (two) were also sent at the same time. The overseer, with a party of men, arrived at Cape Egmont on the 11th November, 1880, and immediately began the work of getting in the foundations to receive the tower, the erection of which, as well as that of the houses and stores, is so well advanced, that it is expected the whole will be completed by the end of June, and that the light will be ready for exhibition by the 1st August. A reserve has been made for the lighthouse of about 50 acres, around which the Armed Constabulary are constructing a ditch and bank fence, and a road is being made from the main road, near Pungarehu, to the lighthouse. It will be about three miles long.

*Removal of Rocks, Catlin's River.*—A tender was accepted for this work on the 14th December, 1880, and the time for completion is the 14th May, 1881. The contractor, so far, has made very fair progress, and it is expected that the work will be completed within contract time.

*Removal of Buoy Rock, Nelson Harbour.*—This work was the subject of a previous contract, but contractors failed to carry it out. It was advertised for public tender again, and a second tender was accepted on the 30th December, 1880, the work to be completed by the 30th June, 1881. The contractor, up to date, has not made much progress, but has ordered the diving and other apparatus necessary for the proper carrying out of the work, which he hopes to finish in contract time.

I have, &c.,

JOHN BLACKETT,

Marine Engineer.

The Secretary, Marine Department.

## APPENDIX K.

### ANNUAL REPORT ON WORKING RAILWAYS, BY THE GENERAL MANAGER, NEW ZEALAND RAILWAYS.

The GENERAL MANAGER, New Zealand Railways, to the Hon. the MINISTER for PUBLIC WORKS.  
SIR,—

I have the honor to report on the working railways of the colony for the past financial year.

*Whangarei Section.*—This line, from the Kamo Coal Mine to Whangarei, with a temporary line from the Town of Whangarei to the town wharf, was opened for traffic on the 28th October, 1880. The short period for which the line has been worked makes it premature to enter into any detailed reference to it. The completion of the line, with a permanent wharf and accommodation for shipping coal, will materially affect the traffic.

*Kaipara Section.*—A new station and wharf have been opened at Helensville. The parcels traffic has improved; the goods and passenger traffic has declined; the revenue has increased. The percentage of the expenditure to revenue for the twelve months, as compared with the preceding twelve months, is 84.50 against 97.75. The stock and road have been maintained in good order. The cost of maintenance is high, the line being unballasted. Upon connection with Auckland during the coming year a supply of ballast can be got, and it is proposed to ballast it, which will diminish the cost of maintenance. It is most desirable that this work should be done. Connection with Auckland may be expected to improve the traffic.

*Auckland Section.*—The line has been extended from Ohaupo to Te Awamutu, and from Waikomiti to Henderson's. Hamilton Branch, the first section of the Thames-Waikato Railway, has been closed to general traffic, and is worked occasionally for goods, until further extended, when it will doubtless prove a valuable feeder. The goods and parcels show a large increase; the passenger traffic has improved; the revenue shows but a small increase. The percentage of expenditure to revenue for the twelve months, as compared with the preceding twelve months, is as 67.50 against 67.84. The very small improvement is attributable to the cost of working the short services of the Hamilton and Waikomiti Branches. The connection of Auckland with Kaipara may be expected to improve matters. Heavy bridge repairs of an exceptional nature have helped to keep up the working expenses. Economy in maintenance of the road has been carried a little too far: this is being made good. The completion of the line from Auckland to Helensville will render the working of the short piece from Kumeu to Riverhead unnecessary. The Auckland Station accommodation greatly needs improving, and generally the station accommodation on this line is frequently deficient, leading to irregular working, and it requires improving. Arrangements have been made with the Public Works Department to carry out some extensive alterations.

*Napier Section.*—The line has been extended from Kopua to Makatoko. Both goods traffic and passenger traffic have much improved. About 3,400 bales of wool have been carried in excess of the previous season, the timber tonnage has doubled, and firewood traffic has increased. The revenue has greatly improved. The percentage of expenditure to revenue for the twelve months, as compared with the preceding twelve months, is as 60.61 against 70.98. Economy in the maintenance of permanent way has been carried a little too far: steps have been taken to remedy this. The new length, Kopua-Makatoko, from the liability of the geological formation to slips, the severe effects of floods, and the heavy bridging, will be expensive to maintain. Locomotives of greater power have been provided to meet the increasing traffic. Accommodation is needed for sheep and cattle traffic, which has been arranged for by the Public Works Department. The general results of the year's working are satisfactory.

*Wellington Section.*—This has been extended from Featherston to Masterton, with a branch to Greytown. Both goods and passenger traffic have much improved. The revenue has increased largely. The percentage of expenditure to revenue for the twelve months, as compared with the preceding twelve months, is 87.49 against 89.81. An unfortunate accident occurred on the Rimutaka, attended with loss of life, through a train being blown off the line. A special report of the accident is attached. Efficient wind-screens have been erected to prevent the recurrence of such a catastrophe. The cost of this accident has been about £705. Heavy slips of an exceptional nature occurred during the winter, costing about £314 to repair. 2 miles 7 chains of 40-lb. way has been relaid with 53-lb. steel rails. The Fell incline continues to be worked satisfactorily. The road and stock have been efficiently maintained. The high rate of the working expenses to revenue on this line is partly due to the casualties before mentioned, and partly to the speed of trains being somewhat high, and to too much train-running during the slack season.

*Wanganui Section.*—The line has been extended from Kai Iwi to Waverley. A new station and wharf are in progress at Foxton. A new station and wharf are just completed at Wanganui: both are much wanted. The goods traffic has increased; the passenger traffic has declined; the revenue has slightly improved; the timber traffic has increased. The percentage of expenditure to revenue for the twelve months, as compared with the preceding twelve months, is 66.78 against 69.64. The competition of the Port of Rangitikei with Foxton has to some extent influenced the traffic. The road and stock have been maintained in good order. The general results of working are satisfactory. There is a good prospect of improved business during the coming year, but the cost of maintenance must be expected to increase.

*New Plymouth Section.*—The line has been extended to Eltham. An early opening to Normanby is expected. The goods and passenger traffic has increased considerably; the revenue has similarly increased. The percentage of expenditure to revenue for the twelve months, as compared with the pre-

ceding twelve months, is 85·78 against 91·79. Some inconvenience has arisen from want of locomotive stock; this has now been supplied. The want of wagon stock has also been much felt, and more so through the necessity of utilizing a portion for pushing on the extensions before the winter sets in; more stock is now being erected. The Waitara wharf has been handed to the Harbour Board, and a new one is being erected by the Board, which will prove of great advantage. A workshop has been opened. Arrangements have been made to extend New Plymouth Station. The results of working are as good as the light traffic warrants expecting. The extension to Normanby and Hawera may be expected to largely increase the traffic.

*Westport Section.*—The coal traffic, on which this line solely depends for its business, can only be said to have commenced; the Westport Colliery Company's mine is beginning to show a fair output, and, on account of the high value of the coal as a fuel, the traffic may be expected to increase. Additional coal traffic is expected upon the completion of the Koranui Company's works, which are in progress.

*Greymouth Section.*—The goods traffic on this line shows a slight increase; the passenger traffic has decreased. There is however a fair increase in the revenue. The percentage of expenditure to revenue, which is very low, is less for the twelve months than for the preceding twelve months, being 45·68 against 47·81. The stock, bridges, and road have been maintained in good order. The coal traffic, on which the prosperity of this line depends, shows an increase. The results of working are very good. Should the extension of the river training-wall prove as successful in improving the bar as is expected, the traffic will probably increase.

*Nelson Section.*—The passenger traffic has decreased; the tonnage of goods has also slightly declined, but the parcels traffic has increased. The revenue shows an increase, and the percentage of expenditure to revenue for the twelve months is lower than for the preceding twelve months, being as 73·12 against 81·85. The stock and road have been maintained in good order. No special casualties have occurred. The results of working in the face of a decreased tonnage must be considered fair.

*Picton Section.*—This line has been extended into the Town of Blenheim. All classes of traffic show an increase, and the revenue has also improved. The percentage of expenditure to revenue for the twelve months is lower than for the preceding twelve months, being 83·11 against 95·06. The expenses of maintenance have been heavy through damage by flood at the end of the preceding year, and from renewals of the bridges and wharf at Picton. The road and stock have been maintained in good order. With the light traffic the general results of working are satisfactory.

*Hurumui-Bluff Section.*—On this line the Tinwald Branch, 10 miles 60 chains, was completed on the 4th April, 1880. As yet it is worked only occasionally, the traffic being light; when extended a fair traffic may be expected. The Waipara extension, 6 miles 77 chains, was opened for goods traffic on 6th October, 1880. The Tapanui Branch, 15 miles 43 chains, was opened on the 1st December. An agreement has been made with the Waimea Plains Railway Company for interchange of traffic and through-booking of goods and passengers on its line, which is 37 miles long. An agreement has also been made with the Rakaia Forks Railway Company for working its line, which is 22 miles 7 chains in length. Both these lines are valuable additions to the railway-system. The Public Works Department advises that about 49 miles of extension will be ready for opening during the ensuing year.

On comparing the traffic with that for the twelve months preceding it will be seen that similar depression to that prevailing elsewhere has occurred in the passenger traffic: the passenger rates having been untouched, the decline must be attributed to extensive causes operating on the community at large; the general merchandise tonnage has also declined: these two items are the most paying classes of traffic. The wool traffic has remained about the same as in the previous year; on the other hand, in timber, grain, minerals, firewood, parcels, sheep, and cattle there has been an increase, large in the case of grain, minerals, and sheep; so that in the aggregate the tonnage is much larger. The increase on grain-tonnage must not however be regarded as entirely due to fresh grain carried, it is to a large extent due to reconsignments; great quantities are stacked at the different ports and sheds which are reconsigned to the ships, thus giving an apparent increase in tonnage.

The grain traffic has been dealt with without serious difficulty; a deficiency in shipping was experienced at the opening of the season.

The traffic in native coals is developing; the output of the different collieries is shown in Return No. 31 attached. The Southland timber traffic is also increasing, so much so that the truck accommodation has been found insufficient. Arrangements have been made to put additional stock on the line; more horse-boxes and cattle-trucks, which are wanted, are being constructed.

The road and structures have been maintained in good order. The cost of maintenance of the lines north of the Waitaki River has been light, they having for the most part been brought into a good state of order in previous years. From Waitaki to Dunedin the maintenance has been high owing to the renewal of sleepers, 28,000 having been replaced, and also on account of a large amount of ballasting required. On the branches, the Ngapara and Duntroon lines are costly to maintain, through having been constructed with 6 in. by 3 in. sleepers and 28-lb. rails. Dunedin to Clinton, the maintenance has been high, owing to renewals of sleepers and a large amount of ballasting necessary. Painting buildings has also been high, few having been done previously since erection. South of Clinton arrears of repairs of bridges, culverts, and buildings have required making up, and the expenses have been high on this account, but are otherwise moderate. The total number of sleepers renewed has been 68,516 against 50,471 in the previous year: these renewals have been chiefly south of the Waitaki. The Engineer for Working Railways reports that a heavier expense has occurred on the southern portions of the line than fairly represents an average year's work, depreciation having accumulated during previous years which had to be made up in the past year.

Fencing is an annually-increasing expense. It is questionable whether renewals of fencing should be wholly borne by the Railway Department.

Renewals of permanent way will also cause an annually-increasing expenditure. Some of the branches laid with light rails would be better renewed with heavier ones. The Southbridge and Springfield Branches should be amongst the first, but those most wanting it are the Duntroon and Ngapara, where the 6 in. by 3 in. sleepers are extremely dangerous elements.

New and efficient water supplies have been secured at Chertsey, Oamaru, Palmerston, Seacliff, Waikouaiti, Omimi, Mosgiel, Milton, and Manuku Creek: the train services are thereby rendered more efficient and less liable to delays. Better supply is needed at various points, especially on the Springfield Branch, where serious delay in train-running arises from the want of it. Provision has been made for getting a good supply from the county water-race.

The Addington shops have been almost completed: increased economy in working may be anticipated therefrom. The Hillside shops, the work in which had outgrown the accommodation, are now being extended by the Public Works Department. The working of two separate shops at Dunedin and Port Chalmers involved a heavy annual loss. The railway-work is now concentrated at Hillside, with a marked improvement in economy. At Port Chalmers such occasional work as needed the heavy appliances there has been performed without keeping up a separate staff; most of this work has been done for private firms. A uniform system of statistical locomotive accounts has been introduced throughout this section. Considerable attention has been given by the Locomotive Superintendent to fitting all the locomotives with the best spark-catchers. Increased economy and efficiency have been obtained by placing the whole locomotive work on this section in charge of one officer.

The working expenses have been very largely reduced, thus:—

Twelve Months ending	Expenditure.	Receipts.	Percentage of Expenditure to Receipts.	Miles open.
	£	£		
March 31, 1880 ...	439,717	575,236	76·44	755
" 1881 ...	376,082	630,595	59·64	788
Increase ...	...	55,359	...	33
Decrease ...	63,635	...	16·80	...

These results may be attributed to various causes: The diminution in the train-mileage and speed introduced under the late management has tended to economy. There has been a diminished expenditure of about £5,000 on additions, alterations, and casualties, the latter due to the absence of floods.

The revised scale of pay operating during the last part of the year, and the reduction in numbers of employés in every branch of the department more recently made, has finally been productive of reduced expenditure. The effects of the last-mentioned reductions have but partially shown themselves as yet; the full benefit of them will be observed during the ensuing year. The good grain season and higher rates have, on the other hand, kept up the receipts, notwithstanding the diminished passenger traffic.

#### GENERAL.

The railways, as a whole, have paid £3 8s. 3d. per cent. on the total cost of construction of the opened lines during the year. In computing this rate the full cost has been taken for extensions opened during part of the year only.

A change has been made in the management, the offices of a Commissioner in each Island having been abolished, and that of one General Manager has been substituted. This change was made on the 12th October, 1880; since that date extensive reorganization has been effected; a saving in management equal to about £5,000 a year, or 16 per cent. on the previous cost, will be shown to be made in the estimates.

The Accounting Departments have been concentrated in one office. The two stores departments have been merged into one. The location of these offices at head-quarters, in immediate communication with the Audit Department, has proved of the greatest benefit. It gives the Minister of the department a command not before obtainable, and at the same time it admits of more prompt administration of railway matters. Two District Managers on the Hurunui-Bluff Section take the place of four, and one Locomotive Superintendent administers the work of the whole section. The number of employés has been reduced, but without lowering the efficiency of the railway system. The lines and stock have, on the whole, been well maintained, and ample provision has been made for securing proper maintenance and supervision, and for affording reasonable and sufficient accommodation to the public.

A new scale of goods rate was gazetted on the 1st October, 1880; this has been subjected to revision, and is still undergoing alteration. Anything like a final scale cannot be expected; alterations from time to time must always be anticipated to meet varying circumstances. The work of amending the charges to suit the different localities, industries, and conditions of working is of the first importance, and demands the most careful consideration at each step. This is being gradually pursued. In future changes, reductions of rates in favour of raw materials for export and manufacture should take precedence of others. Such changes, however, should be undertaken with caution. In New South Wales the effect of reductions of rates in 1877 appears to have been to alter the proportion of expenditure to receipts from 55·35 for that year to 59·47 in 1878, and it is pointed out by the Commissioner for Railways for New South Wales, in his report for 1879, that the extra cost of earning more than absorbed the increased revenue of the latter year.

Since October the principal changes have been to reduce the rates on agricultural produce, to lower the minimum charges on timber, and to give special timber rates in certain localities, to lower the rates for several classes of minerals, and to lower the sheep rates for certain localities. A very large number of local rates have been made; further changes are now prepared for *Gazette*. These

include, among others, lowering the long-distance season-ticket fares, and excursion and special-train rates; the introduction of a new scale for small lots of goods, based on the English system, reducing the minimum quantity from 2 cwt. to 1 cwt., and giving a more equitable method of charging than previously existed; the minimum charge on timber will be reduced by 20 per cent.; the wool rate will be placed on the scale prevailing before October; and new local rates will be included.

The most important change made has been in the reduction of the grain rate, and in the alteration of the regulation, by giving to country stations the privilege hitherto attaching only to private sidings, by which consignors who do their own loading and unloading are subjected to a less charge than those who do not. The principal of according equal rights to all situated under similar circumstances and conditions is an important one, which the old regulation ignored, and it is one which should not be lost sight of in the future manipulation of rates.

An erroneous impression prevails as regards rates—that local circumstances are not studied, and that uniform hard-and-fast rules about charging operate throughout the colony. A careful study of the scales of charges gazetted will show how extensively local and special rates have been brought into operation.

As regards fuel the competition of the New Zealand collieries with foreign has resulted in a point being reached when the prices have warranted the use of native coal to the total exclusion of the imported article: the opening of the Westport Company's Colliery has tended greatly to bringing about this result.

Some trouble has been taken to arrive at an estimate of the relative value of the different coals for locomotive purposes. Much difficulty exists in assigning a true value to the different classes owing to the various conditions of load, line, personal skill of the firemen, water, &c. Return No. 27 gives particulars of a number of trials made on the Hurunui-Bluff Section. Consideration of these leads me to conclude that the Westport Colliery coal and Newcastle are about equal, while Springfield, Lomas, Shag Point, Homebush, and Kaitangata may be regarded as of lower and approximately equal value. A careful comparison of the class of line, engine-mileage, loads, and consumption, has led to the inference that 1 ton of Westport is equal to about  $1\frac{2}{3}$  tons of the other native coals named. In further determining the economical value to the Railway Department, the element of haulage of the greater weight of the latter class of coals has to be taken into account.

On previous occasions the question of American *v.* English locomotives has been remarked on (*vide* Parliamentary papers, E.-4., 1879, E.-5., 1880). In return No. 28 a comparison will be found of the working of the respective engines on the Hurunui-Bluff Section. The general results indicate that the English engines are more economical in running, as they are also in first cost. It should, however, be understood that the American engines are good articles, and are favourably spoken of by the Locomotive Superintendent.

The locomotive returns have been compiled so as to eliminate the uncertain elements of shunting and ballasting, so that comparison of the relative cost of running can be made. On the Hurunui-Bluff Subdivisions the average relative cost of running appears as follows:—

Hurunui-Oamaru	...	...	...	...	·083d. per ton mile.
Oamaru-Palmerston	...	...	...	...	·093d. "
Palmerston-Clinton	...	...	...	...	·113d. "
Clinton-Invercargill	...	...	...	...	·097d. "

Comparing the performance of a particular class of English goods engine (J) it is as follows:—

Hurunui-Oamaru	...	...	...	...	·059d. "
Oamaru-Palmerston	...	...	...	...	·083d. "
Palmerston-Clinton	...	...	...	...	·071d. "
Clinton-Invercargill	...	...	...	...	·077d. "

The number of types of locomotives on the railways is too large. This has arisen to a great extent from the fact that small lots of stock, procured at various times by the Provincial Governments and private firms, have, in course of time, unavoidably fallen into the hands of the General Government. The great physical differences in the character of the New Zealand railways, and the varying character of the traffic, will, however, always render several types necessary.

Considerable economy may be obtained by the use of native paint for the carriage-stock in place of varnish, which does not appear to answer well in this climate, and is expensive to maintain. In future, the use of varnish will, to a considerable extent, be abandoned.

The institution of private sidings is becoming a question of considerable magnitude. These sidings are often useful and beneficial, but in many cases they are undesirable, and the granting of these privileges will in future require to be carefully considered.

The general results of the year's working of all the lines are summarized for comparison with the previous twelve months, as follows:—

Twelve Months ending		Expenditure.	Revenue.	Percentage of Expenditure to Revenue.	Miles open.
		£	£		
March 31, 1880	...	580,010	762,572	76·06	1,172
" 1881	...	521,957	836,454	62·40	1,277
Increase	...	...	73,882	...	107
Decrease	...	58,053	...	13·66	...

The mail-service work is done by the Railway Department without credit being taken for it. In Return No. 6 the effect of crediting the revenue with the value of this service is indicated separately; on the other hand, the Postal Department carries the Railway mails without charge.

The want of a uniform system of statistical accounts in each department on the different sections has in some respects left the information insufficient for purposes of comparison, but in the main particulars ample information will be found in the returns attached respecting the details of working.

To meet public demands, working accounts of small subdivisions of the Hurunui-Bluff Section are kept and published: they are somewhat numerous, and present inconsistencies. It will be obvious that to select a remote part of the line or single branch and to state it as working at a loss, and to select the key to the traffic of a system such as a port branch, and to state it comparatively as working at a great profit, may lead to erroneous inferences. The port lines could not work at such a profit if divested of the feeders. There are other inconsistencies involved in such a statement. A modified form of account, embracing larger sections, would probably meet the public demands and present a more correct view of matters, and, at the same time, it would be more in keeping with the fact that the railway system is a common property, and that the prosperity of any portion is materially affected by its interchange of traffic with the remainder of the system.

The public, both in America and England, exercises a powerful voice indirectly in the regulation of the railway service. Where, as in this colony, the railways are State property, naturally it should and does command a far more extended influence. When this degenerates, and operates through local and personal pressure rather than through the legitimate channel—the Legislature—then the economical results of working are apt to show badly. There can be little doubt that these misdirected influences tended largely to induce a condition of affairs on the railways which made the results of working show badly in the past. Vigorous and determined efforts have been made during the past year to amend the administration, and to some extent they have succeeded, as is shown by the greater economy attained in the year's working. In many cases they have met with strong opposition. With increased powers and support to the management better results may be obtained: without this there is a strong tendency in the other direction. The extent to which the railways can be made to pay interest on capital depends almost entirely on the Legislature; and it hinges greatly on whether the administering officers are in a position to deal with the department on commercial principles and impartially, or whether their operations are to be governed by other considerations which their position does not permit them to control.

In conclusion, thanks are due to the various officers in the two Islands for the earnest manner in which the work of economizing and reorganizing has been performed, and the zeal of the staff generally, under circumstances more than ordinarily calculated to try them, is worthy of commendation.

J. P. MAXWELL,  
General Manager, New Zealand Railways.

## INDEX OF RETURNS

ACCOMPANYING THE REPORT OF THE GENERAL MANAGER OF NEW ZEALAND RAILWAYS.

Nature.	Return No.	Description.
<b>ACCOUNTS</b> ...	1	Revenue accounts.
	2	Expenditure account.
	3	Classified expenditure and revenue.
	4	Detail of classified expenditure.
	5	Traffic accounts.
	6	Cost of construction and rate of interest.
	7	Sectional accounts, Hurunui-Bluff.
	8	Comparison of current with previous year's working.
	9	Revenue and expenditure of stations.
<b>GENERAL RETURNS</b>	10	Carriage and wagon stock.
	11	Locomotive stock.
	12	Weighing machines.
	13	Weighbridges.
	14	Traversers and turntables.
	15	Cranes.
	16	Pumps.
	17	Renewals of rails.
	18	Renewals of sleepers.
	19	Number of stations and sidings.
	20	Particulars of private sidings.
	21	Mileage of lines.
	22	Number of employes.
	23	Accidents.
<b>SPECIAL RETURNS</b>	24	Proportion of mileage open to population.
	25	Report on Rimutuka accident.
	26	Casualties, Wellington.
	27	Experiments with native coals on Hurunui-Bluff.
	28	Comparison between American and English locomotives.
	29	Locomotive returns: Auckland, Hurunui-Bluff, Wellington, Wanganui, Westport, and Nelson.
	30	Repairs to rolling-stock, Hurunui-Bluff.
	31	Amount of traffic from coal mines.
	32	Return of vessels loading and discharging at different ports, Hurunui-Bluff.
	33	Mileage of track, main line, and sidings, Hurunui-Bluff.
	34	Classification of expenditure on maintenance, Hurunui-Bluff.
	35	Comparison of expenditure on maintenance for three years, Hurunui-Bluff.
	36	Comparison of percentages of expenditure on maintenance for three years, Hurunui-Bluff.
	37	Statement of maintenance of different divisions of Hurunui-Bluff.
	38	Comparison of classified expenditure on maintenance, Amberley-Palmerston.
	39	Average rate of classified expenditure on maintenance, Hurunui-Bluff.
	40	Summary and details of expenditure on additions and casualties, Hurunui-Bluff.
	41	Account of transactions with the Rakaia-Ashburton Forks and the Waimea Plains Railway Companies.



## RETURN No. 1.

SUMMARY of REVENUE ACCOUNTS for the Twelve Months ending 31st March, 1881.

DR.		£	s.	d.	£	s.	d.	CR.		£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880 ...	37,849	18	10					By Payments into Public Account to 31st March, 1881	903,201	14	3				
Passengers, parcels, goods, &c., 31st March, 1881	836,454	1	8					Less refunds wharfage	£60,353	15	3				
								Less refunds of revenue	7,617	9	10				
												67,971	5	1	
								Cash in hand and outstanding, 31st March, 1881, including £501 11s. 4d. for Volunteer services, unrecovered ...							835,230 9 2
															39,073 11 4
															<u>£874,304 0 6</u>
To Amount paid into Public Account, 31st March, 1881 ...	835,230	9	2					By Expenditure to 31st March, 1881 ...							521,957 14 2
Less cash in hand and outstanding, 1st April, 1880	37,849	18	10					Balance ...	314,496	7	6				
								Mail service, per other side, unrecovered ...				13,281	16	9	
Postal Department, for mail service ...															
Cash in hand and outstanding, 31st March, 1881 ...															<u>327,778 4 3</u>
															<u>£849,735 18 5</u>

## STATEMENT of ACCOUNTS for the Twelve Months ending 31st March, 1881.

## KAWAKAWA SECTION.

DR.		£	s.	d.	CR.		£	s.	d.
To Rent from Bay of Islands Coal Company, from 22nd February, 1879, to 31st March, 1881, two years and thirty-nine days ...	998	0	8		By Payments into Public Account to 31st March, 1881 ...		998	0	8
To Amount paid into Public Account, 31st March, 1881 ...	£998	0	8		By Balance ...		£998	0	8

## WHANGAREI-KAMO SECTION.

DR.		£	s.	d.	£	s.	d.	CR.		£	s.	d.
To Passengers, parcels, goods, &c., from 27th October, 1880, to 31st March, 1881	698	13	7		By Payments into Public Account to 31st March, 1881	£654	17	5	Cash in hand and outstanding, 31st March, 1881 ...	43	16	2
												698 13 7
Amount paid into Public Account to 31st March, 1881	654	17	5		By Expenditure from 27th October, 1880, to 31st March, 1881 ...							453 3 9
Cash in hand and outstanding, 31st March, 1881 ...	43	16	2		Balance ...							245 9 10
												<u>£698 13 7</u>

## KAIPARA SECTION.

DR.		£	s.	d.	£	s.	d.	CR.		£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880 ...	149	14	11		By Payments into Public Accounts to 31st March, 1881	5,493	7	4	Cash in hand and outstanding, 31st March, 1881 ...	192	9	10			
Passengers, parcels, goods, &c., 31st March, 1881 ...	5,536	2	3												5,685 17 2
															<u>5,685 17 2</u>
To Amount paid into Public Account, 31st March, 1881	5,493	7	4		By Expenditure to 31st March, 1881 ...										4,678 8 0
Less cash in hand and outstanding, 1st April, 1880	149	14	11		Balance ...										857 14 3
Cash in hand and outstanding, 31st March, 1881 ...															<u>£5,536 2 3</u>



## WANGANUI SECTION—continued.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Amount paid into Public Account, 31st March, 1881	36,432	2	3				By Expenditure to 31st March, 1881	...	...	...	24,333	13	5
Less cash in hand and outstanding, 1st April, 1880	534	1	4				Balance	12,106	12	3			
				35,898	0	11	Mail service, per other side, unrecovered	1,100	0	0			
Postal Department, for mail service	...			1,100	0	0					13,206	12	3
Cash in hand and outstanding, 31st March, 1881	...			542	4	9							
				<u>£37,540</u>	<u>5</u>	<u>8</u>					<u>£37,540</u>	<u>5</u>	<u>8</u>

## NEW PLYMOUTH SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880	299	10	5				By Payments into Public Account, 31st March, 1881	9,092	6	1			
Passengers, parcels, goods, &c., 31st March, 1881	9,071	1	5				Cash in hand and outstanding, 31st March, 1881, including £30 19s. 4d for Volunteer services, unrecovered	278	5	9			
				<u>£9,370</u>	<u>11</u>	<u>10</u>					<u>9,370</u>	<u>11</u>	<u>10</u>
To Amount paid into Public Account, 31st March, 1881	9,092	6	1				By Expenditure to 31st March, 1881	...	...	...	7,781	6	7
Less cash in hand and outstanding, 1st April, 1880	299	10	5				Balance	£1,289	14	10			
				8,792	15	8	Mail service, per other side, unrecovered	250	0	0			
Postal Department, for mail service	...			250	0	0					1,539	14	10
Cash in hand and outstanding, 31st March, 1881	...			278	5	9							
				<u>£9,321</u>	<u>1</u>	<u>5</u>					<u>£9,321</u>	<u>1</u>	<u>5</u>

## HURUNUI-BLUFF SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880	34,247	10	4				By Payments into Public Account to 31st March, 1881	693,962	16	9			
Passengers, parcels, goods, &c., 31st March, 1881	630,595	1	9				Less refunds wharfage	£55,969	18	8			
							Less refunds of revenue	7,558	19	11			
				<u>£664,842</u>	<u>12</u>	<u>1</u>					<u>630,433</u>	<u>18</u>	<u>2</u>
To Amount paid into Public Account, 31st March, 1881	630,433	18	2				Cash in hand and outstanding, 31st March, 1881, including £269 14s. 10d. for Volunteer services, unrecovered	...	...	...	34,408	13	11
Less cash in hand and outstanding, 1st April, 1880	34,247	10	4								<u>£664,842</u>	<u>12</u>	<u>1</u>
				596,186	7	10	By Expenditure to 31st March, 1881	...	...	...	376,082	11	1
Postal Department, for mail service	...			9,236	6	0	Balance	254,512	10	8			
Cash in hand and outstanding, 31st March, 1881	...			34,408	13	11	Mail service, per other side, unrecovered	9,236	6	0			
				<u>£639,831</u>	<u>7</u>	<u>9</u>					<u>263,748</u>	<u>16</u>	<u>8</u>
											<u>£639,831</u>	<u>7</u>	<u>9</u>

## GREYMOUTH SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880	50	10	9				By Payments into Public Account to 31st March, 1881	10,650	0	0			
Passengers, parcels, goods, &c., 31st March, 1881	10,721	1	6				Cash in hand and outstanding, 31st March, 1881, including £2 4s. 4d. for Volunteer services, unrecovered	121	12	3			
				<u>10,771</u>	<u>12</u>	<u>3</u>					<u>10,771</u>	<u>12</u>	<u>3</u>
To Amount paid into Public Account, 31st March, 1881	10,650	0	0				By Expenditure to 31st March, 1881	...	...	...	4,897	9	9
Less cash in hand and outstanding, 1st April, 1880	50	10	9				Balance	5,823	11	9			
				10,599	9	3	Mail service, per other side, unrecovered	40	0	0			
Postal Department, for mail service	...			40	0	0					5,863	11	9
Cash in hand and outstanding, 31st March, 1881	...			121	12	3							
				<u>£10,761</u>	<u>1</u>	<u>6</u>					<u>£10,761</u>	<u>1</u>	<u>6</u>

## WESTPORT SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880 ...	163	7	5				By Payments into Public Account to 31st March, 1881	3,254	8	7			
Passengers, parcels, goods, &c., 31st March, 1881 ...	3,911	3	2				Cash in hand and outstanding, 31st March, 1881 ...	820	2	0			
				4,074	10	7					4,074	10	7
To Amount paid into Public Account, 31st March, 1881	3,254	8	7				By Expenditure to 31st March, 1881 ...				3,696	15	5
Less cash in hand and outstanding, 1st April, 1880	163	7	5				Balance ...	214	7	9			
				3,091	1	2	Mail service, per other side, unrecovered ...	28	13	6			
Postal Department, for mail service ...					28	13					243	1	3
Cash in hand and outstanding, 31st March, 1881 ...					820	2							
				£3,939	16	8					£3,939	16	8

## NELSON SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880 ...	72	4	3				By Payments into Public Account to 31st March, 1881	8,340	8	4			
Passengers, parcels, goods, &c., 31st March, 1881 ...	8,453	18	9				Cash in hand and outstanding, 31st March, 1881, including £121 7s. 6d. for Volunteer services, unrecovered ...	185	14	8			
				£8,526	3	0					£8,526	3	0
To Amount paid into Public Account, 31st March, 1881	8,340	8	4				By Expenditure to 31st March, 1881 ...				6,181	6	4
Less cash in hand and outstanding, 1st April, 1880	72	4	3				Balance ...	2,272	12	5			
				8,268	4	1	Mail service, per other side, unrecovered ...	250	0	0			
Postal Department, for mail service ...					250	0					2,522	12	5
Cash in hand and outstanding, 31st March, 1881 ...					185	14							
				£8,703	18	9					£8,703	18	9

## PICTON SECTION.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Cash in hand and outstanding, 1st April, 1880 ...	29	5	1				By Payments into Public Account to 31st March, 1881	5,753	7	9			
Passengers, parcels, goods, &c., 31st March, 1881 ...	5,801	7	9				Cash in hand and outstanding to 31st March, 1881, including £12 2s. for Volunteer services, unrecovered ...	77	5	1			
				£5,830	12	10					£5,830	12	10
To Amount paid into Public Account, 31st March, 1881	5,753	7	9				By Expenditure to 31st March, 1881 ...				4,820	16	8
Less cash in hand and outstanding, 1st April, 1880	29	5	1				Balance ...	980	11	1			
				5,724	2	8	Mail service, per other side, unrecovered ...	219	2	0			
Postal Department, for mail service ...					219	2					1,199	13	1
Cash in hand and outstanding, 31st March, 1881 ...					77	5							
				£6,020	9	9					£6,020	9	9

## RETURN OF WHARFAGE, &amp;c., ACCOUNT for the Twelve Months ended 31st March, 1881.

DR.	£	s.	d.	£	s.	d.	CR.	£	s.	d.	£	s.	d.
To Balance, 31st March, 1880	8,327	8	7				By Cash payments, 31st March, 1881 ...	64,579	3	7			
Wharfage, &c., 31st March, 1881 ...	67,971	5	1				Balance ...	11,719	10	1			
				£76,298	13	8					£76,298	13	8

A. C. FIFE,  
Railway Accountant.

RETURN NO. 2.

GENERAL EXPENDITURE ACCOUNT for the Financial Year ending 31st March, 1881.

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
To Assets and Liabilities for preceding year	...	...	...	18,326	19	0						
Stock in hand—Stores	...	...	...	56,871	18	8						
Workshops...	...	...	...	12,121	9	11						
Workshop store orders incomplete preceding year,—												
Christchurch	...	...	...	131	9	5						
Dunedin	...	...	...	11	18	2						
Invercargill	...	...	...	122	6	3						
Wellington	...	...	...	109	17	11						
Auckland	...	...	...	88	15	11						
				464	7	8						
Payments as per Treasury,—				69,457	16	3						
Stores—Liabilities, 1879-80	...	...	...	13,854	13	7						
Current	...	...	...	112,953	1	8						
Workshops	...	...	...	57,089	8	7						
General Services,—												
Liabilities, 1879-80	...	...	...	69,988	15	2						
Current	...	...	...	353,045	12	7						
				83,813	8	9						
Current year's vouchers unpaid at Treasury,—				606,901	11	7						
Stores	...	...	...									
Workshops	...	...	...	15,145	13	1						
General Services	...	...	...	3,848	9	2						
				26,993	7	5						
				45,497	9	8						
By Credits for stores issued to other Government departments	...	...	...	2,413	5	5						
miscellaneous	...	...	...	465	0	5						
workshops work done for other Government departments	...	...	...	12,703	6	6						
miscellaneous	...	...	...	581	2	9						
way and works, Hurunui-Bluff	...	...	...	13,284	9	2						
cash expenditure	...	...	...	16,002	13	2						
recoveries to vote as per Treasury	...	...	...	1,086	0	5						
				1,339	2	11						
				34,590	11	7						
Less assets and liabilities included	...	...	...	543	0	9						
Credits, assets and liabilities as above	...	...	...	543	0	9						
assets per Treasury	...	...	...	3,755	1	2						
liabilities per Treasury	...	...	...	14,028	17	1						
Outstanding accounts for stores against other Government departments	...	...	...	437	13	3						
miscellaneous	...	...	...	308	5	9						
workshops' accounts against other Government departments	...	...	...	12,002	12	4						
miscellaneous	...	...	...	619	7	6						
Store orders incomplete, Auckland	...	...	...	33	3	7						
Outstanding way and works, Hurunui-Bluff	...	...	...	12,655	3	5						
cash expenditure	...	...	...	5,254	7	3						
				376	1	0						
Previous year's vouchers paid at Treasury this year	...	...	...	78,863	13	2						
Less classified expenditure omitted last year	...	...	...	4,609	2	0						
Classified expenditure, carried to Return 3	...	...	...	...	...	...						
Wagon interest account	...	...	...	61,785	16	7						
Stores as per stock	...	...	...	3,041	9	4						
Less value in suspense	...	...	...	...	...	...						
Workshop material as per stock	...	...	...	...	...	...						
				£740,183	16	6						

A. O. FIFE,  
Railway Accountant.



RETURN No. 4:  
DETAIL of CLASSIFIED EXPENDITURE for Twelve Months ended 31st March, 1881.

	Whangarei Section.	Kaipara Section.	Auckland Section.	Napier Section.	Wellington Section.	Wanganui Section.	New Plymouth Section.	Hurunui-Bluff Section.	Greymouth Section.	Westport Section.	Nelson Section.	Picton Section.	Totals.	Account Totals.
<b>A.—MAINTENANCE OF WAYS AND WORKS.</b>														
<b>Permanent Way,—</b>														
1. Wages, general ... ..	£ 134 12 11	£ 1,604 18 10	£ 11,344 2 5	£ 5,614 5 8	£ 7,273 9 8	£ 8,805 12 9	£ 3,386 1 5	£ 76,499 15 10	£ 832 19 8	£ 1,043 1 11	£ 1,562 19 6	£ 1,731 10 2	£ 119,833 10 9	£ 124,083 4 8
Wages, miscellaneous ... ..	1 0 0	0 5 3	4 13 7	...	...	1 5 2	3 4 0	4,098 3 11	0 13 8	...	...	...	4,109 5 7	} 25,252 8 1
Workshop commission ... ..	...	1 7 10	...	3 8 7	2 3 11	...	...	133 8 0	...	...	...	...	140 8 4	
2. Wages, material ... ..	...	9 18 9	68 16 4	21 5 2	...	...	...	1,485 7 1	1 18 2	...	...	...	1,587 5 6	
Materials ... ..	3 2 6	241 6 10	990 17 3	477 16 2	1,693 5 0	67 15 4	34 18 10	19,713 17 10	28 11 6	...	19 4 11	148 12 0	23,419 8 2	} 24,684 7 3
Workshop commission ... ..	0 13 8	7 0 5	67 7 1	20 9 11	39 15 1	...	...	109 15 8	0 12 7	...	...	...	245 14 5	
Repairs, Roads, Bridges, Signals, and Works,—	...	154 12 6	990 5 3	46 5 6	85 17 4	...	40 3 7	14,092 10 4	4 7 2	...	...	1 5 6	15,415 7 2	
3. Wages ... ..	...	80 17 7	495 15 6	158 17 11	496 18 4	5 3 0	7 0 0	7,635 19 0	1 15 1	28 11 3	1 14 0	62 4 7	8,974 16 3	} 7,428 13 10
Materials ... ..	...	22 4 5	188 6 3	8 17 0	8 3 0	...	2 8 9	63 2 4	0 18 4	...	...	0 3 9	294 3 10	
Workshop commission ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	
Repairs, Stations, and Buildings,—	...	...	290 13 6	42 4 4	108 12 3	...	...	3,720 4 9	...	...	...	...	4,161 14 10	} 181,488 13 10
4. Wages ... ..	...	3 10 6	154 17 8	17 1 0	63 12 2	19 8 0	24 6 6	2,837 3 0	...	7 9 7	13 13 2	1 7 0	3,142 8 7	
Materials ... ..	...	0 10 7	66 16 11	8 12 0	22 13 7	...	...	25 17 4	...	...	...	...	124 10 5	
Workshop commission ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	
<b>Total</b> ... ..	<b>139 9 1</b>	<b>2,126 13 6</b>	<b>14,662 11 9</b>	<b>6,419 3 3</b>	<b>9,794 10 4</b>	<b>8,899 4 3</b>	<b>3,498 3 1</b>	<b>130,415 5 1</b>	<b>871 16 2</b>	<b>1,079 2 9</b>	<b>1,597 11 7</b>	<b>1,945 3 0</b>	<b>181,448 13 10</b>	<b>181,488 13 10</b>
<b>B.—LOCOMOTIVE POWER.</b>														
<b>Running Expenses,—</b>														
1. Wages, working ... ..	186 3 4	433 19 11	5,759 12 2	1,907 15 7	4,415 2 11	2,681 19 4	955 9 4	41,099 0 0	464 7 3	506 10 1	673 17 4	582 19 3	59,666 16 6	} 59,763 18 11
Wages, miscellaneous ... ..	...	54 12 0	3 0 2	...	0 4 0	...	...	39 6 3	...	...	...	...	97 2 5	
2. Wages, fuel, and water ... ..	...	38 3 10	231 15 10	2 6 1	...	...	...	5,044 4 7	...	...	...	...	5,316 10 4	
Fuel and water ... ..	...	160 1 5	1,548 0 5	2,319 3 3	4,370 0 8	2,501 9 9	828 18 5	24,330 0 7	115 10 7	62 18 0	596 14 11	394 3 5	37,227 1 5	} 42,626 11 10
Workshop commission ... ..	...	0 6 2	44 0 7	8 10 11	...	...	...	30 2 5	...	...	...	...	83 0 1	
3. Wages, oil, and stores ... ..	...	...	38 14 9	...	...	161 18 11	...	136 10 3	...	...	...	...	337 3 11	
Oil, tallow, and other stores ... ..	15 18 1	54 11 0	644 17 3	322 0 8	786 18 0	338 2 5	112 17 0	4,800 10 3	37 19 1	41 5 8	110 0 8	81 7 2	7,346 7 3	} 7,683 11 2
Renewals and Repairs,—	...	...	...	...	...	...	...	...	...	...	...	...	...	
4. Wages ... ..	4 6 0	97 4 7	1,865 17 10	631 0 5	1,810 15 11	1,879 4 10	231 8 2	12,452 15 6	220 9 6	72 2 1	239 10 6	8 15 6	19,513 10 10	
5. Materials, &c. ... ..	9 1 0	17 0 7	373 16 6	96 12 8	398 7 2	360 16 9	25 17 10	3,352 15 5	55 8 6	13 15 5	38 1 4	29 16 8	4,771 9 10	} 26,974 11 2
Workshop commission ... ..	2 0 0	17 3 2	356 2 5	106 6 1	246 14 8	...	3 19 11	1,947 16 8	4 5 0	3 7 11	...	1 14 8	2,689 10 6	
<b>Total</b> ... ..	<b>217 8 5</b>	<b>873 2 8</b>	<b>10,865 17 11</b>	<b>5,393 15 8</b>	<b>12,028 3 4</b>	<b>7,923 12 0</b>	<b>2,158 10 8</b>	<b>93,233 1 11</b>	<b>897 19 11</b>	<b>699 19 2</b>	<b>1,658 4 9</b>	<b>1,098 16 8</b>	<b>137,048 13 1</b>	
<b>C.—REPAIRS AND RENEWALS OF CARRIAGES AND WAGONS.</b>														
<b>Carriages,—</b>														
1. Wages ... ..	...	29 9 5	856 17 7	250 8 2	650 12 6	359 18 1	113 15 4	6,924 8 1	139 14 9	47 14 10	106 15 0	69 13 5	9,549 7 2	} 13,916 15 5
2. Miscellaneous and materials ... ..	...	20 4 6	319 6 3	50 14 2	110 17 4	102 10 9	39 18 5	2,106 8 10	35 17 3	8 12 4	33 2 0	12 13 7	2,840 5 5	
Workshop commission ... ..	...	4 17 4	166 16 11	44 0 10	107 10 2	...	...	1,197 2 4	...	...	...	6 15 3	1,527 2 10	
<b>Wagons,—</b>														
3. Wages ... ..	...	70 10 6	684 1 11	219 10 5	466 18 3	...	61 14 0	8,445 8 0	173 15 2	199 17 5	93 1 0	...	10,414 16 8	} 16,630 12 9
4. Miscellaneous and materials ... ..	...	31 7 9	399 19 11	62 14 6	142 6 11	110 17 0	25 16 6	3,419 2 1	40 10 4	32 10 3	31 18 9	17 3 11	4,314 7 11	
Workshop commission ... ..	...	13 12 8	137 7 4	38 8 7	84 9 11	...	...	1,627 7 8	0 2 0	...	...	...	1,901 8 2	
<b>Total</b> ... ..	<b>...</b>	<b>170 2 2</b>	<b>2,564 9 11</b>	<b>665 16 8</b>	<b>1,562 15 1</b>	<b>573 5 10</b>	<b>241 4 3</b>	<b>23,719 17 0</b>	<b>389 19 6</b>	<b>288 14 10</b>	<b>264 16 9</b>	<b>106 6 2</b>	<b>30,547 8 2</b>	<b>30,547 8 2</b>
<b>D.—TRAFFIC EXPENSES.</b>														
1. Wages ... ..	55 17 4	888 6 2	7,506 5 7	3,158 15 5	4,192 15 5	4,058 4 4	986 16 5	95,119 13 3	1,752 13 9	801 10 5	1,839 16 10	1,184 2 3	121,604 17 2	} 121,604 17 2
2. Miscellaneous, fuel, lighting, and general stores ... ..	2 17 9	73 11 7	305 6 0	137 19 11	221 15 4	229 7 10	43 2 10	7,154 16 7	194 5 9	65 2 1	72 1 11	85 5 7	8,585 13 2	
3. Printing, stationery, and tickets ... ..	0 15 0	0 15 0	495 12 7	171 0 7	267 14 3	243 5 0	85 10 3	3,758 15 2	65 7 11	62 11 4	46 12 0	18 18 11	5,216 18 0	
4. Miscellaneous expenses ... ..	22 14 0	5 6 1	199 16 8	41 15 4	424 2 3	150 13 5	0 18 0	3,271 4 1	34 0 4	138 11 11	15 5 1	37 1 0	4,341 8 2	} 4,636 1 9
Workshop commission ... ..	...	0 9 4	38 19 1	11 2 10	30 4 7	...	...	213 17 9	...	...	...	...	294 13 7	
<b>Total</b> ... ..	<b>82 4 1</b>	<b>968 8 2</b>	<b>8,605 19 11</b>	<b>3,520 14 1</b>	<b>5,136 11 10</b>	<b>4,681 10 7</b>	<b>1,116 7 6</b>	<b>109,518 6 10</b>	<b>2,046 7 9</b>	<b>1,067 15 9</b>	<b>1,973 15 10</b>	<b>1,325 7 9</b>	<b>140,043 10 1</b>	
<b>E.—GENERAL CHARGES.</b>														
1. General expenses ... ..	...	164 18 6	1,154 9 6	604 14 6	384 16 6	494 15 6	274 17 6	6,377 5 8	164 18 6	109 19 0	219 18 0	219 18 0	10,170 11 2	} 10,170 11 2
2. Salaries of district managers and clerks ... ..	...	280 0 4	1,355 3 3	479 8 5	798 0 1	659 14 3	312 12 1	10,625 17 9	452 1 5	382 7 6	430 6 1	30 8 6	15,805 19 8	
3. Office, incidental, and special expenses ... ..	14 2 2	75 10 5	706 8 5	522 6 2	1,534 1 4	1,057 7 9	174 16 0	968 6 4	57 18 0	68 16 5	36 13 4	94 16 7	5,311 2 11	
4. Miscellaneous ... ..	...	...	...	...	...	...	...	572 18 0	...	...	...	...	572 18 0	} 639 5 2
Workshop commission ... ..	...	...	33 7 3	...	0 6 0	...	...	32 13 11	...	...	...	...	66 7 2	
<b>Total</b> ... ..	<b>14 2 2</b>	<b>520 9 3</b>	<b>3,249 8 5</b>	<b>1,606 9 1</b>	<b>2,717 3 11</b>	<b>2,211 17 6</b>	<b>762 5 7</b>	<b>18,577 1 8</b>	<b>674 17 11</b>	<b>561 2 11</b>	<b>686 17 5</b>	<b>345 3 1</b>	<b>31,926 18 11</b>	
<b>F.—SUNDRIES.</b>														
1. Miscellaneous and law costs ... ..	...	...	4 14 0	...	35 4 0	28 17 10	2 10 6	211 7 0	12 8 6	...	...	...	295 1 10	} 295 1 10
2. Compensation ... ..	...	19 12 3	36 9 6	1 0 0	161 4 6	15 5 5	2 5 0	407 11 7	4 0 0	...	...	...	647 8 3	
<b>Total</b> ... ..	<b>...</b>	<b>19 12 3</b>	<b>41 3 6</b>	<b>1 0 0</b>	<b>196 8 6</b>	<b>44 3 3</b>	<b>4 15 6</b>	<b>618 18 7</b>	<b>16 8 6</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>942 10 1</b>	
<b>Grand total</b> ... ..	<b>453 3 9</b>	<b>4,678 8 0</b>	<b>39,989 11 5</b>	<b>17,606 18 9</b>	<b>31,435 13 0</b>	<b>24,333 13 5</b>	<b>7,781 6 7</b>	<b>376,082 11 1</b>	<b>4,897 9 9</b>	<b>3,696 15 5</b>	<b>6,181 6 4</b>	<b>4,820 16 8</b>	<b>521,957 14 2</b>	<b>521,957 14 2</b>

A. C. FIFE, Railway Accountant.

\* RETURN No. 5.  
COMPARATIVE STATEMENT of PASSENGERS and GOODS TRAFFIC for the Twelve Months ending 31st March, 1881.

Sections.	Length open for Traffic.	Passengers.			Goods.							Parcels, Live Stock, &c.					Receipts.			Number of Trains.			Miles Travelled by Trains.							
		First Class.	Second Class.	Total.	Wool.	Timber.	Grain.	Merchandise.	Minerals.	Firewood.	Total.	Parcels.	Dogs.	Horses and Cattle.	Sheep, Pigs, &c.	Total.	Passengers.	Goods, &c.	Total Passengers and Goods, &c.	Passengers and Mixed.	Goods.	Total.	Passengers and Mixed.	Goods.	Total.	Shunting and Ballasting.	Total.			
1880-81.		No.	No.	No.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	No.	No.	No.	No.	No.	£ s. d.	£ s. d.	£ s. d.											
Kawakawa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Whangarei ...	5	298	574	872	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Kaipara ...	17	3,537	12,270	15,807	48	4,700	203	4,288	498	155	5,976	3	3	8	177	2,199	1,681 4 9	3,854 17 6	5,536 2 3	1,060	...	693	1,060	16,640	...	2,873	2,873	901	3,774	
Auckland ...	115	88,056	212,846	300,902	232	7,325	4,747	20,643	38,131	315	71,393	23,348	1,854	11,782	28,918	65,902	27,420 4 1	31,823 16 2	59,244 0 3	7,544	663	8,207	195,308	16,968	212,276	59,173	271,449			
Napier ...	70	29,536	80,631	110,167	3,981	8,551	1,838	6,677	2,922	8,740	32,709	12,167	179	615	9,351	22,312	13,874 18 7	15,176 18 8	29,051 17 3	1,878	...	1,878	93,747	...	93,747	6,462	100,209			
Wellington ...	69	48,598	129,053	177,651	1,380	10,494	1,863	10,726	12,554	7,455	44,472	9,523	1,138	630	30,803	42,094	18,261 12 2	17,669 15 6	35,931 7 8	4,319	...	4,319	131,779	14,388	146,167	32,894	179,061			
Wanganui ...	115	30,155	105,149	135,304	832	18,488	3,661	6,361	4,964	12,970	47,276	13,949	1,278	659	5,926	21,812	17,151 9 6	19,288 16 2	36,440 5 8	2,768	63	2,831	153,144	5,353	158,497	...	158,497			
New Plymouth	41	9,620	57,180	66,800	15	3,847	1,544	3,900	1,409	2,945	12,760	3,278	417	150	7,985	11,830	5,353 12 10	3,717 8 7	9,071 1 5	4,014	...	4,014	49,212	16	49,228	53	49,281			
Hurunui-Bluff	788	433,520	1,462,480	1,896,000	35,631	104,585	405,233	206,916	277,421	31,955	1,061,741	187,133	17,209	14,739	195,835	414,916	252,483 5 9	378,111 16 0	630,595 1 9	58,319	14,677	72,996	1,319,532	310,092	1,629,624	730,115	2,359,739			
Greymouth ...	8	7,827	28,109	35,936	...	1,361	...	2,184	46,713	15	50,273	12	71	4	3	90	2,362 16 0	8,358 5 6	10,721 1 6	1,992	...	1,992	15,664	...	15,664	7,767	23,431			
Westport ...	10	369	13,843	14,212	...	1,194	...	484	13,811	...	15,489	1,677	102	13	6	1,798	728 4 2	3,182 19 0	3,911 3 2	1,024	...	1,024	15,095	...	15,095	277	15,372			
Nelson ...	20	7,765	58,526	66,291	148	2,673	1,238	2,088	422	3,650	10,219	2,475	10	18	599	3,102	4,439 5 0	4,014 13 9	8,453 18 9	1,693	60	1,753	33,075	239	33,314	4,962	38,276			
Picton ...	19	6,631	22,988	29,619	120	6,477	814	1,345	1,447	5,380	15,583	1,567	249	28	1,080	2,924	2,498 0 3	3,303 7 6	5,801 7 9	1,260	...	1,260	23,640	...	23,640	3,868	27,508			
<b>Totals ...</b>	<b>1,277</b>	<b>665,912</b>	<b>2,183,649</b>	<b>2,849,561</b>	<b>42,387</b>	<b>169,695</b>	<b>421,142</b>	<b>265,613</b>	<b>406,266</b>	<b>72,680</b>	<b>1,377,783</b>	<b>256,860</b>	<b>22,796</b>	<b>28,646</b>	<b>280,683</b>	<b>588,985</b>	<b>346,280 11 1</b>	<b>490,173 10 7</b>	<b>836,454 1 8</b>	<b>85,871</b>	<b>16,156</b>	<b>102,027</b>	<b>2,046,836</b>	<b>349,929</b>	<b>2,396,765</b>	<b>850,727</b>	<b>3,247,492</b>			
<b>1879-80.</b>																														
Kaipara ...	16	3,936	13,622	17,558	47	4,214	133	4,270	1,050	374	10,088	1,541	222	1	136	1,900	1,795 2 6	3,503 4 11	5,298 7 5	No return	No return	No return	No return	No return	17,887	No return	No return			
Auckland ...	107	59,949	231,624	291,573	276	6,838	4,394	17,562	33,305	502	62,937	4,685	915	14,357	34,611	54,568	28,712 2 2	29,864 10 5	58,576 12 7	"	"	"	"	"	208,340	"	"			
Napier ...	65	28,160	74,054	102,214	3,298	4,167	1,472	6,906	2,629	6,968	25,440	7,974	160	765	6,659	15,558	13,669 5 10	11,738 2 9	25,407 8 7	"	"	"	"	"	105,692	"	"			
Wellington ...	45	37,541	125,209	162,750	1,319	7,847	1,063	8,438	9,946	9,731	38,344	6,290	764	503	31,139	38,606	16,610 0 11	13,159 9 9	29,769 10 8	"	"	"	"	"	144,323	"	"			
Wanganui ...	95	33,736	118,435	152,171	1,127	17,698	2,806	10,807	674	12,070	45,242	9,025	764	467	2,410	12,666	18,568 0 3	17,939 5 6	36,207 5 9	"	"	"	"	"	167,183	"	"			
New Plymouth	33	5,380	49,540	54,920	18	2,931	718	2,722	1,695	2,231	10,315	1,572	131	61	2,368	4,132	4,162 5 9	2,721 3 1	6,883 8 10	"	"	"	"	"	41,070	"	"			
Hurunui-Bluff	755	461,866	1,566,160	2,028,026	35,663	94,037	227,770	227,222	270,459	30,897	836,048	123,074	12,925	14,154	182,529	332,682	274,683 18 8	300,552 7 7	575,236 6 3	64,405	15,962	80,367	"	"	1,867,305	"	"			
Greymouth ...	8	10,164	33,359	43,523	...	961	...	2,243	45,432	5	48,641	...	85	...	2	87	1,903 0 7	8,000 14 11	9,903 15 6	No return	No return	No return	"	"	15,404	"	"			
Westport ...	10	733	18,451	19,184	...	1,352	...	999	5,057	...	7,408	1,318	113	13	90	1,534	823 10 8	2,226 2 9	3,049 13 5	"	"	"	"	"	16,937	"	"			
Nelson ...	20	11,958	56,910	68,868	138	2,980	1,030	2,217	335	3,967	10,667	1,516	9	24	341	1,890	4,762 16 6	2,715 4 6	7,478 1 0	1,626	112	1,738	34,080	766	34,846	4,366	"			
Picton ...	18	6,208	20,095	26,303	9	6,403	758	946	418	4,444	12,978	1,029	219	48	531	1,827	2,033 10 4	2,728 13 3	4,762 3 7	No return	No return	No return	No return	No return	21,911	No return	"			
<b>Totals ...</b>	<b>1,172</b>	<b>659,631</b>	<b>2,397,459</b>	<b>2,967,090</b>	<b>41,895</b>	<b>149,428</b>	<b>240,144</b>	<b>284,392</b>	<b>321,060</b>	<b>71,189</b>	<b>1,108,108</b>	<b>158,024</b>	<b>16,307</b>	<b>39,393</b>	<b>260,816</b>	<b>465,540</b>	<b>367,723 14 2</b>	<b>394,848 19 5</b>	<b>762,572 13 7</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>2,640,898</b>	<b>...</b>	<b>...</b>			



**RETURN No. 6.**  
**NET REVENUE, COST of CONSTRUCTION, and RATE of INTEREST on all Lines.**

Section.	Revenue, including Postal Services, less Working Expenses, as per Balance-sheet.	Cost of Construction to Date, 31st March, 1881.	Rate of Interest.
	£    s.    d.	£    s.    d.	£    s.    d.
Kawakawa ... ..	621    2    4	18,429    0    0	3    7    5
*Whangarei ... ..	245    9    10	5,340    0    0	...
Kaipara ... ..	857    14    3	89,318    0    0	0    19    2
Auckland ... ..	19,979    8    10	886,124    0    0	2    5    1
Napier ... ..	12,002    13    9	420,562    0    0	2    17    1
Wellington ... ..	5,370    14    8	669,222    0    0	0    16    0
Wanganui ... ..	13,206    12    3	640,149    0    0	2    1    3
New Plymouth ... ..	1,539    14    10	227,990    0    0	0    13    6
Hurunui-Bluff ... ..	263,748    16    8	5,650,338    0    0	4    13    4
Greymouth ... ..	5,863    11    9	138,260    0    0	4    4    9
†Westport ... ..	...	186,042    0    0	...
Nelson ... ..	2,522    12    5	133,180    0    0	1    17    10
Picton ... ..	1,199    13    1	163,380    0    0	0    14    8
Total, including Postal Services ... ..	327,158    4    8	9,228,334    0    0	3    10    11
Deduct Postal Services ... ..	13,281    16    9	...	...
Total Net Revenue, excluding Postal Services	313,876    7    11	Average rate of interest, excluding Postal Services	3    8    3

\* This line has only recently been opened, and the full cost of working is not yet borne by the Working Railways Department. † No profits.

RETURN No. 7.  
HURUNUI-BLUFF SECTION.

SECTIONAL ACCOUNTS for Twelve Months ending 31st March, 1881.

Name.	Miles Open for Traffic.	Revenue.	Expenditure.	Per Cent. of Revenue to date.
Christchurch Section ... ..	139	£ 173,662 13 1	£ 80,911 4 10	46'59
Lyttelton-Christchurch Branch ... ..	6	69,432 9 7	35,579 10 10	51'24
Oxford Branch ... ..	22	5,185 11 6	4,355 4 10	83'97
Eyreton Branch ... ..	21	2,789 1 4	3,193 14 8	114'50
Southbridge Branch ... ..	25	12,875 12 5	8,705 12 9	67'61
Springfield Branch ... ..	42	13,135 8 4	10,027 9 6	76'33
<b>Total</b> ... ..	<b>255</b>	<b>277,080 16 3</b>	<b>142,772 17 5</b>	<b>51'88</b>
Oamaru Section ... ..	104	83,668 4 6	56,674 8 0	67'74
Albury Branch ... ..	26	8,885 5 9	4,788 17 6	53'90
Waimate Branch ... ..	4	1,855 18 10	2,049 0 1	110'40
Duntroon Branch ... ..	21	5,715 7 5	3,653 13 3	63'93
Ngapara Branch ... ..	15	4,329 7 7	3,077 3 10	71'08
<b>Total</b> ... ..	<b>170</b>	<b>104,454 4 1</b>	<b>70,243 2 8</b>	<b>67'24</b>
Dunedin Section ... ..	107	130,761 19 1	81,611 12 7	62'33
Dunedin-Port Chalmers Branch ... ..	8	33,641 7 3	20,141 1 3	59'87
Walton Park Branch ... ..	3	877 12 4	1,017 2 4	115'89
Outram Branch ... ..	9	2,849 3 4	3,346 11 3	117'45
Lawrence Branch ... ..	22	7,430 18 0	7,714 3 7	103'81
<b>Total</b> ... ..	<b>149</b>	<b>175,561 0 0</b>	<b>113,830 11 0</b>	<b>64'83</b>
Invercargill Section ... ..	153	56,494 3 2	35,837 18 6	63'43
Invercargill-Bluff Branch ... ..	17	9,184 1 4	5,956 16 0	64'86
Riverton Branch ... ..	29	7,274 10 3	7,000 14 9	96'23
Tapanui Branch ... ..	15	546 6 8	440 10 9	80'63
<b>Total</b> ... ..	<b>214</b>	<b>73,499 1 5</b>	<b>49,236 0 0</b>	<b>66'99</b>
<b>Grand Total</b> ... ..	<b>788</b>	<b>630,595 1 9</b>	<b>376,082 11 1</b>	<b>59'64</b>

RETURN No. 8.

COMPARISON of REVENUE and EXPENDITURE current and previous Years.

Section.	Revenue.	Expenditure.	Expenditure per cent. of Revenue.	Section.	Revenue.	Expenditure.	Expenditure per cent. of Revenue.
<b>1880-81.—12 Months ending 31st March.</b>				<b>1877-78.—12 Months ending 30th June.</b>			
Kawakawa ... ..	£ 998 0 8	£ ... ..	...	Hurunu-Bluff ... ..	£ 577,360 9 2	£ 409,576 14 7	70'94
Whangarei ... ..	698 13 7	453 3 9	64'86	Greymouth ... ..	8,852 7 5	4,724 2 5	53'37
Kaipara ... ..	5,536 2 3	4,678 8 0	84'50	Westport ... ..	2,686 13 0	3,427 15 9	127'59
Auckland ... ..	59,244 0 3	39,989 11 5	67'50	Nelson ... ..	7,111 6 0	6,029 3 11	84'78
Napier ... ..	29,051 17 3	17,606 18 9	60'61	Picton ... ..	5,270 10 6	4,841 2 5	91'85
Wellington ... ..	35,931 7 8	31,435 13 0	87'49	<b>Total</b> ... ..	<b>758,096 8 2</b>	<b>545,478 15 0</b>	<b>71'95</b>
Wanganui ... ..	36,440 5 8	24,333 13 5	66'78	<b>1876-77.—12 Months ending 30th June.</b>			
New Plymouth ... ..	9,071 1 5	7,781 6 7	85'78	Kaipara ... ..	3,925 3 10	4,765 4 1	121'40
Hurunu-Bluff ... ..	630,595 1 9	376,082 11 1	59'64	Auckland ... ..	37,321 10 6	29,133 15 4	78'06
Greymouth ... ..	10,721 1 6	4,897 9 9	45'68	Napier ... ..	25,263 13 11	18,216 10 2	72'10
Westport ... ..	6,911 3 2	3,696 15 5	53'48	Wellington ... ..	16,100 3 9	11,718 15 4	72'78
Nelson ... ..	8,453 18 9	6,181 6 4	73'12	Wanganui ... ..	15,040 19 1	15,015 14 6	99'83
Picton ... ..	5,801 7 9	4,820 16 8	83'11	New Plymouth ... ..	4,930 7 3	5,075 3 2	102'93
<b>Total</b> ... ..	<b>836,454 1 8</b>	<b>521,957 14 2</b>	<b>62'40</b>	Hurunu-Bluff ... ..	445,989 19 6	303,595 5 11	68'05
<b>1879-80.—12 Months ending 31st March.*</b>				Greymouth ... ..	8,763 1 1	5,738 4 1	65'48
Kaipara ... ..	5,298 7 5	5,179 1 1	97'75	Westport ... ..	1,382 16 11	1,749 6 11	126'50
Auckland ... ..	58,576 12 7	39,760 18 3	67'84	Nelson ... ..	6,189 5 6	5,993 14 4	95'38
Napier ... ..	25,407 8 7	18,034 1 9	70'98	Picton ... ..	4,991 6 11	5,074 0 3	101'66
Wellington ... ..	29,769 15 2	26,735 8 5	89'81	<b>Total</b> ... ..	<b>469,898 8 3</b>	<b>405,895 14 1</b>	<b>71'22</b>
Wanganui ... ..	36,207 5 9	25,214 5 0	69'64	<b>1878-79.—12 Months ending 30th June.</b>			
New Plymouth ... ..	6,883 8 10	6,318 0 7	91'79	Kaipara ... ..	3,778 4 5	4,296 11 6	113'72
Hurunu-Bluff ... ..	575,236 6 3	439,717 16 11	76'44	Auckland ... ..	21,868 3 9	17,663 8 10	80'77
Greymouth ... ..	9,903 15 6	4,735 14 9	47'81	Napier ... ..	21,374 13 10	13,239 19 2	61'94
Westport ... ..	3,049 13 5	3,688 14 5	120'95	Wellington ... ..	11,518 18 3	9,893 19 2	85'89
Nelson ... ..	7,478 1 0	6,119 8 10	81'85	Wanganui-Foxton ... ..	8,540 1 8	7,791 7 6	91'23
Picton ... ..	4,762 3 7	4,526 19 6	95'06	New Plymouth ... ..	2,641 19 1	3,271 2 2	123'81
<b>Total</b> ... ..	<b>762,572 18 1</b>	<b>580,016 9 6</b>	<b>76'06</b>	Hurunu-Bluff ... ..	378,609 4 10	265,452 11 2	70'11
<b>1878-79.—12 Months ending 30th June.</b>				Greymouth ... ..	7,920 11 7	4,346 19 6	54'88
Kaipara ... ..	4,992 17 4	4,955 18 10	99'26	Westport ... ..	7,856 12 6	833 6 6	97'05
Auckland ... ..	52,477 18 2	41,521 16 1	79'12	Nelson ... ..	6,209 13 3	5,499 0 5	88'42
Napier ... ..	27,503 15 8	19,255 19 10	70'01	Picton ... ..	5,731 4 5	5,165 12 1	90'35
Wellington ... ..	30,401 6 5	22,919 11 7	75'39	<b>Total</b> ... ..	<b>469,051 7 7</b>	<b>337,445 7 0</b>	<b>71'94</b>
Wanganui ... ..	35,171 16 1	22,614 2 7	64'30				
New Plymouth ... ..	6,267 8 5	5,612 7 0	89'55				

\* Owing to the change in the financial year ending 1879-80 (only nine months) this statement is made to overlap that for 1878-79, for purposes of comparison. † From 5th August, 1876.

## RETURN No. 9.

STATEMENT of REVENUE and EXPENDITURE of each STATION for the Year ending 31st March, 1881.

Stations.	Hours Open.	Number of Hands Employed.	Total Expenditure.			Number of Tickets Issued.	Goods.		Revenue.				Total.				
							Tons Outwards.	Tons Inwards.	Coaching.		Goods.						
			£	s.	d.			£	s.	d.	£	s.	d.	£	s.	d.	
<b>KAIPARA SECTION.</b>																	
Helensville ...	12	4	538	10	0	4,148	5,592	3,366	928	5	10	3,562	12	6	4,490	18	4
Riverhead ...	11	3	327	16	0	4,930	3,443	5,669	752	18	11	293	16	1	1,046	15	0
Totals ...	...	7	866	6	0	9,078	9,035	9,035	1,681	4	9	3,856	8	7	5,537	13	4
<b>AUCKLAND.</b>																	
Auckland ...	13	23	2,220	3	5	63,048	21,374	20,229	7,935	0	3	8,136	0	11	16,071	1	2
Drury ...	12	1	140	0	0	3,942	402	775	860	5	0	645	9	5	1,505	14	5
Hamilton ...	8	1	109	4	0	282	153	3,002	350	11	1	1,987	12	6	2,338	3	7
Hamilton Junction ...	8	1	116	13	4	5,533	74	320	3,380	19	7	321	0	1	3,701	19	8
Huntly ...	8	2	125	19	10	1,960	23,521	413	447	8	1	447	8	9	932	11	10
Mercer ...	14	3	278	1	2	1,763	2,214	1,163	761	17	1	1,131	17	10	1,893	14	11
Newmarket ...	16	3	275	3	11	18,051	2,317	4,478	1,892	15	4	688	6	10	2,581	2	2
Ngaruawahia ...	8	2	272	10	8	3,535	2,954	5,702	1,264	12	10	4,531	15	8	5,796	8	6
Ohaupo ...	8	1	149	0	0	2,020	717	889	1,048	9	0	1,846	14	7	2,895	3	7
Onehunga ...	13	3	342	16	0	28,509	3,925	25,870	2,167	17	10	3,936	10	6	6,104	8	4
Otabuhu ...	14	1	116	13	4	7,931	916	1,178	682	17	6	304	16	3	1,047	13	9
Papakura ...	13	1	140	0	0	4,771	467	779	864	9	6	322	8	9	1,186	18	3
Papaitoitai ...	13	1	98	13	2	3,946	1,475	547	534	4	5	262	1	10	796	6	3
Penrose ...	14	2	135	3	3	4,933	4,988	452	338	10	11	199	5	8	537	16	7
Pokeno ...	13	1	69	4	2	668	323	631	501	14	4	334	19	6	836	13	10
Pukekohe ...	13	3	200	14	8	4,637	2,426	1,423	1,347	9	8	1,345	16	5	2,693	6	1
Remuera ...	16	1	116	13	4	6,042	70	348	847	12	6	2,519	9	11	3,367	2	5
Te Awamutu ...	8	3	311	19	2	1,493	557	1,392	912	2	3	1,258	3	5	2,170	5	8
Tuakau ...	13	1	108	10	6	2,320	507	799	503	8	3	429	13	2	933	1	5
Whau ...	11	1	103	6	8	1,485	923	4,267	79	11	4	275	11	10	355	3	2
Totals ...	...	55	5,430	10	7	165,969	69,403	74,657	26,759	11	9	30,985	3	10	57,744	15	7
<b>NAPIER SECTION.</b>																	
Spit ...	9 $\frac{3}{4}$	2	279	2	3	1,563	5,313	1,562	156	0	2	3,717	11	4	3,873	11	6
Napier ...	11 $\frac{3}{4}$	6	715	16	3	21,233	1,624	2,016	4,701	14	1	2,631	1	6	7,332	15	7
Forndon ...	10 $\frac{1}{4}$	2	262	6	3	10,183	1,184	837	925	2	8	962	6	3	1,887	8	11
Hastings ...	10	3	265	12	3	14,506	1,150	1,973	2,135	4	4	1,930	8	5	4,065	12	9
Boiling-down ...	...	...	27	2	3	...	325	215	0	0	9	21	1	2	21	1	11
Pakipaki ...	...	1	69	12	3	866	84	63	131	4	4	15	2	8	146	7	0
Te Aute ...	10 $\frac{1}{4}$	1	157	2	3	3,230	178	482	667	14	3	187	16	11	855	11	2
Kaikora ...	11 $\frac{1}{4}$	2	254	2	3	3,326	87	467	707	12	7	337	1	4	1,044	13	11
Waipawa ...	11 $\frac{1}{4}$	2	264	2	3	5,958	547	1,416	1,580	0	7	1,411	19	2	2,991	19	9
Waipukurau ...	12 $\frac{1}{4}$	2	266	6	3	4,301	630	1,052	1,167	13	9	1,098	8	2	2,266	1	11
Takapau ...	13 $\frac{1}{2}$	2	162	2	3	2,389	99	355	518	7	8	577	17	5	1,096	5	1
Kopua ...	14	1	88	12	3	3,444	130	572	1,101	19	6	1,047	12	4	2,149	11	10
Ormondville ...	6 $\frac{1}{2}$	2	99	17	3	767	27	165	160	3	8	222	4	8	382	8	4
Makatoko ...	2 $\frac{1}{2}$	2	99	17	3	952	42	245	494	2	1	179	19	7	674	1	8
Totals ...	...	26	3,011	13	6	72,718	11,420	11,420	14,447	0	5	14,340	10	11	28,787	11	4
<b>WELLINGTON SECTION.</b>																	
Carterton ...	11 $\frac{1}{4}$	2	131	15	9	2,831	3,907	501	791	4	1	2,190	9	11	2,981	14	0
Cross's Creek ...	12	2	296	5	7	...	...	...	...	...	...	...	...	...	...	...	...
Featherston ...	12	3	453	1	4	5,958	3,380	2,223	1,894	17	1	1,840	6	9	3,735	3	10
Greytown ...	11	1	246	11	9	4,783	3,106	1,708	1,895	15	1	2,179	6	1	4,075	1	2
Kaitoke ...	11	1	82	8	4	798	710	1,198	175	6	7	36	9	4	211	15	11
Lower Hutt ...	12 $\frac{1}{2}$	3	382	12	0	18,513	13,399	3,361	2,115	3	8	262	19	5	2,378	3	1
Masterton ...	13	1-4	294	14	1	4,375	998	939	1,600	3	10	1,201	15	6	2,801	19	4
Petoni ...	13 $\frac{1}{2}$	2	146	5	7	7,673	6,992	5,676	520	13	3	1,174	8	4	1,695	1	7
Summit ...	12	1	132	10	11	...	...	...	...	...	...	...	...	...	...	...	...
Upper Hutt ...	12 $\frac{1}{2}$	5	573	12	7	6,643	6,537	987	1,072	6	3	929	13	11	2,002	0	2
Wellington ...	12	12	1,331	11	3	58,773	10,629	30,675	8,404	4	11	7,733	15	4	16,138	0	3
Totals ...	...	37	4,071	9	2	109,447	49,658	47,268	18,469	14	9	17,549	4	7	36,018	19	4
<b>WANGANUI SECTION.</b>																	
Aramoho ...	15	1	125	0	0	4,074	5,764	3,356	449	8	5	2,083	3	9	2,532	12	2
Feilding ...	12	4	287	4	0	6,908	15,750	1,737	1,503	18	3	7,308	18	4	8,812	16	7
Foxton ...	14	6	577	3	3	16,517	2,224	9,015	2,465	9	3	4,158	1	7	6,623	10	10
Greatford ...	11	2	218	0	0	3,778	788	1,047	995	12	7	992	15	4	1,898	7	11
Halcombe ...	12	4	279	5	7	4,870	8,062	648	844	6	2	2,750	14	7	3,595	0	9
Marton ...	12	2	230	0	0	6,032	1,218	3,456	1,560	10	10	1,701	13	11	3,262	4	9
Palmerston ...	14	4	342	8	9	7,127	5,581	2,296	1,933	19	4	3,357	3	3	5,291	2	7
Turakina ...	11	2	163	4	0	4,136	554	1,478	872	13	0	780	15	5	1,653	8	5
Waitotara ...	10	2	230	0	0	3,499	1,501	4,963	910	7	5	3,395	13	8	4,216	1	1
Wanganui ...	15	12	1,053	4	2	23,179	3,992	16,524	5,250	11	9	9,039	1	11	14,289	13	8
Totals ...	...	39	3,505	9	9	80,120	45,434	44,520	16,696	17	0	35,478	1	9	52,174	18	9

RETURN No. 9—continued.

STATEMENT of REVENUE and EXPENDITURE of each STATION for the Year ending 31st March, 1881—  
continued.

Stations.	Hours Open.	Number of Hands Employed.	Total Expenditure.	Number of Tickets Issued.	Goods.		Revenue.		Total.
					Tons Outwards.	Tons Inwards.	Coaching.	Goods.	
<b>NEW PLYMOUTH SECTION.</b>									
New Plymouth	13½	3	422 1 10	7,073	1,574	3,158	1,126 13 3	1,597 3 10	2,723 17 1
Inglewood	11½	2	202 19 3	9,670	1,202	1,763	1,126 2 11	609 15 3	1,735 17 2
Stratford	10	1	95 2 9	7,649	258	2,722	1,492 3 8	487 4 11	1,979 8 7
Waitara	12	2	272 19 6	3,140	4,030	650	680 3 0	1,199 15 6	1,879 18 6
Totals	...	8	993 3 4	27,532	7,064	8,293	4,425 1 10	3,893 19 6	8,319 1 4
<b>GREYMOUTH SECTION.</b>									
Greymouth	11	12	1,335 0 0	11,468	2,168	46,711	1,023 17 5	3,410 0 0	4,433 17 5
Flags	...	...	...	2,154	371	155	155 2 2	258 9 5	413 11 7
Brunner	9	3	417 0 0	9,336	46,372	2,044	908 15 4	4,964 17 2	5,873 12 6
Totals	...	15	1,752 0 0	22,958	48,911	48,911	2,087 14 11	8,633 6 7	10,721 1 6
<b>WESTPORT SECTION.</b>									
Westport	10	3	486 10 3	10,589	16,264		728 4 2	2,411 18 9	3,140 2 11
<b>NELSON SECTION.</b>									
Nelson	9	5	434 15 1	16,423	1,265	5,717	1,779 15 0	1,346 14 10	3,126 9 10
Richmond	9	1	90 0 9	6,686	713	1,318	562 3 9	324 7 7	886 11 4
Wakofield	10	1	127 14 10	4,044	2,904	464	541 16 1	167 2 7	708 18 8
Foxhill	10	3	389 2 6	3,360	3,091	745	1,024 10 2	181 3 3	1,205 13 5
Port	9	...	839 2 8	...	1,553	553	1 4 6	257 11 10	1,927 11 2
Wharf	...	15			2,737	8,557	...	1,668 4 10	
Totals	...	25	1,880 15 10	34,513	12,263	17,354	3,909 9 6	3,945 14 11	7,855 4 5
<b>PICTON SECTION.</b>									
Picton	14	4	444 8 8	5,293	892	4,507	987 8 4	593 14 2	1,581 2 6
Koromiko	...	...	...	9,345	10,413	2,020	695 14 11	1,323 8 9	2,019 3 8
Blenheim	10	2	268 2 11	5,610	637	3,613	828 7 4	1,441 8 5	2,269 15 9
Totals	...	6	712 11 7	20,248	11,942	10,140	2,511 10 7	3,358 11 4	5,870 1 11
<b>HURUNUI-BLUFF SECTION.</b>									
Amberley	12	3	474 15 1	12,810	3,884	7,088	2,751 5 7	2,695 8 2	5,446 13 9
Balcain	Closed	...	59 5 8	1,615	566	663	320 4 6	248 12 0	568 16 6
Sefton	10¾	1	166 12 9	3,645	2,532	1,418	567 0 6	1,003 10 2	1,570 10 8
Ashley	Closed	...	47 12 10	1,243	747	438	145 14 7	208 5 10	354 0 5
Rangiora	10½	5	692 2 7	16,466	6,856	6,989	2,818 16 0	2,469 6 8	5,288 2 8
Southbrook	10¾	1	119 10 11	2,663	1,442	1,891	345 16 2	480 6 2	826 2 4
Kaiapoi	11½	6	841 12 3	16,617	19,590	8,704	2,191 12 7	5,394 18 9	7,586 11 4
Belfast	Closed	...	19 5 6	378	527	100	30 7 0	137 7 3	167 14 3
Styx	12½	1	208 11 4	2,198	7,070	1,863	124 14 7	1,727 8 10	1,852 3 5
Papanui	12¾	2	274 8 8	9,171	3,741	2,473	1,464 19 4	918 3 10	2,383 3 2
Riccarton	13¾	1	141 5 8	966	3,352	5,070	189 3 10	795 19 11	895 3 9
Addington	15½	7	901 3 6	7,429	10,484	20,358	1,704 5 9	3,290 8 9	4,994 14 6
Christchurch (C)	15	40	5,684 15 8	174,492	...	...	39,883 1 1	...	39,883 1 1
" (Goods)	14¾	53	9,055 13 1	...	47,985	147,452	...	19,955 18 5	19,955 18 5
" (Account)	...	...	...	1,652	...	...	508 15 4	...	508 15 4
Opawa	14½	1	139 15 2	14,069	...	...	597 16 7	...	597 16 7
Heathcote	14¾	4	615 11 2	11,652	10,068	10,885	556 18 4	1,410 17 4	1,967 15 8
Lytelton	14½	96	20,237 2 6	73,968	228,590	169,099	5,978 4 8	43,400 10 11	49,378 15 7
" (Wharves)	...	...	...	...	17,445	83,979	...	825 8 10	825 8 10
Hornby	14¾	4	489 17 9	4,988	6,487	1,188	887 15 5	893 11 11	1,781 7 4
Templeton	13¾	1	172 11 8	2,882	3,014	871	360 2 10	695 14 5	1,055 17 3
Rolleston	13½	3	417 7 2	5,171	3,631	615	1,267 5 10	1,167 18 2	2,435 4 0
Burnham	12½	1	156 11 5	1,774	2,357	642	359 11 4	745 4 11	1,104 16 3
Selwyn	12¼	2	225 5 0	1,831	2,341	322	375 7 1	933 11 6	1,308 18 7
Dunsandel	12	2	283 4 10	4,414	5,182	1,383	1,197 9 2	2,143 12 3	3,341 1 5
Rakaia	11¾	6	780 9 7	8,612	16,718	5,991	2,915 18 4	8,285 16 7	11,201 14 11
Chertsey	12¼	2	385 1 11	3,018	9,120	1,507	820 5 0	4,741 16 4	5,562 1 4
Ashburton	14½	17	2,274 17 9	19,904	16,678	13,944	7,634 6 2	10,441 9 2	18,075 15 4
Tinwald	13¾	1	210 4 10	1,776	4,912	1,139	149 11 11	2,944 8 5	3,094 0 4
Winslow	12¾	1	189 5 8	1,766	3,014	1,208	339 14 6	2,278 14 6	2,618 9 0
Hinds	11¾	1	168 0 6	1,365	1,980	717	300 14 0	1,421 2 0	1,721 16 0
Ealing	11	1	97 13 0	722	376	219	188 9 1	393 3 7	491 12 8
Woodbridge	10¾	1	226 3 6	2,061	3,286	635	567 0 9	2,167 10 5	2,734 11 2
Orari	11¼	2	267 9 4	5,463	2,803	1,230	1,687 15 9	1,730 3 9	3,417 19 6
Winchester	11½	2	270 9 11	5,394	4,778	1,097	976 8 5	2,613 16 5	3,590 4 10
Temuka	12	3	390 4 8	13,664	7,794	4,014	3,019 14 10	3,967 11 8	6,987 6 6
Cust	12	1	167 16 7	2,358	1,592	1,138	506 11 4	669 9 8	1,176 1 0
Carried forward	...	272	46,868 5 5	438,197	460,942	506,330	83,732 18 2	133,017 7 6	216,750 5 8

RETURN No. 9—*continued.*

STATEMENT of REVENUE and EXPENDITURE of each STATION for the Year ending 31st March, 1881—  
*continued.*

Stations.	Hours Open.	Number of Hands Employed.	Total Expenditure.			Number of Tickets Issued.		Goods.		Revenue.				Total.			
			£	s.	d.	Tons Outwards.	Tons Inwards.	£	s.	d.	£	s.	d.	£	s.	d.	
HURUNUI-BLUFF SECTION— <i>continued.</i>																	
Brought forward	...	272	46,868	5	5	438,197	460,942	506,330	83,732	18	2	133,017	7	6	216,750	5	8
Bennett's	13	1	125	5	6	1,678	1,068	278	265	16	10	517	19	6	783	16	4
Oxford East	13½	1	126	11	7	2,838	1,604	486	737	18	4	479	17	0	1,217	15	4
Oxford West	13½	3	471	4	3	8,417	8,968	656	1,170	11	4	2,715	4	5	3,885	15	9
Prebbleton	10	1	189	5	11	2,859	3,864	581	291	3	6	889	17	7	1,181	0	11
Lincoln	9½	1	200	3	7	4,502	4,530	4,335	547	8	6	1,225	12	3	1,773	0	9
Springston	9½	1	136	0	11	1,871	1,681	603	284	14	4	542	9	5	827	3	9
Ellesmere	9½	1	177	5	10	2,410	2,924	409	513	16	3	1,085	5	5	1,599	1	8
Doyleston	10½	1	165	4	9	3,024	3,471	842	630	11	4	1,449	19	9	2,080	11	1
Leeston	10½	2	281	0	10	3,664	2,974	1,533	825	6	0	1,400	0	8	2,225	6	8
Southbridge	11½	3	450	3	10	5,210	4,664	1,846	1,215	7	11	2,424	18	9	3,640	6	8
Aylesbury	Closed	...	56	9	7	245	1,413	217	45	2	10	485	16	7	530	19	5
Kirwee	11	1	211	14	11	2,460	3,208	1,465	536	9	10	1,208	12	3	1,745	2	1
Darfield	12	3	471	9	7	5,925	12,216	2,989	1,607	6	1	4,300	8	7	5,907	14	8
Sheffield	13½	1	205	11	9	2,697	3,799	1,139	735	19	0	1,295	12	7	2,031	11	7
Springfield	14½	3	387	15	8	4,190	3,101	1,728	1,142	0	8	1,250	12	4	2,392	13	0
Coalage	13½	1	181	18	10	2,674	1,511	1,313	812	3	8	1,119	7	6	1,931	11	2
Washdyke	13	1	115	3	4	2,877	773	351	297	3	11	377	0	4	684	4	3
Timaru	13½	20	3,026	12	6	44,096	14,283	40,250	14,220	11	8	6,650	1	1	20,870	12	9
St. Andrews	11½	2	249	3	11	6,188	6,643	2,257	1,044	5	11	3,287	13	4	4,331	19	3
Otaio	10½	1	124	4	11	1,492	3,250	703	213	15	8	1,032	16	2	1,246	11	10
Makikihi	10½	1	177	0	10	3,586	8,146	1,295	727	5	0	3,453	2	11	4,180	7	11
Studholme Junction	10	2	239	6	7	2,625	1,829	612	439	7	9	1,417	16	8	1,857	4	5
Waihao	Closed	...	70	9	8	334	971	166	60	18	3	311	17	11	372	16	2
Waitaki North	11½	4	447	17	6	1,508	4,846	1,292	267	3	2	1,529	18	5	1,797	1	7
Pukeuri Junction	13	1	157	18	5	4,188	7,634	1,541	511	14	10	2,404	1	10	2,915	16	8
Oamaru	14½	31	4,515	13	10	53,476	37,279	57,349	13,356	4	1	7,500	19	3	20,857	3	4
Breakwater	14½	2	237	2	3	864	10,368	2,370	86	3	0	4,330	1	4	4,416	4	4
Waiareka Junction	13½	2	296	4	9	5,683	9,903	2,834	1,073	0	10	4,634	2	11	5,707	3	9
Maheno	12½	2	186	2	5	3,605	3,224	1,383	725	12	1	1,473	9	10	2,199	1	11
Herbert	10½	1	160	10	7	2,486	2,197	402	609	4	6	757	9	1	1,366	13	7
Hillgrove	11	1	135	9	9	1,733	977	313	397	6	2	604	15	7	1,002	1	9
Shag Point Junction	11½	1	141	8	10	2,257	12,925	1,048	439	11	3	3,531	2	1	3,970	13	4
Pleasant Point	11	1	205	5	8	7,423	8,548	2,045	1,003	16	3	3,174	6	0	4,178	2	3
Cave	Closed	...	30	7	2	304	309	62	55	10	2	117	15	10	173	6	0
Albury	10	2	252	4	8	4,525	6,066	3,432	1,307	7	3	3,385	15	4	4,693	2	7
Waimate	10½	5	528	5	6	9,004	11,116	3,203	3,132	15	7	4,550	3	3	7,682	18	10
Dunroon	9	1	205	15	8	3,459	3,779	5,537	1,087	17	5	2,127	3	7	3,215	1	0
Ngapara	9	1	155	19	0	3,303	5,107	1,102	571	13	0	1,763	6	6	2,334	19	6
Palmerston	13½	7	939	15	1	14,269	5,333	8,196	3,523	7	5	3,397	0	1	6,920	7	6
Goodwood	Closed	...	121	0	8	1,150	734	274	234	4	9	330	14	0	564	18	9
Waikouaiti	12	2	332	17	5	4,651	3,205	3,495	1,265	17	4	1,268	14	1	2,534	11	5
Waitaki	11	1	179	16	8	7,079	4,368	1,304	1,197	5	5	979	6	5	2,176	11	10
Port Chalmers Upper	10	1	83	15	2	9,522	754	5	1,463	15	8	97	5	10	1,561	1	6
Glendermid	16	2	290	14	3	6,427	209	2,645	560	5	8	60	13	5	620	19	1
Port Chalmers	16	16	3,564	17	4	46,474	65,801	31,266	4,386	19	11	15,631	19	7	20,018	19	6
Burke's	13	1	148	0	1	3,151	45	61	210	0	11	12	11	2	222	12	1
Ravensbourne	10	1	208	13	7	17,870	39	1,227	928	4	6	10	2	8	938	7	2
Pelichet Bay	16	2	258	0	5	19,552	624	8,765	2,259	7	11	105	0	1	2,364	8	0
Dunedin (coach)	19½	44	6,006	18	7	142,802	...	...	40,873	0	8	...	...	...	40,873	0	8
(goods)	19½	52	7,864	14	8	...	47,448	154,453	...	...	...	31,751	0	6	31,751	0	6
Caversham	17	2	236	10	1	9,291	103	6,286	930	10	2	62	8	2	992	18	4
Kensington	17	2	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...
Burnside	15	1	120	2	6	6,857	16,549	6,175	334	8	10	2,144	18	3	2,479	7	1
Abbotsford	15	3	393	10	3	14,391	30,078	1,271	1,106	0	6	3,302	4	2	4,408	4	8
Mosgiel Junction	15	4	487	11	8	19,186	5,080	4,267	2,369	4	5	1,754	18	11	4,124	3	4
Greytown	11	1	221	3	5	7,594	1,788	767	1,269	9	7	767	12	2	2,037	1	9
Waihola	10	2	232	13	11	3,452	800	1,469	769	3	2	301	15	4	1,070	18	6
Milburn	10	1	164	19	6	2,471	3,162	2,385	424	15	2	1,385	8	8	1,810	3	10
Milton	11½	4	433	6	10	10,419	5,796	5,408	2,804	8	11	3,021	17	8	5,826	6	7
Clarksville	Closed	...	206	8	2	2,461	2,610	220	531	4	1	787	19	10	1,319	3	11
Lovell's Flat	Closed	...	33	14	4	199	749	40	31	13	5	185	17	10	217	11	3
Stirling	13	3	417	3	2	4,975	28,267	1,497	1,174	4	1	8,717	10	10	9,891	14	11
Balclutha	13½	6	591	4	8	7,809	1,617	4,086	2,502	19	1	1,475	12	7	3,978	11	8
Waitapeka	Closed	...	116	11	11	368	1,167	695	127	17	5	827	6	8	955	4	1
Warepa	Closed	...	38	9	0	257	401	188	53	8	11	268	19	11	322	8	10
Clinton	15½	5	712	15	9	13,969	1,146	2,625	2,451	0	1	1,191	19	9	3,642	19	10
Green Island	Closed	...	48	17	9	118	8,688	3,850	5	17	7	1,050	11	10	1,056	9	5
Outram	11	3	421	17	6	13,391	2,164	5,458	1,597	6	3	953	6	11	2,550	13	2
Mount Stuart	Closed	...	...	...	...	645	56	128	99	17	5	34	15	3	134	12	8
Manuka	Closed	...	71	13	7	490	67	111	61	...	...	26	3	6	87	8	7
Waitahuna	14	2	524	19	10	5,250	1,115	2,559	824	18	0	805	4	8	1,630	2	8
Lawrence	15	5	768	17	1	11,141	2,171	7,680	3,260	17	10	2,273	12	3	5,534	10	1
Carried forward	...	551	88,605	15	4	1,065,801	943,492	956,837	216,362	5	10	300,653					

RETURN No. 9—continued.

STATEMENT of REVENUE and EXPENDITURE of each STATION for the Year ending 31st March, 1881—  
continued.

Stations.	Hours Open.	Number of Hands Employed.	Total Expenditure.		Number of Tickets Issued.	Goods.		Revenue.				Total.					
						Tons Outwards.	Tons Inwards.	Coaching.		Goods.							
HURUNUI-BLUFF SECTION—continued.																	
Brought forward	...	551	£ 88,605	s. 15	d. 4	1,065,801	943,492	956,837	£ 216,362	s. 5	d. 10	£ 300,653	s. 9	d. 1	£ 517,015	s. 14	d. 11
Waipahi	13	3	425	5	8	4,443	3,033	1,835	1,280	19	6	2,292	13	7	3,573	13	1
Gore	12½	4	482	1	3	6,919	3,088	4,380	2,722	6	1	2,302	7	5	5,024	13	6
Mataura	9½	1	291	15	8	3,699	1,936	1,345	1,066	10	8	1,008	16	7	2,075	7	3
Edendale	9½	3	387	9	5	5,682	2,510	2,682	1,528	12	5	2,330	10	0	3,859	2	5
Woodlands	11	2	268	4	9	5,099	11,681	3,998	1,006	15	2	6,778	16	6	7,785	11	8
Invercargill	13½	23	3,484	9	9	67,079	23,704	35,550	14,977	1	4	12,574	10	8	27,551	12	0
Bluff	9	5	975	15	3	11,248	25,072	16,609	1,580	4	8	4,576	6	8	6,156	11	4
„ Wharf	...	...	...	...	...	...	1,207	5,015	...	...	...	83	1	6	83	1	6
Makarewa	11	1	190	4	0	3,407	15,622	2,460	489	10	3	3,463	13	0	3,953	3	3
Winton	9½	2	330	11	7	7,437	5,201	1,673	1,375	17	9	2,801	11	7	4,177	9	4
Oreti	12	1	113	19	2	1,226	1,121	944	333	16	7	390	0	6	723	17	1
Elbow	13½	3	361	3	10	11,221	1,707	4,369	2,088	4	9	1,481	6	9	3,569	11	6
Kingston	11	2	226	1	3	3,034	1,015	2,701	1,236	4	2	1,010	3	3	2,246	7	...
Tapanui	9	3	151	8	8	1,287	519	336	495	6	3	559	9	9	1,054	16	0
Kelso																	
Thornbury	11½	1	299	3	8	5,433	3,756	2,180	687	13	7	1,014	5	2	1,701	18	...
Riverton	11	3	421	13	7	17,074	1,586	2,196	2,493	6	9	866	3	5	3,359	10	2
Otautau	12½	2	398	7	6	5,720	1,691	2,905	1,045	10	5	815	18	6	1,861	8	11
Rakaia } R. & A. F.	12	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Methven } Railway	15½	2	...	...	...	...	5,767	5,767	33	19	7	2,706	10	3	2,740	9	10
Waimea Plains Railway	...	...	72	0	0	1,312	2,888	2,888	1,663	13	8	2,785	17	2	4,449	10	10
Totals	...	613	97,485	10	4	1,227,158	1,056,788	1,056,792	252,483	5	9	350,679	16	3	603,163	2	0

RETURN No. 10.

STATEMENT of CARRIAGE and WAGON STOCK for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Pictou.	Total.
1st class, 6-wheel	...	...	6	1	1	2	...	25	...	...	...	...	35
„ 4 „	...	...	7	2	3	4	1	10	...	1	2	1	32
„ Bogie, 30-feet (converted)	...	...	...	...	...	...	...	4	...	...	...	...	4
„ „ 40-feet	...	...	...	...	...	...	...	6	...	...	...	...	6
Composite, 6-wheel	...	...	8	6	7	12	1	61	...	...	1	2	98
„ 4 „	...	2	2	4	2	8	6	15	2	...	2	...	45
„ Bogie, 30-feet	...	...	...	...	...	...	...	6	...	...	...	...	6
2nd class, 6-wheel	...	...	16	7	7	11	1	62	...	...	...	1	105
„ 4 „	...	2	3	9	5	5	5	35	2	2	2	1	76
„ Bogie, 30-feet	...	...	...	...	...	...	...	2	...	...	...	...	2
„ „ 40-feet	...	...	...	...	...	...	...	4	...	...	...	...	4
American, 8-wheel	...	...	...	...	1	...	...	...	...	...	...	...	1
Mail-cars, Bogie, 30-feet	...	...	...	...	...	...	...	6	...	...	...	...	6
Passenger brakes	...	...	3	2	2	...	2	...	...	...	...	2	49
Goods „	1	2	9	4	6	13	1	72	2	2	2	...	76
Fell „	...	...	...	...	2	...	...	...	...	...	...	...	2
Trucks, &c.,—	...	...	...	...	...	...	...	...	...	...	...	...	...
Platform coal	...	...	1	...	...	...	...	...	...	...	...	...	1
Timber	...	12	28	14	52	48	6	172	...	4	4	6	346
Cattle	...	...	42	18	24	27	4	120	...	...	2	1	238
Sheep, single floor	...	...	...	4	...	...	...	...	...	...	2	...	6
„ double „	...	...	24	...	15	...	...	...	...	...	...	...	39
Horse-boxes	...	...	10	2	4	7	...	31	...	...	...	1	55
Covered goods	...	4	35	3	16	30	4	292	...	1	...	3	388
High-side	4	10	123	94	63	102	4	2,189	7	11	10	8	2,625
Low-side	8	4	84	58	111	180	11	955	14	10	10	19	1,464
Iron hopper, mineral	...	...	50	...	...	...	...	170	100	53	...	...	373
Carriage trucks	...	...	...	...	2	...	...	2	...	...	...	...	4
Meat „	...	...	...	...	3	...	...	...	...	...	...	...	3
Martin and Watson's	...	...	...	...	...	...	...	30	...	...	...	...	30
Unclassified (Hurunui-Bluff, approximate)	...	...	...	...	...	...	...	100	...	...	...	...	100
Totals	17	38	459	222	332	447	42	4,369	127	84	37	45	6,219

RETURN No. 11.  
STATEMENT of LOCOMOTIVE STOCK for the Year ending 31st March, 1881.

Class.	Cylinder.		Coupled Wheels.		Truck.		Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Huruui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total Engines.	
	Dia-meter.	Stroke.	No.	Dia-meter.	Wheels, No.	Dia-meter.														
Fell	...	In. { 14 } 12 } 14 }	In. { 16 } 18 }	4	Ft. in. 2 8	...	...	...	...	4	...	...	...	...	...	...	...	...	...	4
Double Fairlie	E...	10	18	8	3 3	...	...	...	...	...	...	3	...	2	...	...	...	...	...	5
"	E...	10	18	8	3 9	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2
"	B...	9	16	8	3 3	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2
Single Fairlie	R...	12½	16	6	3 0	...	...	2	...	3	5	...	...	7	1	...	...	...	...	18
American	T...	15	18	8	3 0	2	23	...	...	...	...	...	...	6	...	...	...	...	...	6
"	K...	12	20	4	4 0	2	26	...	...	...	...	...	...	8	...	...	...	...	...	8
"	L...	10½	18	4	3 0	2	24	...	4	...	4	1	...	1	...	...	...	...	...	10
"	J...	14	20	6	3 6	2	24	...	...	...	...	...	20	...	...	...	...	...	...	20
"	D...	9½	18	4	3 0	2	18	...	...	2	4	...	3	7	...	3	1	...	...	20
"	C...	9½	18	4	2 6	2	18	2	...	3	2	...	2	2	2	2	...	2	...	17
"	G...	10½	18	4	3 0	4	20	...	...	...	...	...	...	4	...	...	...	...	...	4
"	F...	10½	18	6	3 0	...	...	...	...	...	...	...	...	20	...	...	...	...	...	20
"	M...	13	20	6	3 6	...	...	...	...	...	...	...	...	4	...	...	...	...	...	4
"	P...	8	15	6	2 4	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2
"	O...	10½	18	6	3 0	...	...	2	9	4	...	6	...	16	...	...	...	...	...	37
"	A...	8	15	4	2 6	...	...	...	...	...	...	...	2	13	...	...	...	...	...	15
"	S...	8	20	4	2 6	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Rakaia - Ashburton Company Forks		11	18	4	4 0	2	30	...	...	...	...	...	...	2	...	...	...	...	...	2
Totals	...	...	...	...	...	...	2	2	16	9	17	15	7	118	3	2	3	3	...	197

RETURN No. 12.  
STATEMENT of WEIGHING MACHINES for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Huruui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
2 cwt. ...	...	...	...	...	...	3	...	1	...	...	...	...	4
2½ " ...	...	...	...	...	...	...	...	1	...	...	...	...	1
2¾ " ...	...	...	1	...	...	...	...	...	...	...	...	...	1
3 " ...	...	...	8	5	3	1	1	6	4	1	2	...	31
4 " ...	...	...	24	3	1	6	...	9	...	...	...	...	43
5 " ...	...	...	5	2	3	4	4	20	...	...	4	4	46
5½ " ...	...	...	...	...	...	...	...	3	...	...	...	...	3
6 " ...	...	2	...	...	...	2	...	14	...	...	...	...	18
7 " ...	...	...	...	2	...	...	...	...	...	...	...	...	2
8 " ...	...	...	...	1	...	5	...	4	...	...	...	...	10
9 " ...	...	...	...	...	...	...	...	1	...	...	...	...	1
10 " ...	...	...	2	1	5	2	2	30	...	...	...	2	44
11 " ...	...	...	...	...	...	...	...	23	...	...	...	...	23
12 " ...	...	...	...	...	...	1	...	4	...	...	...	...	5
12½ " ...	...	...	...	...	...	...	...	1	...	...	...	...	1
13 " ...	...	...	...	...	...	...	...	...	...	...	...	...	1
14 " ...	...	...	...	...	...	...	...	...	...	...	...	...	...
15 " ...	...	...	4	2	...	2	2	13	...	...	1	...	24
16 " ...	...	...	...	...	...	1	...	11	...	...	...	...	12
18 " ...	...	...	...	...	...	...	...	1	...	...	...	...	1
20 " ...	...	...	...	...	1	3	...	3	...	...	1	...	8
22 " ...	...	...	...	...	...	...	...	2	...	...	...	...	2
25 " ...	...	...	...	...	...	2	...	...	...	...	...	...	2
27 " ...	...	...	...	...	...	...	...	2	...	...	...	...	2
50 " ...	...	...	1	...	...	...	...	...	...	...	...	...	1
Totals	...	3	44	16	13	32	9	150	4	1	8	6	286

RETURN No. 13.  
STATEMENT of WEIGHBRIDGES for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Huruui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
3-ton (cart) ...	...	...	...	...	1	...	...	...	...	...	...	...	1
8 " ...	...	...	...	...	...	...	...	1	...	...	...	...	1
10 " ...	...	...	3	...	...	...	...	2	...	...	...	...	5
10-ton (wagon)	...	...	1	...	...	...	...	1	...	...	...	...	2
12 " ...	...	...	...	1	...	...	...	2	1	1	...	2	7
14 " ...	...	...	...	...	...	...	...	5	...	...	...	...	5
Totals	...	...	4	1	1	...	...	11	1	1	...	2	21

## RETURN No. 14.

STATEMENT of TRAVERSERS and TURNTABLES for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
Traversers ... ..	...	...	1	...	1	...	...	6	1	1	...	...	...
<b>Turntables,—</b>													
40-feet (engine) ... ..	...	...	...	...	...	...	...	2	...	...	...	...	2
50-feet " " " " " " " "	...	...	...	...	...	...	...	6	...	...	...	...	6
11-feet (wagon) ... ..	...	...	1	...	...	...	1	...	...	...	...	...	2
12-feet " " " " " " " "	...	...	...	...	...	...	...	1	...	...	...	...	1
13-feet " " " " " " " "	...	...	...	...	...	1	...	24	1	1	...	1	28
14-feet " " " " " " " "	...	...	3	7	3	2	...	12	...	...	1	...	28
16-feet " " " " " " " "	...	...	...	...	...	...	1	...	...	...	...	...	1
20-feet " " " " " " " "	...	...	...	...	...	...	...	2	...	...	...	...	2
<b>Totals</b> ... ..	...	1	3	7	3	3	2	47	1	1	1	1	70

## RETURN No. 15.

STATEMENT of CRANES for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
1 ton, stationary, hand ... ..	...	...	3	...	...	...	...	1	...	...	2	...	6
1½ " " " " " " " "	...	...	1	...	3	6	...	4	2	1	2	2	21
2 " " " " " " " "	...	...	...	...	3	...	...	4	...	1	...	...	7
3 " " " " " " " "	...	...	...	...	...	...	...	3	...	...	...	...	3
5 " " " " " " " "	...	...	...	...	...	...	...	7	...	...	...	...	7
10 " " " " " " " "	...	...	1	...	...	...	...	2	...	...	...	...	3
2 " " " " " " " " steam	...	...	1	...	...	...	...	...	...	1	...	...	2
1½ " " " " " " " " travelling, hand	...	...	...	...	...	...	...	...	...	...	...	1	1
2 " " " " " " " "	...	...	2	1	1	2	1	...	1	...	1	...	9
3 " " " " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...
5 " " " " " " " "	...	...	3	2	1	2	1	...	1	1	1	1	13
10 " " " " " " " " steam	...	...	1	...	...	...	...	...	...	...	...	...	1
1½ " " " " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	3
2 " " " " " " " "	...	2	3	...	...	...	...	2	2	...	...	...	6
3 " " " " " " " "	...	...	...	...	...	...	...	1	...	...	...	...	1
5 " " " " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...
10 " " " " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...
12 " " " " " " " "	...	...	...	...	...	...	...	...	1	1	...	...	2
<b>Totals</b> ... ..	...	2	15	3	7	10	2	24	7	5	6	4	85

## RETURN No. 16.

STATEMENT of PUMPS for the Year ending 31st March, 1881.

Description.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
Steam ... ..	...	...	1	...	...	1	...	5	...	...	...	...	7
Hand ... ..	...	3	18	5	7	8	4	71	4	...	3	3	126
Wind-mill ... ..	...	...	...	...	...	...	...	9	...	...	...	...	9
Hot-air ... ..	...	...	...	...	...	...	...	3	...	...	...	...	3
Hydraulic ... ..	...	1	...	...	...	4	5	...	...	...	...	...	10
<b>Totals</b> ... ..	...	4	19	5	7	13	9	88	4	...	3	3	155



## RETURN No. 17.

STATEMENT OF RAILS RELAID for the Year ending 31st March, 1881.

Weight.													Total.	
	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.		
28 lb. ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30 " ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40 " ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40 " steel ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52 " ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53 " steel ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
56 " ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			114	388	...	1,162	21	7	1,545	40	9	11	14	3,311

## RETURN No. 18.

STATEMENT OF SLEEPERS RELAID for the Year ending 31st March, 1881.

Description.													Total.	
	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.		
Black pine ... ..	...	...	...	...	...	...	...	31,493	...	...	321	...	...	31,814
Totara ... ..	...	...	...	...	...	1,581	...	8,055	...	...	...	...	...	10,236
Black birch ... ..	...	...	...	...	550	...	...	3,741	25	43	62	504	...	4,925
Redwood ... ..	...	...	...	...	...	...	...	12	...	...	...	...	...	12
Oregon ... ..	...	...	...	...	...	...	...	34	...	...	...	...	...	34
Kauri ... ..	...	697	1,143	...	...	...	...	425	...	...	...	...	...	2,265
Blue gum ... ..	...	...	...	...	...	...	...	18,981	...	...	...	...	...	18,981
Jarrah ... ..	...	...	...	...	...	...	...	5,140	...	...	...	...	...	5,140
Red pine ... ..	...	...	...	...	...	...	541	35	...	...	...	...	...	576
Puriri ... ..	...	...	278	...	...	...	...	...	...	...	...	...	...	278
Totals ... ..	...	697	1,421	...	550	1,581	541	68,516	25	43	383	504	...	74,261

## RETURN No. 19.

RETURN of Number of STATIONS and SIDINGS on each Section.

Section.	Miles.	No. of Stations and Stopping-places on the Time-tables.	No. of Private Sidings.		
			At Stations.	Out of Stations.	Total.
Whangarei ... ..	5	4	...	...	...
Kaipara ... ..	17	7	1	1	2
Auckland ... ..	115	45	7	3	10
Napier ... ..	70	13	3	2	5
Wellington ... ..	69	28	1	4	5
Wanganui ... ..	115	39	11	3	14
New Plymouth ... ..	41	15	1	2	3
Hurunui-Bluff ... ..	788	287	86	45	131
Greymouth ... ..	8	5	...	1	1
Westport ... ..	10	5	...	...	...
Nelson ... ..	20	10	...	...	...
Picton ... ..	19	9	3	...	3
Totals ... ..	1,277	467	113	61	174

## RETURN No. 20.

PARTICULARS of PRIVATE SIDINGS and SHEDS, showing Value of Traffic done during Twelve Months ending 31st December, 1880.

Section.	Description.	Name.	Nearest Station and Distance.	Value of Traffic In and Out.
Auckland	Siding	Gilfillan and Co.	At Auckland	No return.
		W. J. Fisher and Co.	10 chains, Otahuhu	434 8 11
		J. Bycroft	At Onehunga	189 19 7
		Johnston and Co.	At Otahuhu	23 16 9
		R. Lamb	15 chains, Ngaruawahia	370 0 8
		Jagger and Co.	At Meremere	410 1 0
		Hammond and Byron	At Auckland	1,011 5 6
		A. Buckland	63 chains, Drury	151 15 5
		R. Graham	At Ellerslie	Nil.
		Oliver and Dunne	At Waipapa	Nil.
		Jones and Payne	At Mount Eden	No return.
		McLeod's	20 chains, Helensville	750 3 2
		Millar and Potts	At Waipawa	122 14 0
		Wilding and Bull	157 chains, Takapau	918 14 2
		Kopua Saw-mill Co.	15 chains, Kopua	No return.
Wellington	Siding	Gasworks Co.	At Napier	"
		John Joshua	At Spit	"
		Morgan and Robinson	151 chains, Upper Hutt	Closed.
		W. Cole	234 " "	395 13 2
		C. Lett	144 " Kaitoke	112 18 1
		T. W. Pilcher	At Featherston	2,473 0 2
		W. Booth	19 chains, Matarawa	675 7 1
		York and Cornfoot	At Wanganui	892 3 9
		Pollock and Young	40 chains, Aramoho	59 18 5
		W. H. Lash	42 " Halcombe	57 5 7
Wanganui	Siding	Henderson and Wratt	At Swanson's	421 13 4
		Malcolm and others	At Makino	1,157 5 8
		Manson and Bartholomew	At Feilding	1,319 12 8
		J. and C. Bull	At Aorangi	724 0 5
		Bayley Bros.	At Taonui	1,840 7 3
		Richter and Co.	At Trondheim	147 5 2
		McChesney and Baird	"	Closed.
		Gillies and Henderson	At Kelvin Grove	266 12 4
		Richter and Co.	At Hokowhitu	527 8 4
		Douglas and Co.	At Oroua Bridge	"
		Moore and Currie	60 chains, Baker's Crossing	"
		Marnes	27 " Tariki Road	91 16 10
		H. Brown	72 " Inglewood	298 3 4
		Broadmore and Co.	At Inglewood	Closed.
		Hurunui-Bluff	Siding	Springfield Coal Co.
J. Anderson	Addington			29 9 0
P. Cunningham and Co.	Lytelton			8,015 4 11
Royse, Stead, and Co.	Heathcote			5,697 11 1
Lytelton Borough Co.	68 chains, Heathcote			41 12 7
Gasworks Co.	Christchurch			1,607 17 7
P. Laurie	"			162 13 1
Miles, Hassel, and Co.	"			519 7 9
Fuhrman and Ford	"			134 7 10
W. Montgomery and Co.	"			3,242 6 1
C. W. Turner	"			4,056 9 9
J. A. McIlraith	"			295 19 2
W. H. Hargreaves	"			1,023 17 10
Langdown and Co.	"			2,141 12 2
J. T. Brown	"			1,613 16 8
Springfield Coal Co.	"			541 6 3
T. Goss	"			483 18 10
T. and E. Pavitt	"			2,224 7 0
N.Z. L. and M. A. Co.	"			Nil.
Lloyd's	"			1,286 2 1
Dyason's	"			401 15 3
McClatchie and McIntosh	"			469 13 1
J. T. Brown	25 chains, Addington			227 3 4
T. P. Baber	Addington			1,526 9 9
Dr. Symes	30 chains, Addington			313 8 6
W. White and Co.	16 " "			861 8 4
A. Moore and Co.	"			2,656 19 10
G. King and Co.	Addington			1,069 17 3
Springfield Coal Co.	"			Nil.
W. D. Woods	Riccarton			1,715 9 6
New Zealand Produce Co.	Belfast			378 8 7
Wilson (Eyreton Branch)	274 chains, Kaiapoi			399 17 6
Moir and Co.	Southbrook			571 17 6
Sedcole's	East Oxford			169 11 11
Vaughan and Cordner	Sefton			906 0 2
S. Smart	Hornby Junction	388 7 2		
New Zealand Produce Co.	Factory	308 17 0		
Toswill's	Prebbleton	68 6 10		
Irwell Grain Store Co.	164 chains, Doyleston	329 16 0		
White and Co.	At Leeston	417 18 3		
W. J. G. Bluett and Co.	Southbridge	459 2 9		
Burt and Co.	Rangiora	Closed.		
W. White and Co.	Southbridge	Nil.		
S. Baily	Templeton	"		
Toswill's	Kirwee	277 5 9		
McIlraith's	Glentunnel	1,590 16 6		
J. B. Sheath	Coalgate	Nil.		
Bank of New South Wales	Dunsandel	183 8 7		
Saunders Bros.	Ashburton	1,189 8 9		
Jameson Bros.	Ashburton	669 14 2		
Friedlander Bros.	"	2,686 16 1		

RETURN No. 20—continued.  
PARTICULARS of PRIVATE SIDINGS and SHEDS, &c.

Section.	Description.	Name.	Nearest Station and Distance.	Value of Traffic In and Out.	
				£ s. d.	
Hurunui-Bluff—contd.	Siding	J. Grigg	Winslow	Nil.	
		J. Beswick	Tinwald	Nil.	
		J. Clarke	"	1,283 18 3	
		Bruce's	Timaru	461 9 9	
		Belford's	"	217 6 8	
		Quinn's	1'71 chains, Otaio	975 13 6	
		Studholme's	1'36 " Hook	264 6 3	
		Rickman's	Waimate	876 15 2	
		Maxwell and Mathias	Racecourse Hill	238 5 11	
		Craig's	Oamaru	602 9 3	
		Gasworks	"	32 7 6	
		Kerr and McCallum	"	1,287 17 11	
		Orr and Meek	"	980 19 2	
		Harbour Board	"	7,600 14 1	
		J. and T. Meek	18 chains, Oamaru	2,090 5 8	
		Teschemaker's	1'25 " Totara	1,351 5 9	
		N.Z. and A. L. Co.	Maheno	138 5 0	
		Anderson's	33 chains, Waikouaiti	239 3 4	
		Johnston's	Port Chalmers	6 9 2	
		Logan's Point (quarry)	31 chains, Pelichet Bay	29 19 4	
		Cargill, Gibbs, and Co.	"	18 6 0	
		Tomlinson and Co.	Dunedin	413 16 3	
		McLean Bros.		1,520 18 1	
		Findlay and Co.	25 chains, Dunedin	2,130 11 6	
		Martin and Watson	"	1,411 4 1	
		Henry and Co.	46 "	44 3 10	
		Reid and Grey		253 19 3	
		Wilson, Harraway, and Co.	20 " Burnside	357 13 11	
		N.Z. L. and M. A. Co.	Dunedin	1,797 1 0	
		Smith and Fotheringham	1 mile 12 chains, Dunedin	125 14 0	
		W. White	1 mile, Dunedin	539 12 10	
		Corporation	53 chains, Dunedin	251 0 0	
		Anderson's	1'12 chains, Dunedin	808 19 1	
		Guthrie and Larnach		1 2 6	
		Burnside Sale-yards	Green Island	592 0 2	
		McGill and Forrest	6 chains, Burnside	220 15 11	
		Wilson, Harraway, and Co.	46 " Dunedin	548 5 3	
		Runciman's	21 " Green Island	221 2 3	
		Walton Park Coal Co.	Burnside	799 6 0	
		Calverley's	64 chains, Abbotsford	593 14 6	
		Green Island Coal Co.	"	617 1 8	
		Freeman's	"	832 16 7	
		Fernhill's	1'24 " Wingatui	689 11 7	
		Dunedin Corporation	Wingatui	No return.	
		Hatch	1'38 chains, Kew	"	
		Corporation	0'54 " Green Hills	"	
		"	0'73 " Woodend	"	
		Mosgiel Woollen Factory	Mosgiel	113 0 5	
		McGill's	Milton	1,618 3 7	
		Duthie's	"	290 6 8	
		White's	60 chains, Lovell's Flat	118 5 10	
		Nelson's	2'30 " Stirling	230 10 0	
		Landell's	1'57 " "	Not now used.	
		Tolcher's	Lawrence	378 7 10	
		Angus's	67 chains, Green Hills	698 10 8	
		Angus's	0'70 " Mataura	80 17 4	
		Meat-preserving Co.	Woodlands	307 9 9	
		N.Z. L. and M. A. Co.	Bluff	963 7 3	
		Nicholl and Tucker	"	1,411 19 1	
		Waddel and Co.	"	1,133 5 6	
		Martin, Maitland, and Co.	Invercargill	810 14 11	
		Green	Timaru	212 16 1	
		National Mortgage and Agency Co.	"	1,854 0 7	
		F. le Cren (N.Z. L. and M. A. Co.), and George Street sidings	"	1,694 18 5	
		Cunningham and Co.	"	1,760 5 11	
		W. Evans	"	960 5 0	
		Miles, Archer, and Co.	"	1,291 5 1	
		Government Landing Service	"	244 14 4	
		N.Z. and A. L. Co.	St. Andrews	840 10 9	
		Clarke and Wright	25 chains, Dunedin	505 3 6	
		Shand's	Shand's	269 15 5	
		McDonald's	Milburn	967 14 5	
		Bastings, Leary, and Co.	Gore	186 19 0	
		Angus's	51 chains, Invercargill	56 11 6	
		Dawson's	At One-Tree Point	1,107 7 0	
		Brown's	At Woodlands	1,236 16 11	
		N.Z. and A. L. Co.	3'27 chains, Morton Mains	465 0 0	
		Eldred's	0'47 " Wallacetown	Nil.	
		Jack's	1'25 " Wainanawa	625 2 0	
		Shand's Saw-mills	0'70 " Centre Bush	647 7 6	
		McLaughlin's	0'40 " Greenhills	185 18 9	
		McDonald's	Winton	90 18 11	
		M. Instone	Thornbury Junction	449 12 9	
		Invercargill Corporation	7 chains, Waikiwi	382 16 5	
		Wright's	2'04 chains, Wainawa	No return.	
		Invercargill Corporation	1'13 " Branhholme	"	
		Greymouth	Siding	T. W. Wilson	208 0 9
		Picton	Siding	T. H. Dalton	170 12 10
				J. Hornby	324 2 0
				A. T. Thompson	475 15 1

**RETURN NO. 21.**  
**COMPARATIVE STATEMENT OF MILEAGE OF RAILWAYS OPEN FOR TRAFFIC AND UNDER MAINTENANCE ON 31st March, 1880, and 31st March, 1881.**

Section.	Mileage Open for Traffic on 31st March, 1880.	Additional Length Opened for Traffic during Year.		Reduced Mileage equivalent Maintenance for whole Period.	Lengths Closed during Year.		Net Addition to Mileage Open for Traffic.	Net Addition to Mileage under Maintenance.	Total Mileage Open for Traffic on 31st March, 1881.
		Line Opened.	Date of Opening.		Length Opened.	Line.			
Whangarei	M. obs. ...	Whangarei Wharf to Kamo	3rd March, 1881 For coal traffic, 28th Oct., 1880	M. obs. 4 60	...	M. obs. ...	M. obs. 4 60	M. obs. lks. 0 31 67	M. obs. 4 60
Kaipara	15 65	Helensville South to Helensville North	15th July, "	0 30	...	...	0 30	0 16 0	16 15
Auckland	105 52	Ohapou to Te Awamutu	21st Dec., "	6 18	Hamilton Branch	1 1	7 57	4 9 0	113 29
Napier	64 18	Waikomiti to Henderson's	9th Aug., "	2 40	...	...	5 41	1 9 0	69 59
Wellington	44 6	To Makatoko	14th May, "	7 67	...	...	24 34	13 62 0	68 40
		Featherston to Greytown	1st Nov., "	16 5					
		Woodside to Masterton	1st Nov., "	0 42					
		Pipitea to Wellington Station	20th Sept., "	13 0					
Wanganui	94 57	Kai-iwi to Waitotara	23rd March, 1881	6 75	...	...	13 0	6 40 0	114 52
		Waitotara to Waverley	27th Sept., 1880	3 50	...	...	6 75	1 65 0	39 26
New Plymouth	32 76	Stratford to Ngare	7th Feb., 1881	2 60	...	...	3 50	0 31 0	
		Ngare to Eltham	4th April, 1880	10 60	...	...	2 60	13 51 0	
Hurunui-Bluff	754 18	Tinwald Branch	6th Oct., "	6 77	...	...	17 57	...	
		Waipara Extension	1st Dec., "	15 43	...	...	...	...	
		Tapanui Branch	...	...	...	...	15 43	...	
Greymouth	7 20	...	...	...	...	...	...	...	787 38
Westport	10 0	...	...	...	...	...	...	...	7 20
Nelson	19 78	...	...	...	...	...	...	...	10 0
Picton	16 77	...	...	...	...	...	...	...	19 78
		To Blenheim	24th May, 1880	1 10	...	...	0 73	0 31 0	17 70
<b>Total</b>	<b>1,165 67</b>			<b>104 38</b>		<b>1 18</b>	<b>103 20</b>	<b>42 25 67</b>	<b>1,269 7</b>

## RETURN No. 22.

COMPARATIVE STATEMENT of the Number of EMPLOYEES for Years ending 31st March, 1880, and 31st March, 1881.

Department.	Whangarei.	Kaipara.	Auckland.	Napier.	Wellington.	Wanganui.	New Plymouth.	Hurunui-Bluff.	Greymouth.	Westport.	Nelson.	Picton.	Total.
1879-80.													
General	...	...	...	...	...	...	...	...	...	...	...	...	40
Traffic	...	...	76	30	35	42	11	752	14	5	12	8	992
Maintenance	...	17	100	49	50	89	32	1,008	10	5	14	14	1,391
Locomotive	...	3	122	26	80	46	7	793	5	7	8	5	1,102
Totals	...	27	298	105	165	177	50	2,553	29	20	34	27	3,525
1880-81.													
General	...	...	...	...	...	...	...	...	...	...	...	...	33
Traffic	1	7	75	31	39	44	12	639	14	5	12	8	887
Maintenance	4	17	109	50	70	95	38	912	10	7	14	14	1,391
Locomotive	3	3	111	24	70	47	12	651	5	6	8	5	945
Totals	8	27	295	105	179	186	62	2,202	29	18	34	27	3,205
Difference,—													
Increase	8	...	...	...	14	9	12	...	...	...	...	...	...
Decrease	...	...	3	...	...	...	...	351	...	2	...	...	320

## RETURN No. 23.

STATEMENT of ACCIDENTS for the Year ending 31st March, 1881.

Section.	Passengers Killed or Injured.				Servants of the Department Killed or Injured.				Persons Killed or Injured while Crossing at Level Crossings.		Trespassers.		Workshops.		Miscellaneous.		Total Killed.	Total Injured.
	From Causes beyond their own Control.		From their own Misconduct or Want of Caution.		From Causes beyond their own Control.		From their own Misconduct or Want of Caution.		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.		
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.										
Whangarei	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kaipara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Auckland	...	...	1	1	...	3	1	...	...	1	1	...	...	...	...	1	3	6
Napier	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	1
Wellington	3	7	1	2	...	1	...	1	...	...	...	...	1	...	...	...	4	12
Wanganui	...	...	1	1	...	...	...	1	...	1	...	...	...	...	...	...	1	3
New Plymouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hurunui-Bluff	...	...	4	2	...	4	1	13	2	5	3	...	...	...	...	...	10	24
Greymouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Westport	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nelson	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Picton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	3	7	7	6	...	9	2	15	2	6	5	2	...	1	...	1	19	47

## RETURN No. 24.

SHOWING PROPORTION of POPULATION to Lines Open.

Provincial District.	Inhabitants.	Miles of Railway Open for Traffic on 31st March, 1881.	Number of Inhabitants per Mile of Railway.
Auckland	97,962	137	715
Taranaki	...	...	...
Wellington	92,963	295	315
Hawke's Bay	...	...	...
Marlborough	...	...	...
Nelson	50,840	57	892
Westland	...	...	...
Canterbury	244,599	788	310
Otago	...	...	...
Totals	486,364	1,277	381

## RETURN No. 25.

## REPORT ON THE ACCIDENT ON THE RIMUTAKA INCLINE, AT THE HORSE-SHOE GULLY.

ON Saturday, the 13th September, 1880, the No. 6 South train arrived at Cross's Creek, the foot of the incline, in due course. At Cross's Creek the Fell engine was attached as usual. The train consisted of six vehicles, in the following order: Two 4-wheel composite carriages, one passenger brake-van (ordinary), the Fell engine, two covered goods vans (laden), and one incline brake (with clip-brakes). When the train was about 60 chains from the Summit, at a place where the line crosses a gully in bank, and on a 5-chain curve, a gust of wind struck it, and the two carriages and passenger-brake were instantaneously blown off the line rails and thrown down the embankment at right angles to the rails on the inside of the curve. The train was travelling at the usual speed of about five miles per hour. All the woodwork of the carriage in front was torn from the framing, and carried to the bottom of the gully. The frame turned over with the wheels in the air. The second carriage and the guard's van were blown on to their sides, and were hanging on to the engine-coupling, which was twisted and broken. So great was the strain on the one coupling-chain that was holding all the weight, that when, at a later period, this coupling-chain was cut, it parted with a loud report, and allowed the carriage and van to slide down the bank. The engine was stopped within a few yards; the incline brake was detached from the rear, and run down the incline for help. Before it returned, another gust caught the laden vans behind the engine, and turned them on their sides, breaking the engine-coupling. The formation at this spot was wide enough for the vans to lie; they, therefore, did not go down the gully. Three children were killed; one died afterwards from injuries to the skull; five adults were more or less seriously hurt, and eight more slightly. A searching official inquiry was held, followed by a Coroner's inquest. After a great deal of evidence, the verdict of the jury was that the Railway Department was in no way to blame. Considerable discussion ensued, and many suggestions were made, as to the best modes of protecting the trains, and it was finally decided by the Engineer in Charge, North Island, to erect a strong pallisade fencing about 9 feet above the rails, on the windward side of the line, in two places where the wind concentrates in the gullies, rushing down from the ranges. These effectually protect the passing trains, breaking and deflecting the wind, and will render any similar accident unlikely.

## RETURN No. 26.

## WELLINGTON SECTION.

STATEMENT of EXPENDITURE under Casualties and Improvements, &c., for Year ending 31st March 1881, included in Classified Expenditure.

Description.	Amount.	Description.	Amount.
	£ s. d.		£ s. d.
Rimutaka slips ... ..	314 6 9	Points and crossings at 19-mile siding ...	4 11 6
Damage by floods at 4½ miles ... ..	28 16 0	Lengthening platform, Upper Hutt ...	25 15 9
Removing wreckage after Rimutaka accident, and repairs to stock	275 13 1	Lowering goods-shed platform, Kaitoke ...	0 10 0
Expenses, &c., allowed to injured persons ...	430 0 0	Water supply, Kaitoke ... ..	12 15 4
Building groins, Hutt River ... ..	205 1 0	Belmont Station platform ... ..	12 4 0
Draining slips ... ..	207 3 11	Lower Hutt platform, &c. ... ..	10 7 8
Box drain at Summit ... ..	25 4 0	Removing urinal, Kaitoke ... ..	3 18 0
New box culverts ... ..	15 5 0	Lengthening platform, Petone ... ..	12 3 6
Stone protection for bridges ... ..	24 8 0	Pipitea Station alterations ... ..	3 19 8
Stone protection, Summit reservoir ... ..	8 16 9		
Protecting slopes ... ..	29 16 0	Total ... ..	£1,650 15 11

RETURN No. 27.

EXPERIMENT WITH COALS, MADE ON THE HURUNUI-BLUFF SECTION.

Date.	No. of Trial.	Class.	Engine Miles.	Train Miles.	Coal Consumed. Cwts.	Lbs. per Engine Mile.	Average Tonnage per Train Mile.	Run.	Coal.	Remarks.
March, 1881	1	M	3,899	2,552	1,608	46.19	183.64	Amberley-Ashburton	Springfield.	40 cwt. Westport.
" "	2	J	2,004	1,718	980	54.77	123.04	"	"	"
" "	3	M	3,684	2,728	828	25.17	181.42	"	Westport.	300 cwt. Springfield; 30 cwt. Brockley.
" "	4	J	6,250	5,094	1,800	32.25	221.53	"	"	"
" "	5	K	5,756	5,246	1,031	20.02	72.38	"	"	"
January, "	6	J	485	416	240	55.42	132.31	"	Lomas Mine.	"
" "	7	J	605	520	320	59.24	190.95	"	"	"
" "	8	G	1,223	956	382	34.98	75.28	"	"	"
November, 1880	9	G	2,112	1,536	664	35.21	73.99	"	Austin and Kirk Homebush.	80 cwt. Shag Point. 47 cwt. Shag Point; 28 cwt. Homebush.
March, 1881	10	J	6,862	5,952	2,647	43.20	105.94	Ashburton-Oamaru	Shag Point	30 cwt. Springfield.
" "	11	K	3,699	3,378	1,241	37.57	110.23	"	"	"
" "	12	J	5,973	4,932	1,886	41.63	91.46	Oamaru-Clinton	"	50 cwt. Kaitangata.
November, 1880	13	K	3,083	2,938	1,484	53.91	87.14	"	"	"
" "	14	R	6,222	5,435	2,315	41.67	94.87	"	"	"
February, 1881	15	J	9,408	8,652	2,772	33.00	98.65	"	Kaitangata	84 cwt. Newcastle; 123 cwt. Kaitangata. 8 cwt. Shag Point.
" "	16	K	1,464	1,368	686	52.44	71.96	"	"	199 cwt. " 147 " "
December, 1880	17	R	6,541	5,862	2,101	35.97	93.06	Clinton-Invercargill	"	"
February, 1881	18	R	404	340	164	45.54	95.14	"	Nightcaps	"
April, "	19	J	3,147	2,828	631	22.45	89.55	"	Coal Pit Heath Shag Point.	50 cwt. Westport; 28 cwt. Kaitangata.
January, "	20	E	3,541	2,003	1,756	73.21	126.08	Dunedin-Port Chalmers	Walton Park	"
" "	21	E	1,005	750	657	55.54	108.02	"	Newcastle.	"
April, "	22	J	35,198	39,004	8,952	28.48	145.34	Christchurch-Timaru	"	"
February, 1879	23	K	34,574	30,983	5,944	19.25	70.94	Christchurch-Ashburton	"	"
March, "	24	J	29,725	25,872	14,308	53.91	133.64	Oamaru-Ashburton	Shag Point	343 cwt. Springfield; 10 cwt. Homebush.
May, 1880	25	K	13,900	13,096	4,287	35.26	69.16	Palmerston-Timaru	"	"
" "	26	K	2,490	2,246	476	21.41	103.98	"	Westport.	"
December, 1880	27	J	2,000	2,296	571	24.59	98.36	"	"	"
" "	28	J	3,950	3,535	1,650	46.78	159.21	Christchurch-Ashburton	Homebush	30 cwt. Shag Point. 1,319 cwt. Shag Point; 29 cwt. Wilson's.
October, 1880	29	J	28,197	24,093	12,921	51.31	183.44	Christchurch-Timaru	Springfield	270 cwt. Homebush; 105 cwt. Shag Point; 50 cwt. Wilson's.
March, 1880	30	K	11,501	10,244	3,768	36.68	59.51	Christchurch-Oamaru	"	"

## RETURN No. 28.

## HURUNUI-BLUFF SECTION.

COMPARISON of RESULTS of Working English and American Locomotives on the Hurunui-Bluff Section, excluding Ballasting and Shunting.

## OAMARU-PALMERSTON DIVISION (12 MONTHS).\*

Class.	No. of Engines.	Cylinder.	Coupled Wheels.		Truck.	Average Speed Miles per Hour.	Average Load. Tons.	Ton Miles.	Cost in Pence per Ton Mile.				
			No.	Diameter.					Repairs.	Stores.	Fuel.	Wages.	Total.
J English ...	2	14" x 20"	6	3' 6"	2-wheel	15	87	5,046,329	'008	'005	'034	'036	'083
T American ...	2	15" x 18"	8	3' 0"	"	10	111	3,865,798	'008	'005	'040	'033	'086

## PALMERSTON-CLINTON DIVISION (5 MONTHS).†

J English ...	3	14" x 20"	6	3' 6"	2-wheel	16	96	2,660,183	'006	'004	'031	'030	'071
T American ...	4	15" x 18"	8	3' 0"	"	10	97	2,917,611	'013	'004	'041	'030	'088

## PALMERSTON-CLINTON DIVISION (5 MONTHS).

R Single Fairlie ...	6	12½" x 16"	6	3' 0"	...	14	91	4,049,190	'032	'004	'033	'035	'104
K American ...	3	12" x 20"	4	4' 0"	2-wheel x 2	16	75	905,152	'059	'005	'049	'037	'150

Tractive power per lb. of steam pressure	J	...	93'3 lb.
"	K	...	60'0 "
"	T	...	112'5 "
"	R	...	66'7 "

\* The conditions are in favour of the American engine, the results being about equal. † The American engines were working generally on heavier grades than the English.

## PARTICULARS of the LIFT and AVERAGE RISE of the Divisions on which Locomotives were running.

Length.	Distance.	Greatest Lift.		Total Lift.	Lift per Mile.	Average Lift per Mile.	Sharpest Curves.
		Miles.	Feet.				
Oamaru-Palmerston ...	...	37½	308	1,114	30	29½	9
Palmerston-Oamaru ...	...	37½	274	1,080	28½		
Palmerston-Dunedin ...	...	40½	330	931	23		7½
Dunedin-Palmerston ...	...	40½	371	972	24	23½	
Dunedin-Clinton ...	...	73½	400	1,335	18½		15
Clinton-Dunedin ...	...	73½	...	935	12½	15½	



RETURN No. 29.  
AUCKLAND SECTION.  
SUMMARY of LOCOMOTIVE RETURN for the Year ending 31st March, 1881.  
Prevailing Grades 1 in 40.

Type.	No. of Engine.	Days in Steam.	Average Speed Miles per Hour.	Total Engine Mileage.	Average Tons per Train Mile.	Ton Miles.	Quantity of Stores.				Cost.				Cost per Ton Mile in Pence, exclusive of Ballasting and Shunting.				Remarks.					
							Running.		Repairs.	Wages and Material.	Running.		Repairs.	Wages and Material.	Running.		Stores.	Fuel.		Wages.	Total.			
							Coal.	Oil.			Tallow.	Waste.			Stores.	Fuel.						Wages.	Total.	
B	1	142	19½	Train, 12,827 Shunt, 2,302 Ballast	8	1,113,889	Cwts.	453	175	244	£	40	99	223	607	£	009	021	048	131				
							Qts.	109	38	47	£	7	17	40	106	£	000	000	000	000	000	000	000	000
							Lbs.	...	...	...	£	...	...	...	...	£	...	...	...	...	£	...	...	...
F	9	1,498	18	Train, 106,318 Shunt, 25,690 Ballast, 1,098	61	6,547,082	Cwts.	2,605	1,417	2,048	£	236	660	2,278	4,159	£	009	024	083	152				
							Qts.	597	335	491	£	56	156	543	982	£	000	000	000	000	000	000	000	000
							Lbs.	306	30	17	£	3	8	20	52	£	...	...	...	...	£	...	...	...
L	4	922	19	Train, 63,949 Shunt, 13,360 Ballast, 3,095	59	3,778,774	Cwts.	1,477	269	897	£	138	378	1,371	2,449	£	009	024	085	154				
							Qts.	310	60	188	£	29	81	296	527	£	000	000	000	000	000	000	000	000
							Lbs.	659	76	13	£	7	19	70	124	£	...	...	...	...	£	...	...	...
R	2	484	19½	Train, 42,244 Shunt, 7,316 Ballast	80	3,399,694	Cwts.	1,190	332	245	£	109	296	779	1,479	£	007	021	055	104				
							Qts.	209	56	46	£	19	52	138	261	£	000	000	000	000	000	000	000	000
							Lbs.	...	...	...	£	...	...	...	...	£	...	...	...	...	£	...	...	...

RETURN NO. 29.—continued.  
 HURUNUI-BLUFF SECTION.  
 RECAPITULATION OF SUMMARY OF LOCO. RETURNS, 31st March, 1881.  
 HURUNUI—OAMARU DIVISION (12 MONTHS).

Main-line Grades prevailing 1 in 100 and flatter, limiting on portions 1 in 80. Branch Lines 1 in 66 and flatter.

Type.*	No. in each Class.		Average Speed Miles per Hour.		Mileage.		Haulage.		Stores Consumed.					Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.				Type.						
	1	2	1	2	Train.	Shunting.	Ballasting.	Total.	Ton Miles.	Average Tons per Train Mile.	Native Coal.	N.S.W. Coal.	Oil.	Tallow.	Waste.	Train Mileage.	Shunting.	Ballasting.	Total.	Repairs.	Stores.		Fuel.	Wages.	Total.			
A	11	12	50,539	97,155	9,670	157,364	2,195,135	43.23	25,173	282	1,737	695	1,700	3,208	15	4	326	6	1	5,296	17	1	.054	.005	.030	.007	.186	A
C	4	12	1,791	7,564	6,662	15,867	113,533	67.00	206	206	44	187	49	9	5	192	5	11	462	3	4	.012	.004	.023	.065	.104	C	
D	4	12	95,514	22,209	457	118,180	5,818,280	60.92	27,918	536	1,739	683	1,362	613	19	11	12	14	11	3,286	12	2	.013	.005	.031	.060	.109	D
F	8	15	120,081	66,977	1,593	188,621	7,304,094	60.82	35,101	885	2,591	898	2,162	3,329	18	8	43	6	11	5,230	12	9	.016	.005	.026	.062	.109	F
G	3	12	56,133	17,042	578	74,353	4,809,673	83.90	21,546	535	843	1,886	13	4	4	19	11	1	2,499	6	9	.019	.004	.028	.043	.094	G	
J	13	18	222,837	37,608	10,496	270,941	30,586,337	137.26	107,935	2,213	4,608	1,726	3,618	7,627	15	3	345	14	3	935	6	5	.0084	.0026	.0237	.0251	.059	J
K	5	22	144,284	14,660	...	158,944	10,570,689	73.26	47,538	1,103	2,673	1,316	2,200	4,068	18	6	...	...	...	4,482	6	8	.013	.005	.016	.040	.092	K
M	4	9	34,462	16,299	464	51,165	5,775,569	108.00	17,709	356	913	326	844	1,583	12	1	19	0	10	2,352	5	1	.021	.003	.016	.026	.066	M
O	4	15	8,982	18,936	18,598	46,516	499,197	55.57	9,682	145	547	167	592	281	14	3	583	15	7	1,459	16	4	.023	.005	.029	.078	.135	O
S	1	...	...	612	...	612	...	...	130	...	9	6	11	...	...	...	...	...	...	22	13	6	...	...	...	...	...	S
R. A. & F. Co.	2	15	27,693	10,590	260	38,543	1,324,232	47.81	8,493	33	579	266	518	686	4	3	6	16	11	957	3	8	.009	.007	.037	.071	.124	R. A. & F. Co.
Totals	56	...	762,166	310,252	48,688	1,121,106	68,996,739	90.53	303,863	6,294	16,817	6,480	14,037	23,875	18	9	1,549	12	6	35,405	3	9	.014	.004	.026	.039	.083	Totals

OAMARU—PALMERSTON DIVISION (12 MONTHS).

Prevailing Grades 1 in 50.

Type.	No. in each Class.		Average Speed Miles per Hour.		Mileage.		Haulage.		Stores Consumed.					Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.				Type.						
	1	2	1	2	Train.	Shunting.	Ballasting.	Total.	Ton Miles.	Average Tons per Train Mile.	Native Coal.	N.S.W. Coal.	Oil.	Tallow.	Waste.	Train Mileage.	Shunting.	Ballasting.	Total.	Repairs.	Stores.		Fuel.	Wages.	Total.			
D	2	10	21,127	5,573	1,340	28,040	1,213,308	57.04	4,746	123	425	305	355	604	11	4	159	10	2	802	8	2	.017	.006	.028	.067	.118	D
G	1	10	3,181	969	962	5,112	256,412	80.60	1,590	11	104	54	73	266	16	3	81	5	6	428	15	7	.166	.007	.030	.046	.429	G
J	2	15	57,803	6,338	832	64,973	5,046,339	87.30	22,337	411	1,221	648	931	1,753	8	9	192	5	3	1,970	18	9	.008	.005	.034	.036	.083	J
L	1	12	1,050	449	12,206	13,765	99,448	94.71	2,682	128	165	112	196	38	12	4	451	2	4	506	4	11	.027	.003	.017	.046	.093	L
T	2	10	34,779	4,502	9,494	48,775	3,865,798	111.15	28,102	332	1,051	569	874	1,391	10	6	180	2	8	1,951	10	8	.008	.005	.040	.033	.086	T
Totals	8	...	117,940	17,831	24,894	166,665	10,481,295	88.87	59,457	1,005	2,966	1,688	2,429	4,054	19	2	629	13	10	5,059	18	1	.013	.005	.036	.039	.093	Totals

\* For description of type see Return No. 11.

RETURN NO. 29—continued.  
PALMERSTON-CLINTON DIVISION.—17th October to 31st March, 1881.  
Prevailing Grades 1 in 50.

Type.*	Mileage.		Haulage.		Stores Consumed.				Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.				Type.			
	Train.	Shunting.	Ballasting.	Total.	Ton Miles.	Average Tons per Train Mile.	Native Coal.	N.S.W. Coal.	Oil.	Tallow.	Waste.	Train Mileage.	Shunting.	Ballasting.	Total.	Repairs.		Stores.	Fuel.	Wages.
A	1,423	6,858	84	8,315	69,695	10.24	1,157	...	67	40	60	£ s. d.	£ s. d.	£ s. d.	£ s. d.	...	...	...	...	...
B	468	395	...	833	12,380	26.45	216	...	27	6	13	136 14 11	1 13 8	1 13 8	167 0 3	...	...	...	...	...
D	6,674	2,178	48	8,900	375,938	56.28	2,280	...	169	63	100	109 18 9	1 7 9	1 7 9	255 7 6	2,668	...	...	...	2,819
E	19,003	5,337	...	24,340	1,733,288	91.21	12,320	...	799	222	515	63 2 6	...	...	257 18 11	...	...	...	...	1,133
F	3,746	10,125	4,322	18,193	207,118	55.29	4,354	46	307	125	225	268 15 5	...	...	1,225 15 5	...	...	...	...	1,132
J	27,553	2,692	...	30,235	2,660,183	98.55	11,574	29	666	227	440	301 18 7	128 17 9	...	542 10 8	...	...	...	...	1,129
K	12,040	1,102	...	13,202	905,152	75.17	6,251	...	327	95	283	69 5 5	...	...	864 16 1	...	...	...	...	1,071
L	7,957	1,811	...	9,768	375,499	47.19	2,410	...	195	43	85	508 14 4	...	...	255 6 7	...	...	...	...	1,150
O	38,542	25,238	22,203	85,983	2,088,666	54.18	23,407	...	1,909	540	1,009	1,362 6 10	784 4 4	...	3,039 7 2	...	...	...	...	1,156
P and S	...	2,501	...	2,501	...	...	409	...	11	22	...	103 17 2	...	...	103 17 2	...	...	...	...	...
R	44,550	5,121	52	49,723	4,049,190	91.98	18,834	185	370	799	1,763 15 4	202 1 0	2 1 1	...	1,967 17 5	...	...	...	...	1,104
T	24,612	2,310	3,180	30,102	2,917,611	96.92	18,391	63	773	598	1,973 4 7	100 14 7	138 13 4	...	1,312 12 6	...	...	...	...	1,088
Totals	186,568	65,638	29,889	282,095	15,394,420	82.51	101,603	323	6,438	2,090	4,069	7,207 11 6	2,351 12 5	1,056 17 11	10,616 1 10	1,029	...	...	...	1,113

CLINTON-INVERCARGILL DIVISION.—17th October to 31st March, 1881.

Type.	Mileage.		Haulage.		Stores Consumed.				Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.				Type.			
	Train.	Shunting.	Ballasting.	Total.	Ton Miles.	Average Tons per Train Mile.	Native Coal.	N.S.W. Coal.	Oil.	Tallow.	Waste.	Train Mileage.	Shunting.	Ballasting.	Total.	Repairs.		Stores.	Fuel.	Wages.
A	156	1,068	1,306	2,620	3,514	22.52	186	125	36	25	30	4 17 8	33 8 6	43 13 11	82 0 1	...	...	...	...	...
C	1,250	1,298	182	2,730	58,850	47.00	356	147	40	9	45	41 10 5	44 1 0	6 2 11	92 0 4	...	...	...	...	...
D	11,838	1,093	...	12,931	757,908	64.12	1,381	855	259	27	122	287 13 2	26 12 8	...	314 5 10	...	...	...	...	...
E	5,195	915	...	6,110	391,717	75.40	814	960	235	161	106	229 5 0	40 7 6	...	269 12 6	...	...	...	...	...
F	18,132	8,979	5,125	32,236	1,085,378	33.66	5,000	2,999	541	144	456	525 6 7	260 2 4	148 9 10	933 18 9	...	...	...	...	...
J	...	...	...	18,294	1,667,740	102.95	4,317	2,145	238	...	...	541 14 3	64 15 4	...	606 9 7	...	...	...	...	...
K	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
O	44,072	6,980	6,263	58,215	3,146,003	54.04	6,582	5,537	1,043	233	617	1,278 4 7	199 8 7	178 17 7	1,656 10 9	...	...	...	...	...
R	8,816	1,289	...	10,105	837,443	94.99	2,074	921	216	87	174	310 14 11	45 8 8	...	356 3 7	...	...	...	...	...
Totals	106,700	23,575	12,966	143,241	7,948,553	74.49	20,710	12,789	2,608	805	1,679	3,219 12 7	940 12 6	377 4 3	4,537 9 4	1,009	...	...	...	1,042

\* For description of type see Return No. 11.





RETURN No. 29—continued.  
PALMERSTON—CLINTON DIVISION—continued.

Type.	No of Engines.	Average Speed Miles per Hour.	Total Engine Miles.	Average Tons per Train Mile.	Ton Miles.	Stores.				Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.								
						Running.		Repairs.		Running.		Repairs.		Running.		Repairs.						
						Coal.	Oil.	Tallow.	Waste.	Wages and Material.	Stores.	Fuel.	Wages.	Total.	Wages and Material.	Stores.	Fuel.	Wages.	Total.			
E	4	11	Train, 19,003 Shunt, 5,337 Ballast, ...	91.21	1,733,288	Cwis. 9,619 2,701 ...	616 173 ...	173 49 ...	402 113 ...	£ s. d. 206 4 7 73 1 8 ...	£ s. d. 45 17 0 12 17 6 ...	£ s. d. 312 12 1 87 15 11 ...	£ s. d. 338 6 4 95 0 4 ...	£ s. d. 111 14 4 301 18 7 128 17 9	£ s. d. 957 0 0 268 15 5 ...	'047 ... ...	'043 ... ...	'006 ... ...	'036 ... ...	'030 ... ...	'037 ... ...	'132 ... ...
F	1	14	Train, 3,746 Shunt, 10,125 Ballast, 4,322	55.29	207,118	905 2,450 1,045	82 221 94	26 69 30	46 125 54	£ s. d. 9 15 4 26 7 10 11 5 5	£ s. d. 5 9 7 14 15 11 6 6 4	£ s. d. 29 4 7 79 0 0 33 14 5	£ s. d. 67 4 10 181 14 10 77 11 7	£ s. d. 111 14 4 301 18 7 128 17 9	'078 ... ...	'034 ... ...	'006 ... ...	'011 ... ...	'030 ... ...	'037 ... ...	'129 ... ...	
J	3	16	Train, 27,553 Shunt, 2,682 Ballast, ...	96.55	2,660,183	10,578 1,025 ...	607 59 ...	207 20 ...	411 29 ...	£ s. d. 59 0 9 5 9 6 ...	£ s. d. 45 11 0 4 19 8 ...	£ s. d. 344 8 5 33 10 6 ...	£ s. d. 342 10 6 29 5 9 ...	£ s. d. 795 10 8 69 5 5 ...	'071 ... ...	'031 ... ...	'004 ... ...	'006 ... ...	'030 ... ...	'037 ... ...	'150 ... ...	
K	3	16	Train, 12,040 Shunt, 1,162 Ballast, ...	75.17	905,152	5,703 548 ...	298 29 ...	87 8 ...	184 18 ...	£ s. d. 220 15 9 21 6 2 ...	£ s. d. 19 15 4 1 18 2 ...	£ s. d. 186 7 9 17 19 10 ...	£ s. d. 141 15 6 13 13 8 ...	£ s. d. 568 14 4 54 17 10 ...	'150 ... ...	'049 ... ...	'005 ... ...	'059 ... ...	'037 ... ...	'132 ... ...		
L	1	14	Train, 7,957 Shunt, 1,811 Ballast, ...	47.19	375,499	1,964 446 ...	159 36 ...	34 8 ...	69 16 ...	£ s. d. 33 17 5 7 14 2 ...	£ s. d. 10 12 7 2 8 5 ...	£ s. d. 63 12 7 14 13 11 ...	£ s. d. 99 13 9 22 13 9 ...	£ s. d. 207 16 4 47 10 3 ...	'132 ... ...	'040 ... ...	'006 ... ...	'022 ... ...	'064 ... ...	'156 ... ...		
O	12	14	Train, 38,542 Shunt, 25,238 Ballast, 2,203	54.18	2,088,666	10,492 6,870 6,044	856 560 493	242 159 139	452 206 200	£ s. d. 400 1 7 263 2 9 231 3 4	£ s. d. 55 17 8 37 3 6 31 13 2	£ s. d. 333 8 10 218 3 5 192 0 10	£ s. d. 570 18 9 374 6 4 329 7 0	£ s. d. 1,362 6 10 802 16 0 784 4 4	'066 ... ...	'038 ... ...	'006 ... ...	'046 ... ...	'066 ... ...	'156 ... ...		
P	2	...	Train, 2,591 Shunt, ... Ballast, ...	...	...	409 ...	17 ...	10 ...	19 ...	£ s. d. 40 4 0 ...	£ s. d. 1 4 5 ...	£ s. d. 13 5 7 ...	£ s. d. 34 0 0 ...	£ s. d. 88 14 0 ...	'104 ... ...	'033 ... ...	'004 ... ...	'032 ... ...	'035 ... ...	'104 ... ...		
R	6	14	Train, 44,550 Shunt, 5,121 Ballast, 52	91.08	4,049,190	17,040 1,959 20	983 114 1	332 38 1	716 82 1	£ s. d. 532 14 7 61 4 9 0 12 5	£ s. d. 75 18 3 8 14 7 0 1 9	£ s. d. 559 19 8 64 6 3 0 13 1	£ s. d. 595 2 10 67 15 5 0 13 10	£ s. d. 1,763 15 4 202 1 0 2 1 1	'104 ... ...	'033 ... ...	'004 ... ...	'032 ... ...	'035 ... ...	'104 ... ...		
S	1	...	Train, 24,612 Shunt, 2,310 Ballast, 3,180	96.92	2,917,611	15,088 1,416 1,949	632 59 82	284 27 37	488 46 64	£ s. d. 155 15 1 14 12 4 20 2 6	£ s. d. 55 18 4 5 4 11 7 4 5	£ s. d. 492 5 1 46 4 0 63 12 0	£ s. d. 369 6 1 34 13 4 47 14 5	£ s. d. 1,973 4 7 100 14 7 138 13 4	'088 ... ...	'041 ... ...	'004 ... ...	'013 ... ...	'030 ... ...	'088 ... ...		

RETURN No. 29—continued.  
CLINTON-INVERCARGILL DIVISION.

Type.	No of Engines.	Average Speed Miles per Hour.	Total Engine Miles.	Average Tons per Train Mile.	Ton Miles.	Stores.				Cost.				Cost in Pence per Ton Mile, exclusive of Ballasting and Shunting.					
						Running.		Repairs.	Running.		Repairs.	Running.		Repairs.	Running.				
						Coal.	Oil.		Tallow.	Waste.		Wages and Material.	Stores.		Fuel.	Wages.	Total.	Stores.	Fuel.
A	1	...	Train, 156 Shunt, 1,568 Ballast, 1,396	22.52	3,514	18 127 166	2 15 19	1 10 14	2 12 16	0 3 10 1 6 1 1 14 2	0 4 0 1 7 4 1 15 8	0 19 7 6 13 11 8 15 0	3 10 3 24 1 2 31 9 1	0 13 ... ...	0 07 ... ...	0 13 ... ...	0 67 ... ...	0 240 ... ...	0 333 ... ...
C	1	11	Train, 1,250 Shunt, 1,298 Ballast, 182	47.00	58,850	230 239 34	18 19 3	4 4 1	20 22 3	3 18 4 4 1 3 0 11 5	1 17 2 1 18 6 0 5 5	9 13 4 10 13 2 1 9 3	26 7 7 27 8 1 3 16 10	0 16 ... ...	0 07 ... ...	0 16 ... ...	0 39 ... ...	0 108 ... ...	0 170 ... ...
D	1	11	Train, 11,838 Shunt, 1,993 Ballast	64.12	757,968	2,047 189 ...	237 21 ...	24 2 ...	112 10 ...	2 17 5 0 5 5 ...	16 19 4 1 11 4 ...	107 14 5 10 0 4 ...	160 2 0 14 15 7 ...	0 009 ... ...	0 54 ... ...	0 341 ... ...	0 057 ... ...	0 091 ... ...	
E	1	15	Train, 5,195 Shunt, 915 Ballast	75.40	391,717	1,508 266 ...	200 35 ...	137 24 ...	90 16 ...	48 17 9 8 12 2 ...	17 5 10 3 0 11 ...	91 3 5 16 1 2 ...	71 18 0 12 13 3 ...	0 30 ... ...	0 11 ... ...	0 55 ... ...	0 044 ... ...	0 140 ... ...	
F	3	15	Train, 18,132 Shunt, 8,979 Ballast, 5,125	33.66	1,085,378	3,992 1,977 1,129	394 151 86	80 41 23	228 113 65	33 9 4 16 11 4 9 9 2	25 9 1 12 12 2 7 3 10	207 13 5 102 16 3 58 14 2	258 14 9 128 2 7 73 2 8	0 07 ... ...	0 06 ... ...	0 46 ... ...	0 057 ... ...	0 116 ... ...	
J	2	15	Train, 16,341 Shunt, 1,953 Ballast	102.05	1,667,740	577 690 ...	213 25 ...	106 12 ...	160 19 ...	39 4 3 4 13 6 ...	22 6 0 2 13 11 ...	292 17 0 35 0 0 ...	187 7 0 22 7 11 ...	0 06 ... ...	0 03 ... ...	0 42 ... ...	0 026 ... ...	0 077 ... ...	
K	...	...	...	...	...	...	...	...	...	226 7 11	...	...	...	...	...	...	...	...	...
O	6	15	Train, 44,972 Shunt, 6,980 Ballast, 6,263	54.94	3,146,003	9,360 1,454 1,304	805 125 112	180 28 25	473 73 71	158 9 8 24 4 4 22 2 10	61 16 8 9 7 4 8 1 2	518 0 1 81 2 6 73 1 11	539 18 2 84 14 5 75 11 8	0 12 ... ...	0 04 ... ...	0 40 ... ...	0 041 ... ...	0 097 ... ...	
R	1	15	Train, 8,816 Shunt, 1,289 Ballast	94.99	837,443	2,613 382 ...	188 28 ...	76 11 ...	151 22 ...	28 7 2 4 2 11 ...	16 13 8 2 8 9 ...	144 0 1 21 1 2 ...	121 14 0 17 15 10 ...	0 08 ... ...	0 05 ... ...	0 41 ... ...	0 035 ... ...	0 089 ... ...	

RETURN NO. 29—continued.  
PARTICULARS of LOCOMOTIVE WORKING for the Year ending 31st March, 1881.

WELLINGTON SECTION.

Type.	No. of Engines.	Days in Steam.	Average Speed Miles per Hour.	Total Engine Mileage.	Quantity of Stores.				Cost.				Cost in Pence per Train Mile, excluding Ballasting and Shunting.				Remarks.		
					Running.		Repairs.		Running.		Repairs.		Running.		Repairs.				
					Coal.	Coke.	Oil.	Tallow.	Waste.	Lbs.	Lbs.	Wages and Material.	Stores.	Fuel.	Wages.	Total.		Wages and Material.	Stores.
C	2	77	...	Train, 2,047 Shunt, 1,270 Ballast, 1,250	Cwts. 414 84 257 51 252	Cwts. 84 93 58 57	Qts. 93 58 57	Lbs. 3 2 1	Lbs. 54 34 33	Lbs. 26 15 14	£ 8 6 5	£ 38 24 23	£ 119 74 70	£ 3.04	94	4.41	5.51	13.90	One engine in hands of contractor.
D	4	571	...	Train, 19,965 Shunt, 8,890 Ballast, 3,636	Cwts. 3,385 1,508 617	Cwts. 338 150 61	Qts. 667 394 113	Lbs. 72 31 12	Lbs. 600 265 105	£ 176 77 31	£ 274 123 50	£ 495 207 84	£ 979 436 180	£ 2.12	77	3.29	5.59	11.77	One engine in hands of contractor, and one on section part of year only.
Fell	4	351	...	Train, 6,363 Shunt, 1,751 Ballast, 129	Cwts. 4,018 1,107 81	Cwts. 3,499 904 71	Qts. 831 229 16	Lbs. 286 70 5	Lbs. 538 148 10	£ 142 40 3	£ 750 207 15	£ 540 147 11	£ 1,512 417 30	£ 5.36	3.01	28.29	20.37	57.03	
L	4	904	...	Train, 59,578 Shunt, 9,390 Ballast, 9,410	Cwts. 12,113 1,910 191	Cwts. 1,585 249 25	Qts. 2,334 370 37	Lbs. 234 37 3	Lbs. 1,329 207 21	£ 461 72 7	£ 1,039 164 10	£ 1,167 184 44	£ 2,864 451 44	£ 1.85	80	4.18	4.70	11.53	
R	3	703	...	Train, 58,010 Shunt, 5,285 Ballast, 352	Cwts. 13,245 1,206 80	Cwts. 2,330 212 14	Qts. 2,281 209 13	Lbs. 798 73 5	Lbs. 1,603 146 9	£ 556 51 3	£ 1,284 117 7	£ 989 91 6	£ 3,074 282 17	£ 2.30	1.01	5.31	4.09	12.71	

WANGANUI SECTION.

E	3	319	...	Train, 30,130 Shunt, 3,245 Ballast	Cwts. 7,205 801	Cwts. ...	Qts. 667 75	Lbs. 240 27	Lbs. 90 11	£ 58 7	£ 561 62	£ 407 45	£ 1,082 120	£ 1.46	44	4.46	3.24	8.60	
F	5	392	...	Train, 46,427 Shunt, 4,482 Ballast, 1,050	Cwts. 5,937 468 114	Cwts. ...	Qts. 787 73 17	Lbs. 206 19 4	Lbs. 295 27 6	£ 2 ... 1	£ 427 40 9	£ 613 57 14	£ 1,112 103 25	£ .01	36	2.21	3.17	5.75	
L	1	84	...	Train, 4,154 Shunt, 1,142 Ballast	Cwts. 517 142	Cwts. ...	Qts. 65 19	Lbs. 8 2	Lbs. 7 1	£ 4 1	£ 42 12	£ 76 21	£ 127 35	£ .23	29	2.43	4.39	7.34	
R	5	922	...	Train, 72,433 Shunt, 9,103 Ballast, 4,294	Cwts. 10,681 1,415 630	Cwts. ...	Qts. 1,304 174 78	Lbs. 546 73 32	Lbs. 230 31 14	£ 95 13 6	£ 851 113 51	£ 1,051 140 62	£ 2,108 280 125	£ .31	36	2.82	3.48	6.97	

WESTPORT SECTION.

C	2	353	15	Train, 11,663 Shunt, 1,844 Ballast, 1,636	Coal and Coke. 1,830 289	...	262 38 39	334 51 49	196 30 28	23 1 6	54 8 8	366 58 51	469 71 69	47	54	1.11	7.53	9.65	
D	3	506	15	Train, 33,315 Shunt, 510 Ballast, 4,453	5,804 773 93	...	484 64 7	97 13 15	904 120 145	178 24 3	461 61 7	656 87 11	1,387 184 22	1.29	66	3.32	4.73	10.00	

NELSON SECTION.



RETURN No. 30.  
HURUNUI-BLUFF SECTION.

STATEMENT of REPAIRS executed to the ROLLING-STOCK for the Year ending 31st March, 1881.

Description.	Christchurch.	Addington.	Oamaru.	Dunedin.	Hillside.	Invercargill.	Total.	Remarks.
Engines,—								
Erected (new) ...	...	10	...	...	...	...	10	
Thoroughly overhauled ...	1	13	...	...	...	...	14	
Partly overhauled ...	...	16	1	4	43	7	71	
Totals ...	1	39	1	4	43	7	95	This total represents heavy works executed. All the engines, of course, have received repairs of a more or less important nature.
Carriages,—								
Converted to American bogies ...	...	...	...	...	1	...	1	
"    Cleminson's patent ...	...	...	...	...	1	...	1	
Thoroughly overhauled ...	...	140	...	...	20	...	160	
Partly overhauled ...	...	16	...	...	131	...	147	
Totals ...	...	156	...	...	153	*	309	Ordinary light repairs not included.
Brake-vans,—								
Rebuilt ...	...	6	...	...	...	...	6	
Thoroughly overhauled ...	...	31	...	...	4	...	35	
General repairs ...	...	...	...	...	50	...	50	
Totals ...	...	37	...	...	54	*	91	Ordinary light repairs not included.
Horse-boxes, Wagons, &c.,—								
Rebuilt, manufactured from imported ironwork	...	357	...	...	187	...	544	Manufactured from imported ironwork: Addington, 234; Hillside, 156. Total, 390.
Thoroughly overhauled ...	...	1,280	...	...	141	...	1,421	
General repairs ...	...	...	...	...	1,085	...	1,085	Repairs at out-stations by greasers not included.
Totals ...	...	1,637	...	...	1,413	*	3,050	
Paint-work,—								
Engines, thoroughly painted	...	16	...	...	6	2	24	
"    partly painted ...	...	3	...	...	5	...	8	
Cars, thoroughly painted	...	13	...	...	13	...	26	
"    partly repainted ...	...	12	...	...	90	...	102	
Wagons, &c., painted ...	...	1,141	...	...	1,110	...	2,251	
Totals ...	...	1,185	...	...	1,224	2	2,411	

\* No return.

RETURN No. 31.

HURUNUI-BLUFF.

RETURN of COAL TRAFFIC from Local Mines during the Year ending 31st March, 1881.

Mine.	1879-80.	1880-81.	Increase, 1880-81.	Decrease, 1880-81.
	Tons cwt. qr.	Tons cwt. qr.	Tons cwt. qr.	Tons cwt. qr.
McIlraith's, Glentunnel ...	3,878 0 0	7,750 0 0	3,872 0 0	...
Sheath's Company, Malvern ...	298 0 0	Closed	...	...
McClatchie and Company, Glentunnel ...	Not opened	315 13 1	315 13 1	...
Springfield Coal Company ...	4,947 10 0	5,782 10 0	835 0 0	...
Kowai Pass, Springfield ...	15 0 0	537 2 2	522 2 2	...
Eureka, Springfield ...	Not opened	97 4 2	97 4 2	...
Austin and Kirk, Sheffield ...	21 0 0	1,698 0 0	1,677 0 0	...
Papakaio ...	205 0 0	600 0 0	395 0 0	...
Ngapara ...	25 0 0	23 0 0	...	2 0 0
Shag Point ...	17,234 0 0	31,685 0 0	14,451 0 0	...
Walton Park ...	11,287 0 0	15,066 0 0	3,779 0 0	...
Green Island ...	7,329 0 0	5,917 0 0	...	1,412 0 0
Freeman's ...	5,819 0 0	8,093 0 0	2,274 0 0	...
Fernhill ...	4,097 0 0	6,490 0 0	2,393 0 0	...
Nelson's ...	3,755 0 0	3,496 0 0	...	259 0 0
Lovell's Flat ...	...	25 0 0	25 0 0	...
Kaitangata ...	21,017 0 0	24,678 0 0	3,661 0 0	...
Elliotvale ...	...	10 0 0	10 0 0	...
Mackay's, Milton ...	20 0 0	55 0 0	35 0 0	...
Totals ...	79,947 10 0	112,318 10 1	34,342 0 1	1,673 0 0

## RETURN No. 32.

## HURUNUI-BLUFF SECTION.

RETURN of the Number of Vessels DISCHARGED and LOADED at the Ports of Lyttelton, Timaru, Oamaru, Port Chalmers, and Bluff for the Year ending 31st March, 1881.

Port.		Home and Foreign.	Coastwise and Intercolonial.	Total.
<b>DISCHARGED:—</b>				
Lyttelton ...	...	47	1,218	1,265
Timaru ...	...	...	248	248
Oamaru ...	...	...	265	265
Port Chalmers ...	...	35	336	371
Bluff ...	...	4	166	170
Total		86	2,233	2,319
<b>LOADED:—</b>				
Lyttelton ...	...	81	985	1,066
Timaru ...	...	10	221	231
Oamaru ...	...	16	329	345
Port Chalmers ...	...	40	263	303
Bluff ...	...	8	163	171
Total		155	1,961	2,116

## RETURN No. 33.

## HURUNUI-BLUFF SECTION.

SHOWING MILEAGE of TRACK in Main Line and Sidings Open for Traffic on 31st March, 1881.

Line of Railway.	Main Line.		Branches.	Total Railway.	Sidings.			Equivalent of Single Track.
	Single.	Double.			Main Line.	Branches.	Total.	
<b>CHRISTCHURCH SECTION:—</b>								
Lyttelton-Temuka ...	M. chs. 94 40	M. chs. 7 60	M. chs. ...	M. chs. ...	M. chs. 35 78	M. chs. ...	M. chs. ...	M. chs. 138 18
Addington-Waipawa ...	39 18	...	...	...	4 36	...	...	43 54
Rangiora-Oxford Branch ...	...	...	22 7	...	...	2 21	...	24 28
Eyreton-Bennett's ...	...	...	20 11	...	...	1 32	...	21 43
Southbridge Branch ...	...	...	25 39	...	...	2 40	...	27 79
Malvern Branch ...	...	...	30 61	...	...	2 14	...	32 75
Darfield-White Cliffs ...	...	...	11 40	...	...	1 16	...	12 56
Tinwald Branch ...	...	...	10 60	...	...	0 28	...	11 8
Total—Christchurch Section	133 58	7 60	120 58	245 36	40 34	9 71	50 25	312 41
<b>OAMARU SECTION:—</b>								
Temuka-Waitaki ...	49 40	...	...	...	5 25	...	...	54 65
Albury Branch ...	...	...	25 54	...	...	1 59	...	27 33
Waimate Branch ...	...	...	4 40	...	...	0 56	...	5 22
Waitaki-Palmerston ...	51 40	...	...	...	8 10	...	...	59 50
Dunroon Branch ...	...	...	21 33	...	...	0 55	...	22 8
Ngapara Branch ...	...	...	14 77	...	...	0 73	...	15 70
Shag Point Branch ...	...	...	1 67	...	...	0 10	...	1 77
Oamaru Breakwater ...	...	...	0 64	...	...	0 18	...	1 2
Total—Oamaru Section	101 0	...	69 21	170 21	13 35	4 31	17 66	188 7
<b>DUNEDIN SECTION:—</b>								
Palmerston-Dunedin ...	40 39	...	...	...	7 60	...	...	48 19
Dunedin-Clinton ...	73 19	...	...	...	8 9	...	...	81 28
Glendernid-Port Chalmers ...	...	...	1 12	...	...	1 68	...	3 0
Walton Park Branch ...	...	...	2 47	...	...	0 35	...	3 2
Outram Branch ...	...	...	9 0	...	...	0 58	...	9 58
Lawrence Branch ...	...	...	22 0	...	...	1 75	...	23 75
Total—Dunedin Section	113 8	...	34 59	148 37	15 69	4 76	20 65	169 22
<b>INVERCARGILL SECTION:—</b>								
Clinton-Invercargill ...	65 42	...	...	...	3 57	...	...	69 19
Invercargill-Bluff ...	17 1	...	...	...	4 39	...	...	21 40
Invercargill-Kingston ...	...	...	86 77	...	...	3 43	...	90 40
Makarewa Junction-Riverton ...	...	...	17 61	...	...	1 23	...	19 4
Thornbury-Otautau ...	...	...	11 40	...	...	1 5	...	12 45
Tapanui Branch ...	...	...	15 43	...	...	1 30	...	16 73
Total—Invercargill Section	82 43	...	131 61	214 24	8 16	7 21	15 37	229 61
Grand Totals	430 79	7 60	356 39	787 38	77 44	26 39	104 3	899 51

RETURN NO. 34.  
HURUNUI-BLUFF SECTION.

SHOWING CLASSIFICATION OF EXPENDITURE ON MAINTENANCE OF WAY AND WORKS FOR THE YEAR ENDING 31st MARCH, 1881.

Classification of Work.	Christchurch Section.			Oamaru Section.			Dunedin Section.			Invercargill Section.			Total Hurunui-Bluff and Branches.					Comparative Rates per Mile for the Year.								
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	Amount.	Proportion of each item to the whole.	Christchurch, 250 Miles.	Oamaru, 170 Miles.	Dunedin, 149 Miles.	Invercargill, 199 Miles.	Total, 768 Miles.							
																				£	s.	d.	£	s.	d.	£
Supervision	1,280	9	0	844	17	3	1,377	9	2	536	12	3	4,039	7	8	5	12	0	25	2	70	5	26	63	27	
Permanent way and surfacing	15,072	15	6	10,827	9	2	13,161	10	1	9,527	7	3	48,589	2	0	60	29	88	33	37	3	47	88	63	27	
Renewals	1,396	18	8	1,399	5	4	1,420	8	0	350	5	10	4,566	17	10	5	59	9	53	1	76	6	63	5	95	
Ballasting	1,151	11	3	2,224	3	2	3,401	19	3	1,320	2	10	8,097	16	6	4	61	22	83	0	31	10	52	10	52	
Turntables and traversers	55	16	11	14	6	3	26	4	2	62	16	4	159	3	8	22	10	10	31	1	21	3	21	10	21	
Grading	1,156	16	5	2,590	8	1	3,789	1	3	1,530	1	9	9,066	7	6	4	63	25	43	6	76	11	81	11	81	
New permanent-way materials	6,386	0	11	7,401	16	5	6,192	7	8	1,200	17	2	21,190	2	2	25	55	41	56	8	08	78	6	08	27	59
Roads, approaches, &c.	388	12	5	295	4	5	422	10	7	156	5	5	1,172	12	10	1	56	2	84	9	78	1	53	11	09	
Bridges, culverts, &c.	2,631	18	8	2,209	7	11	2,325	5	8	1,350	12	0	8,517	4	3	10	52	15	61	6	79	1	72	6	01	
Fences, cattle-stops, &c.	1,550	11	10	831	5	1	1,892	2	5	342	15	2	4,616	14	6	6	20	12	70	0	07	44	0	72	0	44
Signals	175	3	11	16	1	9	128	10	8	14	0	0	333	16	4	70	0	86	0	0	0	0	0	0	0	0
Cranes and weighbridges	69	0	6	4	16	7	6	16	8	0	9	6	81	3	3	28	0	05	0	0	0	0	0	0	0	0
Water-services	403	2	6	260	2	0	470	6	8	264	13	2	1,308	4	4	1	61	3	16	1	33	1	82	1	82	
Wharves	0	12	0	...	...	...	721	2	2	29	1	7	750	15	9	...	...	484	15	08	0	0	0	0	0	0
Station buildings	2,292	8	11	342	10	1	1,169	7	1	698	9	6	4,502	15	7	9	17	7	85	3	51	5	86	5	86	
Dwelling-houses	260	12	7	42	19	7	174	18	8	31	6	8	509	17	6	1	04	1	18	1	16	1	66	1	66	
Tools and implements	1,271	13	4	850	7	4	1,517	7	5	653	18	0	4,293	6	1	5	09	10	18	3	29	5	59	5	59	
Workshop commission	100	14	7	3	16	5	163	15	0	64	4	9	332	10	9	40	0	10	18	0	32	3	29	5	59	
Total maintenance, without additions...	35,644	10	11	30,068	16	10	38,361	2	7	18,142	19	2	122,217	18	6	14	58	25	74	9	17	15	91	17	15	91
Additions and alterations	2,802	6	4	2,030	6	9	2,815	5	3	543	8	3	8,197	6	7	11	21	18	89	2	73	10	67	10	67	
Total expenditure	38,447	6	3	32,105	3	7	41,176	7	10	18,686	7	5	130,415	5	1	153	79	27	6	35	90	32	90	16	90	

RETURN NO. 35.  
HURUNUI-BLUFF SECTION.

COMPARING the CLASSIFIED EXPENDITURE for MAINTENANCE for Three Years, 1878 to 1881.

Classification.	Christchurch Section.			Oamaru Section.			Dunedin Section.			Invercargill Section.			Whole Line, Hurunui-Bluff.		
	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Supervision	7.93	8.06	5.12	4.59	7.67	4.97	9.88	15.73	9.35	1.30	2.21	2.70	6.03	7.93	5.26
Permanent way, surfacing	71.76	70.85	60.29	74.22	72.93	63.60	107.90	138.19	88.33	53.30	55.77	47.88	74.78	81.59	63.27
Renovals	8.97	8.84	5.59	9.23	8.97	8.23	40.43	17.29	9.53	6.37	6.63	1.76	14.46	10.01	5.95
Ballasting	4.81	4.68	4.61	4.92	10.27	13.08	13.39	32.37	22.83	11.83	14.17	6.63	8.17	13.91	10.52
Turntables and tracers	5.2	3.9	2.2	7.0	3.0	0.8	3.00	4.16	1.16	2.08	2.73	3.1	1.62	1.82	2.1
Grading	8.32	16.12	4.63	9.67	15.08	15.24	5.85	28.08	25.43	20.93	12.22	7.69	11.17	17.46	11.81
New permanent-way materials	19.89	21.71	25.55	13.25	31.98	43.50	84.37	38.87	41.56	4.55	7.28	6.08	27.23	23.88	27.59
Roads, approaches, &c.	1.30	5.33	1.56	5.5	1.43	1.21	2.60	2.47	2.84	0.6	1.17	0.78	1.24	2.86	1.53
Bridges, culverts, &c.	36.92	24.96	10.52	13.31	14.17	13.00	24.96	23.79	15.01	9.49	5.72	6.79	23.07	17.40	11.09
Fences, gates, and cattle-stops	9.88	4.03	6.20	4.40	2.21	4.89	5.46	8.58	12.70	0.91	1.95	1.72	5.73	3.90	6.01
Signals	1.56	1.17	0.70	1.19	1.3	0.9	...	1.3	0.86	1.3	...	0.7	6.0	3.9	4.4
Cranes and weighbridges	0.91	0.26	0.28	0.2	1.3	0.3	...	1.3	0.5	...	...	...	3.5	1.3	1.1
Pumping apparatus	4.16	3.25	1.61	2.22	1.95	1.53	7.8	1.04	3.16	0.91	0.65	1.33	2.33	1.82	1.82
Wharves	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Station buildings	14.95	8.58	9.17	3.14	6.37	2.02	8.71	5.85	4.84	1.30	1.56	1.5	3.2	...	0.8
Dwelling-houses...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tools and implements	4.68	3.51	5.09	5.57	...	5.00	6.50	4.16	1.18	...	1.69	1.6	...	...	0.66
Workshop commission	0.91	0.78	0.40	...	...	0.02	...	0.91	1.10	1.95	1.56	3.29	4.62	3.00	5.59
Total maintenance without additions	197.47	182.52	142.58	145.98	180.44	176.83	316.29	321.88	257.46	117.91	115.31	91.17	190.48	193.67	159.13
Additions and alterations	24.31	29.38	11.21	12.01	18.46	11.98	3.25	14.95	18.89	9.10	7.67	2.73	14.04	18.52	10.67
Grand total	221.78	211.90	153.79	157.99	198.90	188.81	319.54	336.83	276.35	127.01	122.98	93.90	204.52	212.19	169.80
Mileage maintained	253 M.	232 M.	250 M.	147 M.	170 M.	170 M.	136 M.	149 M.	149 M.	170 M.	199 M.	199 M.	706 M.	742 M.	768 M.

\* Estimated for twelve months for comparison.

RETURN NO. 86.  
HURUNUI-BLUFF SECTION.

COMPARING the CLASSIFIED EXPENDITURE for MAINTENANCE for Three Years, 1878 to 1881, showing Percentage of each Item to the whole Expenditure on each Section.

Classification.	Christchurch Section.			Oamaru Section.			Dunedin Section.			Invercargill Section.			Whole Line, Hurunui-Bluff.		
	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.	1878-79.	1879-80.*	1880-81.
	Supervision ...	3.6	3.8	3.3	2.9	3.8	2.6	3.1	4.7	3.4	1.1	1.8	2.9	2.9	3.8
Permanent way, surfacing ...	32.4	33.4	39.0	47.0	36.6	33.8	33.7	41.0	32.0	41.9	45.4	51.0	36.6	38.4	37.3
Renovals ...	4.0	4.2	3.6	5.8	4.5	4.4	12.7	5.1	3.5	5.0	5.4	1.9	7.1	4.7	3.5
Ballasting ...	2.2	2.2	3.0	3.1	5.2	6.9	4.2	9.6	8.3	9.3	11.5	7.1	4.0	6.7	6.1
Turntables and traversers ...	2.2	2.2	2.2	2.5	2.2	...	1.3	1.2	1.1	1.7	2.2	3.3	1.8	1.8	1.1
Grading ...	3.8	7.6	3.0	6.1	7.6	8.1	1.8	8.3	9.2	16.5	10.0	8.2	5.5	8.2	6.9
New permanent-way materials	9.0	10.3	16.6	8.4	16.1	22.8	8.8	11.5	15.0	3.5	5.9	6.5	13.3	11.2	16.2
Roads, approaches, &c. ...	16.6	2.5	1.0	4.4	7.7	6.6	2.8	11.5	1.0	5.5	1.0	8.8	1.6	1.3	9.9
Bridges, culverts, &c. ...	4.4	11.8	6.9	8.4	7.1	6.9	7.6	7.1	5.6	7.5	4.7	7.2	11.3	8.2	6.5
Fences, gates, and cattle-stops	7.7	1.9	4.0	2.8	1.1	2.6	1.7	2.5	4.6	7.7	1.5	1.8	2.8	1.9	3.5
Signals ...	4.4	5.5	5.2	1.1	1.1	1.1	...	...	3.3	1.1	...	1.1	3.2	1.2	3.3
Cranes and weighbridges ...	4.4	1.1	...	...	1.1	...	...	...	...	...	...	...	...	...	1.1
Pumping apparatus ...	1.9	1.5	1.1	1.4	1.0	8.8	3.3	3.1	1.1	7.7	6.6	1.4	1.1	9.9	1.2
Wharves ...	...	...	...	...	...	...	...	...	1.8	...	...	2.2	...	...	6.6
Station buildings ...	6.7	4.0	6.0	2.0	3.2	1.1	2.7	1.7	2.8	1.0	1.2	3.7	3.9	2.7	3.4
Dwelling-houses ...	...	...	7.7	...	...	2.2	...	...	4.4	...	...	2.2	...	...	4.4
Tools and implements	2.1	1.7	3.3	3.5	3.4	2.7	2.1	1.2	3.7	1.8	1.4	3.5	2.2	1.9	3.3
Workshop commission ...	4.4	4.4	3.3	...	...	...	...	3.3	4.4	1.5	1.2	3.3	4.4	4.4	3.3
Total maintenance without additions	89.0	86.1	92.7	92.4	90.7	93.6	98.9	95.5	93.2	92.8	93.8	97.1	93.1	91.3	93.7
Additions and alterations ...	11.0	13.9	7.3	7.6	9.3	6.4	1.1	4.5	6.8	7.2	6.2	2.9	6.9	8.7	6.3
Grand total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mileage maintained ...	253 M.	232 M.	250 M.	147 M.	170 M.	170 M.	136 M.	149 M.	149 M.	170 M.	199 M.	199 M.	766 M.	750 M.	768 M.

\* Estimated for twelve months for comparison.

**RETURN No. 37.**  
**HURUNUI-BLUFF SECTION.**

STATEMENT of EXPENDITURE showing Cost of MAINTENANCE of different Sections of Main Line and Branches.

Line of Railway.	Mileage.		Expenditure for Thirteen Periods up to 31st March, 1881.		Average for Four-weekly Period.		Rate per Mile per Annum.
	Actual Mileage.	Reduced Mileage.	£	s. d.	£	Rate per Mile.	
<b>CHRISTCHURCH SECTION:—</b>							
Main Line, Waipara and Lyttelton to Temuka ...	133 58	130 8	27,002	9 6	2,077	15'98	207'71
Rangiora-Oxford Branch ...	22 7	22 7	1,821	2 11	140	6'36	82'77
Eyretou-Bennett's ...	20 11	20 11	1,576	0 1	121	6'05	78'80
Hornby-Southbridge ...	25 39	25 39	3,806	9 2	293	11'72	152'24
Rolleston-Springfield Mine ...	30 61	30 61	2,878	15 10	221	7'13	92'87
Darfield-Whitecliffs ...	11 40	11 40	1,156	10 2	89	7'41	96'41
Tinwald Branch ...	10 60	10 24	205	18 7	16	1'60	20'60
Totals ...	254 36	250 30	38,447	6 3	2,957	11'83	153'79
<b>OAMARU SECTION:—</b>							
Main Line, Temuka-Oamaru ...	63 40	63 40	9,647	3 9	742	11'68	151'88
Oamaru-Palmerston ...	37 40	37 40	16,343	13 2	1,257	33'97	441'73
Washdyke Junction-Albury ...	25 54	25 54	1,871	14 11	144	5'54	72'00
Waimate Junction-Waimate ...	4 46	4 46	388	15 4	30	6'00	77'80
Pukeuri Junction-Duntroon ...	21 33	21 33	1,858	9 4	143	6'81	88'48
Waireka Junction-Ngapara ...	14 77	14 77	1,569	8 8	121	8'07	104'60
Oamaru-Breakwater ...	0 64	0 64	166	4 11	13	13'00	166'24
Shag Point Branch ...	1 67	1 67	258	13 6	20	10'00	129'50
Totals ...	170 21	170 21	32,105	3 7	2,470	14'50	188'57
<b>DUNEDIN SECTION:—</b>							
Main Line, Palmerston-Dunedin ...	40 39	40 39	14,954	1 8	1,151	28'07	364'73
Dunedin-Clinton ...	73 19	73 19	19,164	16 9	1,474	20'19	262'53
Glendermid-Port Chalmers ...	1 12	1 12	1,543	10 1	119	119'00	1,544'00
Walton Park Branch ...	2 47	2 47	577	16 3	44	17'60	231'20
Mosgiel-Outram ...	9 0	9 0	1,517	17 4	117	13'00	168'66
Lawrence Branch ...	22 0	22 0	3,418	5 9	263	11'95	155'36
Totals ...	148 37	148 37	41,176	7 10	3,168	21'26	276'35
<b>INVERCARGILL SECTION:—</b>							
Main Line, Clinton-Invercargill ...	65 42	65 42	7,064	4 10	543	8'23	107'03
Invercargill-Bluff ...	17 1	17 1	2,447	6 6	188	11'06	143'94
Invercargill-Kingston ...	86 77	86 77	6,421	2 11	494	5'61	72'96
Makarewa-Riverton ...	17 61	17 61	1,675	5 7	129	7'12	93'06
Thornbury Junction-Otautau ...	11 40	11 40	1,078	7 7	83	6'92	89'91
Tapanui Branch ...	15 43	...	...	...	...	...	...
Totals ...	214 24	198 61	18,686	7 5	1,437	7'22	93'90
Grand Totals ...	787 38	767 69	130,415	5 1	10,032	13'06	169'80

**RETURN No. 38.**  
**HURUNUI-BLUFF SECTION.**

COMPARISON of the CLASSIFIED EXPENDITURE on MAINTENANCE of the Line from Amberley to Palmerston for the Four Financial Years 1877 to 1881.

Classification.	Rate per Mile per Annum.				Proportion of each Item to the whole Expenditure.			
	1877-78.	1878-79.	1879-80.*	1880-81.	1877-78.	1878-79.	1879-80.*	1880-81.
Supervision ...	£ 6'19	£ 6'72	£ 7'87	£ 5'05	per cent. 4'0	per cent. 3'4	per cent. 3'8	per cent. 3'0
Track-surfacing ...	79'54	72'70	71'76	61'52	51'3	36'7	34'7	36'8
Renewals ...	9'87	9'07	8'90	6'64	6'4	4'6	4'3	4'0
Ballasting ...	3'78	4'86	7'05	8'02	2'4	2'4	3'4	4'8
Turntables and traversers ...	'74	'62	'41	'17	'5	'3	'2	'1
Grading ...	1'37	8'85	15'69	8'90	'9	4'5	7'6	5'3
Permanent-way materials ...	9'13	17'47	26'08	32'48	5'9	8'8	12'6	19'4
Roads, approaches, &c. ...	2'48	1'05	3'68	1'41	1'6	'5	1'8	'8
Bridges, culverts, &c. ...	17'06	28'20	20'39	11'50	10'9	14'2	9'9	6'9
Fences, gates, &c. ...	3'69	7'84	3'23	5'66	2'4	4'0	1'6	3'4
Signals ...	1'27	1'01	'75	'45	'8	'5	'4	'3
Cranes ...	'68	'61	'21	'18	'4	'3	'1	'1
Water-services ...	2'15	3'47	2'67	1'57	1'4	1'7	1'3	'9
Wharves ...	...	...	...	...	...	...	...	...
Station buildings ...	11'45	10'52	7'67	6'26	7'4	5'3	3'7	3'7
Dwelling-houses ...	...	...	...	'72	...	...	...	'4
Tools and implements ...	2'74	4'96	4'89	5'04	1'8	2'5	2'4	3'0
Workshop commission ...	'65	'60	'44	'25	'4	'3	'2	'2
Total maintenance ...	152'79	178'55	181'69	155'82	98'5	90	88	93'1
Additions and alterations ...	2'26	19'78	24'80	11'49	1'5	10	12	6'9
Total expenditure ...	155'05	198'33	206'49	167'31	100	100	100	100
Miles under maintenance ...	382	400	402	421	...	...	...	...

\* Estimated for twelve months for comparison.

SHOWING COMPARATIVE AVERAGE RATES OF CLASSIFIED EXPENDITURE OF MAINTENANCE OF WAY AND WORKS ON EACH SECTION AND TRAFFIC DISTRICT, PER MILE, PER FOUR WEEKS, FOR THE YEAR ENDING 31st MARCH, 1881.

Sections.	Mile- age.	Super- vision.	Track Sur- facing.	Track Re- newals.	Ballast- ing.	Traverses and Turntables.	Grading.	P.W. Materials.	Roads, Ap- proaches, &c.	Bridges and Culverts.	Fences, Gates, &c.	Signals.	Cranes and Weighbrdges.	Water Services.	Wharves.	Station Build- ings.	Dwellings- houses.	Tools and Im- plements.	Workshop Comp- mission.	Total Maintenance.	Additions.	Total Expenditure.
Main Line, Amberley-Temuka	121 0	44	4 67	52	46	54	16	2 29	08	1 27	1 25	07	02	19	01	84	14	65	04	12 49	1 27	13 76
Lyttelton-Christchurch	6 0	1 87	22 17	2 53	2 06	01	1 71	10 84	2 59	1 41	1 25	76	06	51	01	10 19	03	1 87	24	60 96	7 04	68 00
Rangiora-Oxford	22 0	26	4 74	05	01	01	01	38	01	24	08	00	00	01	00	21	03	07	00	6 32	05	6 37
Kaipoti-Bennett's	20 0	28	4 85	05	01	02	00	33	09	17	09	00	00	02	00	13	03	06	01	6 06	00	6 06
Southbridge Branch	25 0	38	4 17	55	38	02	59	2 67	08	30	1 07	00	00	05	00	08	03	1 0	03	11 50	21	11 71
Malvern Branch	31 0	28	3 59	37	23	01	20	1 66	02	14	04	00	01	04	00	11	01	09	01	6 71	43	7 14
White Cliffs Branch	12 0	27	2 73	20	32	01	97	0 94	02	1 62	04	00	00	13	00	09	05	02	00	7 41	00	7 41
Tinwald Branch	11 0	11	1 43	00	00	00	26	00	06	12	34	00	00	10	00	00	00	01	00	1 87	00	1 87
Waipara Extension	7 0	06	1 60	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	2 22	00	2 22
Total Christchurch Section	254 0	40	4 70	44	36	02	36	1 99	12	82	48	05	02	13	00	72	08	40	03	11 12	87	11 99
Main Line, Temuka-Waitaki	49 0	36	4 52	18	1 77	02	24	1 41	04	89	1 8	00	00	14	00	34	06	72	00	11 84	30	12 14
Waitaki-Oamaru	15 0	36	4 80	15	00	00	17	35	04	1 65	61	00	00	19	00	04	01	30	00	8 60	64	9 24
Oamaru-Palmerston	37 0	65	5 82	2 45	1 46	00	2 92	12 68	32	2 41	93	03	01	29	00	12	00	56	01	30 66	3 32	33 98
Albury Branch	20 0	22	3 54	01	80	00	50	08	01	08	04	00	00	02	00	04	01	06	00	5 41	13	5 54
Waimate Branch	5 0	22	3 73	02	96	00	04	06	17	01	07	00	00	02	00	01	00	08	00	5 95	03	5 98
Dunroon Branch	21 0	23	5 21	22	01	00	01	49	00	1 6	17	00	00	02	00	01	00	08	00	6 61	20	6 81
Ngapara Branch	15 0	31	5 85	06	06	00	74	1 6	01	12	44	00	00	02	00	04	02	01	00	7 93	12	8 05
Breakwater Branch	1 0	96	4 17	1 23	73	00	14	2 25	32	2 98	00	00	00	02	00	00	00	01	00	12 79	00	12 79
Shag Point Branch	2 0	47	5 99	00	1 51	00	1 67	00	00	13	00	00	00	00	00	00	00	00	00	9 77	18	9 95
Total Oamaru Section	170 0	38	4 90	63	1 01	01	1 17	3 30	09	1 00	38	01	00	12	00	15	02	35	00	13 55	92	14 47
Main Line, Palmerston-Glendermid	33 5	78	8 67	24	1 51	00	3 61	2 19	1 5	1 20	67	01	00	57	00	23	03	84	07	20 77	2 91	23 68
Glendermid-Port Chalmers	1 0	372	14 21	7 65	3 87	03	5 19	16 89	1 48	2 14	98	00	02	84	00	2 98	00	2 49	09	118 05	68	118 73
Main Line Glendermid-Dunedin	7 0	53	12 90	62	4 28	10	1 04	7 08	1 63	1 83	2 80	17	06	28	00	7 01	10	2 22	35	45 00	5 99	50 99
Dunedin-Clinton	73 0	57	5 88	1 04	1 98	01	1 51	4 30	17	90	1 18	11	00	18	00	36	14	79	10	19 22	98	20 20
Walton Park Branch	2 5	92	8 57	14	27	00	1 36	0 22	02	3 58	22	00	00	00	02	02	00	82	03	17 71	07	17 78
Outram Branch	9 0	58	5 12	00	11	00	1 79	4 7	04	3 46	34	00	00	02	00	35	14	48	01	12 91	05	12 96
Lawrence Branch	22 0	41	5 49	60	1 42	01	1 28	6 4	09	82	37	00	00	04	00	04	00	29	02	11 72	21	11 93
Total Dunedin Section	149 0	71	6 80	73	1 76	01	1 96	3 20	22	1 20	98	07	00	24	37	60	09	78	08	19 80	1 45	21 25
Main Line, Clinton-Invercargill	66 0	23	4 09	11	67	01	74	57	02	68	17	00	00	12	00	20	00	31	02	7 94	29	8 23
Invercargill-Bluff	17 0	28	4 18	22	51	14	65	67	17	82	07	03	00	42	13	1 95	05	29	08	10 66	41	11 07
Winton-Kingston	19 0	22	2 92	05	14	00	31	58	21	73	26	00	00	10	00	23	00	33	04	6 12	15	6 27
Makarewa-Riverton	68 0	15	2 69	15	60	01	58	42	05	31	10	00	00	05	00	04	02	18	01	5 36	15	5 51
Thornbury-Otautau	18 0	23	5 21	30	09	04	51	16	01	19	04	00	00	02	00	02	00	26	02	7 10	06	7 16
Total Invercargill Section	199 0	21	3 69	14	51	02	59	47	56	52	46	03	01	10	01	27	01	25	02	7 01	21	7 22
Whole Line	772 0	41	4 89	46	82	02	91	2 12	12	86	46	03	01	14	08	45	05	43	03	12 29	82	13 11

**RETURN No. 40.**  
**HURUNUI-BLUFF SECTION.**

SUMMARY of EXPENDITURE on ADDITIONS and ALTERATIONS for the Year ended 31st March, 1881  
(included in Working Expenses).

Section.	Classification.	Amount.					
		Items.		Totals.			
		£	s.	d.	£	s.	d.
Christchurch ... ..	Surfacing ... ..	257	3	4	2,802	6	4
	Renewals ... ..	18	3	0			
	Grading ... ..	8	6	0			
	Roads, approaches, &c. ... ..	104	3	0			
	Bridges, culverts, and drains ... ..	1,287	14	2			
	Fences, gates, and cattle-stops ... ..	39	15	10			
	Cranes and weighbridges ... ..	39	3	8			
	Water-services ... ..	123	17	9			
	Station buildings ... ..	586	19	5			
	Dwelling-houses ... ..	273	8	10			
	Tools and implements ... ..	57	17	10			
	Sundries ... ..	5	13	6			
	Oamaru ... ..	Surfacing ... ..	37	7			
Renewals ... ..		94	0	11			
Grading ... ..		170	15	7			
Turntables and traversers ... ..		1	10	8			
Roads, approaches, &c. ... ..		43	4	8			
Bridges, culverts, &c. ... ..		1,408	19	8			
Fencing, gates, and cattle-stops ... ..		56	13	3			
Water-services ... ..		42	10	11			
Station buildings ... ..		146	18	5			
Dwelling-houses ... ..	34	4	10				
Dunedin ... ..	Surfacing ... ..	272	5	5	2,815	5	3
	Grading ... ..	953	14	0			
	Turntables and traversers ... ..	114	8	7			
	Roads, approaches, &c. ... ..	23	17	3			
	Bridges, culverts, &c. ... ..	47	1	5			
	Fences, gates, &c. ... ..	13	16	8			
	Signals ... ..	470	7	0			
	Water-services ... ..	577	4	9			
	Station buildings ... ..	293	7	6			
	Dwelling-houses ... ..	11	10	11			
Tools and implements ... ..	37	11	9				
Invercargill ... ..	Surfacing ... ..	198	4	11	543	8	3
	Ballasting ... ..	58	18	4			
	Grading ... ..	18	6	6			
	Roads, approaches, &c. ... ..	9	5	11			
	Bridges and culverts ... ..	29	4	3			
	Fences, gates, cattle-stops, &c. ... ..	34	18	8			
	Water-services ... ..	6	5	10			
	Stations and buildings ... ..	138	13	10			
	Tools and implements ... ..	49	10	0			
	Totals ... ..	...	...	...			

**RETURN No. 40—continued.**  
**HURUNUI-BLUFF SECTION.**

DETAILS of EXPENDITURE showing Amounts Charged to Additions and Alterations during the Financial Year ended 31st March, 1881, included in Working Expenses.

Surfacing,—		£	s.	d.	£	s.	d.	Surfacing—continued.		£	s.	d.	£	s.	d.
Cross over sidings, Addington ... ..	...	4	10	0	...	...	...	Chaining line, Outram Branch ... ..	...	2	8	0	...	...	...
Coupling-points at Heathcote ... ..	...	61	19	1	...	...	...	"    Glendermid to Port Chalmers ... ..	...	0	12	4	...	...	...
Extending ballast, discharging siding, Lyttelton ... ..	...	32	7	7	...	...	...	"    Walton Park Branch ... ..	...	1	2	0	...	...	...
Alteration to sidings, Rakaiā ... ..	...	135	15	2	...	...	...	Making mile-posts material, Glendermid-Bluff and Branch ... ..	...	61	17	0	...	...	...
"    "    screw-pile jetty, Lyttln. ... ..	...	13	1	6	...	...	...	Mile-posts, labour and material, Palmerston-Glendermid ... ..	...	18	15	8	...	...	...
"    "    No. 4 jetty, Lyttelton ... ..	...	9	10	0	...	...	...	Relaying Corporation siding, Green Hills ... ..	...	10	10	6	...	...	...
Lengthening back shunt, Waimate Junction ... ..	...	8	17	6	...	...	...	Chainage of line, Clinton to Invercargill ... ..	...	23	18	9	...	...	...
Taking up siding at Normanby ... ..	...	16	3	6	...	...	...	Chainage of line, Invercargill to Bluff ... ..	...	6	16	11	...	...	...
Lengthening landing-service sidings at Timaru ... ..	...	1	0	0	...	...	...	"    "    to Winton ... ..	...	6	2	11	...	...	...
Completion of dismantling part of Moeraki Branch ... ..	...	7	0	10	...	...	...	"    Winton to Kingston ... ..	...	21	19	7	...	...	...
Chainage of line, Hillgrove to Palmerston ... ..	...	3	8	0	...	...	...	"    Makarewa to Riverton ... ..	...	7	12	4	...	...	...
"    Shag Point Branch ... ..	...	0	18	0	...	...	...	"    Thornbury to Otautau ... ..	...	3	1	9	...	...	...
Laying check-rails on curves, Waitati ... ..	...	65	2	8	...	...	...	Extending cattle-yards siding, Clinton ... ..	...	9	19	0	...	...	...
Sidings, way and workshops, Dunedin ... ..	...	86	7	0	...	...	...	"    line of engine-shed, Clinton ... ..	...	10	16	0	...	...	...
Chaining line, Palmerston to Glendermid ... ..	...	8	5	9	...	...	...	Making mile-posts, labour, Glendermid-Bluff and Branches ... ..	...	83	5	9	...	...	...
"    Glendermid to Dunedin ... ..	...	2	15	9	...	...	...	Laying loop-line and improvements to Longbush siding ... ..	...	14	1	5	...	...	...
"    Clarksville to Lawrence ... ..	...	7	14	0	...	...	...								
"    Dunedin to Clinton ... ..	...	17	5	3	...	...	...								



## RETURN No. 40—continued.

## HURUNUI-BLUFF SECTION.

DETAILS of EXPENDITURE showing Amounts Charged to Additions and Alterations during the Financial Year ended 31st March, 1881.

	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
<b>Renewals,—</b>							<b>Fences and Cattle-stops,—</b>						
Relaying steel rails, south from Selwyn ...	18	3	0				Erecting fence at Addington for Locomotive Department ...	3	6	0			
Renewal of permanent way, main line, Oamaru to Palmerston ...	94	0	11	112	3	11	Fencing at 93 miles 60 chains ...	10	7	8			
							Gate, &c., at West Oxford ...	0	19	11			
							Wicket-gate at Doyleston ...	3	15	4			
<b>Ballasting,—</b>							Repairing iron fence at Locomotive Engineer's old office ...	21	6	11			
Making four ballast huts ...				58	18	4	Closing level-crossing gates at Kartigi, &c.	3	3	0			
<b>Turntables and Traversers,—</b>							Erecting 16 level-crossing gates, Duntroon Branch ...	53	10	3			
Erecting turntables at Evan's store, Timaru	1	10	8				New gate at Ravensbourne ...	4	8	2			
Turntable at Balclutha, 50 feet (erecting)	114	8	7	115	19	3	Picket fence, Dunedin Station ...	9	8	6			
							Making cattle-stops, Kingston Branch ...	27	8	2			
							Shifting cattle-stops, south side Clinton ...	7	10	6			
											145	4	5
<b>Grading,—</b>							<b>Signals,—</b>						
Widening bank, Rangitata Island, after 1879-80 (completing) ...	8	6	0				Alterations to signals, Palmerston to Glendernid ...	84	9	4			
Draining slip at Otepopo ...	170	15	7				Alterations to signals, Glendernid to Dunedin ...	170	4	1			
Clearing away slip at Deep Creek, lightening slope ...	88	8	9				Signal improvements, Dunedin to Clinton ...	215	13	7			
Clearing away slip at Puketeraki, lightening slope ...	242	12	3								470	7	0
Earth-filling at Hillside ...	37	16	9				<b>Cranes and Weighbridges,—</b>						
Earthwork at Bell-hill bank ...	125	11	5				Re-erecting 5-ton crane, Christchurch yard	39	3	8			
Borings for proposed retaining wall at Port Chalmers ...	16	6	9								39	3	8
Arching over shaft, Deborah Bay ...	35	9	4				<b>Water Services,—</b>						
Protection of line against Waitahuna River	37	15	3				Pump at Ashburton ...	7	4	7			
Retaining-wall, Waitati Cliffs ...	70	10	2				Hose and valve for fire-engine ...	10	13	8			
Pitching 4 chains railway embankment beyond Athol ...	18	6	6				Completion of Chertsey well ...	79	13	6			
Drain at 6-mile bank ...	299	3	4	1,151	2	1	Erecting wind-mill at Chertsey ...	26	6	0			
							Connecting water-service with town main, Oamaru ...	42	10	11			
<b>Road Approaches,—</b>							3 hot-air engines ...	255	19	0			
Alterations to level crossing at Prebbleton	8	14	9				Boring well at Palmerston ...	23	10	1			
Level crossing at gravel reserves ...	1	4	0				2 new tank stands at Sealcliff ...	127	11	10			
Approach road to Irwell goods shed ...	37	4	9				New tank stand, Mosgiel ...	96	18	9			
Levelling at Sandy Knolls, Malvern ...	4	0	6				New well at Mosgiel Station ...	3	4	0			
Stop-boards at level crossings, 84 miles 65 chains ...	1	8	4				Laying connecting pipe, Milton ...	54	10	1			
Level crossing at Sheffield, Malvern ...	51	10	8				Water-service, engine-shed, Lawrence ...	5	10	0			
Draining Stationmaster's house at Cave ...	2	11	4				Wooden tanks at Mihiwaki ...	10	1	0			
Level crossing, Shag Point Branch ...	2	0	4				Water-service, engine-shed, Clinton ...	6	5	10			
Improvements to road diversion, Shag Point Junction ...	10	0	0								749	19	3
Ballasting approach road, Waianakarua ...	28	13	0				<b>Station Buildings,—</b>						
Laying 18-inch pipes at Falconer's Crossing, Toiro ...	8	5	0				Improvements to cattle-yards, Winslow ...	32	14	11			
Making approaches to Overbridge, south of Kaihiku ...	15	12	3				Respacing of cattle-yards ...	32	2	9			
Level crossing at Salford ...	4	8	11				Alterations to cattle-yards at Southbridge	20	7	3			
" Nelson, east side of Gore	3	17	0				Temporary sheep-yards at Cust ...	6	18	6			
" Ettrick Street, Invercargill	1	0	0	180	10	10	New closet at Opawa ...	4	12	7			
							Office in goods shed, Ashburton	14	19	9			
							Repairs to offices, Christchurch, after fire	40	7	8			
<b>Bridges, Culverts, &amp;c.,—</b>							Platform lamp at Kirwee (Malvern) ...	2	11	9			
Groins south end of Rakaia Bridge ...	320	12	11				Repairs to Stores Manager's office ...	14	8	9			
Rockwork groins, Rangitata Island bank	709	19	1				Stable at Addington for shunting horses ...	11	4	2			
Deepening overflow channel, Rangitata ...	0	16	0				Removing Kirwee Station and new platform ...	91	19	3			
Lowering culverts between Heathcote and Hillsborough ...	52	1	3				Removing Inspector of Permanent Ways office, Kaiapoi to Rangiora ...	15	3	9			
Painting bolts, Ashley Bridge ...	58	19	6				Cupboards at West Oxford Station ...	3	18	3			
Lowering culverts, Jackson's Creek, Opawa Branch ...	27	0	3				6 consignment-note boxes ...	6	11	5			
Driving piles, south bank Waimakariri ...	43	19	10				Gas-meter, booking office, Christchurch ...	5	19	6			
Shutting sides of drain, Wilson's Crossing	9	17	2				Altering old fitting shop, Christchurch, for Stores Department ...	85	7	0			
Painting bridge-bolt, main line ...	64	8	2				Office for Inspector of Permanent Way, Hornby ...	30	12	0			
Collecting large stones for Waitaki River	82	14	6				Extra fittings, Rakaia Station ...	10	4	2			
3 15-foot spans, new flood-opening at 130 miles 30 chains ...	66	12	10				Cupboards, &c., Papanui Station ...	6	1	10			
Water-openings at 120½ miles ...	40	0	2				Door, Chertsey goods shed (framing) ...	2	8	6			
6-inch pipes at Rickman's Siding, Waimate Branch ...	2	2	8				Removing water-closet from locomotive shop, Christchurch ...	4	18	11			
Excavation of swamp and new foundations at Kaka Bridge ...	1,003	5	1				New concrete floor in shed at Lyttelton ...	138	19	7			
Dismantling Port Moeraki Branch structures ...	175	1	5				Extra fittings, Rakaia Station ...	2	1	0			
Enlarging culvert at 13 miles 10 chains, Albury Branch ...	39	3	0				Extra shelving in parcels office, Christchurch ...	2	6	2			
Culvert, &c., district road, under Crusher Bank, near Warrington ...	25	0	0				Alterations at Timaru Station for Telegraph Department ...	13	11	10			
Footways, Milton and Waikouaiti Bridges	22	1	5				Shifting coal-shed and tanks at Timaru ...	26	16	6			
Box culvert at level crossing, Winton ...	2	19	7				Erecting tank and spouting at Otaio ...	5	13	3			
Water-openings, Elbow Station ...	26	4	8				Temporary telegraph fittings, Maheno ...	1	8	0			
							Furniture for Shag Junction (shifting) ...	1	14	5			
							New coal-shed at Oamaru ...	77	3	1			
							Raising carriage-shed, Oamaru ...	11	17	8			
											2,772	19	6

## RETURN No. 40—continued.

## HURUNUI-BLUFF SECTION.

DETAILS of EXPENDITURE showing Amounts Charged to Additions and Alterations during the Financial Year ended 31st March, 1881.			
<i>Station Buildings—continued.</i>			
Temporary loading gauge at Oamaru ...	£	s. d.	£ s. d.
Alterations, old Supreme Court, Dunedin...	41	13 4	
Loading-platform at Henley ...	23	14 10	
Additions to passenger station, Dunedin ...	25	1 8	
Erection of tank at Goodwood ...	0	9 0	
New office in goods shed, Dunedin ...	5	18 5	
Ironwork for overhead lift, Dunedin ...	6	18 9	
Alterations, Council Chambers ...	87	16 9	
Partition at drill-shed, Dunedin ...	2	14 6	
Making way-bill boxes with padlocks ...	14	12 7	
Fittings for pay office, Dunedin ...	13	15 3	
Sinking sump, Port Chalmers ...	7	15 0	
Tank-stand, Ravensbourne ...	6	3 10	
Making name-boards for Milton and Bal-clutha ...	1	12 4	
Alterations, Telegraph Office, Waikouaiti ...	10	8 0	
Self-acting water supply, Dunedin water-closets ...	17	12 7	
Loading-gauge, Dunedin Station ...	15	12 10	
Alterations to water-closets at Caversham ...	2	10 5	
Separating gas-meters, Dunedin Station...	3	1 5	
Earth-ramp, Ravensbourne platform ...	5	16 0	
Painting Clinton Station ...	22	8 9	
Alterations, Clinton platform ...	5	4 10	
Name-boards at Mataura and Edendale...	2	8 1	
Painting Clinton Station ...	21	0 10	
Office for Inspector of Permanent Way, Clinton ...	38	17 5	
Foreman of Works office, Dunedin ...	16	14 1	
Lining ceiling, &c., Clinton Station ...	17	2 8	
Enlarging one race, cattle-yards, &c., Centre Bush ...	14	17 2	
			1,165 19 2
<i>Dwelling-houses,—</i>			
Renovating house at Addington ...	122	14 10	
Stable at Addington ...	57	18 10	
Papering ceiling, Bridge-keeper's house, South Rakaia ...	1	18 6	
Additional room to house at Kirwee ...	22	14 10	
Shifting partition, Stationmaster's house, Dunsandel ...	2	5 1	
Repairing 3 cottages in shop-yard, Addington ...	55	3 9	
Improvements to station-house, Hinds ...	10	13 0	
Water-closet for Stationmaster's house, Ngaparā ...	3	19 9	
Shifting huts from Queen's Flat ...	20	3 6	
Shifting ganger's house from off railway land at Washdyke ...	3	14 7	
Extra tank for Stationmaster's house, Timaru ...	6	7 0	
Fencing Stationmaster's house, Waitapeka ...	11	10 11	
			319 4 7
<i>Tools and Implements,—</i>			
Signal lamps for main-line gangs ...	31	1 4	
Signal lamps for Lyttelton gangs ...	6	2 8	
42 signal discs ...	16	0 4	
8 signal discs ...	4	13 6	
Blacksmiths' shop, Dunedin ...	37	11 9	
Workshops at Invercargill ...	49	10 0	
			144 19 7
<i>Sundries</i> ...	5	13 6	
			5 13 6
			£8,197 6 7

## RETURN No. 41.

## ACCOUNT of TRANSACTIONS between the NEW ZEALAND RAILWAYS and the RAKAIA and ASHBURTON FORKS RAILWAY.

Dec. 12, 1880,	£	s. d.	By apportionment as under:—	£	s. d.
to			Rakaia and Ashburton Forks Company	1,665	1 2
Mar. 31, 1881.	To Passengers, parcels, goods,	4,405 11 0	and receipts ...	Government	2,740 9 10
		<u>£4,405 11 0</u>			<u>£4,405 11 0</u>

## ACCOUNT of TRANSACTIONS between the NEW ZEALAND RAILWAYS and the WAIMEA PLAINS RAILWAY.

Oct. 25, 1880,	£	s. d.	By apportionment as under:—	£	s. d.
to			Waimea Plains Railway	1,825	1 11
Mar. 31, 1881.	To Passengers, parcels, goods,	6,274 12 9	and receipts ...	Government	4,449 10 10
		<u>£6,274 12 9</u>			<u>£6,274 12 9</u>