# 1892. NEW ZEALAND.

# DEPARTMENT OF LANDS AND SURVEY

(ANNUAL REPORT ON).

[In Continuation of C.-1 and C.-1A, 1891.]

Presented to both Houses of the General Assembly by Command of His Excellency.

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# 1892. NEW ZEALAND.

# DEPARTMENT OF LANDS AND SURVEY

(ANNUAL REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

The Secretary for Crown Lands and Surveyor-General to the Hon. the Minister of Lands.

I have the honour to transmit herewith the annual reports on the operations of the Lands and Survey Department for the period ending the 31st March, 1892, and, in so doing, desire to call your attention to some changes that have taken place which have been for some time contemplated but could only be satisfactorily accomplished by the closer connection of the two branches of the department, which took place shortly after the close of the year ending the 31st March, 1892.

The change alluded to consists in the alteration of the "survey year" to accord with the

The change alluded to consists in the alteration of the "survey year" to accord with the "land year," thus allowing all departmental returns to be made up to the 31st March. The survey returns consequently cover a period of only nine months, instead of twelve months as heretofore, though the full twelve months will be represented in next and succeeding returns.

I have, &c.,

The Hon. J. McKenzie, Minister of Lands. S. PERCY SMITH, Secretary for Crown Lands and Surveyor-General.

# LANDS.

No change in the land laws having occurred, the lands of the colony have been administered during the period just elapsed under "The Land Act, 1885," and the amending Acts of 1887 and 1888, and the regulations made in pursuance of the powers contained therein. New regulations were published in the New Zealand Gazette of 24th December, 1891, and the 14th April, 1892, page 597, both dealing with special-settlement associations. The principal alterations in the first of these regulations consists in the substitution of a perpetual-lease tenure for the deferred-payment, or perpetual-lease tenure prior to that time in force, and the increase of the mean area which may be taken up by a selector within a special-settlement block to 200 acres; the maximum area of 320 acres being retained.

The regulations of the 14th April, 1892, were confined to one special settlement in the Bay of Plenty, where the swampy nature of the land did not admit of so small an area as 200 acres being profitably worked, and hence the limit was fixed at 500 acres, the tenure being perpetual lease.

Through causes which will be detailed presently the results flowing from these changes in the regulations do not appear in this year's returns, with the exception of one case, though, it may be added, the preliminary work in arranging these special settlements has formed a prominent feature in the year's transactions.

In order to allow of a comprehensive view of the departmental work, the following summary of the transactions for the year is supplied, full details of which will be found in the several tables attached to this report:—

				•	No. of Purchasers.	Δı	·ea.		on Pa	Cash and Scrip receive on Past and Current Transactions			
			<del>-</del>			Α.	R.	Р.	£	s.	đ.		
Town lands					 101	44	3	33	1				
Suburban lands					 99	228	1	12	44,349	9	2*		
Rural "					 292	40,227	3	6	1)				
Deferred payment					 223	40,467	1	36	49,913	18	5		
	llage se	ettlemen	t		 23	181	3	5	2,657	15	10		
Special-settlement as	sociati	ons, per	petual le	ase	 13	1,922	1	8	9,446	12	9		
Village settlement, c			•		 89	428	3	31	1,629	3	4		
D ~ 11 ′					 824	282,547	0	27	40,099	9	6		
Village settlement pe		ıl lease			 59	892	3	10	340	- 8	10		
Village homestead sp			ıt		 140	2,213	0	24	1,902	1	Ó		
Agricultural lease	• •				 2	90	1	4	232	17	7		
Homestead			••	• •	 8	1.010	Ō	0					
Small grazing-runs					 80	159,464	3	7	17,070		0		
Pastoral runs		• • •		• • • • • • • • • • • • • • • • • • • •	 126	844,952	ŏ	14	132,605		ŏ		

<sup>\*</sup> Including £1,954 3s. 8d. scrip.

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A reference to Table T at the end of this report will show at once what changes have taken place during the last twelve years in the tenures, and areas selected; but to afford information as to the numbers of selectors and areas selected, classified under the four principal headings, the following summary is supplied:—

		1890.		1891.	1892.			
	No.	Area.	No.	Area.	No.	Area.		
Cash Deferred payments Perpetual lease Pastoral	702 426 852 308	Acres. 47,478 47,181 238,904 3,794,636	661 315 854 195	Acres. 100,222 35,081 290,248 1,682,761	581 246 1,036 206	Acres. 40,930 40,649 287,664 1,004,416		

It will be noticed that there has been a sensible decrease in cash purchases and deferred-payment selections during the three years, whilst the selectors on perpetual lease have increased considerably. The increase in perpetual-lease selectors is not due to any forcing of this particular system, for with some exceptions the lands shown in the first three lines of the above table were thrown open on the optional system, the choice of tenure being decided by the selector himself. This change in popularity, however, is not of recent growth. A glance at Table T will show that the perpetual lease has gradually and steadily become the favourite tenure, to the exclusion of the

once popular system of deferred payment which seems to be fast dying out.

The average areas of holdings selected during the past period are as follows: excluding village settlements, where the holdings are always small, and taking only the rural lands under the headings of cash, deferred-payment, and perpetual lease—these being practically the lands selected for farms—we find that the average for the year is 274 acres; that for 1891 being 263 acres, and that for 1890, 128 acres. There is, therefore, a slight increase in the size of the farms selected, and if the optional system remains in force this increase is likely to continue, from the simple fact that the lands of the Crown that remain to be dealt with are in their nature, with few exceptions, exclusively suited for holdings of considerable size, where pastoral rather than agricultural pursuits must predominate. The want of lands suitable for agriculture is a very real one, and is every day forcibly impressed on the officers of the department. It has recently been emphasized very strongly in the demand for blocks of land within which scrip issued under the Naval and Military Settlers' and Volunteers' Land Act could be exercised; and the final selection of these blocks—though the best possible under the circumstances—leaves much to be desired, having in view the small amounts of some of the scrip.

The number of selectors and purchasers of Crown lands during the past twelve months, exclusive of pastoral tenants but inclusive of small-grazing-run lessees, is 1,953, being 72 more than for the previous year. This is not a very noticeable increase. The cause of it may be looked for in the fact already mentioned, as to the scarcity of readily-available lands for settlement, and also in a larger measure, perhaps, to the fact that a considerable number of blocks which were about ready for throwing open under the ordinary optional system having been selected by special-settlement associations; and, as these blocks have to be completely surveyed before actual allotment by the members of the associations takes place, they cannot appear in this year's returns. It has already been stated that a feature of the year's transactions is the number of special-settlement associations which have applied for and selected blocks of land. Up to the 31st March, 1892, fifteen association blocks, containing 99,253 acres, had been proclaimed as set aside for this purpose, being nearly the limit allowed by law; the number of individuals forming such associations being 455, each of whom will be entitled under the regulations to select an average of 200 acres each on a perpetual-lease tenure. Including the blocks proclaimed up to the 31st March, applications have been received covering an area of 342,000 acres, representing 1,741 individual selectors, at an average area of 200 acres each. These do not, however, appear in this year's returns. The surveys of these blocks are in hand, and the result of the individual selections will appear in next year's returns. The situation of some of the blocks is distant from other settlements and from roads, thus rendering their occupation a matter of difficulty until road access is secured, whilst the nature of the country is a bar to the rapid extension of formed roads, and a source of considerable expense in providing them. In all of these blocks the necessary sites for towns, villages, and othe

Another feature which tends to decrease the number of selections shown in these returns is the large area in the South Island reserved for the Midland Railway Company. The selections which take place under the auspices of the company do not enter into the Crown land returns, excepting in bulk, in the form of lands disposed of as endowments. The area selected by the company under the terms of the contract to date is 140,491 acres, besides 72,176 acres held in trust under clause 28

of the contract.

The average price at which rural lands have been disposed of during the past year is: for cash, a trifle over £1 per acre; for deferred-payment lands, about 15s. per acre; and for perpetual lease, about 15s. 9d.

The area of land open for selection on the 31st March—much of which, however, is of inferior quality—part surveyed, part unsurveyed, was 1,037,413 acres. The actual area opened during the year for close settlement was 507,898 acres: the area actually selected being 370,256 acres. The area surveyed during the same period was 595,995 acres, which includes lands previously alienated,

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and leaves also a balance for future selection. The endowments for various purposes which have been administered by the department during the year were dealt with as follows:

iii

· ·	No o	f Purchas	ers.	Are	ea.	Consideration.
				Α.	R. P.	$\pounds$ s. d.
$\operatorname{Cash\ lands}  \dots$		32		3,160	1  0	 3,487 3 3
Deferred-payment		15		4,996	1  4	 1,813 10 7
Perpetual-lease		34		5,165	3 6	 $2,415 \ 13 \ 4$
Small grazing-runs		1		861	3 6	 508 12 10
Pastoral runs		$\sim 2$		24,999	0 0	 1,311 4 7
The following are the a	reas of	reserves	made d	during the	year:—	
Recreation	• • •	•••	•••	•••		 11,090 acres.
Primary education					•	 5,372 "
${ m Miscellaneous}$			• • •	• • •		 66,844 "
	Total	•••	•••			 83,306 "

Included in these reserves is Resolution Island, lying between Dusky and Breaksea Sounds, and containing 47,000 acres, which has been set aside permanently for the protection of the native fauna and flora, on the recommendation of the Australasian Association for the Advancement of Science. This will be followed shortly by the reservation of all the islands in the West Coast Sounds for the same purpose.

The revenue collected during the year is as follows, full particulars of which will be found in Table P:-

			£	s.	d.
Land revenue	 •••	•••	 124,086	16	8
Territorial revenue	 • • •	•••	 200,383	4	5
			394 470	1	1

To which should be added the revenue derived from endowments collected by the department, £25,666 0s. 6d.

### SETTLEMENT CONDITIONS, FORFEITURES, ETC.

There are at the present time about 10,122 selectors, holding 2,312,888 acres, on the books of the department, whose conditions of tenure demand more or less compulsory improvement of their lands. This number is 533 greater than for the previous year. Each year as it passes sees many of the conditions of occupation fulfilled, entitling the holders to acquire the freehold; but, as the popularity of the deferred-payment system seems obviously to be on the wane, the annual increase in the Crown's tenants promises to become greater each year as the perpetual-lease or small-grazing-run systems take the place of the first-named system. The subdivision of considerable areas into small grazing-runs during the ensuing season will increase this class of holders, who are responsible to the Crown for the improvement of their properties. Concurrent with this increase is the growth of the number of annual inspections to be made by the Crown Lands Rangers to insure that the conditions are fulfilled. It has already been amply demonstrated that this branch of the service was until lately undermanned, but the recent appointment of three extra officers will enable the Commissioners to cause more frequent inspections, and also obviate, in some measure, the delays attendant on the completion of transfers, which in all cases require inspection prior to sanction by the Land Boards.

As in the previous period, the services of the officers of the Survey Department have occasionally been put in requisition to undertake Rangers' duties; but for many reasons it is unadvisable that this course should be continued, for it involves taking the surveyors from their own duties, which

are always pressing, and, moreover, causes delays in much-needed surveys.

Although "The Selectors Lands Revaluation Act, 1889," ceased its operations on the 1st
January, 1891, the complete revaluations could not, from various causes, be made by the Rangers
nor finally concluded in the Commissioner's offices, until the past year. This work added enormously to the work of the Rangers and to the office staff, and brought the regular inspections much into arrear; this, however, has been fairly well worked off now.

Generally speaking, the Commissioners report that the conditions of improvement are fairly carried out, and in some cases a very much greater amount of work than is required by law has been done; indeed, it scarcely pays the selector who intends to make his selection his home to confine himself to the statutory improvements, which are in no sense burdensome. But, small as the requirements are, it is found in some few parts of the colony that it is difficult to comply with the law as to the amount of land which should be cultivated or money expended, because no amount

so expended would increase the carrying capacity of the country.

The forfeitures for breach of conditions, together with the surrenders under the perpetual-lease system, amount to 232 cases, covering an area of 42,382 acres, to which must be added 8 small grazing-runs of an area of 20,170 acres. The latter show a decreased number as compared with the previous year, but the former a material increase both in number and area. It is a natural consequence of people taking up land who either from mental, physical, or monetary incapacity are unable to comply with the regulations that a certain percentage of the lands selected should revert to the Crown, and out of 10,000 selectors on the books the number of 240 failures is perhaps not more than might be expected. A few cases of forfeiture have also occurred where, so far as could be ascertained, the breach of conditions was the result of deliberate intention, and done with the hope that Boards would not look on such in a serious light—in which, however, they were mistaken: such cases are happily few. These forfeited selections are almost invariably taken up again so soon as declared open for selection,

### TRANSFERS.

Transfers of lands held under improvement conditions are by statute allowed on the fulfilment of the conditions. A preliminary step, therefore, on the receipt of an application for transfer by the Land Boards is inspection in the field to ascertain the degree of compliance made with the law. These inspections are a source of considerable trouble and expense to the department and of vexation to the would-be transferror, for, scattered as they are from one end of a district to another, it is often impossible to remove a ranger perhaps a hundred miles or more to make an inspection of one property at the request of any individual who wishes to transfer for his own benefit without any corresponding good to the State.

The number of transfers approved by the Boards during the past period was about 425.

### PASTORAL RUNS.

The present year will see the termination of the leases of a considerable number of pastoral runs in the southern part of the colony. All the country falling in then has been classified by the Commissioners under section 9 of the Amendment Act of 1888, and as the result thereof 277,269 acres have been withheld for settlement purposes. Though the bulk of the above area does not fall in till the 28th February, 1893, preparations have been in progress for some time past to throw these lands open under various systems so soon as the surveys are completed. This will be early in January next.

Besides this area of 277,269 acres withheld for settlement, thirty-four runs in Otago and Canterbury, containing an area of 145,082 acres, have been resumed under the powers given in the Land

Act, and will be available for closer settlement early next year.

There were disposed of during the year 126 runs, covering 844,952 acres; all were let for varying terms of years.

The bulk of these runs lay in Otago and Southland; and, so far as can be ascertained, the results

show—for Otago, a loss on the previous rents; and in Southland, a considerable advance.

Eighty small grazing-runs, covering an area of 159,464 acres, were disposed of during the year for a rental of £7,114, and it is probable that a large area will be submitted under this system of tenure during the ensuing year, much of the resumed country appearing to be well suited for this class of holding, which gives fixity of tenure for twenty-one years certain. Obviously, fixity of tenure for considerable periods is what is much wanted in order to prevent deterioration of the pastoral lands by over-stocking, and also to encourage improvements.

# Special-settlement Associations and Village-homestead Lands.

Allusion has already been made to the large number of applications received for blocks of land under the first of the above headings, which total 342,000 acres, representing 1,741 applicants; but the completed transactions for the year only number one block of 1,922 acres, selected by 13 holders, making an average area of 147 acres to each. This is the Medbury Association, in Canterbury, and the tenure is perpetual lease. The number of associations who have applied for land is 48. The area proclaimed since the 31st March is nearly 100,000 acres, leaving a balance of about 142,000 acres to be proclaimed so soon as the law permits. The total number of such settlements in actual existence is 20, with a total area of 82,465 acres, held by 833 selectors. All of these (excepting Medbury) are held under the deferred-payment system, and are most of them in the Wellington District. In company with the Commissioner of Crown Lands I had an opportunity of seeing some of these settlements in March last, and observed with pleasure the amount of forestclearing that had been done, and the wisdom of some of the associations in taking advantage of the provisions of the Loans to Local Bodies' Act, by which means they had secured a considerable length of metalled roads.

The applications for blocks of land for associations already referred to have been so many in the Wellington District that there is a dearth of land left for further associations or for ordinary settlement, for which latter purpose, however, a considerable area was withheld from selection by the associations; indeed, it may be said that, with the exception of the Waimarino country, there is little land left in that district to deal with.

Of village-homestead special settlements, 140 selectors took up 2,213 acres on perpetual lease, all of whom are entitled under the regulations to advances of £10 towards the construction of a house. At the same time 35 selections, containing an area of 1,081 acres, were forfeited for noncompliance with the conditions. Altogether, the books of the department now show 895 selectors under this system, holding 23,535 acres, on which has been advanced by the Government a sum of £22,383 5s. 8d. The reports of two of the Village Stewards in the appendix hereto will furnish some details of this class of settlement.

### ARREARS.

"The Land Selectors' Revaluation Act, 1889," was supposed to do away with the very large amount of arrears owing to the Crown on deferred-payment, perpetual-lease, and other selections, by reducing the values of the lands on which rents, &c., had to be paid. The following figures show for the past few years the state of arrears, including deferred-payment, perpetual-lease, small grazing-runs, and pastoral-leases:-

31st March	, 1889		• • •	3,862  s	electors	, owing	£44,533
"	1890	•••		3,755	"	,,	£52,891
"	1891			3,548	,,	"	£37,341
"	1892			2,612	"	"	£25,256

It will be seen that the arrears for the past year are considerably less than for the previous periods; but even then they are greater than they should be. "The Selectors' Lands Revaluation Act, 1889," has no doubt had some effect in reducing the arrears, simply because the reductions do not take effect until arrears are paid up. It has often been pointed out that many of the selectors

are only technically behindhand in their payments, as all rents, &c., are by law payable in advance, most of them on the 1st January or July; consequently many of the payments due on the 1st January last only come in during the six months following that date. Were the returns made up at a later period the result would be much more favourable, especially so in the case of the pastoral and small-grazing runholders, whose rents are due on the 1st March—only one month before the returns are made up.

#### REVALUATIONS.

The following table shows the results to date under "The Selectors' Lands Revaluation Act, 1889." There are a few schedules yet to come in, but not many; these have been delayed until the selectors pay up arrears.

	De		ed :	Pay	ment.	•	Perpetual Lease.						Totals.								
District.	No. of Revalu- ations.	Are	a.	-	Loss Capital		ue.	No. of Revalu- ations.	Ar	ea.		An	ss in nual ent.		No. of Revalu- ations.	Ar	Эа.		Lost Ca Value Rei	ān	
Auckland	7	A. 962	R. 1	P. 38	£ 276	s. 13	d. 0		A. 1,511		р. 29	£ 28		1. 5	40	A. 2,473		P. 27	£ 305	s. 7	d. 5
Taranaki	13	1,067	ō		1,516	6	ő		1,664	3				1		2,731		27		8	1
Wellington	1	126	3	$\bar{7}$			0		232		16			6	3	358	3				6
Canterbury	- 1	8	3	$^{24}$		4	0		73	0			_	0	_	81	3			8	0
Otago	23	7,756	0	13	3,561	9	0	21	5,015	2	7	74	11	6	44	12,771	2	20	3,636	0	6
Total, 1891–92 Previous years	45 1,298	9,921 201,053			5,455 147,879		0		8,496 61,464			124 1,664	15 10			18,418 262,517			5,579 149,543		
Total to date	1,343	210,974	1	29	153,334	2	0	565	69,960	2	21	1,789	5	9	1,908	280,935	0	10	155,123	7	9
							$\mathbf{E}_{\mathbf{I}}$	NDOWI	IENTS												
Total, 1891-92	1	320	0	0	1,001	6	8	2	264	1	17	9	18	0	3	584	1	17	1,011	4	8
Previous years	50	12,859	0		12,194		0	31	7,213	0	0	218	12	8	81	20,072			12,412		
Total to date	51	13,179	0	0	13,195	11	8	33	7,477	1	17	228	10	8	84	20,656	1	17	13,424	2	4

Summarising the above figures we have,-

The perpetual-lease value is arrived at by capitalising the rent at 5 per cent. The reduction per acre on deferred-payment lands amounts to about 14s. 6d. per acre, and on perpetual-lease lands to about 10s. 5d. per acre. It is, however, not quite correct to say that the loss to the Crown amounts to the large sum shown above, for a few payments had been made on the original values which would go to reduce the total loss.

# "THE NAVAL AND MILITARY SETTLERS' AND VOLUNTEERS' LAND ACT, 1891."

The amending Act of last session authorised the issue of scrip for the 627 claims which had been reported on favourably by the Commissioners, and all but four of these have been delivered to those entitled to receive them. The value of the scrip varies from £25 to £200, and the total amount authorised is equal to £23,106 10s. in value. Blocks of lands have been set aside within which this scrip may be exercised as the Act requires; but, owing to causes which have already been pointed out, these blocks are of little or no use for such a purpose, on account of their broken nature and distance from markets. Twenty-five pounds' worth of scrip, representing 50 acres of land, is of little value in country which is only suitable for pastoral pursuits, and will then only carry two sheep to the acre, inasmuch as a man could not get a living out of such a property. The time for sending in claims under the amending Act of 1891 expires on the 30th June, 1892; therefore the results of the inquiries now making by the Commissioners will not be apparent until next year's returns. It would be an obvious advantage if some means could be devised to satisfy the claims which will arise thereunder other than by setting aside specific blocks of land, as has heretofore been done. Many of those entitled to the scrip already issued were found to be persons who, from age or infirmities, could not possibly occupy their lands. In these cases their scrip was purchased by the Government at current rate, the amount expended to the 31st March, being £2,315.

### THERMAL SPRINGS, ETC.

The sanatoria at the hot springs—Rotorua and Hanmer Plains—under the charge of the department, continue to attract a large number of visitors, as is shown by the following figures, the number of baths taken being—

1891.	No. of Baths.	Fees.	1892,	No. of Baths.	Fees.	
Hanmer Plains Rotorua	6,437 10,442	£ s. d. 228 12 6 227 2 0	Hanmer Plains Rotorua	7,311 17,521	£ s. d. 258 17 8 277 13 0	

Some additions to the accommodation at Rotorua have been made, as detailed in Mr. Malfroy's report, given in the appendix hereto, and a considerable addition is contemplated at Hanmer to provide much-needed accommodation for the large number of visitors who take advantage of the benefits to be derived from the curative properties of the waters. Further planting and other improvements are also contemplated at both places, to increase these already attractive places. The expenditure is fully warranted by their growing popularity and usefulness, some evidence of which is to be found in the fact that at Rotorua the number of visitors to the district increased from 2,500 in 1891 to 2,885 in the twelve months ending 31st March last. When the railway is opened to Rotorua we may expect this number to be much increased, whilst, with the acquisition of a complete title to the Township Block, accommodation for all classes of visitors will be greatly improved. In the position in which the lands are at present, the department is most unwillingly obliged to decline the many applications for building-sites that are received. Full particulars as to the Hanmer Springs will be found in Dr. Ginders's report dated 31st August, 1891, and published in the Appendix to the Journals of the House, H.-61, 1891.

### STATE FORESTS, ETC.

At the date of last report the area of forests reserved for climatic and economic purposes was 1,327,533 acres: since then two portions, of 4,000 acres and 4,600 acres respectively, have been resumed for settlement purposes, leaving the gross area at 1,318,933 acres.

During the past year no serious fires have occurred in the forests, but some areas which had been previously burnt have been sown with grasses, which are doing well, and from which it is

expected some rents will be derived this ensuing year.

Reports will be found in the appendix hereto relating to the Waerenga wattle-plantations in the Waikato district, and on the Papataua experimental grounds, belonging to the Whangarei County Council, but which is subsidised by the Government. No report, however, has been received from the Whangarei High School Governors, who have charge of the Kioreroa plantations, and are also subsidised by the Government.

The amount received for kauri-gum licenses during the year was £171 for 342 licenses.

### AGRICULTURAL BRANCH.

In this branch of the department Mr. Sawers has continued his instructions and lectures on the art of cheese- and butter-making in many districts of the colony with marked success. For a part of the year he was assisted by Mr. Sorensen. Their reports will be found in the appendix hereto, and both give valuable information to the producer and exporter of cheese and butter. It will be observed from Mr. Sawers's report that the export for the twelve months ending 31st March last was £286,102, against £207,687 for the same period, 1891. Mr. Hanlon was appointed fruit expert in January last, and has since then been engaged in lecturing and giving instruction in fruit-growing of all kinds. His report for the three months will be found in the appendix attached hereto.

of all kinds. His report for the three months will be found in the appendix attached hereto.

New Zealand Flax.—In the early part of last year the Agent-General was desired by the Government to ascertain what were the uses to which the Phormium tenax was applied, what were the prospects of a continued demand for it, and what was the possible annual output of manilla and sisal, and the cost of production in each case, so as to arrive at some knowledge of the position New Zealand might be able to hold in competition with those fibres. He was also requested to inquire as to the methods of dressing manilla, sisal, and other hemps, in order to, if possible, find out some process less expensive than the present one for producing marketable fibre. Tow from New Zealand flax has also formed the subject of inquiry as to whether it could not be put to some profitable use instead of, as at present, being burned. Two experimental shipments have been sent to paper-makers—one to Messrs. Parsons and Co., of New York, and one to Messrs. Cowan and Co., of Edinburgh, both of whom are large manufacturers of paper, and who have kindly agreed to give the tow a trial.

Potatoes.—With a view to improve the quality of this root a small supply of seed of the "Bruce," "Magnum," and "Main Crop Kidney" varieties has been ordered from Home, and should arrive here in time for next season's planting. All of these kinds have a high reputation as great bearers and fine eaters. The "Bruce" is already grown in small quantities by Mr. Dunn, of Mataura.

On the 31st March, 1892, the Agricultural Branch of the department was handed over to the Stock Department, and will be administered by Mr. Ritchie in future.

# SURVEYS.

As already mentioned, the termination of the "Survey year" has for the first time been brought into accord with the "Land year," and hence the returns attached to this report are for a period of nine months only.

The following is a summary of the field-work performed by the department during that period, greater detail of which will be found in the table accompanying this report:—

			Area.		-		Acre.	Total Co	st.
Minor triangulation			232,107 ε	cres	õ	o.	1.8	1,808	
m			99,850	<i>u</i> .	0	0	0.67	279 10	31
Topographical surveys for selection "bef	ore sui	rvey"	163,230	"	0	0	2.8	1,902 10	) 6
Rural and suburban section survey (1,729	ectic)	ons)	432,381	"	0	1	0.3	23,172 8	3 3
			384	"	1	1	11.1	280 13	3 10
Native Land Court surveys (110 blocks)			555,502	"	0	0	1.9	4,618 13	3 10
Mining surveys (98 sections)			2,727	"	0	8	1.2	1,104	$\theta$
Roads, &c., 333.28 miles, per mile					12	9	5	4,15616	3 3
Miscellaneous work, detention, &c.	• • •	•••						5,811 3	3 10
Town-section survey (256 sections) Native Land Court surveys (110 blocks) Mining surveys (98 sections) Roads, &c., 333-28 miles, per mile			384 555,502 2,727 	"	1 0 0	8 9	11·1 1·9 1.2	280 13 4,618 13 1,104 9 4,156 16	3 10 3 10 9 2 3 3

Total cost of field-work finished during the nine months

£43,134 17 10

The average cost of the surveys varies very little from year to year. The most important and costly item in the expenditure of each year is that for rural and suburban section survey, which for last year cost 1s. 0·3d. per acre; for 1891, 1s. 0·22d.; for 1890, 1s. 3·7d.; and for 1889, 1s. 1·4d.; making an average cost for four years of 1s. 1·4d. To this should be added a small sum in some cases for preparatory surveys when the land is thrown open before survey, but this never exceeds 4d. per acre, and is generally considerably below it. Thus, for a sum of about 1s. 3d. per acre the colony gets the field-work of its rural lands surveyed and marked out ready for the occupation of the settlers, and plans prepared for the issue of titles; a cost which will compare favourably with similar operations elsewhere. The cost of the ruling processes of triangulation and topography, however, are not included herein, for such work serves other purposes as well. Under modern appliances, and the facilities now offered for moving about the country the cost of minor triangulation does not exceed 2d. per acre. Notwithstanding the fact that the returns are only for a period of nine months, the output of section-work is about 8,000 acres greater than for the twelve months preceding, an increase which is due to the greater number of surveyors employed.

### TRIANGULATION AND TOPOGRAPHICAL SURVEYS.

This class of work, which is that on which all other is based, and which serves to keep everything in its proper place on the maps, and which—to use a homely simile—may be likened to the level and plumb-bob of the builder, shows a large decrease in area actually accomplished. This is due to the fact that the triangulation is generally well ahead of settlement operations, and it is only in small isolated districts that it is now necessary to carry on the work. The principal work of this nature done during the past period was in the districts around Catlin's River in Otago, where Messrs. Langmuir and Wilmot have done a considerable amount of work, rendered necessary by contemplated settlement surveys. In most cases a great deal of forest-clearing had to be done. The cost per acre, therefore, for the whole colony is remarkably small, being about 1½d, per acre.

I have again to express my regret that the large amount of topographical information produced by this class of survey, and now embodied in the manuscript maps of the department, is not published for general information. The urgent need of settlement work, combined with a reduced staff of draughtsmen, prevents the attention being given to this work that it deserves in the interest of the public generally. Such maps would prove of great value to all local bodies and the settlers generally, and their publication would bring the department more on a level with some of the Survey Departments in other parts of the world, where such maps have frequently been the end aimed at, by an expenditure compared with which that of New Zealand is a mere trifle.

### SETTLEMENT SURVEYS.

It has been pointed out in previous reports that the settlement surveys, which have for object the definition of individual sections of land for selection by the settlers, since the Act of 1887 came into force have been divided into two branches. The first, which is largely topographical in its nature, serves to produce a plan of any particular block of land which it is proposed to throw open "before survey;" and, in addition, such a survey delineates the lines of roads all properly graded, the features of the country, streams, forests, &c., so completely that the selector finds little difficulty in locating the particular portion of land he desires to apply for. The second branch includes the surveylof the sections, after they have been selected, within the blocks already submitted to the first process, and also comprehends all sections surveyed before offering to the public, besides all other classes of section-survey for whatever purpose, such as reserves, endowments, &c.

other classes of section-survey for whatever purpose, such as reserves, endowments, &c.

A total area of 163,230 acres was topographically surveyed last season, at a cost of 2 8d. per acre, the whole of which, however, has not been completely finished as to road-lines, &c. Wherever the character of the country is such that its value varies from place to place, which is the case in some districts, the preliminary processes included under this class of survey should always precede the opening of the land to free selection, otherwise there is a danger of the land being parted with for less than its value; whilst town-sites or other valuable rights may be disposed of, to the detriment of the public interests. The system of throwing open lands "before surveys" after this preliminary work has been done has been fairly successful, and has enabled the department to put lands into the market with less delay than under the system of complete survey before the lands are offered to the public. Whilst it has several advantages it has also its drawbacks, one of the principal of which is that the titles are often delayed for considerable periods after the lands have been selected.

which is that the titles are often delayed for considerable periods after the lands have been selected.

Under the head of "Rural and Suburban," an area of 432,381 acres, in 1,729 sections, at a cost of 1s. 3d. per acre, was completed. This includes the secondary process described above. The permanent staff of the department has been largely augmented during the last year by the temporary employment of some of the authorised surveyors, who have turned out a large amount of good work under this particular heading.

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The amount of sectional surveys the department has on hand at the present time is very large—much more, indeed, than has been the case for many years past—which is accounted for mainly by the large number of special-settlement associations which have been formed, and by the extent of country now in pastoral holdings, but which has to be prepared for closer settlement by the beginning of 1893. The urgency of pushing on these surveys has been so strongly represented that the staff has recently been augmented by ten surveyors, who are fully engaged in the field. It is to be feared that the necessity of forcing these surveys during the winter season will result in increased cost per acre, in which direction also the nature of the country itself where most of the special settlements lie likewise tends. A large number of the association blocks are situated in country where under any circumstances the exploration and survey of road-lines is difficult, and this difficulty is increased by the comparatively small size of the sections—averaging 200 acres—which implies a great number of cross-roads, the whole of which must be on graded lines, and selected with the greatest care to insure practicable communications hereafter.

The absence of agricultural land, or of, indeed, any land perfectly suited to close settlement in any form, now left in the hands of the Crown is driving would-be settlers to take up lands that even so short a time as two years ago no one dreamt of looking at. It may truly be said that the depart ment is embarrassed to find lands for occupation, those that are left being very inaccessible, and very rough in their nature. Settlement has far outrun the means of communication, and, unless greater means are placed at the command of the department to open roads to the lands still left,

settlement on the lands must receive a check.

### NATIVE LAND COURT SURVEYS.

The surveys for the purposes of the Native Land Court show a considerable diminution when compared with last year's work. They amount to 555,502 acres, as against 1,091,510 acres in 1891. The cause of this is principally due to a comparative cessation of the surveys in the Kingcountry, where, however, a large amount of work still remains to be done to carry out subdivision orders of the Court. The lesser amount of money available for advances to the Maoris to enable them to carry on these surveys has had a deterrent effect on the work, for in few cases are they able to arrange for defraying the cost themselves. The Maoris cannot, of course, get Europeans to help them in this respect, most of the country being open to the Government alone to purchase, and consequently no security for money advanced can be obtained otherwise than by the Government. The area shown, however, does not represent the total amount surveyed for the Native Land Court, as the authorised surveyors prepared a large number of blocks at the cost of the applicants. All of these surveys have to be checked and recorded in the same manner as those made at the cost of the Government.

### GOLD AND OTHER MINING SURVEYS.

There is a remarkable falling-off in the mining surveys for the past period as compared with previous years: only ninety-eight claims, covering 2,727 acres, were completed, as compared with 355 claims, containing 13,821 acres, in 1891. Nearly half of the number completed were in Nelson. This is always an expensive class of survey, due to the fact that the claims are very generally isolated, and come in for survey at different times. The average cost per acre last year was 8s. 1d., as against 5s. 9d. for the previous period.

# ROAD AND RAILWAY SURVEYS, ETC.

There is a decrease in the mileage turned out during the past year as compared with the previous period, the figures being 333 miles, as against 519 for 1891. These road surveys do not form part of the regular section-work, but are outside of them, and consist of roads taken in exercise of the reserved rights, &c. During the past year a considerable mileage has been laid out in the Wairarapa district, consisting very generally of roads which had been formed many years, but never until now surveyed. This is a legacy left by the Provincial Government of Wellington. Wellington is not peculiar, however, in this respect; for the arrears of survey left by the several Provincial Governments in most of the provinces have been a perpetual drag on the department for the last fifteen years, and are not fully worked off yet.

# MISCELLANEOUS WORK.

No system of tabular returns could well be devised which would admit of every item in such multifarious duties as are performed by the Survey Department being classified. Hence it becomes necessary to group all such items under the head of "Other Work." Included in this are the costs of inspection in the field, demarcation of boundary-lines, reports by surveyors, officers' leave, explorations, &c., all of which are important in themselves, but require no special mention, and fuller details of which will be found in the reports of the Chief Surveyors appended hereto.

### Constructive Works, Roads, Bridges, etc.

No diminution in the works of this class is shown by the annual returns, and, through causes which have already been alluded to, the ensuing year will probably see a considerable increase. Most of the works carried on by the department are conducted by the Chief Surveyors, by the Head Office staff of four road surveyors, and by aid of the County Councils and Road Boards where those bodies possess professional advice. It is with much regret I have to record the loss by death during the year of one of our road surveyors, Mr. J. C. Blythe, who for many years carried out extensive works for the department in the Auckland District.

iX C.-1.

The reports of the Chief Surveyors and road surveyors attached hereto describe in detail the many works which the department has had in hand during the year; but the following summary will show at a glance their extent :-

Roads graded, not included in t	he items	below	•••	 202 mi	les.
Dray-roads formed			•••	 151	,
Bridle-roads formed	,	•••	•••	 27	,
Dray-roads improved			•••	 52	,
Bridle-roads improved			•••	 20	7
Dray-roads maintained				 851	·
Bridle-roads maintained		•••	•••	 241 ,	,
Number of bridges constructed				34	

The maintenance of several important main roads of the colony now falls within the duty of the department. These are generally situated in the more sparsely-populated parts, and where little or no money is derived from rates by the local bodies; hence the necessity for the colony continuing the charge, or otherwise these important roads would fall into complete disrepair. The following are the principal roads maintained: Oxford to Rotorua, Rotorua to the Tauranga County boundary, Rotorua to Maketu, Rotorua to Waiotapu, Rotorua to Taupo, Taupo to Pohue on the Napier Road, Maungaiti to Taupo, Taupo to Tokaanu, Tokaanu to Okahukura, Mokau to Taumarunui (partial maintenance), Pipiriki to Ohakune (part now under construction), Ohakune to Karioi, Karioi to Moawhango, Karioi viâ Field's Track to Mason's, Turangarere to Makohine, 8 miles from Hunterville (partly under construction); Kowhai (near Springfield, Canterbury), viâ the Bealy and Otira Gorge, to within a few miles of Kumara; the Haast Pass bridle-road, and the Catlin's—Waikawa road (partly under construction), besides furnishing subsidies to the Buller, Grey, and Westland Counties for maintenance of parts of the main road from Nelson to Hoktika and Westport. The above are the principal maintenance works in hand, but repairs have been made and assistance rendered to local bodies in numerous other parts. Mr. G. T. Murray has supervised the snagging of about 40 miles of the Wanganui River, besides looking after the numerous contracts, and the unemployed within his district. Considerable advance has been made in the construction of the Hunterville-Turangarere Road, which will shortly be open for traffic. Beyond that, a length of 13 miles of easy country remains to be completed to connect Hunterville with Tokaanu and the Auckland roads. When finished, a new route from Wellington to Auckland will be open to the public, which passes through some of the finest scenery of the North Island; and it will add another to the attractions for the tourist, and make the central mountains of Ruapehu and Tongariro easily accessible.

The so-called "Stratford route" has been considerably advanced during the year, and on the

completion of the contracts in hand a dray can be taken from Stratford northwards a distance of 21 miles. The survey for the extension of this work has been in hand some time, under Mr. G. Robinson, who has the immediate supervision of all roadworks in Taranaki. The survey from the northern end is also in progress, under Mr. C. W. Hursthouse. It will take a long time before the two survey parties meet, as the work in such an inaccessible district is necessarily slow. The completion of this road will form a much-wanted means of overland communication between Auckland and Taranaki, and it will, moreover, lead to a very considerable extension of settlement for which much

of the county is suitable in some form or other.

Considerable progress has also been made with the Pipiriki-Ohakune Road, under Mr. G. T. Murray's supervision, the works having been done partly by contract and partly by the "unemployed" in small contracts. The country is difficult and expensive to form roads in, but its completion will open up a considerable area of land lately disposed of to special-settlement associations, and to the public generally; and, moreover, will allow of a coach being taken from Napier to Pipiriki, on the Wanganui River, where steam-communication connects it with the Town of Wanganui. Were the means available this road should be continued right through the Crown lands into the Stratford route, and thereby open up for settlement a considerable extent of Crown lands of fair quality which at present is unapproachable by the settler.

Another main line of road—that from Mokau Railway-station to Taumarunui, at the head of canoe navigation on the Wanganui River—has also advanced towards completion under Mr. C. W. Hursthouse's direction, and the traveller can now pass between those places and avoid some of the exceedingly steep hills on the old Native track. The portion between Mokau Station and the tunnel, however, remains untouched, for the reason that the railway is being extended over that part. Much remains yet to be done before a good driving-road is secured. It is from this road that the Stratford route branches, at about twelve miles from the tunnel.

Outside the numerous works under the direct charge of the department, all the works proposed by the local authorities to whom "thirds" of deferred payments and perpetual-lease rents are payable have first to be approved by the Chief Surveyors and Land Boards. This in itself is no payable have first to be approved by the Chief Surveyors and Land Boards. slight work, from the scattered nature of the holdings which are to be benefited by the expenditure.

The ensuing season will see extended operations in connection with the expenditure of sums borrowed and to be borrowed under "The Government Loans to Local Bodies Act Amendment Act, 1891." The sums which have already been applied for to the Treasury are shown in the following copy of report, but the expenditure in all cases has not, from various causes, commenced at the close of the financial year.

ii—C. 1.

STATEMENT showing the Blocks of Land which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," with the Report of the Surveyor-General on the Value of such Blocks, and on the Necessary Works and the Estimated Cost of the Works, and of the Moneys expended in respect of such Blocks.

	Area of		Surve	eyor-General's E	stimat	e on			Expenditure, 1st April, 1891		
Name of Block.	Block.	Valuation Block			Works required to open up Block.			ost cs.	to 31st M 1892	arc	
*Sections 184 to 201, Tauhoa Parish	Acres. 4,069		s. d. 2 0	Roadworks	•••	£ .456	s. 0	d. 0			
Maungataniwha	4,000	1,500	0 0	,,		500	0	0			
Takahue	1,900	712 1	0 0	",		300	Ŏ	Ŏ			
Manganuiowae	5,000	2,500	0 0	"		500	0	0			
Waoku	20,000	10,000	0 0	"		2,000	0	0			
Motatau	5,000	1,875	0 0	"		600	0	0			
Mareretu	5,000	-,	0 0	,,,		600	0	0			
Ahuroa	4,000	_,_,_	0 0	"		500	0	0			
* Mangamingi	6,600		.8 0	"		4,286	0	0			
Motu	33,000		0 0	"		2,475	0	0			
*Oroua–Coal Creek	6,000	6,440	0  0	"		1,050	0	0			
* Waimarino	20,900	,	0 0	"		7,837	10	0	1,000	0	(
*North-east Puketoi	13,300	16,455	0 0	,,		3,990	0	0			
East Puketoi	83,500	83,500	0 0	"		20,875	0	0			
* Mount Baker	9,200	9,600	0 0	ı;		2,625	0	0	j		
* Maruwhenua (part)	13,000	10,000	0 0	,,		5,000	0	0	5,000	0	(
Maruwhenua (part)	36,090	49,200	0 0	,,		2,000	0	0	2,000	0	(
*Blocks II., ŸIII., V.,	13,400	11,225	0 0	. ,,		4,950	0	0	·		
and VI., Woodlands	•	·									٠
Block XVII., Long- wood	4,000	2,420	0 0	"	•••	750	0	0			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	287,959	252,001 1	.0 0			61,294	10	0	8,000	0	(

Note.—Descriptions of the blocks marked \* will be found in Gazette of the 18th February, 1892, page 336. The descriptions of the remainder will be found in Gazette of the 18th March, 1892, page 479.

Work has been found for the unemployed on various roads during the past year, in nearly every instance by piecework or small contracts, which have generally worked well. The following figures show the numbers so employed for each month of the year:—

STATEMENT showing Average Number of "Unemployed" engaged in Works under direction of Lands and Survey Department monthly, from 1st April, 1891, to 31st March, 1892.

1891. April			 52	1891.	October			450
$ar{ ext{May}}$	•••		 72		November	• • • •	• • • •	377
$\operatorname{June}$		• • •	 298		$\operatorname{December}$	•••	•••	109
July			 412	1892.	January	• • •		157
Augus		• • •	 422		February	• • •		155
Septer	nber		 456		$\operatorname{March}$			174

# DEPARTMENTAL AND GENERAL.

With over 10,000 selectors on the books of the department, which increase yearly, it is obvious that the work of the department shows no sign of diminishing. The extra work caused by revaluations and inquiries into military settlers' claims has been very heavy during the past year, and has taxed the energies of the Commissioners very greatly. The additional correspondence entailed by the special-settlement associations has been extremely heavy, both in the head office and the district offices.

In the matter of facilities offered to selectors, an advance has been made in furnishing lithographic plans of every single allotment of land offered, which is accomplished by printing them on the margins of the posters, and these are distributed broadcast over the districts to which they refer.

The demand for Crown lands during the past season has been very great, and shows no signs of abatement. The department is unable to meet this want in many cases owing to the absence of suitable lands; indeed, unless further lands are acquired from the Maoris the settlement operations of the Lands Department must within a few years terminate, so far as placing fresh settlers on the land is concerned.

The usual annual edition of the "Crown Lands Guide," Vol. xii., was issued in February. It is a volume of 234 pages, in which is described every allotment or block of land open for selection, besides giving brief descriptions of the terms on which the Crown lands may be acquired, and other information useful to selectors. This volume is sent to all parts of the world, and serves as a means of conveying useful information relating to the colony which otherwise is not readily accessible. Beyond this there is an edition published quarterly for each land district, giving the same information to the latest dates, but in pamphlet form.

C.-1.хi

Appended to this report are extracts from the annual reports of the Commissioners of Crown Lands, Chief Surveyors, and other officers, which give much useful information relating to their respective districts; these, with the usual tables will, it is hoped, furnish full information as to the transactions of the department for the year ending the 31st March, 1892.

During the past year the following changes have taken place in the department: On the 1st

March, 1892, Mr. J. H. Baker was appointed Assistant Surveyor-General; on the 16th April, 1891, Mr. A. Barron was appointed to be Under-Secretary for Lands and Superintending Surveyor; Mr. H. Boscawen, at his own request, was removed to Auckland, Mr. W. S. Short taking his place as Chief Clerk at the Head Office on the 1st April, 1892; the department has lost through death the services of Mr. J. C. Blythe, road surveyor; the following cadets passed their examinations, and have been promoted to be Assistant Surveyors—Mr. W. J. Morpeth and Mr. D. Innes Barron. The permanent staff of the Lands and Survey Department, besides the officers mentioned, consistent I Commissioner of Crown Lands, 1 Chief Surveyors, 8 Commissioners of Crown Lands and Chief Surveyors, 22 District Surveyors, 35 Assistant Surveyors, 4 road surveyors, 61 draughtsmen, 7 cadets, 43 clerks, 22 Crown Lands Rangers, 2 officers in charge of hot-spring establishments, 10 photographers and 1thographers, and 4 messengers: 232 officers all told, besides several officers on the temporary staff.

HEAD OFFICE.

Mr. Short, Chief Clerk, reports that:

During the nine months ended the 31st March, 1892, there were 10,000 letters and papers received and 8,400 letters despatched, or a total in all of 18,400; and there were 2,470 new subjects

started in the record-books, which equals one-seventh of all the records in the department.

One thousand eight hundred and four Crown grants, warrants, and certificates of title were checked and issued, dealing with land to the extent of 370,017 acres. In many of these cases the

titles were issued in duplicate or triplicate.

In connection with road works and bridges 55 Proclamations and Orders in Council and 24 warrants were issued; and during the year 49 Proclamations, 95 Orders in Council, and 146 warrants, relating to Crown lands or reserves for public purposes, were also issued.

### DRAUGHTING BRANCH.

Mr. Flanagan, Chief Draughtsman, reports:-

Plans and specifications of 44 miles of roads and bridges were prepared for contract, lithographed, and issued. The number of plans prepared were 742. A further section of Turangarere—Tokaanu Road, 15 miles in length, is ready for contract, the plans of which were drawn in the office from field notes.

One hundred and six land-sale maps were published, viz.: of Auckland, 22; of Hawke's Bay 7; of Taranaki, 4; of Wellington, 14; of Nelson, 5; of Marlborough, 5; of Westland, 2; of Canterbury, 8; of Otago, 21; of Southland, 18. These maps were not only distributed in the land districts immediately concerned, but also in the other districts. 62,580 copies were published. This work entails a great deal of labour, for, in addition to the plan of the lands to be disposed of, there are also shown the names of adjoining owners or lessees, and other general information which enable the locality to be identified.

Of tourist-maps, 14,000 were printed and distributed with the aid of the Railway Commissioners. The official publication of the Registrar-General contained the tourist-map. Besides the "Grand tour," two illustrated pamphlets were published and distributed, viz.: "Aorangi" (Mount Cook), and "New Zealand's Lone Lands" (Auckland Islands, &c.).

Very little progress was made with the publication of 80-chain district maps. Several are in band and almost a propleted. Owing to the increased demand on the time of the droughteners to

hand and almost completed. Owing to the increased demand on the time of the draughtsmen to supply maps for local subjects, no headway is made in this necessary work. The following maps are in progress, viz.: Survey districts of Christchurch, Sumner, Leeston, Kidnapper, Carlyle, Mata, Waipiro, Heretaunga, Clive, Waimate, Mangahao, Makuri, Mangaone, Tararua, Glenomaru, Halswell, and Okura. Of large maps there are in hand: Cook County (part of), Eden County, Rotorua County, West Taupo County, and Kawhia County. Several maps, continually in demand, are out of print, amongst others Auckland (sheet 4), Taranaki, Hutt County, Otago and Southland (lower portion), and Canterbury. The stones containing these maps were destroyed in the late fire, but the work of renewal has now commenced. Of new publications, the principal one is the 40-mile map of the colony, which has been largely used. Macdonald's map is in six large sheets, and, although designed for showing tenure of Native lands, will be useful for other purposes.

For the Representation Commission there were prepared, for the consideration of the Commissioners, maps showing the distribution of population of the colony according to the census of 1891; also lithographed maps of the proposed and defined boundaries of new electoral districts, two sets

of descriptions, and 204 hand-coloured maps for the Registrars and others.

Proclamation work in connection with the public works and Native land Acts has entailed the

examination of 84 plans and 58 descriptions.

The work required in the describing and recording the boundaries of various districts necessitated the writing of 216 descriptions. There are Resident Magistrates' districts, Supreme Court districts, licensing districts, road districts, mining districts, education districts, factory districts, water-race districts, boroughs, ridings, &c., maps of which must be kept up to date.

The county map-work has been well kept up, in spite of the increased demand on the draughts-man's time in connection with special-settlement work, &c.

Thirty-seven sketches, &c., for the purposes of illustrating the "Grand tour," and pamphlets, were drawn and printed. A large placard advertising the Te Aroha baths was drawn by Mr. Deverell, and printed in three colours, the stonework being done by Mr. Sturtevant, and is a very creditable production.

Corrections and additions were made on 177 stones; 650 maps and tracings were mounted.

#### LITHO.-PRINTING BRANCH.

The two printing-machines have been kept constantly at work, the output being 350,320 copies of 1,187 separate printings, or 591,076 pulls. The hand-presses contributed 20,593 copies to this result. Printing was executed for nineteen departments of the Service.

The want of a new printing-office is very much felt; the wear-and-tear on the stones consequent upon the frequent handling in trucks, and the loss of time in traffic by the printers, are serious.

Mr. Ross has taken 562 plates for photolithographs, and made 6 silver prints. The work in the photo. gallery is increasing, as the camera is frequently employed in producing maps for land-sale purposes when the draughtsmen are not available for the duty.

I may state that the draughtsmen and printing staff have worked well and willingly.

### ACCOUNTS.

Mr. Bull, the Accountant, states the number of vouchers which have been entered and signed during the nine months ending 31st March, 1892, was 8,355, against 9,110 for the twelve months previous, representing an expenditure of £177,903, as against £149,275 for the previous year. There were 87 agreements with 47 local bodies for roadworks prepared during the nine months, representing grants to the extent in all of £23,391, and payments were made on account of the grants amounting to £13,448. In the face of the above figures, I need hardly add that the work in this branch of the office has been exceptionally heavy.

# APPENDICES.

## APPENDIX No. 1.

EXTRACTS FROM THE REPORTS OF THE COMMISSIONERS OF CROWN LANDS ON SETTLEMENT OPERATIONS DURING THE TWELVE MONTHS ENDING 31st MARCH, 1892.

# AUCKLAND.

Table A shows a Summary of Total Area disposed of—105,119 acres 3 roods 23 perches, being 9,610 acres in excess of last year. Of this area the cash lands disposed of are comparatively small in area, being only 13,047 acres in extent, selected by 159 selectors, which gives an average area for each selector of 82 acres, with an average price per acre of 13s. 11d. The analysis area for each selector of 82 acres, with an average price per acre of 13s. 11d. The analysis of holdings—Table B—shows that the areas purchased have been mostly under 200 acres; whilst Table C shows that out of the total cash land sold 12,984 acres have been rural land.

Table D, Deferred-payment Lands, also shows a considerable increase upon last year's return, being of an area of 10,569 acres against 6,109 acres last year, or an increase of 4,460 acres. This area has been taken up by seventy-three selectors, or eight more than last year. The forfeitures have been fifteen, = 1,236 acres. Most of these have been for non-fulfilment of conditions, and no case of any special hardship has occurred. The total area held to date under this tenure is 61,517 acres, wilding a return appendix of 65,412 for 4d. This area is held by 447 selectors

any special hardship has occurred. The total area held to date under this tenure is 61,517 acres, yielding a return annually of £5,412 5s. 4d. This area is held by 447 selectors.

Table E, Perpetual Leases.—Under this heading the area leased shows a very large and remarkable increase, the area selected being 71,952 acres, against 55,536 acres for last year, or an increase of 16,416 acres. The number of selectors has only been, however, 226, giving an average area to each selector of 318 acres. The forfeitures and surrenders have been twenty-five in number, covering an area of 7,119 acres. The freeholds acquired during the year have been only three in number, and of an area of only 222 acres. The total area held to date under this system

is 205,952 acres, leased by 857 selectors.

The next table requiring any mention is Table J, Village Homestead Special Settlements. Of these it may be said that they are now holding their own to a great extent, though the weeding-out process has been continued during the past year to the number of sixteen selectors, who relinquished 690 acres. The total number of village homestead special settlers now is 298, holding an area of 12,498 acres, paying an annual rental (including interest upon advances) of £888 4s. 2d. Of the 298 selectors, some forty-eight in number have taken up and are holding additional areas to the total amount of 2,624 acres. I regret to say that the selectors in this class are still considerably in arrear with their payments, some 221 selectors owing for rent and interest £1,401 2s. 2d.

the Village Steward's annual report to me, which gives further particulars of live-stock, &c.)

Special Settlement Associations.—The statistics shown in Table K give all necessary particulars. The areas held are the same as last year, with the exception of the Gordon Settlement, near Te Aroha, in which there have been four forfeitures for non-fulfilment of conditions, containing a gross area of 436 acres. In the three special settlements—Canterbury (near Hokianga), Onewhero, and Gordon—there are altogether sixty-one resident settlers, and out of this number forty-six selectors owe for arrears of payments and rent £438 3s. 2d. The two settlements which can be called really successful are Canterbury and Onewhero (Tuakau). I may add that another association lately formed in Canterbury has taken up 20,000 acres of swamp-lands near Matata.

being surveyed into 500-acre sections, and will be allotted very shortly.

Table L, Homestead Lands, needs little notice, as the area open under these clauses of the Land Act is now becoming very limited (the number of selectors this year being two more than last year) -viz., eight, who selected an area of 1,010 acres, or an average of 226 acres each. The forfeitures

for non-fulfilment of conditions have been five, with an area of 396 acres.

The remaining tables, M to T, call for no special comment Improvement Conditions.—The improvement conditions obligatory under the various systems are as a rule faithfully carried out, and the total value of improvements made is greatly in excess of that required by law. Of course, there are exceptions, and in these particular cases, after due notice, and every case being patiently and fully gone into, forfeiture invariably follows when no attempt is made to fulfil the obligation. I have had to depend greatly upon the field surveyors and Forest Rangers for necessary inspections during the past year, owing to the large number of selectors now upon the books making it quite impossible for Mr. Hill to overtake a quarter of the work entailed.

State Forests and Plantations.—During the past year Mr. H. S. Wilson has had the care of the Puhipuhi Forest added to his other duties. He has kept a careful oversight of all the scattered forests under his care. Under Mr. Wilson's direction some 1,100 acres of the burnt portion of the Puhipuhi Forest has been sown with rye-grass, cocksfoot, white clover, and Agrostis brownii. It is proposed to lay off suitable areas into sections for lease under pastoral regulations, making it a special condition that lessees shall be guardians of the burnt kauri standing on their leases.

Mr. Maxwell has exercised a general oversight over the northern forests, and has also collected

the fees for digging gum upon Crown land where practicable.

The Waerenga Wattle-plantation, under the charge of Mr. Norreys Kensington, has been kept in order, trees thinned, and tea-tree and fern kept down; also, additional ground has been cleared and got ready for ploughing, and sowing further wattle-seed, in the spring. This officer's time is and got ready for ploughing, and sowing further wattle-seed, in the spring. This officer's time is also taken up with Crown Ranger's duties in the Counties of Waikato and Raglan, in which very large areas have recently been taken up under perpetual lease. The total revenue received from State forests during the past year has been £806 16s. 1d.

In conclusion, I may state that I anticipate a large demand for all tenures of land during the coming year, which will keep the staff fully employed. I am glad to state that the complete amalgamation of the Lands and Survey Departments has materially tended to the efficient working of the office and the convenience of the public. GERHARD MUELLER,

Commissioner of Crown Lands.

#### TARANAKI.

Table A.—The area open for selection on the 1st April, 1891, was 31,745 acres, which, added to the area which was opened during the year—viz., 25,698—made a total of 57,443 acres. Of this area, 55,132 acres have been disposed of, leaving open at the end of the year only 2,311 acres. The area taken up was 15,955 acres more than that taken up during any previous year as far back as 1885-86.

Table B.—As was remarked last year, it will be noticed that perpetual lease is far and away the most popular system, the number of selectors during the year having been more than three

times the number of those under deferred payments.

Table C.—The unusually large area and high price of town land is attributable to the great demand for Stratford town lots at the first sale, which induced the Land Board to increase the prices, with the result that at the two last sales only a few sections were sold. Below is given a comparison of the increase in the value of town land:—

				Α.	т.	· P.	20	ъ.	u.	
Sales of town land,	, 1884–85	 7	purchases	$^{2}$	$^{2}$	0	32	0	0 .	per acre.
"	1885 – 86	 1	,,	0	3	0	40	0	0	<b>.</b> "
"	1886 – 87	 $^{2}$	"	1	1	0	46	0	0	"
,,	1887-88	 1	, ,,	0	3	0	33	6	8	"
,,	1888-89	 3	,,	1	0	35	42,	13	4	,
,,	1889-90	 16	,,	5	3	12	.52	7	4	"
 #	1890-91	 15	"	5	0	34	49	6	8	"
, ,,,	1891 – 92	 40		18	3	17	73	5	9	"

Tables D and E.—The area of deferred-payment land selected is greater than last year by 501 acres, but the number of selectors (thirty-five) is six less than last year. There have been three deferred-payment selections during the year of areas exceeding 640 acres-viz., 830 acres, 1,210

acres, and 1,357 acres.

This was the best year which we have had for perpetual leases, the area taken up (38,337 acres) being more than double that selected last year. The area of current perpetual-lease transactions (105,455 acres) now for the first time exceeds that of deferred payment (91,046 acres). This is owing in a great measure to the rapid rate at which deferred payment lands are being made freehold.

In	1886-87			67 selector	rs completed	l purchase	=	5,653	acres.
"	1887-88	• • •		71	"	"	=	7,666	"
"	1888–89			55	"	"	=	5,390	"
"	1889-90			38	<i>''</i>	"	=	4,064	"
"	1890-91			74	"	"	=	8,280	"
"	1891–92		•••.	112	"	"	=	13,349	"

During the year two deferred-payment holders have changed their holdings to perpetual lease (340 acres), and one perpetual-lease holder has changed to deferred payment (105 acres). Altogether fifteen deferred-payment holders—of 1,217 acres—have converted to perpetual lease, and seventeen perpetual-lease holders—of 2,422 acres—changed to deferred payment.

Table F.—There are not any agricultural leases in this district.

Table G.—Of the six village allotments sold for cash, five were at Pungarehu and one at

Table H.—It is now some years since we offered any small-farm lots on deferred payment. Those which have been selected in previous years are gradually being made freehold. now only thirteen outstanding transactions—387 acres.

Table I.—We have not any village-settlement lots under perpetual-lease system.

Table J.—The only village homestead special settlement section disposed of in this district has been forfeited for failure to comply with the conditions, and non-payment of rent. It is proposed to offer the section (50, Block X., Kaupokonui) for selection as ordinary rural land.

Table K.—The special settlements selected this year are twelve. Of these there are now being

surveyed:-

			N	Iembers.		Applied for. Area.
Milsom Small-farm Association		•••	• • •	35		6,700
Tanner Small-farm Association				26	• • •	5,200
Oxford Small-farm Association				20		4,000
Terrace End Nos. 1, 2, and 3 Small-f	arın	Associations		145		29,000
The total area applied for is 83,000 acres.						

Table L.—There is not any homestead land in this district.

Table M.—The whole of the Opaku runs have been taken up, and it would be well to open up the land beyond, on the Patea and Whenuakura Rivers, under the same tenure.

Table N.—We have not any pastoral licenses in this district.

Table O.—Explanations of the amount received for timber-cutting are given in the return. The miscellaneous leases consist principally of reserves leased for fourteen years by authority of the Government, the balance being unoccupied pieces of rural land, which the Land Board does not wish to sell, and has not yet seen its way to reserve, and town lands not immediately required. The occupiers of these hold on yearly tenancy, terminable by three months' notice at any time.

Table P.—Revenue received during the year, £25,749 (including £76 12s. 7d. endowment); 1887-88, £17,108; 1888-89, £13,263; 1889-90, £14,250; 1890-91, £16,158; 1891-92, £25,749. The rents received for endowments were on account of the University reserve, Carlyle and Opaku Survey Districts. The estimate for the year was £16,000.

Cash transactions—estimate, £1,000; receipts, £2,198, of which £1,392 was received from Stratford sales.

The deferred-payment estimate was £10,800; receipts, £16,957. This surplus of £6,000 is due to the large number of purchases completed by payment of capitalised values.

The perpetual-lease estimate was £3,100; receipts, £5,456. This sum includes £1,784 for perpetual-lease land made freehold.

Table Q.—The arrears, as usual, consist largely of payments due on the 1st January, 1892. They will in all probability be very much reduced by the 30th June next. I append a summary of the Ranger's reports for the year. Schedules and plans of about 16,000 acres have been sent on for notification; and, in addition, we have about 40,000 acres in course of survey, exclusive of about 83,000 acres applied for under the small-farm association system.

SIDNEY WEETMAN, Commissioner of Crown Lands.

## Crown Land Rangers' Reports, 1891-92.

Report.	Number of Sections.	Area.	Partial Default.	Total Default,	Absent.	Double Improvements in Lieu of Residence.
First, deferred payment Second " Final "	155 138 103	Acres. 19,868 18,424 10,381	14 5 16	6 1 0	5 23 1	47 48 13
	396	48,673	35	7	29	108
First, perpetual lease Second " Final "	128 38 24	25,232 4,151 3,958	11 1 2	6 0 0	7 6 0	30 10 0
•	190	33,341	14	6	13	40
Total deferred payment and perpetual lease	586	82,014	49	13	42	148

# HAWKE'S BAY.

Summary.—The total area of all classes of lands taken up during the year was 36,007 acres 2 roods 10 perches, as against 45,603 acres of the previous year; but the latter was made up largely of small grazing-runs, of which about 14,000 acres was then taken up, so that a larger area, by some 4,000 acres, has been selected this year under ordinary settlement conditions.

Analysis.—The number of new selectors was sixty-six, with an average area of 545 acres. There were only twelve under 50 acres, and just half of the total number took up sections varying

from 250 to 1,000 acres.

Cash Sales.—3,718 acres 1 rood 13 perches has been sold for cash, in nine sections, all of them being rural lands. The total amount received was £1,971 3s. 1d., an average of 10s. 7d. an acre.

Deferred Payments.—There have been only three selections, and, singularly, in one locality—viz., Puketitiri; showing clearly that this tenure is not at present the favourite one. There have been four forfeitures, and thirty-nine made freehold; consequently, there are now by forty fewer holdings under this system than at the end of the previous year, with a reduction in the amount of annual payments of about £400.

Thirty-one selectors have taken advantage of the relief afforded by capitalising. Those who acquired the freehold did so, I think, not so much from the desire to become freeholders as to enable them to raise money on mortgage for the purpose of improving and stocking

Perpetual Leases.—There have been thirty-four selectors less this year than last, but the area selected is greater by 3,917 acres—showing that the size of the holdings is larger.

The average-sized selection is 666 acres, as against 338 acres for 1891. The increase in the size of the holdings may naturally be looked for, as no fresh land has been acquired by the Crown for years past, and the land fitted for small holdings consequently has become less and less, thus forcing the inferior land into the market, much of which can only be profitably held in large areas.

Forfeitures and surrenders have been four in number, and ten freeholds have been made; but, as the new selections during the year number forty-eight, the lessees have increased from 277 last year, holding 112,772 acres, with an annual rental of £4,583, to 312, with 139,667 acres, and a rental of

£5,364.

Agricultural Leases.—No selections have been made—in fact, no land is held under this tenure in the district.

Village Settlements, Cash.—The selections for the year were four in number, of slightly over an acre each.

Village Settlements, Deferred Payment.—No fresh selections have been made; but, on the other hand, two, of 2 acres each, were forfeited, the sections in both cases having been abandoned. Fiftythree selectors are now in occupation of 656 acres.

Village Settlement, Perpetual Lease.—Two selections were made—one of a village section, the other of a small-farm lot. The total holdings under this head are eleven, containing 168 acres.

Village Homestead Special Settlement, Perpetual Lease.—No change has been made in the number of settlers, which stands at thirty-one, with 203 acres—an average of  $6\frac{1}{2}$  acres each. There have been neither new selections nor forfeitures.

The two settlements are—Woodville, with its twenty-seven settlers, and the Puketitiri, with its four settlers. Unfortunately, I have been unable to visit this latter settlement yet; but, small though it is, it is reported to be well fulfilling its purpose, and the fact of two only of the settlers having asked for advances, is a corroboration of this statement.

The small settlement of Puketitiri, which is situated about thirty-seven miles inland of Napier in a westerly direction, was formed in March, 1888. Five settlers were in the first instance located there, on sections of 20 acres or thereabouts. Four of the lots are still held on this tenure, but only one of the original selectors is in possession, the other three being transferees.

Of the 91 acres held by these settlers 88 acres are in cultivation, and the value of the improvements made is £446 10s. Their indebtedness to the Crown is small, being but £83 on account of advances made, principally on houses. One of the settlers has planted an orchard containing 250 fruit trees, which appear to be thriving well.

Special Settlement Associations.—The only two in the district are those of Danevirke and Waipawa, both taken up on deferred payment in 1885. A total of 5,120 acres was selected; but since that date three sections, of 156 acres, became forfeited, and were taken up by other parties. In these settlements 999 acres have been made freehold to date, so that the area still held on deferred payment is 4,121 acres. My report on these settlements is given in Appendix II.

Application was made in January last for 2,800 acres of the Umutaoroa Block by the Liberal Small Farm Association, numbering fourteen members, which was accepted by the Government shortly afterwards. A surveyor was at once set to work to subdivide it into 200-acre sections; but as the land has not been formally allotted to the individual members, it does not appear in the

Tabulated Statement K.

Homestead Lands.—There are none held under this tenure in the district.

Small Grazing-runs.—Forty-four are now in occupation, comprising 116,418 acres, being one less than last year; a small one, of 464 acres, having been surrendered by an elderly person, who found himself physically incapable of carrying out the conditions. It has since been offered on perpetual lease, and is now held under that tenure at double the former rental.

Pastoral Licenses.—There were no new transactions during the year, so that they stand as in previous returns—viz., twenty-two, containing 159,645 acres; from which £972 14s. 8d. in rents

has been received this year. There are no arrears of rent.

Miscellaneous Leases and Licenses.—There are forty-two of these, embracing 3,978 acres, with a yearly rental of £308 12s. 11d., a rate of 1s. 6d. an acre. They are to a large extent yearly occupation-licenses of outlying pieces of ground which the Land Board does not deem it advisable to dispose of otherwise at present. Others are reserves not at present required for the purpose

for which they were set aside.

Revenue.—The total received during the year from all sources is £18,706 15s. 7d. (including £256 18s. 3d. for endowments), the three principal items being—perpetual lease, £5,055 18s. 7d.; cash, £5,039 9s. 1d.; and deferred payment, £4,267 17s. 4d. That derived from perpetual lease is purely rent, whereas the cash represents not only cash sales, but £3,068 6s. of money received in

the purchase of the freehold of land selected on perpetual lease.

Arrears of Payments.—These are comparatively few and small, as with an annual revenue of nearly £19,000, only £378 3s. 9d. remained unpaid on the 31st March. There are only four selectors with two half-yearly payments in arrear, amounting to £31 6s. 10d.; the remaining £346 16s. 11d. represents single half-yearly payments due last 1st January and 1st May, advance payments for the current half-year. Nearly all may be expected to be received in the next two months, as on the 31st December last, just prior to the January payments becoming due, the total arrears for the district under all systems was the small sum of £30 18s. 8d.

Improvements.—In the inspection of 129 holdings of first-class land but seventeen were found in arrear, and these not to any serious extent. Inclusive of the failures, the value of the improvements required by law was £14,100; those effected amounted in value to £27,505.

Sixty-three inspections of second-class land were made. None were found deficient in the

improvements, and the value of those effected was £18,534, as against £9,875 required.

C.-1.5

In village settlements twenty-one inspections were made, with not such good results as the foregoing, as eighteen were deficient. This must not be taken as a sample of village settlements as a whole, for the inspection that has taken place was aimed at the defaulters, most of the remaining ones having passed the final inspection previously.

The inspection of sixteen small grazing-runs shows £3,438 as the value of improvements

carried out, as against £874 required—about quadruple.

It is estimated that Crown tenants in the forest districts have felled 6,000 acres during the year. A much larger area would have been thus operated upon had it not been for the two preceding bad seasons for burning, which resulted in thousands of acres of felled bush being badly burnt or not burnt at all, a large part of which had to be scrubbed again before a burn could be hoped for.

I had expected to have been enabled by personal inspection of the numerous holdings of Crown tenants in this district to give a full detailed report on similar lines to the one on village and special settlements submitted in November last; but, though many have been visited by me, even as distant as the Motu, unfortunately, from various causes, I have been prevented from carrying out my intention in its entirety.

The total area of Crown lands not dealt with in any form is 436,072 acres, with an estimated

value of £177,407.

Land open for selection on the 31st March last amounted to 41,793 acres, priced at £24,316. It is anticipated that the greater part of this will be selected during the current year, though it is possible that the 11,870 acres at Weber, surveyed a few years ago into sections averaging a thousand acres, will have to be cut up into smaller areas, as applications are now being made to have the sizes reduced; although the reports on the country hardly warrant it. Still, if persons will select it in

reduced; atthough the reports of the country hardry warrant it. Still, it persons will select it in reduced areas I think the opportunity should be offered them.

The 8,961 acres in Waiau District is not going off—due, no doubt, in a large measure, to the lack of proper road-accommodation. The Wairoa County Council is now expending £2,750 in forming a dray-road part of the distance, and it would be a great benefit to these lands if a small sum were voted to aid the Council in continuing the road beyond what the present loan will make.

Lands not yet thrown open for selection or dealt with in any manner amount to 394,279 acres, with an estimated value of £153,091. It is a matter for regret that out of this extensive area so little is suitable for small holdings of a hundred acres and under. There is no extent of level country; small flats, of a few hundred acres at the outside, being few and far-between. The greater part will make excellent grazing country; but, generally, it is not of a class that can be profitably occupied by persons of very limited means.

There are thousands of acres of good country that would bear a large population lying unpro-

ductive in the hands of the Natives.

A considerable extent is leased to Europeans in large blocks, which, one would judge by its

being allowed to remain covered with forest, is in many instances held for speculation.

Referring to the compact block of 81,019 acres in the Hikurangi and Mangawaru Survey Districts, it will be a year or two, I think, before there is any demand for the back part, as it is very rough forest country, practically isolated, and likely to continue so for some time, for want of roads, the making of which will be delayed through the heavy outlay required in constructing them. The front portion is likely to be occupied soon, if road-works are continued up the Mata Valley.

Passing over the small scattered blocks in Mata, Urutawa, and Tutamoe South Districts, we come to the Motu and Waikohu-Matawai Blocks, 77,025 acres, about half of which is now in course of survey, and will be ready to be thrown open in a few months' time. The first mentioned is heavy forest country, the latter about half scrub and fern. Taken as a whole, although in parts rough,

it will, when cleared, be a fine grazing district.

The next large area lies to the eastward of the Waikaremoana Lake, 32,429 acres. It was intended to have surveyed some of this during the past season, but other pressing work arose, and it was considered no harm would come by delaying it, as the existing means of communication from Wairoa was evidently preventing the disposal of another block open for selection in the vicinity.

At Hangaroa there is a block of 42,865 acres of somewhat rough character, which the Land Board has decided to offer in small grazing-runs and smaller sections on the alternative system, if any land is found to be suitable. The survey of this is now proceeding.

The 14,200 acres in the Nuhaka District is rough forest pastoral country. Some will probably be disposed of in from 1,000- to 2,000-acre blocks, but the back part will probably be found only fit

to be worked in larger areas. A surveyor is now at work on this.

There is a block of 16,684 acres in the Mangahopai and Waitara District—rather poor land, with very bad access. A year or two ago it was offered in two pastoral runs, but no bid was made for them. At the last meeting of the Land Board it was decided to re-offer them by auction, an application having been made for one of them.

At Pohui there are a number of scattered pieces of Crown land, the largest, 5,000 acres, being now sectionised preparatory to its being thrown open for selection, which will be done shortly.

The 23,000 acres in the Kaweka District is a poor bit of country, forming the steep slopes of the range of that name. The higher parts are covered with snow several months of the year. It may be taken up later on, under a pastoral license at a low rental, for summer pasture, as the southern part has been dealt with in that manner.

There are still 8,840 acres left at Ngaruroro and Whakarara—rough country on the slopes of the northern end of the Ruahine Range. It will make fair pastoral country, but is not likely to be sought

after at present.

The remaining blocks south of the foregoing are in the Norsewood and Woodville Survey Districts—6,600 acres and 6,400 acres respectively. Of the former, 2,800 acres is now being surveyed for the Liberal Special Settlement Association, and a little over a thousand acres more may be found suitable for settlement in one or two sections. The balance is the steep rugged side of the Ruahine Range.

Of the 6,400 acres at the back of the Maharahara settlement very little is fit to cut up, although such is the rage for land just now in this locality that it matters little how bad and unsuitable the country a rush is made for it.

Pastoral Licenses terminable at Twelve Months' Notice.—In the Opoiti and Tuahu Districts 4,869 acres, in five different lots, on the Ruakituri Stream, will be falling in in a year and nine months. This land is reported to be of a character suitable for disposal in smaller areas under ordinary

settlement conditions.

In conclusion I may remark that the Land Board will shortly recommend the withdrawal from reservation of from 8,000 to 10,000 acres of the "forest reserve" at Makaretu. Three years ago a fierce bush-fire ran through a large part of it, completely destroying many thousands of acres of forest. About 600 acres of the burnt part was sown in grass by the department as an experiment, and has proved a success. The Land Board has called for a report with a view of having it dealt with, if possible, during the coming session of Parliament. It is "big" country, but carries grass splendidly, and is well suited for pastoral purposes.

SUMMARY Of CROWN LANDS (RURAL) available for Future Disposal in the HAWKE'S BAY LAND DISTRICT, 31st March, 1892.

Open for selection, Schedule A Not yet surveyed or under offer, Schedule B	Area. Acres. 41,793 394,279		Estimated Value. £ 24,316 153,091
Total	436,072		177,407
Pastoral licenses that can be resumed at twelve months' notice, Schedule C	45,785		20,000
Total	481,857	• • •	£197,407

THOMAS HUMPHRIES, Commissioner of Crown Lands.

### MARLBOROUGH.

Cash Lands.—Area disposed of, 196 acres 1 rood; total cash received during the year, £94 12s. 7d.; three purchasers. These comprise two purchases at auction of 195 acres 3 roods 14 perches of rural bush land at an average price of 9s. an acre; and one purchase of 1 rood

26 perches of open land for £5.

Deferred-payment Land.—Area taken up, 781 acres 1 rood 10 perches; three selectors; total cash received during the year, £190 9s. 8d. The three selectors average 260 acres each, and the annual instalments total £22 16s. 8d. Two of these holdings are in the Pelorus Sound, and one at One holding of 50 acres has been transferred, and no forfeitures have taken place; three holdings, embracing an area of 175 acres 1 rood 29 perches, have been made freehold during the year, and four holdings, representing an area of 200 acres and 7 perches, capitalised.

Perpetual-lease Lands.—Area taken up, 594 acres; total cash received, £46 7s. 7d.; three selectors. The three selectors average 198 acres for each holding, the annual instalments on which total £15 16s. 6d. One of these is situated in the Rai Valley and two in the Pelorus Sound. There have been no forfeitures and no transfers during the year, and no exchanges from deferred

payment to perpetual lease, or vice versa.

Agricultural-lease Lands.—There have been no agricultural-lease lands set apart in the Marlborough Mining District during the year.

Village-settlement Lands for Cash.—No land taken up during the year.

Village-settlement Lands on Deferred Payment.—Area taken up, 30 acres and 16 perches; three selectors; total cash received during the year, £9 4s. 8d. No forfeitures, or freeholds acquired during the year.

Village Settlement on Perpetual Lease.—No land taken up during the year.

Village Homestead Special Settlements.—Area taken up, 5 acres; one selector; annual rent, 15s.; total cash received, £26 14s. 6d. This selection is in the Wakamarina Village Settlement. One advance of £20 has been made for a house during the year. No forfeitures.

Special Settlement Associations.—A block of 3,000 acres has been set aside for this purpose,

and selected by an association, but will not appear in the returns till next year.

Homestead Lands.—No lands have been set apart for disposal under this system.

Small Grazing-runs. -- Area taken up, 1,410 acres; total cash received during the year, £192 13s. 6d.; four selectors. The four new grazing-runs average  $352\frac{1}{2}$  acres each, the annual rent amounting to £17 12s. 6d. These runs are in different parts of the Pelorus Sound. Two runs, containing 1,577 acres, have been transferred during the year. There have been no forfeitures.

Pastoral Licenses.—Area taken up, 18,016 acres 1 rood 16 perches. Total cash received during the year, £8,770 12s. This area represents eighteen purchasers of new runs, at an annual rent of £183 13s 7d. and averaging 1 001 acres per run, at an average rent of 21d, nor agree.

£183 13s. 7d., and averaging 1,001 acres per run, at an average rent of 2½d. per acre.

Miscellaneous Leases and Licenses.—Total area, 2,145 acres; total cash received during the year, £96 7s. 1d. These represent two timber licenses (280 acres), one flax license (1,800 acres), one lease of wharf at the Grove, and two (65 acres) temporary occupation licenses under "The Public Reserves Act, 1881," at an annual rent of £17.

Land and Territorial Revenue.—This table calls for no special remarks.

Arrears.—The arrears due on the 31st March—£27 5s. 10d.—were, with the exception of one deferred payment—£8 11s. 6d.—and one small grazing-run—£5 3s. 5d.—paid by the end of April.

Lands Reserved, &c.—Of the 56 acres 2 roods 31 perches returned as reserved, four acres were reserved as a landing-place at Pipi Beach; 46 acres 2 roods at Waitaria, Pelorus Sound, as a resting-place for stock; and 6 acres and 31 perches as a reserve for aboriginal natives at Kaikoura.

Selectors on the Books.—No special remarks to make on this table.

Endowments.—No endowment lands have been dealt with during the year.

General Summary of Lands sold or selected during the Year, and Revenue in each Case.—Summarising the results of the year's transactions, these were—

Y		$ \begin{array}{c} \text{Number} \\ \text{of} \end{array} $			Total Payments during the Year.				Total.			
System.		Purchasers or Selectors.	Area.			urrent isactions.	Past Transactions.					
Cash land Deferred payment Perpetual lease Village settlement on deferred payment Village homestead special settlements Small grazing-runs		3 3 3 3 1 4	196 781	R. P. 1 0 1 10 0 0 0 16 0 0 0 0	94 11 7		£ 178 38 5 26 171	12 9 5 7	d. 9 4 0 0 4	190 46 9	12 9 7 4 14	_

No scrip received during the year.

Settlement Lands.—With one exception all the deferred-payment holders have fully satisfied the requirements of the Land Act, some having far exceeded what is prescribed by the regulations;

and the few holders under the perpetual-lease regulations are complying with the conditions.

The conditions of the small grazing-runs are being more than fully carried out. Owing to the peculiar configuration of the Sounds this system seems to be most suitable to this class of country, and the easy terms on which the runs are held no doubt materially influences people in settling on such rough bush-country, comparatively isolated from communication with more settled districts except by water.

Pastoral Licenses.—Of the nineteen pastoral licenses issued during the year, occupied by eighteen holders, fifteen consist of rough bush-hills taken up by the owners or occupiers of the adjoining lands. They are let for a term of ten years under "The Land Act, 1885." The other

three licenses are partly open and partly bush, also let for the same term.

Under these licenses there is no adequate provision for compensation for improvements beyond five times the annual rent. Some of the licensees have applied to the Land Board asking to be allowed to exchange their licenses for a longer tenure, and one that would better secure to them their improvements, and the Board passed a resolution suggesting that the Minister's attention should be specially called to the case then before them, with a view to some future alteration in the Act which may more equitably deal with such cases.

Timber Industry.—There are now only five mills at work in this district, four of which are working irregularly for local consumption. Mr. Brownlee's mill at Havelock is the principal one cutting timber for export. This mill turned out over 2,000,000ft. last year, and another saw-bench has been recently added, which will increase the output fifty per cent. Shortly they will have another bench at work; the mill will then be capable of cutting about 5,000,000 superficial feet

per annum.

A further impetus is expected to be given to this industry by the proposal to utilise the timber in the Rai and tributary valleys before being thrown open for settlement, in connection with the extension of Messrs. Brownlee's tram-line up the Rai Valley. With that object in view, two members of the Land Board are about to inspect the forests, and report upon a scheme to carry out this object. HENRY G. CLARK, Commissioner of Crown Lands.

NELSON.

Summary of Lands taken up.—The amount of land taken up during the past year was 12,992 acres, showing a gradual increase in area during the past three years. The year ending the 31st March, 1891, was an abnormal period, owing to the completion of purchase of 13,600 acres of leases in the Amuri District, held under "The Waste Lands Act, 1874." Deducting this area from the state of the total area for that year of 23,808 acres 1 rood 30 perches, leaves 10,208 acres 1 rood 30 perches as the area taken up under ordinary conditions. The amended return for the purpose of showing the progress of settlement in this district during the past two years will stand thus, viz. :-

Period.					Incr	ease.
			Α.	R. P.	A.	R. P.
1889-90		 	9,321	$3\ 12$	 	
1890-91	,	 	10,208	$1 \ 30$	 886	$2\ 18$
1891-92		 	12,992	0 4	 2,783	2 14

Analysis of Holdings.—There is but little difference in the number of selectors who have taken up holdings during the past year and the year previous. The applicants for deferred-payment leases under the provisions of Appendix C of "The Land Act, 1885," are at present the most numerous class, but applicants for perpetual leases for second-class lands under "The Land Act Amendment Act, 1887," are gradually increasing in number.

Lands sold for Cash.—These purchases have been for lands proclaimed open for sale and otherwise, at prices varying from 10s. to 6s. An area of 6,124 acres 2 roods 20 perches has been sold to thirty-nine selectors. Many of these areas have been purchased by adjoining holders. The number

of these sales has nearly doubled that of last year.

Lands sold under Deferred Payment.—The only lands taken up under this tenure are under Appendix C of "The Land Act, 1885," without improvement conditions, but under which the price cannot be less than 10s. per acre. In this district this tenure seems to be rather more preferred than the deferred-payment tenure with enforced improvement conditions ruling second-class lands, although these lands can be obtained at a lower price per acre. The number of holdings taken up were forty-four, most of these being for areas from 51 acres to 250 acres, the average being 106 acres 2 roods 29 perches.

Perpetual-lease Lands.—The number of holdings taken up during the year was six, the area 2,172 acres 2 roods 38 perches, and the average upset rent per acre  $3\frac{1}{2}$ d. Previously, only four had been taken up under this tenure. Towards the end of the year fifteen further applications have been made for second-class lands, showing this tenure to be gradually growing more in favour. Inspection of improvements done on the four above mentioned selections has been made by staff surveyors, there being no Rangers, and in each case they were largely in excess of the value required. Other holders have not yet completed their first year's period.

Village Homestead Special Settlement.—One selector has taken up an area of 5 acres out of

sections not previously taken up when first proclaimed in the village-homestead area at Mokihinui. During the year an additional area has been surveyed adjoining the previous one, and opened for application.

Pastoral Leases and Licenses.—Forty-one holders have taken up an area of 32,425 acres 2 roods 38 perches. Of these, twenty-six are holders of areas over 500 acres, amounting to 30,440 acres, and averaging 1,170 acres in size. These are nearly all located in rough mountainous country not fit for agriculture, and are mostly occupation licenses under Appendix C of "The Land

Act, 1885," terminable at three months' notice if the area is required for leasing.

Miscellaneous Leases and Licenses.—No coal, mineral, or flax leases or licenses have been granted during the year. The following table shows the output of coal, and royalties received, from mines held under Acts previous to "The Coal-mines Act, 1891:"—

		Royalty, 6d.	Less Dead Rent paid in advance.	Royalty received.
Grey Coal Reserve—  Brunner Mine  Coal-pit Heath  Buller Coal Reserve—Westport  Coal Company	Tons cwt. 76,969 1 69,224 0 192,606 11	£ s. d. 1,730 12 0 1,924 4 6 4,815 3 3	£ s. d. 480 0 0 250 0 0 620 0 0	£ s. d. 1,250 12 0 1,674 4 6 4,195 3 3

Owing to the coming into operation of the Act above mentioned on the 1st January, 1892, coal leases cannot now be granted by the Land Boards within duly-constituted mining districts, but will in future be dealt with by the Wardens and Minister of Mines. With respect to leases granted under previous Acts, the administration and collection of revenue (royalties) at present remains with the Board and Commissioner until atherwise provided for and it mostly in the provided for any interest in the provided for any intere present remains with the Board and Commissioner until otherwise provided for, and it would be desirable to bring the management of these under the same administration as those granted under the recent Act just passed.

Timber Licenses.—There have been only three small areas granted on the east side of main range. There has been an amount of illegal timber-cutting on the western side of main range, on which I have previously reported. This has been stopped, and back royalties collected amounting to £438 7s. 3d. Some of this has been on lands which are now being proclaimed mining reserves under the Midland Railway Company's contract, and will be dealt with in future by the respective Wardens; but it is necessary for the Government to provide regulations for saw-millers and timber-cutting on lands set apart for selection by the company which are not within millers and timber-cutting on lands set apart for selection by the company which are not within mining reserves. As these lands will be within duly-constituted mining districts, it is possible that timber-cutting may be administered by the Wardens under the provisions of "The Mines Act, 1891," and its regulations.

Revenue.—The revenue from Crown lands during the past year amounts to £22,320 1s. 7d., and that from endowments to Harbour Boards and other bodies to £15,157 13s. 2d.: total, £37,477 14s. 9d. I may point out that for the previous year, ending the 31st March, 1891, in spite of the large area withdrawn for selection by the Midland Railway Company, Nelson occupied the fourth place in amount of land revenue returned, and also in territorial revenue in the  $\operatorname{colony}$ .

Area reserved and alienated, &c.—The area reserved for various purposes, and alienated

under Acts, scrip, &c., during the year amounts to 2,184 acres 2 roods 7 perches.

Conduct of Business.—Twelve meetings of the Land Board have been held for general business. Two Commissioners—Messrs. Hursthouse and Hamilton—completed their term of office. Mr. Bates was appointed in lieu of the former gentleman, and Mr. Hamilton reinstated for a further JOHN S. BROWNING,

Commissioner of Crown Lands.

### CANTERBURY.

Crown Lands notified for Sale or Lease.—During the year the following lands on the systems specified were placed on the market:-

System.	Number of Sections.	Locality.	Area.	Class of Land.	
Cash Optional tenure, "Land Act, 1887"  Deferred payment and village settlement Perpetual lease Village homestead Farm-homestead association Small grazing-runs Pastoral	6 34 2 1 10 14 16 1 84	Waipara and Halswell Akaroa, Ashley, Selwyn, Ashburton, and Geraldine Arowhenua Ashburton View Hill, Mayfield, and Southbridge Medbury Greta and Station Peaks Black Forest	0 2 0	First-class. Fair to good. Superior. Fair. Fair. Fair.	

The Land Board in every instance carefully inquired and considered whether the lands in the schedule should be opened on settlement conditions, and did their best under the existing Land Acts to place all the better class of sections on the market, so as to insure residence on and cultivation of the lands.

Generally speaking, the areas of Crown lands situated in the settled districts were, to the disappointment of the Board, found to be unsuitable for village or small-farm holdings. The efforts appointment of the Board, found to be unsultable for village or small-farm holdings. The efforts of the Hon. the Minister of Lands to provide suitable land for settlement in small lots have been cordially backed by the Board; and, though we were unable to provide extended holdings for the Hurunui Gorge and View Hill settlers, the requirements of the Medbury villagers have been satisfied, and those at Hinds are in a fair way of being so. The acquisition from the School Commissioners of Reserves 1126, 1128, and 1178, under the provisions of "The Educational Endowments and Reserves Exchange Act, 1891," provided an area of 1,318 acres near Waimate and Studholme Junction for subdivision into small-farm and village lots under the village special settlement system. After providing for the necessary roads and a school-site the net area is 1,289 acres, which furnishes seventy-six lots, ranging from 5 acres to 40 acres in extent. The rentals vary from 10s. to 18s. an acre, the average being 12s. 5d., which is based upon the charge of 5 per cent. on the capital value of the lands, and the cost of survey, roads, and administration. The term of each lease is thirty years, without the right of acquiring the fee-simple, and it is renewable for a further period of twenty-one years on valuation by arbitration of the fee-simple, and also of all permanent improvements, the lessee paying 5 per cent. on the capital value, irrespective of the improvements, which are secured Should the lessee decline to accept the renewal of his lease, it will be disposed of so as to insure payment to him for the value of the permanent improvements which he has placed upon the The disposal of this land should prove an inestimable boon to gardeners and contract and other labourers who desire to settle upon land of their own-as for all intents and purposes it

To meet the demand which prevails throughout Canterbury for small grazing-runs, farm areas, and village lots; earnest search was made to find suitable Crown lands; but wherever my duty called me I have been almost invariably doomed to find that the remnants of the Crown lands in the settled districts or on the hills at the back of the freeholders' properties are either of inferior or second-class quality, or that the whole of the flats and undulating lands are included in the freeholds.

Lands disposed of.—The following table shows the Canterbury land transactions for the year

1891-92, and also the areas held under the various systems on the 31st March, 1892:-

						v		•		
Syster	System.			Area	b.	Average of Areas.	No. of Selectors on Books.	Area be	ld.	Revenue.
Cash Deferred payments Perpetual leases Village settlements, ments Village settlements, Village homesteads Farm homestead ass Small grazing-runs Pastoral licenses Coal and mineral le Timber leases and li	deferred perpetual sociations ases	lease	31  38 16 7 11 10 13 16  5 2	3,490 ., 11,443 88 1 130 412 1,922 45,341 54,500 511 	R. P. 0 16 0 14 2 8 3 0 3 1 12 1 8 0 0 0 0 0 1 22	123  801 5½ 0½ 113 41 148 2,834 18,166 128 	62 210 135 48 172 13 31 148 7	A. 25,389 82,180 1,248 1,116 5,532 1,922 79,305 3,170,008 1,813 	3 29 0 4 3 32 0 10 1 8 0 27 0 0 0 22 2 0	£ s. d 2,879 18 2,717 6 5,052 16 1 825 0 877 12 109 19 652 3  3,409 12 48,680 11 155 0 *12 10
Miscellaneous leases Reserves	š‡	••	23	1,024	3 30	$44\frac{1}{2}$	15 174	18,504 $44,146$	$\frac{1}{3} \frac{11}{24}$	630 5 11 1,481 12
Totals	••		175	118,866	0 33	685	1,019	3,430,930	2 24	66,484 8 8

<sup>†</sup> Midland Railway royalties placed to Deposit Account. \* Royalties.

‡ Lake Ellesmere Lands.

–C. 1.

The cash sales and the perpetual-lease selections comprise lands situated principally in Ashburton and Geraldine Counties, which were available for selection with option of tenure under "The Land Act Amendment Act, 1887." The village-settlement sections purchased for cash are situated mainly in Geraldine; those taken up on deferred payments at Arowhenua. The village perpetual-lease lands are nearly all at Hinds. The village-homestead lots are at Mayfield, View Hill, and Southbridge. The farm-homestead association block, the first established in Canterbury, is situated at Medbury. The small grazing-runs comprise the Greta Peaks and Station Peaks lands; and the pastoral runs are made up of Black Forest and Stewart River Stations, and part of Pareora Station.

The foregoing table shows the year's transactions, the number of selectors who still appear on the registers, and the vast estate under occupation, as well as the substantial revenue derived therefrom. Whilst there has been a large falling-off in cash sales and in perpetual-lease selections, there has been an increase in the areas taken up on village homestead and small grazing-runs. As a consequence of the decreased cash sales, the revenue is less by £55,966 1s. 4d. than the amount collected during the year 1890-91. The cash sales for the current year will probably be incimiferent.

Lands held on Settlement Conditions, Deferred Payment, and Perpetual Lease.—The number of selectors on the Land Office Register is 272, who occupy 107,470 acres in all. One of the most arduous and responsible duties which devolves upon the Land Board and staff is that of seeing that the selectors comply with the conditions of their licenses and leases by effecting the prescribed improvements, by taking up their residence on their holdings, unless exempted legally from the

obligation, and that they work the same for their own sole use and benefit.

When I took charge last June the arrears of inspection, as reported to you on the 28th September, 1891, were very formidable; but I am glad to be able now to report that the Rangers and Acting-Rangers have inspected all but a few of the holdings. Many of the sections have been visited several times, and a large proportion at least twice, to insure compliance by defaulters with the Land Board's decision. The Ranger, Mr. Mussen, reports favourably on the generally satisfactory manner in which the deferred-payment settlers have carried out the conditions of their licenses. The peculiar circumstances of the pastoral deferred-payment selectors have been specially reported to you. As regards the perpetual-lease holdings, the Ranger's reports are not so favourable, by reason of the large number of those he had to report to the Land Board as having failed to comply with the provisions of the Land Acts. Mr. Mussen also effected 110 special inspections, and made eighty-five separate journeys, which occupied him 125 days. During the year he has made a thorough and exhaustive inspection of the North Canterbury holdings, and brought his matured

experience to bear with great advantage to the department and settlers.

In South Canterbury Mr. Ranger Fussell, owing to press of other duties as Receiver of Land Revenue and Land Officer at Timaru, and more recently in consequence of an accident which has disabled him, has been unable to keep up with the inspections of selectors' holdings. By the united efforts of the Ranger, Mr. District Surveyor Broderick, Mr. Assistant-Surveyor Mathias, and Mr. J. E. March, who kindly volunteered his services, the arrears have been very greatly reduced, and will soon be quite overtaken. The Ranger's reports are generally favourable as regards progress of settlement. The facts have been laid before the Board, and all defaulters have been, or are being, dealt with. Though a large proportion of the selectors in Canterbury have complied satisfactorily, there are a number who are not occupying their selections, and who allow others to look after if not use them. I refer to the tendency in some cases for members of one family to hold several sections, and to increase their holdings by securing transfers of other selectors' lands. The Land Board are devoting a good deal of attention to the problem of how best to insure genuine settlement by women, boys, and girls who had become selectors, and where to draw the line so as to restrict the husband or father, as the case may be, in his operations in connection with such holdings strictly to the functions of an agent. The concessions extended under the provisions of the Land Acts to perpetual-lease holders—viz., (1) by which married women may select, (2) which allow selectors to reside on lands contiguous to their perpetual-lease holdings, and (3) which permit youths who are lessees to reside with their parents in any part of the provincial district—tend to avoidance of the real settlement conditions of the system. Moreover, it has been the practice in Canterbury to allow perpetual-lease selectors of open lands the privilege of exemption from residing on their holdings, provided they effected double cultivation and improvements. Practical experience has de

The Board had under consideration the cases of several selectors who had not improved or occupied their holdings as required by law. Forfeiture of the selectors' interests had to be resorted to in some instances, but in none was this done where the selector undertook to comply without delay. Whilst at all times willing to assist deserving and genuine settlers, and to make due allowance for misfortune or unforeseen difficulties, the Land Board are determined to enforce the law so as to bring about a healthy tone in connection with land transactions, and to prevent as far as

possible speculative or dummy applications.

It may be proper to state here that the Land Board has experienced much difficulty in enforcing the provisions of the Act which relate to cultivation, improvements, and residence on deferred-payment and perpetual-lease lands, in consequence of its having been demonstrated in several instances that the lands were rough or broken, shingly for sandy and poor, and that no suitable building-sites were to be found on the holdings. Such practical difficulties point to the absolute necessity for the amendment of the Land Acts so as to allow Land Boards discretionary powers in special cases of this nature.

The amount of arrears due by selectors on the deferred-payment and perpetual-lease systems is more than it should be, and is increased by long-standing non-payments, amounting in one instance

to £257. It is proposed to wind up these cases, and by judicious application of the capitalisation principle, and by enforcing the law, to bring about a more satisfactory state of affairs. The Land Board have not been inattentive to this business.

Village Settlements.—The ordinary village settlements comprise 183 selections, and an area of 2,364 acres on the deferred-payment and perpetual-lease system; and under the village-homestead regulations, they number 172 selections, covering an area of 5,532 acres. All but a very limited number of the holdings were inspected during the year. Mr. Mussen thoroughly inspected all in his district at least twice; and Mr. J. E. March visited nearly all those in South Canterbury. It is satisfactory to be in a position to report that these villages, although located on land of by no means superior quality, and in some instances on poor land, are, generally speaking, firmly established and progressing well. The villagers, as a rule, speak contentedly as to their condition and hopefully as to their prospects. Their homes and surroundings indicate in numerous instances material advancement and prosperity. I can testify from my own inspections and knowledge as to the great boon the system has proved to the class of men who have availed themselves

of its advantages.

One of our most out-of-the-way villages has been recognised as requiring special consideration and assistance because the villagers have unusual difficulties and drawbacks to contend against, amongst which may be specified—(1) the land is by no means of first-class quality, and is remote from towns; (2) the adjacent country is held in large runs, which means sparse population, scarce employment, and difficulty in sale of produce; (3) the cost of living is greatly enhanced owing to the increased expense of carriage by rail and road; (4) loss of time in going far afield to look for work, and thereby being unable to apply their spare hours in labour on their selections. Nevertheless these very villagers are said by an adjacent farmer "to have had little or nothing when they started, and now they all have cattle and good crops. They are an industrious, honest set of men, with a good hold of the land, and are getting on well." This opinion is very reassuring, as the difficulties which surround these villagers have caused me some anxiety, as I wish naturally to see difficulties which surround these villagers have caused me some anxiety, as I wish, naturally, to see The majority of the settlers at all the villages to whom I have spoken, not exceptthem succeed. ing even those high up under the ranges, assure me, as before stated, that they are getting on well. These assurances were given in a manly confident manner, which left no room for doubt even if the men's appearance and surroundings were not sufficiently convincing. There are, of course, exceptions—some have met with misfortune, experienced grievous loss or sickness; some are not men of the right class or trade, and are not adapted to struggle successfully under, to them, novel circumstances. There is a general desire expressed for extension of holdings, which I take to be indicative of general advancement, expansion of ideas, and in many cases improved financial position. This should be given effect to wherever practicable, though I doubt whether it should be done irrespective of the villagers' capabilities and means; but in the case of men of energy, thrift, and necessary experience there can be no doubt that the application of the extended-holding system would tend to improve their position, and elevate them into the ranks of the small farmers. In forming new settlements it would be advisable to arrange the subdivisions so as to provide for the future expansion of the holdings of those who by self-denial and established position have proved their capabilities to utilise additional land.

The arrears of payments, which were very large on the 31st March last, are being reduced. The wet season has retarded harvest operations and delayed sales of crops, and consequently payment of

rents; but the Land Board is using fair and firm means to enforce payment.

I have to draw attention to the necessity for providing the sums which I have set down in the road estimates to aid villagers to obtain better road-access and water by means of races. The Government will be secured by the additional value given to the holdings. To encourage self-reliance, the principle of granting pound for pound might advantageously be applied. In any case,

the villagers should pay a percentage on the amount advanced by the Crown.

Before leaving this subject of village settlements, I cordially approve (and always have done) of the proposal to extend the application of the system among freeholds in settled districts. In the knowledge that labourers have to pay an average of 5s. a week house-rent, which is £13 a year, it can be demonstrated that it would be safe for the Crown to repurchase the best agricultural lands in favourable localities for the location of men of the right stamp on small plots—not farms—of a capital value not exceeding £200, unless the lessee had sufficient means of his own to put on permanent improvements of proportionate value. Years ago provision was made ("The Land Act, 1885," section 168) for the establishment of village settlements by the acquisition of freehold lands; and, though it appeared to me at the time to be capable of application to the circumstances of labourers and others near Petone and Te Aro, nothing definite was accomplished. Now, more than ever, the time appears opportune for wise legislation and careful administration to effect the more general settlement of the people on the lands. Is it necessary to point out that by placing suitable men on such an improved footing they would feel that the land was virtually their own; the selectors would, as owners, acquire rights, responsibilities, and advantages which would tend to make them better men and citizens. The other manifest advantages it is needless to enlarge upon.

Small Grazing-runs.—The thirty-one runs comprise 79,305 acres in two divisions of leases—

Small Grazing-runs.—The thirty-one runs comprise 79,305 acres in two divisions of leases—
(1) those at Teviotdale and Black Hills which were exchanged from pastoral deferred-payment tenure for titles under this system, and the original selections on the southern Station Peaks country;
(2) the recent selections on Greta Peaks and on the northern Station Peaks lands. The latter division may be dismissed with the remark that the selectors have yet to accomplish the real work of occupation and settlement. As regards the prior selections, you will find in the elaborate reports which have been prepared for your information that, though all the lessees had at the date of the Ranger's inspection effected the requisite improvements, several were non-resident. Former Land Boards had condoned this shortcoming as regards a few runs which were so rugged as not to provide homestead sites. In the case of a few of the runs on the Station Peaks the present Land Board is endeavour-

ing to administer the law so as to promote and encourage the occupation of the runs by the best and most suitable class of persons, and to prevent the runs from becoming mere appendages of large estates. This is in pursuance of the wise policy of establishing as many families on the lands as possible. There were no arrears of rent on the 31st March, 1892.

Pastoral Runs.—Under this system will be found the great bulk of our Crown lands. Though there are only 148 licenses, the area under occupation is 3,170,008 acres, the average area being 21,419 acres. The promptness with which the rents were paid last year indicates the estimation in which the licensees hold their privileges. The only arrears were on three runs. The non-payment in one case is accounted for by the death of the licensee; default in another is now the subject of a Supreme Court case; and the payment on the third was delayed by negotiations due to resumption of part of the area comprised in the run. The general impression left on my mind by inspection of several of the runs is that in many instances the Crown lands have deteriorated in value in consequence of the unwise manner in which some of the runs have been overstocked, and by the unreasonable or too frequent application of fire.

It appears to me that the licensees should occupy their runs under such provisions of tenancy as would induce them to treat the lands in their Crown leases as jealously and carefully as though they were their own freeholds. By so doing both the State and the tenant would mutually be benefited. I have to suggest that the officers of the Stock Department might co-operate with the Lands Department in seeing that the provisions contained in pastoral licenses are attended to by the runholders. The short-dated leases, renewed from time to time, for some of the runs in the Midland Railway Company's area have not worked quite satisfactorily for the Crown's interests. Some few of the runs will be resumed next March, with the view to subdivision into smaller areas to meet a real demand for holdings which prevails in Canterbury. It will be necessary that you materially strengthen the survey staff to enable me to have the surveys executed and the lands placed on the market by the 31st March, 1893.

Coal and Mineral Leases.—The attached table gives the particulars of the leases under this heading.

Timber Licenses.—The areas held are at Oxford Bush, and, being within the Midland Railway area, the royalties are paid to a suspense account.

Miscellaneous Leases.—The fifteen leases, which comprise 18,504 acres, are within the limits of the Lake Ellesmere Reservation, and have only been renewed to the 31st August, 1892, in order that the department may have a free hand in dealing with the lands under settlement conditions in the event of the law being altered next session.

Reserves.—The lands of this class are scattered throughout the length and breadth of Canterbury; they number 174, and include 44,146 acres, made up of river-bed lands and miscellaneous reserves, which are not at present required for the purposes for which they were set apart. It is proposed to place on the market all other reserves which can be similarly dealt with.

Proposals.—To meet the wishes of the Hon. the Minister of Lands, efforts are still being made to place in the market all available lands in the manner best calculated to meet the requirements of the public. To this end Mr. David McMillan and myself have effected inspections, and given consideration to the whole question, and propose to lay our views before the Land Board, and subsequently to submit them for your approval and action. The areas with which we are dealing embrace about 70,000 acres. Though, for reasons given before, the lands are not what we desire, we will do our best to utilise them for settlement.

Departmental.—The current business of this branch of your department, as may be gathered from the particulars which have been set before you, has taxed the energies of the staff to the utmost. I have to report that very essential work has been left undone during the year, in consequence of the small staff being unable to undertake everything that appeared necessary to be done; this notwithstanding that we worked at high pressure, and almost constantly extra hours. I have to refer you to the Survey Report for particulars of part of the work done, and to state that a vast amount of other business was attended to in connection with preparation of schedules of lands for sale and lease; returns of all land transactions and holdings held on settlement conditions, and inspections of the same; the preparation of warrants, leases, licenses, attention to accounts, and general correspondence. The public have been well attended to, titles have generally been kept up to date (except, of course, when the arrears of surveys have caused delay). I have elsewhere urged that the staff be increased to overtake arrears of surveys and mapping. We could with great advantage to the public employ another clerk. I have to acknowledge the obligations I owe to Mr. D. McMillan for the very valuable assistance and advice which he has afforded me in connection with the classification, priceing, and the general land business of the district; likewise to Mr. District Surveyor Brodrick, and Mr. J. E. March, the Superintendent of Village Settlements, for their cordial co-operation in effecting inspections of selectors' holdings. In conclusion, I have to bring under your notice the zealous and very efficient manner in which Mr. J. Bendely has filled the post of Acting Chief Clerk.

#### COAL AND MINERAL LEASES.

No. of Lease.	Area.		Area.			Situation.	Purpos	e.	Date of Lease.		nnua Rent		Conditions and Royalties.	Lessee.
3*	A. 301	R.	P. 0	Hororata District	Coal	••	Nov. 16, 1882	£ 37	s. 15	d. 0		Messrs. Leeming.		
14†	200	0	0	"	"	••	Aug. 31, 1891	25	0	0	21 years. Royalty, 6d. per ton	James Goss.		
15†	200	0	0	.,,	"	••	Sept. 1, 1891	25	0	0	21 years. Royalty, 6d. per ton	James Goss.		
16†	75	1	22	Alford District, on Run 103	"	••	Sept. 1, 1891	9	8	6	21 years. Royalty, 6d. per ton	Frederick Duncan and David Stott.		
1‡	36	0	0	Alford District, on Run 103	Limesto	ne	Sept. 1, 1891	4	10	0	21 years	Frederick Duncan and David Stott.		
11§	640	0	0	Grasmere District	Coal	••	••	32	0	0	,,	Messrs. Cloudesly, Williamson, and McDonald.		
12§	360	0	0	,,	"	••	••	18	0	0	,,	Messrs, Cloudesly, Willamson, and McDonald.		

\* This mine is being worked, the year's output of coal being 4,200 tons 9cwt.; the royalty received, £105 0s. 3d., from which the rent, £37 15s., is deducted.

† The lease provides that the mine shall be in good working-order within twelve months from the date of the lease; and that the lessees will thereafter keep continuously employed in the working thereof not less than six men for the whole term of twenty-one years.

† Prospector's mining lease.
§ These leases have been granted, but the mines cannot be worked until access is given to the land by the Midland Railway Company.

J. W. A. MARCHANT, Commissioner of Crown Lands.

### OTAGO.

It will be seen that the year's transactions have exceeded those of 1890-91 in some particulars to a considerable extent, the total for the year in respect of Crown lands being 436 purchasers or selectors, taking up 665,346 acres, with a total revenue of £86,968 11s. 6d., as against 351 purchasers or selectors, 372,332 acres, and £82,096 11s. 4d., for the previous year. The principal increases have been in perpetual leases and small grazing-runs: of the former, there was an increase of ninety-two selectors, 26,920 acres, and £2,292 14s.; of the latter, thirty-two selectors, 64,404 acres, and £2,493. As compared with the estimate, there was a deficiency in the Land Fund of £904 11s. 5d., and an excess in territorial revenue of £2,848 2s. 11d., thus giving in the total revenue an excess of £1,943 11s. 6d. I will now briefly refer to such of the tables as require explanation or remarks, taking them in their order.

Summary.—In this table a slight adjustment has been necessary, in consequence of an oversight in last year's return on account of 304 acres 2 roods 20 perches of agricultural-lease land made freehold, and 92 acres 1 rood 10 perches of perpetual-lease land made freehold, which, as I pointed out in my last year's report, were included in cash lands. These areas were also rightly included in the column "Total Area made Freehold" in their respective lines, but also wrongly included in the "Cash" line of that column. In like manner, in the present return, "Cash Lands" includes 1,064 acres and 23 perches of perpetual lease-lands sold for £819 10s., and 390 acres 2 roods 3 perches of agricultural-lease land sold for £391; and the total of the column, "Area taken up during the Year," is given as less the sum of those areas, although they are included in the area of cash lands, being lands sold for cash, and there being no other way, in the table, of showing the transaction.

Lands sold for Cash.—The explanation given above with regard to Table A has to be kept in view in dealing with this one. Having regard to the quantity of land about to be notified for selection during the year, it was expected there would have been a larger number of transactions in cash lands; but it is not an easy matter to estimate, under the optional system of tenure, what proportion may be taken up in either of the three classes.

Deferred Payments.—This return shows a slight increase over last year, both in the quantity of land taken up and the amount of revenue received; but it has to be noted that the area selected includes four holdings, containing 1,284 acres 1 rood 9 perches, exchanged from perpetual lease, while the forfeitures include one holding of 103 acres 1 rood 5 perches exchanged for perpetual lease. Revaluations have had the effect of further reducing the annual payments by £398 13s.

Perpetual Lease.—As I have already pointed out, there has been a large increase in the number of leases taken up under this system. The area selected includes the one holding above referred to as exchanged from deferred payment. The annual rental has been further reduced by revaluations to the extent of £264 6s. The areas of four leases were made freehold during the year, amounting in the aggregate to 1,045 acres and 4 perches.

Village Homestead Special Settlement.—Thirty-six holdings, embracing 783 acres and 28 perches, have been taken up since the new regulations came into force, the selectors availing themselves of the provision allowing the first two years' rent to remain in abeyance. In the special return of these settlements about to be prepared it is expected that satisfactory details as to their progress in places where work is obtainable will be given,

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Small Grazing-runs.—For this class of holding there seems to be an increasing demand; and it is somewhat noticeable that the average rental per acre of the land taken up during the year is 1s.  $0\frac{1}{4}$ d., while for perpetual-lease land the average rental per acre is only  $8\frac{1}{4}$ d. This may be accounted for, possibly, by the land being put up to competition. The average rental per acre over the whole area of small grazing-runs held at the 31st March, 1892, is  $8\frac{1}{2}$ d., and of perpetual leases With regard to the arrears on these runs, see remarks on "Summary of Arrears."

Pastoral Runs.—The receipts from pastoral runs, £58,218 6s. 4d., have exceeded the estimate by £218 6s. 4d., coming up to within £142 1s. 6d. of last year's receipts. The average rental per acre of the land taken up during the year is  $3\frac{1}{4}$ d., and the average rental per acre received during the year over the whole area of pastoral runs as at 31st March is  $3\frac{1}{7}$ d. The number of runs taken up during the year was less than during the previous year by thirteen, while the area

exceeded that of the previous year by 195,427 acres.

Summary of Arrears.—This table shows a decrease, as compared with last year, of 245 holders or selectors in arrear, of 650,506 acres, and £3,592 in amount of arrears, and this in face of the fact that the number of holdings on the books of the department has largely increased, as will be seen on reference to the return of the number of selectors, Table S. Omitting payments for the current half-year—namely, those due in the case of deferred payments, perpetual lease, and agricultural lease on the 1st January, and in the case of small grazing and pastoral runs on the 1st March—the total amount of arrears does not exceed £3,375, and the number of selectors or holders in arrear Thus the arrears of the two principal classes of settlement—viz., deferred payment and perpetual lease—would stand as follows: Deferred payment, thirty-eight selectors, owing £270 10s. 3d.; perpetual lease, forty selectors, owing £407 11s. 9d. I pointed out in forwarding the quarterly returns that the reason for the comparatively large amount of arrears in respect of agricultural leases was that the holders had been keeping back their payments pending the passing of a Revaluation Act to apply to their holdings; and, in the case of small grazing-runs, that the lessees do not consider themselves bound to pay before the sixty days mentioned in section 216 of "The Land Act, 1885," have elapsed.

Number of Selectors on the Books.—This return shows a total number of the classes therein

mentioned of 1,542 in respect of Crown lands, and fifty-three of endowment lands; but, beyond that, there are 392 pastoral runs (Crown lands) and five endowment, besides, approximately, 180 holders of coal, mineral, and miscellaneous leases and licenses: making a grand total of 2,170 on the books of the office, an increase of 164 for the year. I need scarcely add that the constantly-increasing number

of selectors on the books materially adds to the clerical work of the department.

It will be found, I think, that the results of the year's transactions amply justify the remarks I made last year to the effect that the whole of the land then ready for notification would be taken up, and that the previous year's transactions were limited only by the quantity of land of suitable quality available. With reference to revaluations of those in hand at the date of last year's report, there have been approved during the year—of Crown lands, forty-nine holdings, with an area of 12,666 acres, and a decrease in capital value of £5,038 4s. 10d.; and of endowment lands, one holding of 214 acres, and decrease in value of £160 10s. There still remain about twenty holdings to be approved, with an aggregate acreage of 5,000 acres, and decrease of £2,000. For several years past I have represented in my annual reports the inadequacy of the Ranger's staff for the proper inspection of the many and fast-increasing number of holdings on settlement conditions; and during the past year that fact has become so abundantly self-evident that it is in every respect satisfactory that I am now able to record the recent appointment of an Assistant Ranger to remedy the defect hitherto pointed out. During the year I have had books prepared containing details of all holdings on settlement conditions, in order that the Rangers may systematically inspect the various holdings, and with better method and greater facility record the results of their inspections. These books, which have taken a good deal of trouble to prepare, will, I believe, be found extremely useful both to the Rangers and the department; and I am glad to be able to state from the particulars already entered in them, and from the Rangers' reports generally, that the selectors are, with few exceptions, complying satisfactorily with the conditions under which their respective allotments are held.

Of transfers during the year there have been—of perpetual leases, 40; deferred payments, 12; village homestead special settlements, 6; small grazing-runs, 10; pastoral and miscellaneous licenses, 43: total, 111.

The Land Office Work.—It is impossible to define on paper the amount of work involved in the administration of Crown lands during a single year; nevertheless the under-mentioned approximate enumeration of the past year's transactions in this district—to say nothing of the work thereby implied in the manifold cash-books, ledger accounts, and registers of the various systems of tenure, local bodies and endowment accounts—may serve as affording some little idea of its scope and magnitude: Applications received, 1,452, dealing with 438 sections of land; letters—inward 4,015, outward 4,167—total, 8,182; circulars and notices sent out, 1,813; meetings of Land Board, 56; numbered entries in minutes of Land Board, 906, dealing with 1,420 cases; bills and posters sent through post, 7,184; money receipts issued, 8,578; goldfields receipts, miners' rights, certificates, &c. (Hindon), 269; cases of arrears reported to Land Board, 470; transfers of leases and licenses, 111; leases prepared in triplicate 138, 100, and licenses prepared in duplicate 155, and licenses prepared in triplicate 138, 100, and licenses prepared in duplicate 155, and licenses prepared in triplicate 156, and licenses prepared in the land of the land licenses and licenses prepared in the land of the land licenses and licenses prepared in the land licenses are land licenses and licenses prepared in the land licenses and licenses prepared in the land licenses are land licenses and licenses are land licenses. 85—total, 584 copies; certificates of title and Crown grants, 109; returns of various kinds, periodical

There were also four auction sales during the year, at which 40 pastoral licenses, 46 small-grazing-run leases, and numerous rural and town sections were offered and disposed of. Further, there were numerous entries and indorsations in connection with transfers, surrenders, forfeitures, capitalisations, revaluations, and other matters not included in the foregoing list. And the fact must not be overlooked that, besides the ordinary clerical work of the office, there is necessarily a

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large amount of time occupied in attending to the public, in answering endless inquiries, and afford-

ing information to applicants for land.

In conclusion, I may state that the officers have been very fully occupied during the year, work after hours having been a frequent necessity; and it is gratifying to me to be able to report that one and all have performed their several duties with credit to themselves and satisfaction to myself J. P. MAITLAND, and the department.

Commissioner of Crown Lands.

#### SOUTHLAND.

Table A.—The figures in connection with Southland transactions are furnished to enable you to complete the general return for the colony.

 $Table\ B$  gives an analysis of the holdings taken up during the year under review.  $Table\ C$  furnishes the cash transactions, which show a marked increase over those of last year, the number of purchasers being forty-nine, as compared with twenty-three, and the amount

received being £5,431 16s. 8d., as against £802 4s. 2d.

Table D.—Deferred-payment transactions continue to emphasize the tendency of late years to neglect this for other systems, only thirteen selections, aggregating 1,912 acres, averaging 147 acres each, having been made, as against twenty selections, of 2,032 acres, averaging 102 acres, for the previous year. Nine forfeitures have taken place, representing 979 acres, and fifty-six selectors have acquired freeholds aggregating 7,062 acres, leaving 64,245 acres held under this system on the 31st March last, being 6,129 acres less than at the same period last year. Six selectors availed themselves of capitalisation, under which their annual payments will amount to

£21 7s. The total number of selectors is now 381, as against 433 last year.

Table E.—Sixty-nine selectors took up 20,140 acres under perpetual lease, being almost exactly double the quantity selected last year. The number of selectors is 224, as against 172 for the previous period, when 10,269 acres were taken up, showing that a considerable increase has taken place in average size of sections. The average upset rent per acre was 8.5d., as against 9d. last year. Fifteen forfeitures, aggregating 4,478 acres, were declared for various breaches of conditions. The total area now held under this system is 56,485 acres. Only two freeholds were

acquired during the year, the area being 172 acres.

-Under agricultural lease there is only one transaction to record—viz., the receipt

of the annual rental on an area of 18 acres.

Table G.—Cash village transactions continue to be unimportant, the total for the year being ten selections, of 43 acres odd, for £110, being slightly more in area, but less in value, than those of

last year.  $Table\ H.$ —Of deferred-payment village lands, eight selectors took up 87 acres, for which a sum of £26 0s. 1d. of annual instalments was paid; and four selections, aggregating 108 acres, carrying annual instalments of £42 3s. 4d., were declared forfeited. One hundred and five selectors now

hold 1,530 acres under this system.

Table I.—Of perpetual-lease village lands thirty-five holdings were selected, representing 451 acres, the annual rent payable being £58 15s. 10d., and the amount actually received being £29 7s. 11d. Only one forfeiture took place. Seventy-two selectors now hold 1,073 acres under this system.

Table J.—Under the village-homestead system eight selections took place, aggregating 58 acres, the average area to each selector being  $7\frac{1}{4}$  acres, and the average rental being 2s. 7d. per acre. Only two forfeitures were declared. Thirty-four selectors were in arrears with rent and interest £34 9s. 4d. and £15 4s. 9d. respectively. The amount advanced for houses and bush-falling remains, as at last year, at £1,074 3s. 5d.

Tables K, L, and M.—There are no transactions to record under these tables.

Table N.—Twenty-two pastoral licenses have been issued during the year, for 164,165 acres; but out of this number sixteen are for runs which, as the licenses expire on the 1st March, 1893, were offered for sale at auction on the 31st March last, when all were secured by the former licensees, although in some cases at considerable advances of rental. Twenty-eight runs or portions of runs which were classified at the same time as those referred to above were not again offered for lease, but will be more or less subdivided, and offered to the public either under settlement conditions or as small grazing-runs under Part VII. of the Land Act of 1885, a class of tenure for which there is at present a considerable demand. One hundred and thirty-two licensees now hold 1,366,558 acres, or an average of 10,352 acres each. I should add that the runs which were relet on the 31st March last were leased for an absolute term of ten years without right of resumption on the part of the Crown.

Table O.—Of miscellaneous leases and licenses 102 were let for coal and mineral, and twenty-four for grazing and other purposes; there is a total of 307 leases and licenses now current. The total annual rentals payable under these is £837 13s. 9d., of which £351 5s. 5d. is in arrears.

Table P gives particulars of land and territorial revenue, the amounts being £12,597 3s. 6d. and £8,159 12s. 5d. respectively, or a total of £20,756 15s. 11d. for the year, exclusive of endowments.

Table Q shows the arrears due to the Crown on the 31st March last by 466 selectors, representing 58,880 acres, to be £2,108 6s. 10d. I regret to find that these figures show an increase over those of last year, when they stood thus: 56,084 acres, 298 selectors, and £1,523 13s. 11d. The only remedy for this state of things is to have more clerical assistance in the Land Office, so that those in arrear may be promptly requested to pay up, and, failing this, to declare their holdings forfeited unless good reason is shown for the default.

 $Table\ R$  shows the lands reserved, alienated by Act, scrip, &c., the area for the year being 50,940 acres, bringing the total amount so disposed of since the foundation of the colony up to the 31st March last up to 587,311 acres.

Table S gives the number of selectors on the books, which at present stands at 847, exclusive of pastoral tenants; and if we add 123 holders of endowment lands this gives a total of 970.

Table T.—This table has been established for the purpose of showing the transactions in endowments, as distinguished from Crown lands proper. These endowments are vested in the Otago School Commissioners, the Southland Boys' and Girls' High School, and the Bluff Harbour Board, and the transactions fall under the headings of "Cash Lands," "Perpetual-leased," and "Pastoral Licenses." The total revenue received from all sources was £3,291 17s. 4d., and if we add this to the total revenue received from Crown lands proper we arrive at a grand total of £24,038 13s. 3d. for the year.

The following summary presents the most salient features of the year's operations—fractional

areas being omitted :-

System, &c.	No. of Selectors.	Area.	Amounts.		
Cash (including village settlements for cash) Deferred payment (including village settlement), new tra	···	59	6,981	£ s. 5,541 16	
actions		21	1,998	87 3	0
Deferred payment (including village settlement) made fr hold		75	7,498	4,248 15	5
Deferred payment (including village settlement) remain on books		486	63,777	<b>,</b>	
Perpetual lease (including village settlement), new tra		104	20,591	385 17	11
Perpetual lease (including village settlement), former ditto		192	36,967	1,387 15	1
Village homesteads (perpetual lease), new transactions		_8	58	8 16	3
" former "	•••	57	618	134 15	6
Pastoral licenses, new transactions	•••	$egin{array}{c} 22 \ 132 \end{array}$	1,366,558	667 17 5,038 17	$\frac{4}{0}$
Miscellaneous leases and licenses, new transactions		$\frac{132}{24}$	4,044	43 15	ő
Coal, tin, grazing, &c., former transactions		283	21,861	$442 \ 13$	4
State forests and timber licenses		22	2,886	1,947 18	6
License and transfer fees			•••	121 9	0
Survey fees		•••		243 15	0
Miscellaneous	•••	•••	•••	319 7	2
Crown-grant fees	•••		• • • •	136 13	7
Endowment lands, as per Table I	•••	•••	•••	3,291 17	4
	-	1,465	1,493,837	24,048 13	3

Settlement Conditions.—The Ranger's reports go to show that residential and improvement conditions are being fairly well carried out. Two hundred and forty-one deferred-payment and perpetual-lease holdings, aggregating 45,184 acres, have been improved to the extent of 4,496 acres being brought into cultivation, valued at £5,134, with other improvements valued at £15,720, or a total of £20,854. Considering that the bulk of this area is second-class land, it will be seen that the improvements effected are considerably in advance of the minimum amount required by laws. Of the 241 selectors, 144 are residing, and, as some selectors hold more than one section, this must be considered fairly satisfactory when it is remembered that a very large proportion of the land in this part of the colony is low-lying and swampy, requiring a considerable outlay of capital or labour to reclaim, and being unfit for residence until this is done. Another feature which fre-

quently militates against residence is the want of proper road-access.

Seven selections out of the 241 above referred to were declared forfeited for various breaches of conditions, or about one in thirty-four, which does not seem excessive. There is no reason to suppose that much land is taken up for speculative purposes, or that deliberate evasions of the law are common, and only one such case has come before the Board lately.

Saw-mill and Timber Licenses.—The demand for these licenses continues active, and the New Zealand Pine Company's transactions especially are very large; but the department takes such steps as may appear necessary for guarding against areas being taken up for purely speculative purposes, and insists upon these being worked out within a reasonable time, and then surrendered for settlement purposes where suitable. Several cases of trespass, or illegal timber-cutting, have been brought under my notice by the Ranger, and fines varying from £10 upwards have been imposed on the delinquents. In the cases of some of the larger mill-owners these trespasses have been committed more in ignorance or carelessness of boundaries than with dishonest intent, but in other cases there is no escape from the concluson that the persons concerned were endeavouring to take advantage of rights acquired in the first instance under license in the usual way to pilfer timber to a considerable extent, hoping to escape detection owing to the forest being in out-of-the-way places. Several such cases have been placed in the hands of the Crown Solicitor for further action to be taken.

Demand for Land.—The demand for land continues to be large, and is expected to be still larger in a few months' time. It is true that there is a considerable area open, as shown in the

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"Land Guide," but selectors are apt to be somewhat capricious in their choice of locality, and will often rather go without land if they are not able to obtain it in the locality they prefer; besides which, a large number of the lots open are too limited in size to make a living out of when selectors have no extraneous sources of income, or assurance of employment in the neighbourhood.

Office-work.—The arrears of Crown grants, leases, and other instruments of title are assuming large dimensions, and this supplies another reason why the staff should be increased, in addition to the one already given-viz., as a means towards getting in the arrears of revenue outstanding.

The correspondence continues to increase, and I have had the satisfaction of establishing the

file system of record since I took charge here.

G. W. WILLIAMS, Commissioner of Crown Lands.

## APPENDIX No. 2.

### SPECIAL SETTLEMENTS.

AUCKLAND.

Waimamaku Village-homestead Special Settlement and the Canterbury Association Settle ment, Hokianga.—The number of original selectors there was thirty-four, and the number now remaining is seventeen. Of the original thirty-four selectors, only twenty-seven came to the district, and of these, twenty-two only were in actual occupation. Two of the original selectors took up land and of these, twenty-two only were in actual occupation. Two of the original selectors took up land on other conditions. One was killed (a married man, whose widow returned to Auckland, and there died), the others obtained employment on the gumfields. The seventeen who are now in occupation are doing well, and will become permanent settlers; many of them have already acquired other lands in addition to their original holdings. Substantial school-buildings have been erected, and thirty children are on the roll. I interviewed nearly all the settlers on their sections, and met a number of them in the schoolroom in the evening; all were contented with their land. The only complaint made was the want of roads, on which subject I will report later. I also inspected the Canterbury Settlement, and saw several of the settlers, who appeared perfectly satisfied with their holdings and willing to struggle on in the hope of something being done to the roads in the near holdings, and willing to struggle on in the hope of something being done to the roads in the near future, as at present they are precluded from taking any of their produce to a market owing to the bad state the roads are in. School-buildings have also been erected in this settlement, and at the time of my visit thirty-five children were on the roll—namely, seventeen boys and eighteen girls. From what I saw I am convinced that the settlers in both the Auckland and Canterbury Settlements have had a very hard time of it, and have had to rough it in a way quite unknown in the South. They appear to have manfully overcome many difficulties; and it is satisfactory to note that many of them in both settlements are now building more substantial dwellings than at the first, and making other improvements. The land generally is good, and these settlements would, in my opinion, be in a fair and prosperous condition provided good roads were constructed. I learn that inquiries respecting this land are now being made by a large number of intendig settlers, principally from the South. The road known as the Pakanae-Waimamaku Road requires to be opened out as cart-road a distance of about six miles from Lett's store (Section 18, Auckland Settlement). This road would be a link to the main line through to the Bay of Islands. A road is also very much needed in the Auckland Village Settlement, commencing from the School Reserve, Section 34, and thence to Section 46.

Punakitere Settlement.—Number of original selectors, 72; number who actually went on the land, 46; now remaining, 22. Of the forty-six settlers who were in occupation, seventeen found employment in the surrounding districts, three were sent back to Auckland as being unsuitable, and four left the district. Of the twenty-two now in occupation twenty at least are likely to be good

and permanent settlers.

Motukaraka and Kohukohu Settlements.—Number of original selectors, 63; now in occupation, 39; abandoned their holdings, 24. Of the twenty-four who abandoned their holdings, ten were Natives, who failed to comply with the conditions; eight are unknown altogether, never having occupied the land; six abandoned their sections, but four of these, together with the Natives, are still in the district. Of the thirty-nine in occupation, five have leave of absence for various periods, but they are working in the district. I have every reason to believe that fully thirty-five of the thirty-nine present occupiers will become permanent settlers. A neat and substantial schoolroom has been erected, and also rooms for the teacher. At the time of my visit, twenty-two children were on the roll—namely, eleven boys and eleven girls.

Swanson and Waitakerei Settlements.—Number of original selectors, 23; number who actually went on the land, 20; now in occupation, 16. Of the twenty settlers who took up land and occupied it, three sections have been abandoned, mainly on the ground that the land was very poor; and one has received notice to occupy the section or it will be declared forfeited. As this settlement is

near Auckland, the sections now occupied are likely to remain so.

The two Te Aroha Settlements.—Number of original selectors, 39; number who actually went on the land, 29; now in occupation, 20; improved but not occupied, 7; forfeited, 2. The selectors of the seven sections improved but not occupied have had notice sent them that they must comply with the conditions or the land will be forfeited. The rent is paid promptly. In some cases the improvements are considerable, but no advance has been made unless the selector was in occupation. The land selected for this settlement was a partly-drained swamp, and the settlers have laboured under great disadvantage to cultivate and improve their holdings. The outfall-drain still requires further deepening.

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As my time was limited, I obtained from Mr. Kavanagh the following particulars respecting

certain settlements I was unable to inspect:-

Herekino Settlement.—Number of original selectors, 125; of this number only 94 were in actual occupation, and the position of this settlement is as follows: Number of original settlers, 94; now remaining, 25; taken up land on other conditions, 7; abandoned their holdings, 62. assigned why so large a number left this settlement are as follows: The locality for a special settlement was badly chosen, the district being quite isolated, and offering no employment to outside labour. A large proportion of the people who applied for land in this settlement were quite unsuitable for settlers, and thirty-one never occupied the land at all. From inquiries made, however, I gather that very few of the sixty-two settlers who abandoned their holdings returned to Auckland, a large number of them finding employment on the gumfields, which are about forty miles distant from the settlement. Of the twenty-five settlers now remaining, nearly the whole are likely to become permanent settlers; they have made substantial improvements to their holdings, and have formed a good opinion of the future prospects of the district, which will be realised as soon as the good land adjoining the settlement is opened up by roads.

Takahue Settlement.—Number of original selectors (who applied in Auckland for sections), 47; but of this number only twenty-one came to the district, and of these, twelve only are in occupation. The remaining nine are accounted for as under: One settler, a single man, went to England; one to an engagement near Wellington; one to employment at Auckland; three obtained work in the district; one resides with her father in the settlement, and relinquished her section; two went to Sydney. Ten out of the twelve settlers now in occupation are doing well, and are perfectly satisfied

with their future prospects.

Fern Flat Settlement.—Number of original selectors, 15; number who actually went on the land, 11; now remaining, 9. Of the eleven settlers originally in occupation, one relinquished his section through ill-health; the other settler was accidentally drowned. The nine now remaining are likely to become permanent settlers, although the land is very broken, and not of first-class

Akatea and Firewood Creek Settlements.—Number of original selectors, 27; number who actually went on the land, 18; now in occupation, 13. Of the eighteen settlers who took up sections, three did so in order that they might participate in the roadwork; they made very little improvements to their holdings, and no advance was made. Two others did certain improvements, for which advances were made to the amount of £17 10s.; but both these sections have been since

taken up under the Act of 1887, and the money advanced more than recovered.

\*\*Komakorau Settlement.\*\*—Number of original selectors, 5; number who went on the land, 5; now in occupation, 4. Of the five who took up land in this settlement, four are in occupation, and the other has been called on to occupy his section or the land may be forfeited. I should add that this settler lost his wife; he was left with two children, and was obliged to seek employment elsewhere to pay for their maintenance. Under these circumstances, every facility will be granted to

allow the settler to comply.

Drury Settlement.—Number of original selectors, 7; number who actually went on the land, 5; now in occupation, 4. Of the five who went on the land, four remain in actual occupation; the other section is improved; the selector lives in a Government cottage on the railway-line. The two unoccupied sections have been taken up by the present settlers, who are likely to remain there.

The land is poor open fern, but the settlers find occasional employment in the district.

Hukerenui Settlement.—Number of original selectors who applied at the Land Office, Auckland, 82; but of this number only thirty-eight occupied sections, many of the others applied for land to give them the right to dig gum in Puhipuhi. Of the thirty-eight selectors, three surrendered their holdings, but have again acquired them under other conditions; no advances were made on these One improved section was abandoned, but it will be taken up as soon as it is open for sections. selection, and most of the money advanced will be recovered.

Motatau Settlement.—Number of original selectors, 11; number who went on the land, 7; now in occupation, 7. Of the original eleven selectors, three have acquired land in the district on other conditions. The seven now in occupation are likely to remain there and become perma-

nent settlers.

Whananaki Settlement.—Number of original selectors, 39; but of this number only twenty-one came on the land, and eighteen now remain in occupation, and are likely to continue. Of the three forfeited sections, two have been acquired under other conditions by persons in the district; no advance was made on these sections. The amount advanced on the other is expected to be recovered as soon as the land is open for selection. The original selector has acquired a larger area of land in the district.

Omaha Settlement.—Number of original selectors, 38; number who went on the land, 32; now in occupation, 26. Of the thirty-two settlers who were in occupation, six have abandoned their holdings. Advances have been made on all the abandoned sections; four of these have been reselected under other conditions, and the greater part of the advance recovered.

now in occupation are doing fairly well, although the land is very poor.

Parua Bay and Pataua Settlements.—Number of original selectors, 23; number who went on the land, 16; now in occupation, 10. Of the six forfeited sections, three have been taken up and the advances recovered; there will be a loss on two of the others. The land in this district is very poor and broken; but the settlers now in occupation are likely to remain, as they can obtain gum-digging and other occasional employment.

The total number of sections occupied under village-homestead special-settlement conditions is 282, but this does not include certain sections about to be forfeited at Herekino, Takahue, and Fern

Flat.

A very pleasing feature in connection with the settlements is the public schools established

therein. Substantial school-buildings have been erected; the attendance is good; the children neat, clean, and attentive, and looking the picture of health. The want of fairly good roads is, and has been, a great drawback to the success of the settlements; and this no doubt has been the main cause why so many sections have been given up. The settlers are now anxiously looking forward to some immediate steps being taken to improve the roads, in order that they may be able to bring their produce to market. Taking into consideration the great difficulties the settlers in the North have had to contend with owing to the isolated position in which many of the settlements were placed, the delay in bringing bush-lands under cultivation, and the want of roads, I think it may fairly be said that the progress made up to the present is very satisfactory.

## HAWKE'S BAY DISTRICT.

In this district the total number of settlers is thirty-one, and the area allotted 203 acres, or an average of nearly 7 acres each; the sum advanced for houses, bush-felling, &c., was £818; rent and interest has been paid to the amount of £397 4s.; and the arrears are only £3 5s. 6d. All the settlers are doing fairly well.

### Wellington District.

The number of village-homestead special settlers in this district is 207; the area they occupy 2,678 acres, or on average of about 13 acres each; the amount paid for rent and interest was £1,816; and the arrears on the 31st March, £264. The settlers generally are doing well, and I have no doubt the arrears will shortly be paid.

# CANTERBURY DISTRICT.

Twenty-four village-homestead special settlements have been established in this district. The number of settlers is 172; the area allotted, 5,532 acres; the amount advanced for houses, £2,280. Rent and interest has been paid to the amount of £2,808; and the arrears on the 31st March were £362. The settlers generally are doing well.

### OTAGO DISTRICT.

The village-homestead special settlers in Otago number 107, and hold an area of 1,706, or an average of nearly 16 acres each. The amount advanced for houses, bush-felling, &c., was £1,383. Payments to the amount of £484 have been made for rent and interest; and the arrears amount to £44. The settlers generally are doing very well.

# SOUTHLAND DISTRICT.

In this district, sixty-five settlers hold 676 acres under village-homestead special-settlement conditions. £1,074 was advanced for houses, fencing bush-felling, &c. Rent and interest to the amount of £604 has been paid. The arrears on the 31st March were £49 14s. 1d., which will shortly be paid. The settlements would be far more prosperous than they are if a little attention could be given to the formation of roads; especially is this the case at Seaward Bush, where some of the settlers have not access to their sections, and are thus unable to dispose of the timber on the land. The settlers generally, however, are doing well. I was interested in a case of a selector who is over sixty years of age, single, and holds 14 acres of land. He told me that he was advised not to take up any land, but to apply for admission to the Old Men's Home. He, however, had courage, and was determined to try and do his best, with the result that he is able to maintain himself, and is doing fairly well. Under the village-homestead system others may go and do likewise.

J. E. MARCH, Superintendent of Village Settlements.

## AUCKLAND.

Fourteen sections, containing 670 acres, have been relinquished or abandoned during the past year. Twelve village settlers have added 1,543 acres to their present holdings; and four past village settlers have selected 332 acres under ordinary settlement conditions, and one of them has taken up 270 acres under the homestead system; making a total of 602 acres; whilst eight abandoned village sections, containing 379 acres, have been selected by six outsiders on ordinary settlement conditions. Two sections—each 50 acres—in the Parnell endowment, Punakitere, were selected under the amended village-settlement regulations by the sons of a village settler. Stock has increased in all the settlements, the numbers now being 318 horses, 605 cows, 535 calves, 62 working-bullocks, 963 sheep, 440 pigs, and 2,462 head of poultry. The amount advanced for the nine months was £388 13s. 9d. This sum does not equal the amount of improvements, as many settlers have not drawn advances, although they have improved their holdings considerably. At Te Aroha, for instance, no advance was made or solicited beyond £20 for a dwelling-house. During the period considerable progress has been made, especially in fencing, ditching, and outbuildings, the weak point being cultivation. This, with the majority of village settlers, is effected by spade-work, and is consequently slow and limited. A noticeable characteristic of the village settler is his eagerness to acquire more land. All the unallotted and forfeited sections worth having have been taken up in most of the settlements, especially in those south of the Bay of Islands. There is less demand for sections in the northern settlement, owing to the almost entire absence of roads, the want of which is deeply felt in winter. In conclusion, I may say the progress made is very satisfactory.

Number of Horses, Cows, Calves, Pigs, Poultry, Sheep, and Working-bullocks, with Chains of Fencing, in various Village Settlements; also, Number of Women, Children, Acres in Grass, and Approximate Area in Gardens, Orchard, &c., to 31st March, 1892.

Name of Settlement.	Horses.	Cows.	Sheep.	Pigs.	Poultry.	Calves.	Chains of Fencing.	Working- bullocks.	Number of Women.	Number of Children.	Acres in Grass.	Acres in Garden and Orchard.
Whananaki  Motukaraka Omaha Te Aroha Komokorau Firewood Creek Karaka Swanson and Waitakerei Waimamaku Fern Flat Hukerenui Motatau Pataua Herekino Takahue Punakitere	25 11 10 32 3 16 2 5 18 11 64 21 13 46 18 23	40 56 49 87 6 37 9 11 28 6 103 19 24 57 13 60	31 6 360   115  16  294 141	34 25 13 50 3 1 1 8 8 9 59 9 4 161 24 31	175 166 229 428 50 53 30 176 240 53 272 79 21 361 22 107	49 45 31 54 5 21 6 7 26 6 81 20 33 77 13 61	422 603 492 736 78 140 115 142 70 71 618 125 236 306 114 383	7 8    5   41 1 	10 27 16 19 1 4 3 11 13 6 25 5 7 15 7	41 84 33 62 4 17 13 43 35 14 88 15 21 49 21 43	112 575 242 174 17 102 24 30 162 149 285 50 101 283 156 198	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

H. P. KAVANAGH, Village Steward.

### HAWKE'S BAY.

Woodville Village-homestead Special Settlement (Perpetual Lease), Block IV., Woodville Survey District.—This settlement was formed in June, 1887, and is situated on the main road, about one mile south of the Town of Woodville. Its extent was 112 acres, divided into lots varying from 1 acre near the road to 8 acres at the back. At the time of selection nearly the whole was covered with forest, the acre sections fronting the main road being the exception. In 1887, the settlers numbered twenty-nine, two of whom have since forfeited their selections, which have been disposed of under other systems, leaving twenty-seven as the present number of holdings, with a total of 102 acres. Of these, twelve are held by the original selectors, the balance by transferees. Rather over four years has elapsed since the land was taken up, and a flourishing settlement, with good houses, gardens, orchards, and grass paddocks, has taken the place of unproductive forest. It needs but a visit to become convinced of its success, and that it is in many respects a model settlement, fulfilling its intended purposes. Its proximity to Woodville, with its mills and other industries, has been greatly in its favour; although in several instances the head of the family works at bushfalling or roadwork some distance away, only coming home at the end of the week. As a proof of the industry of these people, the value of the improvements that have been put on the land during four years is between £3,000 and £4,000, of which only £793 15s. 9d. has been advanced by the Government. Whilst the whole of the twenty-seven settlers have done well, the following are, I think, the most noticeable: On Section 5—Good substantial house, outhouses, shelter-trees, garden, &c., of a value of about £250. Section 9—With a pretty little cottage and well-kept garden; improvements about £100. Section 29—A holding of 5 acres, land down in good grass, orchard, garden and good house; value of improvements, £200. Section 30—Orchard, garden, and substantial house, with 7 acre

Waipawa Small-farm Association (Deferred Payment), Block XIII., Norsewood Survey District.— This association, composed of thirty-three members, was formed in November, 1885, and selected on deferred payment 3,221 acres of the Umutaoroa Block, in the vicinity of Danevirke. Its location is most favourable, stretching as it does from the railway-station at Mangateroa back to the foot of the Ruahine Ranges. The land is more suitable for dairying and sheep than agriculture, being mainly a light soil, but carrying good grass. It was at the time of selection covered with forest. Six years have elapsed since the selection, and the present holdings number twenty-eight, two selectors having, by means of transfer, acquired a second section, and another a third, the largest holding in the settlement being 255 acres. Of the twenty-eight now in possession, nine are original selectors; the other nineteen are transferees. Six of the former, and one of the latter, have acquired the freehold. The weak point in the settlement is the number of non-residents, there being no less than seventeen out of twenty-eight holders. Six out of the seven who have acquired the

freehold are on the ground, so that six only of the twenty-four still holding on deferred payment are resident. Those living on their selections complained to me of the absenteeism, one of the reasons being that, owing to the population being so sparse, they are unable to get a school, and the children in some cases at the back are growing up untaught. Considerable improvements have been effected on the block. One-third is in grass, besides an additional 700 acres felled. Unfortunately, the last two seasons have been very bad for burns, which has been a great drawback to the settlers, not only in this locality, but throughout the district. There are fourteen dwellings of all shapes and sizes, ranging in value from £3 to £100, and a good deal of fencing. The total value of all the improvements made during the six years is £5,889—about £1 16s. 6d. an acre. Only one of the residents is in arrears with the improvements; but sixteen out of seventeen absentees are so, mainly on account of the double-improvement requirements, which I am insisting upon. There is not nearly the amount of stock that one would expect to find; but on inquiries I learnt that this is likely to be remedied during the coming year, as a number are going to put on sheep. The main road is gravelled. Altogether, of the thirteen miles of road which practically serves both, this and the Danevirke Settlement, seven miles are formed and gravelled, one mile is being formed, the remainder is felled, with road-track cleared, and in fair condition for bush-roads. On the whole, the settlement may be considered a success. The residents are apparently hard working and industrious, and the non-residents have made extensive improvements far beyond what would have been required had they lived on their selections, and none are in arrears with their payments.

lived on their selections, and none are in arrears with their payments.

Danevirke Small-farm Association (Deferred Payment), Block XIII., Norsewood Survey District.—
This settlement was formed in November, 1885, and is located near the township of the same name. Its situation was favourable on account of its proximity to the railway-line, its nearest point being about half a mile from Mangatera Station. It is level country, well watered, and was at the time of selection covered with forest. The association at the outset consisted of twenty-five members, who selected as many sections, comprising in all 1,900 acres. The results at the end of six years are very satisfactory, and the settlement must be considered an undoubted success. Five of the original twenty-five have acquired the freehold, four of whom are permanent residents, with good substantial residences. In a few cases settlers have acquired additional sections by transfer, so that the actual holdings at the present time are nineteen in number, twelve of whom are personally resident, and two others by substitutes. The houses, of which there are fourteen, are of a good class, with many excellent gardens, and young orchards, the whole surroundings suggestive of comfort and prosperity. Of the 1,900 acres in the settlement, more than half is in cultivation, and a further area felled, but not burnt, owing to the late bad burning seasons. The value of improvements effected is £4,350, an average of £2 5s. an acre on the total area of the settlement, including the unimproved lands. Only two of the selectors are in arrear with their payments, one of them having suffered lately through the burning-down of his house. This settlement is unquestionably a success, and has, I judge, fulfilled, if not exceeded, the most sanguine expectations, proving that, under ordinarily favourable conditions, moderate-sized areas can be advantageously and profitably occupied. It is gratifying to find that up to the present there is no tendency, either in this or the Waipawa Settleme

Commissioner of Crown Lands.

# APPENDIX No. 3.

### PLANTATIONS.

WAIRANGI, AUCKLAND.

The present state of the wattle portion of the plantation is decidedly favourable. All the trees are growing well and look very healthy, and in another year the whole area planted in wattle—379 acres—will be advanced enough to be thinned out and stripped. If extra labour had been employed last year half that area could have been thinned and stripped, and would have yielded on an average about a quarter of a ton to the acre. And this year the yield would have been much greater with the present labour employed had our labour been confined to stripping only, as clearing underscrub and pruning took up most of the time. The eucalyptus portion of the reserve, an area of about 500 acres, does not look very healthy, as every year, from November to the end of March, the trees are infested with green flying-grasshoppers, which eat off all the young leaves and shoots, and so permanently check their growth every year, though a large proportion of the trees range in height from 5ft. to 8ft. The general appearance of the oak-trees planted out on Section C (6,000 in number) is good, they all having made fair growth last summer, and a number of the trees average 3ft. to 5ft. in height. All the fencing erected round the reserve, which consists of seven wires and puriri posts, length about twelve miles, is in good order—as good as the day it was put up. The buildings are also in good order. Work completed for the past year is as follows: 1,020 Oregon pines (Abies douglasii) planted out 10ft. apart, holes dug 2ft. square, and ground cleared of scrub; 50 chains of boundary-fence lines cleared 4ft. wide; 120 chains fire-belts cleared round wattle boundaries, 12ft. wide; 13 acres of scrub cleared among wattles, and trees pruned and thinned; 24 acres of scrub cleared among eucalyptus; 4 acres of scrub cleared among young oaktrees, and trees hoed round; 7 acres cleared, ploughed, disc-harrowed, tine-harrowed, and brushed, sown with 2½ tons of bone-dust, and laid down in grass; 21 chains of temporary fencing pulled down,

and material stored; 4 acres cleared and ploughed, &c., and planted in wattle; 18 chains road made, with light cuttings, through wattle plantation; 42 chains ditching completed, thereby draining three small swamps; two culverts made across swamps; two gateways constructed and gates hung on main read in plantation. A large proportion of my time has been taken up in miscellaneous work, such as attending to Ranger duties, gathering wattle-seed, raising young trees, pruning trees, &c. I have also on the ground material for erecting a shed, 35ft. by 15ft., for drying the wattle-bark in. The timber consists chiefly of split material, which I procured from the Government bush.

N. Kensington, Nurseryman.

# PAPATAWA EXPERIMENTAL GARDENS.

[Extract from a Report to the Whangarei Council.]

Since the Whangarei County Council took over the Experimental Gardens, in October, 1890, Mr. Hislop has with the small means at his disposal succeeded in making several important changes which will greatly enhance the value of the institution, and tend to make it in a short time almost, if not altogether, self-supporting. Orders from all quarters are being received by each mail, and in almost every instance where trees were sent last year the orders are again repeated this season. A considerable amount of satisfaction is expressed at the quality of the peated this season. A considerable amount of satisfaction is expressed at the quality of the trees, and the careful manner in which they were packed, showing that the manager knows how to perform his duty. In this connection one very grave mistake has been made in the choice of a site too far removed from the port. The distance not only precludes those interested in the experiments from visiting and inspecting the gardens, but it also precludes the general public from acquiring a knowledge of the different plants grown there and their commercial value, as well as acquiring that taste so essential to those who take an interest in planting either for use or ornament. Another drawback to the present position is the cost of carriage, which in the planting season is considerable; also the difficulty in obtaining stable-manure, and distance from post-office, all of which tend to make the present site undesirable for future operations on an extended scale. Apart altogether from the choice of site is another question, and that is the selection of soil. The North Island being composed of clay and loam land in the proportion of 1,000 acres to one of volcanic (the pumice lands of Taupo, Upper Waikato, and Upper Wanganui district not included), experiments to naturalise and acclimatise plants should as far as possible be conducted on each of such soils. The principal fruit-growers of this district have been consulted on this matter, and they indorse this view. It will be for the Council to say whether the change shall be made or not. If the change is decided on I shall be prepared to offer suggestions which in my opinion will meet the case. The stock at present in the nursery consists of 64,500 conifers, 28,900 deciduous trees, 4,300 gums, and 4,300 fruit-trees, including imported American vines, and 2,600 sundries, making a total of 104,600 plants. The orders to date, accompanied by cash, amount to £33 9s. 11d., and this before the time has arrived for lifting trees. Application has been made to the manager for trees to be planted on "Arbor Day," which your committee has thought wise to encourage to the extent of, say, four or five thousand trees, assorted, freight and packing to be paid for by the applicants.

Suggestions.—That the Council or Government make arrangements with the Melanesian Mission Trust for a long lease of their reserve near the graveyard, Whangarei; that it will be necessary for the Government to subsidise the Council to the amount of £500 for a period of five years; that the works and expenditure be under the control of the Council, for the Government; that an elected Board of bona fide fruit-growers be formed to advise the Council on matters affecting them, and to indicate the direction in which, in their opinion, experiments should be made.

J. D. McKenzie.

## APPENDIX No. 4.

# DAIRYING.

MR. SAWERS'S REPORT.

THE following schedule will give the names and number of factories visited, viz.:-

Taranaki Provincial District.—Tikorangi Butter-factory, Banks's Farm Butter-factory, Reynolds and Co.'s Inglewood Butter-factory, Mr. E. Olson's Egmont Village Cheese-factory, Robbins and Pierard's Stratford Cheese-factory, Cardiff Co-operative Cheese-factory, Normanby Butter-factory, Eltham Butter-factory, Mr. J. C. George's Pungarehu Butter-factory, Mr. J. C. George's Opunake Cheese-factory, Mr. J. C. George's Otakeho Cheese-factory, Mr. J. C. George's Manaia Butter-factory, Mr. Breech's Butter-factory.

Auckland Provincial District.—Townley and Scales's Cook County Cheese-factory, Barron

Brothers' Cheese-factory, Ormond Cheese-factory

HAWKE'S BAY PROVINCIAL DISTRICT.—Woodville Cheese-factory.
Wellington Provincial District.—Okoia Cheese-factory.
Canterbury Provincial District.—Tai-Tapu Co-operative Butter-factory, Flaxton Butter-

Canterbury Provincial District.—Tai-Tapu Co-operative Butter-factory, Flaxton Butter-factory, Flemington Cheese-factory, Temuka Cheese-factory.

Otago Provincial District.—Waiareka Cheese-factory, Shag Valley Cheese-factory, Waikouaiti Cheese-factory, New Zealand Milk-supply Company's Butter- and Cheese-factory, Taieri and Peninsula Milk-supply Company's Dairy Factory, Messrs. J. and R. Cuddie's Mosgiel Butter-factory, Messrs. J. and R. Cuddie's Outram Creamery, Mr. William Heenan's Maungatua Cheese-factory, Cranley Cheese-factory, Henley Cheese-factory, Bruce Cheese-factory, Stirling Cheese-factory.

Southland Provincial District.—Wayte Brothers' Otama Bridge Cheese-factory, Mataura Cheese-factory, Edendale Butter- and Cheese-factory, Wyndham Cheese-factory, Mr. D. Doull's

Crescent Cheese-factory, Woodlands Cheese-factory, Waianiwa Cheese-factory, Waimatuku Cheese-

factory, Aparima Cheese-factory, Fairfax Cheese-factory.

I regret, through ill-health, during the month of December and part of January, not being able to give the desired attention to instruction at the factories. The work of ocular demonstration at the factories—which is of the utmost importance if we are to improve in the quality and uniformity of our productions—has developed several points of special importance, which will be referred to throughout this report. In the meantime this part of the work may be disposed of simply with the remark that as much work was done at the factories as time would permit. Outside the work of instruction at the factories much that has been done through correspondence cannot, of course, find its way into this report, being of interest only to the persons to whom answer has already been communicated.

A considerable territory has been visited during the year which I did not visit last year, and in many instances I found things in a bad state, involving some rather unpleasant work with the factory-managers and milk-suppliers. It is pleasing to note, however, a marked improvement in the majority of the factories visited during the two previous seasons—an improvement not only noticeable in the cleanliness of the factories, but in the quality of the goods manufactured. This statement is supported by communications received from several London and Glasgow dairy-produce brokers. In a letter under date the 18th March, 1892, Messrs. John McNairn and Co., 157, Ingram Street, Glasgow, write: "The quality of the factory cheese this year has been perfection. We have never seen finer New Zealand cheese, and if the same quality is kept up we shall always be able to get a price for it second to none." This statement deserves mention when it is known that a large portion of our best factory products from the South Island are handled by this firm. Again, London cables prove conclusively that our best New Zealand factory butter stands first of all Australasian manufacture. This is forcibly referred to in a London cable message published in New Zealand newspapers on the 26th February: "Butter is inactive. Inferior packing is proving deleterious to the colonial article, the favourite brands of New Zealand factory butter alone being the exception." Now, this cable alludes to Victorian and other Australian butter as New Zealand, but it certainly gives our factory butter the preference for superiority. Another London firm writes under date of the 30th March, "The continued irregularity of New Zealand dairy-produce, and the dishonest practices resorted to in branding, are barriers calculated seriously to interfere with the success of the colony's export trade. To-day I sold some splendid New Zealand factory butter at 126s. per hundredweight, while some consigned to me from a certain New Zealand firm under a factory brand, but which seemed to me to be only mixed butter, realised with difficulty 72s. per hundredweight. Perhaps this is the consignment you refer to in your note as having been bought in the colony for 2d. per pound." These statements are certainly very encouraging in so far as concerns the quality of our dairy-factory products. But it would seem from the "tricks of the trade," and the haphazard way it is thrown in the market with good, bad, and indifferent, that the whole system is very much like a lottery, as to which class of stuff the buyer gets hold of. From past experience, and from the above statement, the lesson to be learned is plainly this: that the shipping of farm-made butter, and that in the majority of cases jumbled together by grocers and others, and sent Home in boxes under a fictitious brand representing it to be New Zealand factory or creamery butter, is ruining our reputation in England, as it has done in Australia. The true solution of this difficulty would seem to me to lie in the expansion of the factory system, and by the enactment of competent legislation to protect such institutions when once established. The change of butter and cheese making from private dairies to public factories is a consummation highly to be desired, and it does not appear that the dairy-produce trade of the country will ever attain the sought-for commercial value until the factory system becomes more general. The business of co-operative dairying, even with its present difficulties, has shown, when followed with intelligence and good judgment on the part of the milk-suppliers and makers, to insure the farmers a good return for their labour. The returns for our best factory cheese from London and Glasgow during the past season have ranged from 56s. to 60s. per hundredweight. These prices, after allowing for railage, shipping, commission, and other charges, net at the factories  $4\frac{2}{4}$ d. to 5d. per pound. The price realised for our factory butter in London and Glasgow has ranged from 112s. to 136s. per hundredweight, netting at the factory  $9\frac{1}{2}$ d. to 10d. per pound.

The extent of our export transactions may be seen from an examination of the following table.

The figures certainly show that the industry is undergoing steady development:

EXPORT of BUTTER and CHEESE for 1891, and QUARTER ending 31st March, 1892, with corresponding Values for First Quarter, 1891.

			Year	1891.			
<b></b>					Cwt.		Value.
${f Butter} \ \dots$		• • •	• • •	• • •	39,430	• • •	£ $150,258$
Cheese	•••		•••	•••	39,770	•••	86,675
		Quarter e	ending 3.	Ist March	, 1892.		
Butter				•••	25,185		£96,842
Cheese		•••	•••		20,176		45,450
	Corr	responding	Values,	First Qu	arter, 1891.		
Butter	• • •		•••	• • •	• • •		$\pounds 57,998$
Cheese					•••		34,125

These figures show satisfactory progress, and speak well for the future outlook and steady growth of the industry; for as yet we can only say that dairy factories are a comparatively a new feature in our agricultural work.

The contest between the countries which are making a specialty of dairy-farming is every year becoming keener. In the fight for supremacy three factors, all of which are wholly within our own jurisdiction in New Zealand, can be made to bring the best of the trade to ourselves, In the competition for cheaper foods to sustain the great masses of wage-earners in manufacturing centres, the tendency is towards lower prices for several of the principal articles of diet. Our opposite seasons give us a good hold, in that we are only competitors when prices tend to rule highest. The economy which can be carried out in the cost of production, compared with our producing and commercial rivals, and especially in the manufacture of concentrated foods, is an item of the greatest The third factor which will enable us to win success and maintain our place in the foreign markets is that of producing and exporting only the best quality of goods, and of guarding with zealous care a reputation that all our dairy-products are genuine and pure. The protecting of our dairy factories in their desire to gain a reputation of exporting honest, pure, and fine dairy-products the only way to enable us to lay a sure foundation upon which to build up a trade of everincreasing dimensions with a certainty of continued profits. In fact, it would seem to me to be the very essence of commercial folly to allow the colony's name to be held so cheap as it has been during the past few years in the exportation of indifferent dairy-products, by neglecting to take steps to prevent it. Especially is this so when we know that such a step would not be costly to ourselves, and certainly not injurious to the consumers.

For the above reasons, and in view of the practices in vogue, I would suggest for your careful consideration the expediency of an enactment providing against frauds in the supplying of milk to dairy factories, and to prevent deception in the branding of dairy-products. In fact, any legislation having a tendency to stop the tampering with our dairy-products is of the utmost importance to both consumer and producer. It would have a beneficial effect in extending our export trade and in maintaining the confidence in the confidence of the products. It is acknown. ledged that large quantities of mixed farm-made butter have been exported under a brand representing it to be New Zealand factory or creamery butter. It is also alleged that a considerable quantity of factory cheese, made from milk from which a part of the cream is first extracted, has been shipped Home branded "New Zealand Full-cream Cheese," or without any designating mark to distinguish it other than "Full-cream Cheese." Surely such proceedings are exceedingly harmful to New Zealand dairy interests, and more especially as many of the dairy factories are only

emerging from heavy pecuniary difficulties.

For the purpose of obtaining information concerning the dairy interests of the colony, with a view of drawing together important facts thus obtained for the benefit of the department, over two hundred circulars were prepared, and mailed to proprietors of dairy factories and other persons

known to be in possession of information desired.

During the year many inquiries have come to this office seeking information regarding the establishment of cheese- and butter-factories, the style, size, cost of buildings and utensils required. These inquiries have been attended to, although perhaps not so fully as many thought desirable, considerable time being required in their preparation. To meet this want it is my intention to have plans of factory-buildings, with general information and suggestions, prepared. This will greatly expedite my work, and assist the department in the speedy circulation of the desired instructions.

In previous reports I have dwelt upon the importance of the formation of dairy associations in the advancement of the industry. The Middle Island Dairy Association has unquestionably already accomplished for the business a large amount of useful work, and gained for the factories concessions that could never have been obtained by individual effort. The weight and influence of an organization of this character as a medium for enabling factories and others interested to make a concentrated effort in demanding a recognition of their just rights is great, and ought to be a concentrated effort in demanding a recognition of their just rights is great, and ought to be appreciated by many who incline to give it the cold shoulder. By the pecuniary assistance rendered by the Government, the association has been able to carry out much desirable work. The work undertaken and accomplished by this body will be made known by a perusal of the annual report and balance-sheet of the committee, which will be furnished you at an early date. The annual meeting of the association is to be held on the 23rd June, and will take the form of a conference lasting probably two days.

An attempt was made during the year to form a similar association to watch and guard the interests of the industry in the North Island, but through want of desired support the project was As several factories are now being erected in the Wellington and Taranaki Provinces, another attempt will be made to establish an association for the North Island before the commencement of the shipping season. Through the increased number of factories it is expected sufficient support will be forthcoming. I would again commend for your consideration the desirability and need of encouraging the formation of dairy associations, under certain stipulations as to membership, &c., by grants-in-aid from the fiscal revenue of the colony, as is done in other advanced dairying countries. I feel sure that such aid given would be well laid out, and would not only prove

of general satisfaction to the public, but highly beneficial to the industry referred to.

I am not certain that the employment of peripatetic dairies would result in the good a few earnest advocates seem to think. After all, it would only result in the manufacture of thousands of small lots of different brands and qualities of butter and cheese, which cannot be said to be of any advantage in our export trade. Not only so, but if provision be made for the employment of two assistant instructors for the ensuing working season, any district, on application to the Department of Agriculture, can avail itself of their services. Butter- or cheese-making at private dairies is not to be commended in so far as New Zealand is concerned, the products having to be subjected to the vicissitudes of a long and risky homeward trip. Neither can I clearly see how a farmer can supply himself with proper buildings and a first-class manufacturing plant, and manufacture his products as cheaply at home as he can get it done at a factory. Of course, if it can be shown that

travelling dairies would have a greater tendency than itinerant instructors in convincing farmers of the benefits of the factory system, then by all means the former is worthy of support. What we want is more factories. I am not aware of Canada ever having employed peripatetic dairies, yet we find that over 99 per cent. of her cheese is manufactured in co-operative factories. The magnitude of Canada's cheese-production may be imagined when it is known that she supplies Great Britain with about one-third of her imports of that commodity. Chiefly because less than 3 per cent. of Canadian butter is manufactured in factories, she can only furnish to Great Britain less than 2 per cent. of all the butter she imports; and Great Britain imports in value about two and a half times more butter than cheese.

There seems yet to be a divided opinion expressed throughout the colony in reference to the grading of dairy-products at the port of departure. The advocates of such, in order to enforce their case, cite the system of grading in Ireland. During the year information bearing on this point has been procured from authentic sources. The opinion of my correspondents seems to be that the length of our voyage would make grading in the colony of little value, and in many cases the reverse of beneficial. There certainly is no analogy in the two cases. The Cork butter will retain its class when only subjected to a few days' test in transit, but, as in our case, a three months' test is quite a different thing. Butter or cheese might, and I venture to say would, be branded as first here, and when it reached Home would open out a bad second, or vice versa. What is wanted in our case is a strict branding enactment.

I would ask your consideration in dealing with the transit of the produce by rail, and provision for cool storage at the principal ports of shipment. A large quantity of good butter and cheese is every season considerably depreciated in value by its accumulation in hot stores, and by being subjected to high temperatures on wharves, sheds, and coastal steamers. The reduction of railway-freights to the lowest level, the providing of cool-trucks, the running of night trains where the quantity of produce will warrant such, and the providing of cool storage at the principal ports of departure, is the only cure for the evils above mentioned. I am of opinion that a sufficient quantity of butter and cheese will be forthcoming to warrant the running of a weekly night train from Taranaki during the ensuing season. If this be done many impediments with which the industry in this section has had to contend against will be cleared, and an impetus given to the trade.

section has had to contend against will be cleared, and an impetus given to the trade.

In future it is intended to issue through this department, at irregular intervals, bulletins containing information for those associated with dairy husbandry. These will be mailed to dairy-factory proprietors for distribution among their milk-suppliers. Their purpose will be to assist in the diffusion of information concerning the treatment and care of milk for factory purposes, and in the spread of useful information bearing upon dairying in general.

John Sawers, Dairy Instructor.

### Mr. Sorensen's Report.

My attention has been for the most part confined to the North Island, and to the butter-factories therein; but on my appointment I visited several districts in the South Island, and inspected the Waiareka Cheese-factory, Mosgiel Butter-factory and its branch creamery at Outram, the New Zealand Dairy Company's premises in Dunedin, and the Edendale Butter-factory. I also called at Mr. Saxelby's farm, at Roslyn Bush, Southland, where Stilton cheese is made, but was not invited to examine the dairy or the cheese. At twelve other places was I refused admittance—viz., Taratahi Cheese-factory (Wairarapa), and at Henry Reynolds and Co.'s factories in the Waikato District. From Edendale I went on to Invercargill, and had a long conversation with the Hon. J. G. Ward and his manager about the creamery which he proposes to build at the Bluff, adjoining his freezing-works. Although, from experience in Sweden, where the idea of collecting the cream instead of the whole milk was first adopted, I am not altogether in favour of the creamery system, where the endeavour is to produce the very finest quality of butter, yet, situated as Mr. Ward is, with an unlimited supply of ice, which could be supplied to the farmers in hot weather for the purpose of cooling the cream before sending it off, and with the capital necessary to work the undertaking on a very large scale, I can almost believe that the uniformity of quality thus attainable for an enormous bulk of produce would make compensation for the slight sacrifice in quality which the creamery system must and does entail. In any scheme of the kind, however, I would urgently recommend that the suppliers be given Lawrence coolers gratis; otherwise endless difficulties with the cream will arise. I may here mention that it was Mr. Ward's intention not to have central creameries for the common use of farmers in each district, but that each farmer should separate his own milk by the aid of a hand- or horse-power separator.

should separate his own milk by the aid of a hand- or horse-power separator.

Before describing my efforts amongst the North Island factories, I would like to say a word about the Edendale and Mosgiel Butter-factories. Of the two (although comparisons are odious) I prefer the equipment of the former; but possibly it may be owing to prejudice on my part, for at Edendale the churns and butter-worker are of Danish construction, to which I am exceedingly partial. The reason is, that the Danish vertical churn has the following advantages over the ordinary box-churn as used in New Zealand: (1) The Danish (or Holstein) churn churns in less time without causing any undue increase in temperature of the cream; (2) owing to its conical construction, there is less danger of overworking the butter; (3) the action of the beater, though rapid, is less violent and less injurious to the butter when it has "come" than the motion of the box-churn; (4) there is no vent-hole in the Danish churn of uncleanable construction; (5) the state of the cream can be seen at any moment without stopping the churn, nor is the manager dependent upon sound; (6) a thermometer can be inserted in the Danish churn, showing the temperature of the cream, without having to stop the churn; (7) last, but not least, it is far more easily cleaned than a box-churn; indeed, I will venture to state that I have not yet seen the box-churn which can be properly cleaned and aired. The Danish-made butter-worker I prefer to the construction in use at Mosgiel and many other factories, because the action of the former has more

direct pressure and less friction than the latter. Instead of two rollers with very shallow flutes, I would recommend the Danish principle of one roller with deep but not spiral flutes. workers I have seen in factories as well as private dairies do far more harm than good, breaking the grain, and making the butter become mere grease. At the factories where they are At the factories where they are used I have urged upon the managers and directors to shelve them and obtain a better construction. However, the Edendale and Mosgiel factories deserve the credit of turning out the best butter which New Zealand exports, and if every factory in the colony came up to their standard there would be little need for Government experts.

I next visited the Flaxton and Sefton factories. The former, being built of red brick, should be whitewashed if not already done. The heat here caused great difficulties. The factory is to be

taken over by the farmers next season.

My next trip was to the Waikato, but here the majority of the factories belong to Messrs. Reynolds and Co., by whom I was refused admittance. Messrs. Lang Brothers, Clevedon, Wairoa South, accorded me a very different welcome, and only complained that their request for the services of the Government expert had been so long neglected. This is the only factory I have come across in New Zealand where ice is bought at the excessive—indeed, prohibitive—price of 1d. per pound, or £9 per ton f.o.b. Auckland. Why should ice cost so much here when artificial ice can be obtained in Denmark at £1 per ton, and natural ice can be imported to Great Britain and sold c.i.f. at such ports as Leith, Hull, or Newcastle for £4 per ton? Yet this has been sawn on the mountain-lakes of Norway, slid down into the ship's hold on long wooden slides, and come a distance of three or

four hundred miles by sea.

I visited several of the butter- and cheese-factories in Taranaki, and regret to say that one or two of them are a disgrace to the colony in the matter of equipment and management, and the produce turned out is not fit to bear the appellation of factory-made. And this brings me to, perhaps, the most important point which has come under my notice—viz., the branding of dairy-made butter as "New Zealand Factory Butter." Several unscrupulous shippers collect all the dairy-made butter they can lay hands on at prices varying from 4d. to 7d. per pound. This is taken to what butter they can lay hands on at prices varying from 4d. to 7d. per pound. This is taken to what they dignify by the name of a factory, placed on a butter-worker, blended into a quality of uniform colour and texture, or, rather, want of texture, packed in nice-looking kegs or boxes, branded "—— Factory Butter," "Separator-made," or with similar false and misleading terms, whereupon it is sent Home to throw disgrace on the name of New Zealand shippers, and prejudice English shippers against New Zealand butter. If there is any proceeding calculated to depress and seriously injure the dairy industry, it is this false branding. Most people imagine that the remedy consists in establishing a system of grading at the various ports of shipment; but to this I am utterly opposed for many reasons. In the first place, our ports of shipment are so numerous that the establishment of grading chambers, with cool storage and the appointment of experts that the establishment of grading-chambers with cool storage, and the appointment of experts, would entail a very heavy expenditure; for unless really good experts are obtained the system would be worse than useless, and good experts cannot be obtained without offering a good salary. Secondly, as a shipper, I would very strongly object to having my boxes knocked about, lids broken, and to have my butter riddled with experts' "triers," and subjected to the danger of a tainted trier being inserted, to sow the seeds of decay and rottenness. Thirdly, grading prior to a six-weeks voyage would be of no value in guiding the English buyers. Even Cork butter, which is graded within a week of its arrival in London, is regarded with great wariness by the London buyers. It is frequently asserted that the reputation of Danish butter is due to the system of grading adopted by the Government of that country; but I would like to point out, for the benefit of those ill-informed advocates of "grading at the port of shipment," that there is no such thing as Government grading in any port of Denmark. The well-deserved reputation of Danish butter is mainly owing to the fact that every factory, co-operative or private, maintains such close uniformity in its produce from week to week that it is sold entirely on brand, and is seldom or never seen by the buyer before purchase. And it is in this way only that New Zealand can build up as good a reputation for her cheese and butter. But this false branding bids fair to prevent the fulfilment of the desired end. The longer it is allowed to proceed the wider will its evil effects be felt, the harder will it be to stamp it out. The remedy I would propose is something on the following lines: (1.) Every factory should have a registered brand or trade-mark. (2.) A list of such trade-marks to be kept at each port of shipment, and no butter or cheese to be shipped without being branded. (3.) The person appointed to keep the register at each port shall fill up a fortnightly list of the quantity of butter shipped under each trade-mark, and forward the same to the Chief Dairy Instructor. (4.) The Instructor shall have authority to examine the books of every factory with a view to ascertain the quantity of milk supplied during any given period, whereupon he will be able to detect any discrepancies between the amount of milk supplied and the butter exported under any one brand. Some such scheme—with, of course, a good deal of modification and the insertion of many details would, I think, answer the question, and I leave it to the Legislature to clothe my suggestion with the necessary words.

On the west coast of the South Island, at Totara Flat, a butter-factory for local supply only shortly appear. The farmers have guaranteed the produce of four hundred cows, and have taken up a share of £2 10s. for each cow guaranteed, of which about £2 will be called up. end of three years the capital will be returned to the shareholders, with interest, the amount being deducted from the profits—that is, the price of the milk. A valuation of the factory will then take place, and the suppliers will thereupon receive nominal shares in the factory pro rata to the amount paid to them for their milk since the commencement of the factory. The general principles adopted are those set forth in the pamphlet on co-operative dairying written by myself, and published by the Government. They are those in general use in over two thousand factories in Denmark. Here I would remark that if it were not for the difficulty the small farmers experience in obtaining the necessary money to start factories, we should have seen factories in many districts

where not yet existing and most needed. Of course, they can borrow two-thirds of the money required at bank rates; but they have not the facility afforded them in Denmark of borrowing the whole amount at the low rate of 4 per cent. per annum from the Government under special provisions. visions. The idea of a bonus is like locking the stable-door when the horse is stolen; it is before the factory is started, not afterwards, that the money is requisite. The factory once built, the industry is good enough to stand firmly on its own legs, and grow rapidly too, without the false impetus, the hothouse nursing, of the bonus system. Before adopting such a dangerous policy, would it not be wise to wait another year, and watch, not the effects of the bonus, but the consequences of its stoppage, in Victoria? The effects, we know, of the Victorian bonus are, briefly, a very rapid growth of the industry; but we also know that rapid growth is generally attended by a reaction and breaking-down of the overtaxed powers. The bonus system has not been sufficiently long in existence in Victoria to enable us to see what shape the reaction will assume. Mr. Wilson, the Victorian Government expert, remarks that for an expenditure of £50,000 of the taxpayers' money the farmers draw into Victoria £250,000 of British money. This view is too absurd to criticize; besides, the leading agricultural papers, whose editors understand the subject, have already done so.

If the Government are really anxious to benefit the industry, as every one admits is the case, the most useful and the most profitable way to the public in general, as well as to the dairy-farmers in particular, would be to establish a dairy school, where young men can learn everything about milk, butter, and cheese, from the milking of a cow to the selling of the "finished product." Lately I have been asked, "Where can I send my son to learn dairying?" or, "If we start a factory, where can we get a good manager?" Both of these questions could be answered satisfactorily if a Government dairy school existed. At present, however, they cannot.

I would request that the duty on all goods for use in butter- or cheese-factories, or for the carriage of butter, milk, and dairy-produce of all kinds, not already rendered duty-free, be withdrawn. Such

articles as parchment-paper, now being used very largely for butter-boxes (liable to a duty of 5s. per hundredweight), butter-casks in the rough of other material than oak (liable to a 15-per-cent. ad valorem duty), and butter-tins (25 per cent.), are large items in many factories' accounts, and

several people have asked me to mention the matter to the Government.

In closing my report, and my engagement with the Government, I may say that, so great is my faith in the future of the dairy industry of this colony, I intend to start one or more factories next season in connection with a London firm of produce brokers, and would gladly see many others follow my example and go in for dairying, because there is no danger of flooding the London, Liverpool, and Glasgow markets, and because the more important the industry the sooner will the difficulties at present in our way disappear under the combined action of those engaged in what will most assuredly prove before the end of this century New Zealand's greatest industry.

CARL W. SORENSEN.

### APPENDIX No. 5.

#### FRUIT.

## MR. HANLON'S REPORT.

I began my work in January by endeavouring to encourage orchardists to make shipments of apples and pears to the London market, in order to aid in developing the export of fruit. I visited many of the growers in the Whangarei, and also a number in the Auckland district. In talking the matter over, I found most of them very timid about venturing on shipments, owing to the high rates of freight and other charges. The general feeling was the rather selfish one of waiting to see how their fellow-growers fared during the present experimental stage of this young industry, when the probability of loss is most prominently present. However, my efforts were so far successful as to induce a number of growers to forward small consignments. Some twelve orchardists in the Whangarei district combined, and forwarded seven hundred cases during the season. The consignments consisted chiefly of apples, but also comprised a few cases of pears and grapes. land, fruit-growers who had shipped in previous seasons sent larger consignments; and I noticed some new shippers whom I had visited sending fruit to London per s.s. "Tainui" while I was superintending the shipments by that vessel; but I have no data as to how successful my endeavours were to promote shipments from that district. When the details of the result of this season's shipments come to hand I purpose furnishing a report on the subject to the Minister of Agriculture.

Secondly, with a view of ascertaining how the fruit is at present conveyed to London, and considering whether any improvements could be suggested, I came down with a consignment of 330 cases from Whangarei for London per s.s. "Tainui," and superintended the shipment of all the fruit by that vessel and the s.s. "Duke of Westminster." I came down to Wellington in the former, and watched the regulation of the temperature in the cool-chambers. My observations and suggestions on this subject are embodied in my special report to the Minister of Agriculture on apples exported by s.s. "Tainui." Shortly after my arrival in Wellington a proposed Order in Council to admit certain specified vine-cuttings was brought under my notice. On reading up the records it was very evident that the proposed Order in Council had been drawn up in misconception of the desires of many who had written to the department on the subject. As they evidently desired to import a number of varieties of wine-grapes (whereas the proposal was to permit the importation of several species of American vines that resist the phylloxera, and are used as stocks only), I therefore drew up a memorandum to the Minister of Agriculture, pointing out how dangerous it would be to permit free importation of vines or vine-cuttings, while at the same

time it was most desirable, in view of the many settlers in the colony who in their native land had been accustomed to vine-culture, and who, if they could obtain the right varieties, would engage in that important industry here, that a collection of the best wine-grapes should be grown in the colony. I therefore suggested that the Government should import under proper precautions, and cultivate at an experimental station, a collection of the best wine-grapes, to be obtained from reliable sources, free from phylloxera and other disease. My suggestions have met with the Minister's approval, and for fuller particulars thereof I beg to refer you to my memorandum.

During the latter half of March I made a tour through the Manawatu and Wairarapa districts for the purpose of ascertaining the condition of the fruit industry there. In the new settlements along the Manawatu Railway Company's line I found much interest manifested by the settlers in fruit-culture, and numerous young orchards planted, and others were preparing to plant as soon as the land can be cleared. The climate along the coast is mild and well adapted to fruit-culture; but shelter from the seaward winds must be provided. In Wairarapa I found fruit culture, on the whole, much neglected. Here and there might be found a well-cared-for orchard, which made its owner profitable returns; but they were the exception, and the rule was, neglected orchards overrun with pests. The small settlers in the Wairarapa certainly want wakening up to the knowledge of the money there is in fruit-growing when properly attended to; but not more so than do the settlers in the Hutt Valley, which, owing to its being the only piece of arable land in close proximity to Wellington, one would expect to find almost a continuous stretch of orchard and market-garden. Instead, the cared-for profitable orchards might be counted on one's fingers, and vegetable-culture is almost abandoned to a few Chinese, and the land at the same time provides grazing for a few cows—land which, under a proper system of petite culture, could easily be made to yield ten or twenty times the present return made from it.

The matter of greatest importance to the fruit industry that has come under my notice is the want of a properly-equipped horticultural experimental station, at which all subjects bearing on profitable fruit-culture should be carefully studied, and practical results aimed at, for the benefit of the colony. The following would form some of the objects of such an experimental station: The growth of a comprehensive collection of fruits, embracing not only apples, pears, and stone-fruits, but likewise citrus fruits, olives, grape-vines, both table- and wine-grapes, small fruits, other fruits not commonly grown, but which present possibilities of profitable culture. All promising new fruits should be imported and their value for this colony be ascertained. Records of the mising new fruits should be imported, and their value for this colony be ascertained. Records of the behaviour of each variety should be made from season to season: this, in time, will form a most valuable record of the commercial value of the variety. As in the American experimental stations, the head station would from time to time make arrangements with reliable persons to test varieties in their districts, and thus a mass of valuable information on that matter would be ascertained at

little expense.

The nomenclature of our fruits is in great confusion, and causes no small loss to our orchardists. The loss occurs in this way: A man makes up his mind to go into fruit-culture, and he visits some orchards in the district where he intends to settle, and, finding certain varieties doing exceedingly well, he wisely determines to plant largely of that variety or varieties, and he orders from the nurseryman several hundred trees, perhaps, of those choice and profitable kinds. He plants and culnurseryman several nundred trees, pernaps, of those choice and profitable kinds. He plants and cultivates carefully, and in three or four years his trees begin to bear; when he finds, to his great disappointment and loss, the variety is something quite different to what he expected, and, probably, in comparison, nearly worthless. I write feelingly on this matter, as time after time have I experienced this loss and I think every orchardist in the colony who grows a few acres of fruit can bear me out in this matter. Owing to the confusion at present existing in the names of our fruits, there is hardly any dependence to be placed on getting kinds true to name. The standard collection at the head experimental station would in a short time do much towards putting this matter of the real experimental station would in a short time do much towards putting this matter of the real experimental station would in a short time do much towards putting this matter of the real experimental station would in a short time do much towards putting this matter of the real experimental station would in a short time do much towards putting this matter. ting this matter straight, and be very valuable as a reference by which the names of doubtful origin might be verified by comparing the fruit with that on the standard trees. Scions in limited quantity would be available for nurserymen and others desiring them.

When the experimental station is established, the importation of cuttings, trees, or fruits from countries where pests exist, and from which this colony is at present free, should be prohibited, except such importations of new varieties as the Government might make from time to time, under proper quarantine precautions. This is of the greatest importance, as, although we suffer from a number of troublesome pests, yet there are a great many more, and very serious pests too, in other countries, from which this colony is at present free—for instance, the dreaded "peach yellows" of the Eastern States of America, a most infectious and fatal disease, from which a tree once attacked has never been known to recover; it has done millions of dollars' worth of damage to the peach-growing industry there. Then, there is the curculio weevil, which destroys the plum, apricot, and nectarine crops in the United States; also, a borer insect which ruins many peachtrees, and quite a large number of destructive scale-insects, which do great damage not only to the orange and lemon, but also to all deciduous fruits. In Australia there are also many destructive insects from which this colony is at present free—for instance, the curve-winged apple-moth, appletree borer beetle, apple-root borer, the apple beetle, the Rutherglen fly, cherry-borer, &c. I consider an immediate effort to protect the colony from the importation of any more pests is of great importance to the fruit industry. The work of the experimental station would have a large field of usefulness before it in the experimental study of stocks. The most profitable stocks on which to grow the many varieties of fruit is a subject which has as yet received but small attention, but which offers a large field of investigation. The insect and fungus enemies of our fruit trees and vines call for more effectual, cheaper, and more easily-applied remedies than we at present possess: experiments in this direction would form no inconsiderable part of the station's work. The study of the life-history, and means of destruction of any other noxious pests that may from time to time appear; the effects of various manures, varied styles of pruning, and methods of preserving various

fruits;—these and other subjects of study and experiment would all come within the sphere of usefulness of a well-regulated horticultural experimental station.

Another matter which has come under my notice is the want of typical collections of the different varieties of fruit grown in the colony, modelled and coloured to nature, in order to enable

the fruit-growers to arrive at some correct system of nomenclature.

In conclusion, I may say the recognition of horticultural interests by the Government has already created considerable interest, as manifested by the number of visitors bent on inquiry, and the letters seeking information that are coming in; and it not only has the effect of assuring the fruit-growers of the appreciation of their wants as a class by our public men, but also of securing to them many beneficial results in the near future.

L. Hanlon, Pomologist.

## APPENDIX No. 6.

#### ROTORUA SANATORIUM.

REPORT OF THE OVERSEER OF WORKS.

THE grounds of the sanatorium reserve have been further improved by the extension of the clearing, the formation of new paths, the planting of about five hundred young trees, the sowing in grass of about 10 acres of ground (which, however, I must say was not very successful), the construction of two arbors, and other small works calculated to beautify the grounds and improve the appearance of the place.

The bath-accommodation has been improved by the erection of a shed over the "Pain-killer" Bath, the transformation of some of the private Priest Baths into two rooms on each side (ladies and gentlemen) for packs, also the erection (now going on) of six more dressing-rooms and a douche room on the gentlemen's side of Priest Bath, besides other small alterations and works calculated to

improve the accommodation of bathers.

The baths have been very well patronised during the past twelve months, the total number taken being 17,521, and the cash received £277 13s., thus showing an increase of 6,923 baths, and £50 11s. in cash, over the previous year. The number of hospital patients' baths was 5,112, which (at twenty-five baths for 10s.) represent another £25 14s. 9d. This may be considered as very satisfactory, as there was no special reason for such marked increase. The special tourists' train running during the summer months has certainly contributed towards the increase; but the excessive weariness of the journey (135 miles by train and thirty-six miles by coach in one day) is such that no invalid cares to undertake except under absolute necessity. We must therefore look to the great reputation which this place is slowly but surely earning for itself as the great sanatorium of the Australian Colonies as the real cause of this increased patronage; and when the railway is completed to Rotorua we may fairly look to an increase of ten times the number of baths, for which preparation should be made in good time; but I feel somewhat reluctant in recommending small detached works here and there, as I should like to see a well-devised and matured plan adopted whereby the whole could eventually be concentrated into one large model therapeutic thermal establishment, furnished with all modern appliances, which should be a credit to and the pride of the colony, and form one of its greatest attractions and a source of direct and indirect revenue. Having, however, already written two reports on this subject, I can only again urge the matter for the serious consideration of the Government, hoping that they may see their way clear to undertake it at an early date. If, however, there is no prospect of the general scheme above referred to being undertaken at an early date, the reconstruction of the sulphur-vapour bath and improvement to the galvanic bath will be necessary before next season. I forward estimates of works recommended for execution.

The number of visitors registered at the hotels, boarding- and lodging-houses, &c., during the year is 2,885, or an increase of 295 on the previous year's return. This number is, however, only approximately correct, as several houses keep no records. Many of those visiting the place make but a very short stay, but, on the other hand, we have some who come regularly every year, and stay from two to four months in the place, and, if we could only afford to provide some kind of sociable entertainment and amusement, there is no doubt that the stay of visitors would be greatly increased, as town people feel the time very tedious after they have once visited the different sights of the district.

The cost of boarding and lodging naturally varies very much in the different houses, being from £3 10s. to £2 2s. per week in hotels, from £2 2s. to £1 5s. in boarding-houses, and a few cottages (two to four rooms) can be rented at from 7s. to 10s. per week; to any one thus living in cottages or tents the actual cost of living would be from 10s. to 15s. per week.

As to the baths, they are much cheaper than the same class of baths in any part of Europe, being as follow: Sulphur-vapour, packs, and galvanic baths, 1s. each; ordinary immersion bath, with hot douche and cold shower, 6d. each; or course of twenty-five baths, 10s.: in all cases

towels and linen are included.

Re waterworks: Everything is in good working-order; but, as there is a continual increase in the demand for water, I think it would be advisable to construct a good-sized concrete catch-pit, at a cost of about £60, at the head of the pipes, as at present, owing to the small capacity of the tank, it is almost impossible to keep the silt and floating dirt from finding its way into the pipe. The number of fountains, baths, houses, &c., now being supplied is forty-three.

With regard to volcanoes, springs, &c., there have been no important changes or disturbances during the past year. Ngawhas have spurted up for a few minutes here and there, and then re-

sumed their normal state. We have also had very few earthquakes or tremors during the year, and the disturbances reported from the Taupo volcanic district in January last did not in any way affect our springs, &c., thus showing a marked difference from those taking place at Tarawera, which usually influence the springs, &c., about Rotorua. The works I undertook at the Great Pohutu Geyser in 1888, and again in 1890, to cause it to play more regularly, having been disturbed, it has again resumed its irregularity, and sometimes it is several weeks without being in eruption. The cost of putting it right again would not be much, but, owing to the want of proper control over the Natives, who interfere with the works, I do not think it would be advisable to do any work there at present.

The experimental works at Waikite, to accelerate the terrace formation of that place, are making very good progress, but it would require constant supervision and care to make it the success

which it certainly deserves.

The artificial geyser in the sanatorium grounds is still active, and, having it pretty well under control, I occasionally fix it so as to play 25ft. to 40ft. high, when it is a great source of attraction and wonder to visitors.

C. Malfroy, Overseer of Works.

### APPENDIX No. 7.

EXTRACTS FROM REPORTS OF THE CHIEF SURVEYORS IN CHARGE OF DISTRICTS FOR THE NINE MONTHS ENDING THE 31st MARCH, 1892.

## AUCKLAND.

Triangulation.—The work under this head has been small, having only an area of 9,463 acres, costing £36 4s., or a mean of 0.9d. per acre. The work has been done for the purpose of checking and connecting section surveys by Messrs. H. D. M. Haszard in the Piako and Hapuakohe Survey Districts, and W. J. Wheeler in the Kaeo Survey District. Mr. F. Simpson has also some ten square miles completed in the field, but diagrams are not yet in.

Rural Sections.—Under this heading the return for the nine months has been very large, having a total area of 137,504 acres, costing £7,570 3s. 8d., or a mean of 1·1s. per acre, which may be considered as a low cost, considering that nearly all the work has been in heavy forest and broken country. Of the total area just mentioned, the staff has surveyed 111,814 acres, at a cost of £5,864 15s. 5d., or a mean of 1s. per acre; whilst authorised surveyors, at schedule rates, have surveyed 25,690 acres, at a cost of £1,705 8s. 3d., or a mean of 1·3s. per acre. Analysing the work done by authorised surveyors, we find 22,237 acres surveyed of land taken up as "unsurveyed," the cost being deposited by applicants. These amounted to a total cost of £1,317 4s. 9d. Then, in the isolated districts north of Auckland, &c., we have 2,206 acres surveyed at schedule rates, at a cost of £269 3s. 6d.; and finally, under the homestead clauses of the Land Act, there have been 1,247 acres surveyed, costing £119: the total of 137,600 acres giving a mean area for each section of 236 acres. I may here mention that I regret losing, by transfer to the Wellington District, the services of Mr. J. McKay, an energetic and painstaking surveyor. Rural Sections.—Under this heading the return for the nine months has been very large,

Town Section Survey.—Under this heading no work practically has been done; but the standard survey of the City of Auckland and suburbs, begun by the late Mr. Edgecumbe, has been the standard survey of the City of Auckland and suburbs, begun by the late Mr. Edgecumbe, has been standard sheets prepared. This

completed and mapped by Mr. H. A. Warner, and some sixteen standard sheets prepared. This will be lithographed shortly for use of city surveyors, &c.

Native Land Court Surveys.—The work completed under this heading has been for Native Land Court and Purchase surveys; also for the purpose of issuing Crown grants to Natives, the costs of which have been defrayed or advanced by Government. The grand total is 268,653 acres, costing £2,981 17s. 11d., or a mean cost of 0.2s. per acre. Of this, the staff surveyed 23,095 acres, of which 20,332 acres, costing £378, were for the purpose of issuing Native grants in the parish of Matata. The principal surveys for which cost has been advanced being in the Rohepotae, known as the King-country, the Oamaru Block subdivisions, near Opotiki, and the subdivisions of the Harataunga Block, Hauraki Mining District. In addition to the above, authorised surveyors have surveyed an area of 28,996 acres in some twenty blocks, the cost of which has been paid by the Native owners under private arrangement or at schedule rates, giving a grand total of Native Land Court surveys containing 297,649 acres. The examination, recording, tracing, and comparing these blocks with the orders of Court is a severe tax upon the office staff, and is one which the

public generally are not cognisant of.

Gold-mining Surveys.—Under this heading there has been a great falling-off of work owing to a depression hanging over the mining industry. Only thirty-four sections, containing 819 acres, have been received and recorded during the nine months; these cost £392 14s. 10d., or a mean of 9.6s. per acre. Mr. Baber has laid out some business sites for the Warden at Waihi, but they

have not as yet been mapped.

Roads, Railways, and Water-races.—The staff has surveyed some fifty-two miles of roads exclusive of roads surveyed for section surveys. These have cost £573 6s. 9d., or a mean of £11 per mile. They have been surveyed either under rights reserved through Native lands, in "taking" roads under the Public Works Act, or in surveying roads to give access to land about to be subdivided. The sum of £15 is set down under this head, being Mr. Philips's expenses incurred by the Akaaka Natives pulling down a trig. station and obstructing him in the section work, for which the principal offenders were severely punished by the Supreme Court.

Other Work.—A total expenditure of £671 17s. is entered under this head, and comprises inspection of Native Land Court surveys, reporting upon timber, also reporting upon improvements for Ranger, &c.

Land Transfer.—The draughtsman (Mr. Foster) in charge of this work has examined and

submitted to me for approval some ninety-one plans, comprising 345 subdivisions, and containing an

Work for Ensuing Season. - The thirty-one staff and authorised surveyors now shown on my monthly report have in hand in process of survey 121,577 acres, being 95,000 acres in the hands of the staff, and 26,577 acres in the hands of authorised surveyors at schedule rates, any triangulation undertaken being simply for the purpose of connection and check upon section-work in progress. I have still in my work-book some 60,000 acres, in sections averaging under 200 acres,

which I have not yet placed in the hands of surveyors.

Office-work.—Owing to the illness of several draughtsmen, and also owing to the large number of extra field surveyors employed, whilst the draughting staff has been less than last year, the work has involved continuous and heavy strain upon the office staff, which has been cheerfully met. There are no arrears of county maps, as every county has now been compiled and drawn. I am anxiously awaiting the photolithographs of Taupo East and Rotorua Counties sent to the Head Office for that purpose. The Crown grant branch shows a total of 550 separate titles under various tenures, comprising 1,518 marginal plans, containing an area of 459,084 acres 2 roods 37 perches, and costing for draughting £168.

General.—During the past year I have had occasion to personally examine the greater part of

my district north of Auckland, as well as seven of the fourteen counties to the south and east of it.

The remainder of my district I trust I shall have an opportunity of inspecting in the ensuing year.

I am pleased to be again able to record my appreciation of the hearty services rendered by the officers of the department, and the Chief Draughtsman, Mr. Kensington, especially deserves honourable mention for the way he seconded my efforts both within and outside office-hours to bring and keep our large correspondence and general office-work well up to date.

GERHARD MUELLER, Chief Surveyor.

#### TARANAKI.

Minor Triangulation without Topography.—To govern sectional work a few of the larger triangles have been "broken down," covering an area of 28,876 acres—viz., 12,000 acres by Mr. Skeet in the Upper Waitara and Mimi Districts, at a cost of 1.4d.; 9,760 acres by Mr. Dalziell in the Huiroa District, at a cost of 0.87d.; and 7,116 acres by Mr. Buckeridge in the Ngaere District, at a cost of 0.57d. per acre.

Topographical Survey for selection under "The Land Act, 1887," including Grading of Roads. The blocks under this heading are—one in the Kapara and Opaku Districts, containing about 29,000 acres, which is being prepared by Mr. John Annabell on contract, and which he expects to have completed in the field about the end of April; and Mr. Skeet has prepared, by surveying roads and traversing streams, a block of 4,090 acres situate in the Egmont Survey District, about three

miles west of Midhirst, for selection by naval and military settlers under the Act of 1891.

Rural and Suburban.—Mr. Dalziell has subdivided 7,226 acres in the Huiroa District into sixteen sections, the areas ranging from 207 to 1,070 acres, at a cost of 9d. per acre, which I think is exceedingly low for work of this nature; and Mr. Buckeridge has subdivided the Mangamingi and Mangaehu Blocks, in the Ngaere and Omona Districts, containing 8,433 acres, into forty-four sections, ranging in area from 75 to 438 acres, at a cost of 1.88s. per acre. It should be mentioned that this work necessitated the resurvey of thirteen miles of old boundaries at a cost of £162, which necessarily increased both the cost and time of survey.

The output of work this year must, of course, be less than it would have been had the year ended, as hitherto, on the 30th June, by which time an additional area of 64,000 acres will be ready for settlement. Included in this area is the Mangaere Block, containing 7,248 acres, which

has been more than eighteen months under survey by contract.

Town Section Survey.—The only work executed under this heading has been the survey by Mr. Skeet of a few sections in Stratford, which had been applied for, and the resurvey of some others in the same town where the pegs had disappeared. He at the same time laid down several new standards, which determined also the street-alignment.

It is to be regretted that, owing to the pressure of rural settlement surveys, the standard and alignment surveys of towns have to be done piecemeal instead of at one time and by the same

officer, as I think they should be.

being partition surveys of the Mokau-Mohakatino No. 2, Waitara West, Pukengahu, and Pahautuhia Blocks.

Native-land Purchase Surveys.—The principal work under this heading has been the completion by Mr. J. Skinner of the surveys necessary for the definition of the Taumatamahoe, Whitianga, and Maraekowhai Blocks, and of reserves in the Opatu Block, comprising altogether an area of 235,955 acres, executed at a cost of 0.73d. per acre.

Roads, Railways, &c.—33 miles 5 chains have been surveyed at a mean cost of £15.82 per mile; 18 miles 52 chains were surveyed by Mr. Bullard under warrant through the Toko and Huiakama Blocks; and 9 miles 26 chains by Mr. Finnerty on contract through the Pohokura and the Mangaotuku Blocks. The balance was surveyed by Messrs. Dalziell and Buckeridge adjoining their respective sectional surveys. The above mileage does not, of course, include roads which have been surveyed by Land Transfer surveyors through private blocks acquired from Natives, through which roads can still be taken under warrant.

Other Work.—This includes harbour-soundings and scattered work by Mr. W. H. Skinner, inspection of some Land Transfer surveys by Mr. Skeet, survey of some small wahi-tapus by Mr. Dalziell, inspection and taking-over by Mr. Bullard of portion of the East Road, surveyed by Mr. Finnerty through the Pohokura Block. Forty-nine Land Transfer survey plans, comprising 37,059 acres, in 152 sections, have been examined and passed, and the work of this branch is up to date.

Field Inspection.—The only instrumental field inspection made by me has been that of the Whitianga Block and reserves in the Opatu Block, situated on the Upper Wanganui, and surveyed by Mr. John Skinner on contract. The survey of the former consisted chiefly of triangulation, with ranging over the ridges between the stations. The work has been on the whole carefully done, and the ground-marking is good. With reference to the Opatu, I found the chainage where tested defective, which Mr. Skinner attributes to the breakage of one of his long wires, and to his omission to make the necessary final correction of some of the distances. I have also inspected some Land Transfer surveys in the Opunake District, and inspected the grades of roads and ground-marking of surveys in the Upper Waitotara by Mr. John Annabell, in the Waverley District by Mr. R. H. Davies, and in the Ngatimaru District by Mr. H. W. Climie and Mr. Murcott. While experience has taught that, unfortunately, field inspection is necessary to insure a good standard of work being maintained, it is also equally obvious that nothing like a thorough system of inspection can be carried out throughout the district by the Chief Surveyor alone while so much of his time is taken up in his capacity of Crown Lands Commissioner, since for several years past the administrative portion of his duties has been overtaking the professional portion. This being so, it is a question whether more expedition and accuracy could not be secured by the abolition of the contract system, a system which must necessarily lead to the employment of surveyors over whom the department has little or no control, as all authorised surveyors possess more or less private practice, which it is unreasonable to suppose they will give up for the sake of an occasional contract. Consequently, when they receive a contract they are compelled to employ assistants—not always authorised—to carry out the work, with an occasional visit from themselves, the result being in some cases that roads are not laid out where and in the manner in which they should be, that serious delays occur, and consequently the settlement of the land is retarded.

Office-work.—The Chief Draughtsman, Mr. Bird, reports that the office staff has checked 28 surveyors' plans, compiled 12 plans, made 257 tracings, checked 195 traverse-sheets, drawn 6 tracings for photolithographing, put plans in triplicate upon 209 Crown grants and leases, representing an area of 38,711 acres, and on 332 certificates of title in triplicate, dealing with 79,479 acres. I may here mention that the office-work has increased in every direction very considerably during the past two years—for instance, the correspondence for the last nine months is more than double

what it was for the whole of the year 1888-89.

Work of Next Year.—The bulk of the work will no doubt be the survey of the numerous smallfarm association blocks, which at present comprise an area of about 83,000 acres. The survey of the Milsom, Tanner, and Oxford blocks should be completed within two or three months, but, unless two or more surveyors are put on to each of the larger blocks—viz., the Terrace End and Palmerston—we cannot expect to have them completed by the end of the year. All the staff, with the exception of Mr. Bullard, who is laying out roads under warrant, will be engaged on settlement surveys. Mr. Turner expects to complete the grading with magnetic traverse of the twenty miles of road-line up the Whenuakura Valley by the end of May, when his services will, I hope, be

available for either more road-work or section survey.

I regret to have again to state that, with the increasing demand for land, it is quite impossible for the present office staff to keep pace with the work which is coming in. Not only are we not overtaking any of the long-outstanding arrears, but the checking of the surveyors' plans goes on very slowly, which is a considerable hardship upon contract surveyors. To keep pace with even the current work, either the staff will have to be increased or we shall have, as a last resource, to relax our present rigorous system of examination, whereby every co-ordinate is mathematically checked, and all opposite sides of roads are computed. I shall be very loth to have to do this, as in the absence of systematic field inspection it is our only safeguard against large errors remaining undetected and becoming embodied in Crown titles; but there appears to be no alternative. again to place on record the continued industry and zeal of all the officers of this branch of the department.

Sidney Weetman, Chief Sureyor. department.

## HAWKE'S BAY.

Minor Triangulation.—The triangulation of 40,878 acres has been completed during the season at a cost of £145 1s., an average rate of four-fifths of a penny an acre. A considerable amount of subsidiary work has been done in connection with the various settlement surveys, but the foregoing is all that has been continuous, and can fairly be brought under this head.

Topographical Survey for Selection under Act of 1887.—8,690 acres in the Motu and Waikaremoana Districts have been prepared for selection under this system, at the low cost 4½d. an acre. In connection with it, nine miles of road in rough forest country were located and traversed, the cost of which is included. Over 100,000 acres in the Motu, Waikohu, and Nuhaka North Districts are now being operated upon in the same manner, and a large portion will be ready to be thrown

open for selection about July next.

Rural and Suburban.—Fifty-eight sections, comprising 36,551 acres, have been surveyed at a cost of £1,318 13s. 4d., a rate of 9\frac{3}{2}d. an acre. The skeleton survey of the greater part of this has been returned in previous years as topographical survey for selection under the Land Act of 1887. Taking into account the expenditure of this preliminary survey, the total cost from first to last on the area returned for the past nine months is a small fraction over 1s. an acre.

Native Land Court Survey.—No surveys have been made by staff officers; but eleven blocks, comprising 30,076 acres, surveyed by authorised surveyors at the cost of the owners, have been

examined and passed.

Roads.—Of the thirty miles of roads appearing in the return, sixteen and a half were surveyed in the exercise of road rights, principally through Native blocks; the remainder was the traverse of the engineering survey of part of the Napier-Wairoa Road. The cost of the thirty miles was £400 12s. 7d., or £13 10s. 8d. per mile. In addition to the foregoing, fifty-four miles of an engineering survey, with the traverse of about half the distance, has been finished in the field by Messrs. Hallett and Laing, contract surveyors, but, owing to the whole of the maps not having been sent in, it cannot appear in the return as completed work.

Other Work.—Under this head the small sum of £161 1s. 4d. appears. It represents chiefly the outlay in reproducing the boundaries of ancient surveys, which, through being so scattered and disconnected, it was found impossible to return under an acreage rate. £40 have been expended on the standard survey of the Town of Napier. There still remains a considerable amount to be done, and it will be continued during a couple of months of the winter season, when distant country work cannot be advantageously undertaken. The following is a summary of the field-work completed,

and that in progress:-

				Completed during the Nine Months.	In Hands of the Surveyor.
Minor triangulation				40,878 acres	25,000 acres.
Topographical survey	s for	selection under	Act		
of 1887		***		8,690 "	100,280 "
Rural and suburban		***		36,551 "	12,270 "
Small grazing-runs		***			40,000 "
Native Land Court bl	ocks (	authorised surve	yors)	30,076 "	139,663 "
Roads	•••	· · · · ·	•••	30 miles	$108\frac{1}{2}$ miles.

In addition to the foregoing in hand, 33,000 acres for settlement have not yet been assigned to

any particular surveyor.

Office-work.—Sixty-two surveyors' maps of ordinary settlement work, Native Land Court blocks and roads, have been examined and passed; twenty-five block-sheets and seven Crown grant record maps compiled.

The minor triangulation of eight survey districts which, for want of method in the original calculation, was most confusing and misleading, has been recompiled, maps drawn, and tracings prepared for lithographing. Three hundred and ninety-two diagrams have been drawn on Crown grants, 213 on Native titles, 457 on certificates of title, and 233 on leases and licenses. In the clerical branch 6.573 letters and telegrams have been received and despatched, exclusive of notices.

clerical branch 6,573 letters and telegrams have been received and despatched, exclusive of notices. The arrears in the office are very heavy. There is a great lack of lithographs of the portion of the district south of Mahia, about 140 miles in length. There are none of the triangulation of this stretch of country; and, of the thirty-seven survey districts, four only are lithographed on a-mile-to-an-inch scale. It will be my endeavour to remedy this as far as circumstances will permit, as it is not only a great loss and inconvenience to the department, through county and other maps having to be drawn by hand, but to the local bodies and general public. About two hundred block-sheets, and most of the 40in. topographical-sheets, have yet to be drawn; Crown grant record maps of thirty survey districts to compile and complete; a very large number of field surveyors' maps to check and record; and over three hundred Native blocks to be plotted on the block-sheets and reduced for record on the smaller-scale maps. It is not to be expected that much headway can be made in so large a work in one year, unless additional draughtsmen are employed for the special purpose, which is hardly to be hoped for; but every effort will be made to reduce the amount of arrears.

hardly to be hoped for; but every effort will be made to reduce the amount of arrears.

Work for the Ensuing Year.—It is more than probable that, in addition to the six staff surveyors, Messrs. Mountain and Newton, who are now temporarily employed, will have to be re-engaged in the spring, as the work to be taken in hand is considerable. Over 100,000 acres in the Motu, Waikohu, and Nuhaka North Districts are now being prepared by Messrs. Neill and Newton, to be thrown open as unsurveyed land under the Act of 1887. A large area of it will be ready for selection in about three months' time, and it is believed that it will be rapidly taken up, which will bring about the subdivisional work. The 12,270 acres of sectional work on which Messrs. Hay, O. Goldsmith, and Mountain are engaged will be completed in about two months; and it is probable that by that time other demands for this class of work will have sprung up in various parts of the district. I estimate that from 30,000 acres to 40,000 acres of sectional work will be required. Mr. Goldsmith will continue his work of subdivision of 40,000 acres at Hangaroa into small grazing-runs of small size; and Messrs. Armstrong and Gillies's time will for the most part be taken up with surveys of roads in the northern part of the district, to be taken through Native blocks before the rights for doing so expire.

Thomas Humphries, Chief Surveyor.

# WELLINGTON.

Minor Triangulation.—The only officer on this class of work was Mr. District Surveyor Murray, who is extending the triangulation over the Awarua and Upper Pohangina country, embracing, when complete, an area of over 300,000 acres, eventually connecting the Hawke's Bay and Wellington systems of triangulation. One hundred and twenty thousand acres are now mapped, but plans were not received until after the 31st March, and consequently does not appear in this return. This will enable the sixty miles of river traverse in the Awarua Block to locate the Rangitikei, Moawhango, and Hautapu Rivers, required by the Judge to make the necessary order in connection with the subdivision of this block, to be plotted on the true meridian, and checked by connection with the new trig.stations.

5—C. 1.

Topographical Surveys for Selections under "The Land Act Amendment Act, 1887."—The blocks completed under this heading comprise an area of 25,700 acres, at a cost of  $6\frac{3}{4}$ d. per acre, being the North-east Puketoi Block of 14,000 acres, land to the north of the Oroua Coal Creek, 6,200 acres, and the Wharita Block, north of the Manawatu Gorge, of 5,500 acres. The first-mentioned has been offered for selection with marked success, and the others are almost ready to put in the market. Other blocks, such as the Eastern Puketois, Upper Pohangina, Waimarino, &c., could have been prepared under this Act if desired, but it was decided to allow them to be taken up under the Farm Homestead Regulations.

Rural and Suburban Surveys.—Operations under this heading to the extent of 67,718 acres, in 286 sections, were completed at an average cost of 1s.  $2\frac{1}{2}$ d. per acre, which, considering the fact that the whole of the country was, generally speaking, hilly-forest land, the price is highly satisfactory. These surveys, with the exception of Mr. M. C. Smith's work on the McKenzie Farm Homestead Block, consisted chiefly of the pegging of selections in various districts of land taken up in previous years. I need hardly remind you that every year the pegging of sections back and front in rough bush country, from its inaccessibility and other causes, becomes more expensive and

involves greater hardship on the surveyor.

Township Surveys.—Three hundred and seventy-three allotments, of an average area of a little over 3 acres each, were laid off at a cost of £1 10s. 84d. each. The bulk of these were lands offered on village settlement conditions, and the sales, particularly in the Forty-mile Bush district,

were highly successful.

Native Land Court Surveys.—Under this heading 48,825 acres were completed at the Crown's expense, at a cost of about  $3\frac{1}{2}$ d. per acre. Work of this class has been confined to blocks in which the Crown has an interest, and of which it was desired to complete the purchase. In addition to the above, however, forty-five blocks, comprising a gross area of 313,426 acres, were surveyed by authorised surveyors at the instance of the owners of the land. These were scattered over the entire provincial district, and require the same supervision, if not more than our own surveys, both as to field inspection and office check and record, which, together with the numerous requirements of the Native Land Court, issuing of titles, &c., becomes a very important part of the year's opera-

tions, and one requiring constant and close attention.

Road Surveys.—Over 156 miles of roads have been laid off, at a cost of £11 15s. 11d. per mile. These may be divided into three classes—(1.) Those under the Governor's warrant, through Native blocks, where the right to take roads under the Native Land Acts had not expired. (2.) Survey of roads that have been in existence for years but of which no record has been made, and which to all intents and purposes are legal through usage, many of them, doubtless, having been conveyed to the various local bodies at some time or other, or the proprietors have allowed them to be made, and public moneys spent thereon. The advantage of having these roads surveyed is obvious, for, in addition to having a complete record of existing highways to put on the published maps, we can, when any dealings are registered under the Land Transfer Acts, exclude the roads from the titles, and we have also the full data for amending the Crown grants for the same purposes should such amendment be so required. (3.) Roads engineered into Crown lands for construction under the Loans to Local Bodies' Act, and under special Acts of Parliament. All of these, in their way, are highly necessary, and their importance cannot well be overestimated; but to attend to road-work properly other than that coming within the ordinary scope of sectional work would require a much larger staff of surveyors and engineers than is now employed in this district; but this question will form the subject of a special report, which it is my intention to address you upon shortly.

Other Work.—During the past nine months £2,054 5s.  $2\frac{1}{2}$ d. was spent in miscellaneous duties that could not come under the ordinary classes of work, the full particulars of which you will find in the schedules supporting this report. I would, however, like to draw your attention to the fact that of the above sum £1,053 10s. 10d. was spent in back-pegging and re-scheming about 44,000 acres of land in Mangahao, Mangaone, Kopuaranga, Tiffen, Wainuioru, Gorge, and Wairoa Districts. This is a class of work that is exceedingly troublesome, through differences disclosed on prior surveys, and the time lost in going over work done, some of it many years ago. The supervision of the unemployed cost £472 15s. 4d., and £142 10s. was the cost of Mr. Ll. Smith's ordinary inspec-

Work for other Departments and Road Votes, &c.—You will observe that the return for the above embraces the usual work of a miscellaneous character executed by this office for other departments, which it is expected will be refunded to the Survey and Lands vote. For the field this

amounts to £1,049 7s.  $8\frac{1}{2}$ d., and for the office, £344 8s. 2d; total, £1,393 15s.  $10\frac{1}{2}$ d.

Office Work.—Mr. Mackenzie, Chief Draughtsman, reports that during the nine months the bulk of the office-work in the general branch has been confined simply to the preparation of data for the field, and others, particularly in connection with special-settlement blocks, Road Board, tracings on which to make proposals for expenditure of thirds by local bodies, sale-plans for land being put in the market, and working-tracings to assist the Crown Lands Rangers in making reports and valuations of improvements done by selectors of land under the various systems, in addition to which, however, the following plans were examined, passed, and recorded: 15 road plans, 45 Native, 20 ordinary settlement, 7 township; 258 Crown grants or certificates of title in lieu thereof, representing 774 actual copies; 26 plans were prepared for photolithography of lands offered for sale or

senting 774 actual copies; 26 plans were prepared for photolithography of lands offered for sale of selection, and one 40-chain district map was completed.

Native Land Court Branch.—Nine hundred and ninety-seven plans were indorsed on the various forms of ordinary Native title required by law; 60 plans were placed on land-purchase deeds in which the Crown were interested; 32 plans to save expense of survey were compiled, and the necessary action on the following miscellaneous matters was attended to, namely, applications for hearing upon survey, 80; surveyors' nominations for survey, 206; surveyors' lien vouchers for survey, 53; Native Land Court Judges' orders for survey, 13; formal notices to Natives, 3,842.

Land Transfer Branch.—Ninety-nine plans received from surveyors were examined and passed, 2,336 plans were placed on Land Transfer titles, 10 plans illustrating dealings were compiled, and 3 Land Transfer working-town plans were constructed for Petone, Pahiatua, and Kilbirnie. The usual action was also taken on the following dealings: 53 applications, 1,320 transfers,

1,036 mortgages, 56 Crown leases, 131 leases, and 4 proclamations.

Clerical Branch.—During the past nine months Mr. Wright, Chief Clerk, and his assistants have been quite overburdened with work, and it is only by working overtime that the arrears can be kept within reasonable limits. The following list comprises the portion of the work that is recordable: Letters received and despatched, 11,598; vouchers passed, 890; applications registered, 350; licenses and leases prepared, 49; circulars to surveyors prepared and despatched, 165; in addition to which course the prolifering during the time ment on which course the in addition to which, of course, the multifarious duies—the time spent on which cannot well be estimated—such as work connected with warrants, Land Board, land-sales, notices as to payments to selectors, forwarding lithos., posters, "Land Guides," waiting upon the public, &c., all

of which form part of a day's work, and require special attention.

Proposed Operations, 1892-93.—The very large number of special settlements started all over the district, comprising as they do thirty-three separate blocks, ranging from 3,000 to 11,000 acres each, aggregating a total area of over a quarter of a million acres, will take every available officer of the staff, although a dozen more temporary surveyors have been engaged and started on the work, to get the whole of the allotments pegged out to enable the bushfalling to be commenced within a reasonable time. Two settlements have, however, been completed, and work has been started on twenty-four of the others. On eleven of these the roads have been located, and the schemes for the allotment of the sections have been sent in, or shortly will be, so that on these bushfalling can commence at an early date as soon as the sections have been allocated by ballot, On thirteen of the other settlements I hope to get sufficient roads laid out to locate part of the sections, so as to allow some of the settlers to start bushfalling this season, thus leaving only seven in which work cannot be commenced until next spring. This large area of sectional surveys will take at least two years to complete in the field and get the plans finally checked and completed. Thus a still larger staff will be required for the road and other surveys necessary to enable to the road and other surveys necessary to enable the second and th stant supply of land to be put in the market for ordinary selection. At least three surveyors will have to be kept another season at the survey of roads required to be taken through Native lands, before the right to do so expires, and on the roads in the North and South Wairarapa districts, which have—though they have been formed many years—never yet been located. fore have to leave several Town Standard and other surveys now urgently required. I shall there-

John H. Baker, Assistant Surveyor-General.

## MARLBOROUGH.

Upon reference to the returns it will be seen that the field-work executed during the period ended 31st March, 1892, comes mainly under the headings of "Rural and Suburban" and "Native Land Court Surveys," the major portion of which has been done by Mr. Goulter (staff); and the cost must be considered reasonable when it is borne in mind that the whole country is very rough, and covered with timber, with bay and coast traverses, and in many cases the side and back boundaries are traverses along the ridges. The remaining sections, executed by authorised surveyors, are in open country, surveyed on application at schedule rates.

Topographical Survey.—No work under this heading has been returned. Mr. Robertson is now engaged in connection with his survey in the Rai Valley, extending minor triangulation with topo-

graphy over the Ronga, Tunakino, and Rai Valleys, covering an area of about 20,000 acres.

Minor Triangulation (7,800 acres).—This represents the aggregate area of subsidiary triangles in breaking down from the main triangulation in the Pelorus and Queen Charlotte Sounds; and, as they have been observed as in minor triangulation, and permanently marked, the stations are all

available for future work, and have accordingly been classed under the above heading.

Topographical Survey for selection under "The Land Act, 1887."—No surveys under this head have been found necessary, the topography of the localities in which lands have been proclaimed

open for selection meeting all requirements appertaining to applications.

Rural and Suburban (5,290 acres).—Of this area, 3,168 acres were surveyed into thirteen sections in seven different localities in the Pelorus Sound, extending from Havelock to Forsyth Island, surveyed on application. Eight sections, representing 284 acres, are old surveys, the ground-marking requiring re-establishing in connection with the survey of the adjoining Crown lands. Field operations in the Sounds are at times much interfered with by winds and bad weather. This has been especially the case with these surveys. The remaining 1,838 acres, in seven sections, by authorised surveyors, are situated on the Erina and Molesworth Runs, in the Wairau and Awatere Valleys, and were surveyed on the application of the lessees.

Town Section Survey.—No work has been done in this direction during the year.

Native Land Court Survey (1,616 acres).—Survey and partition into four subdivisions of the Kumutoto Native Reserve, Queen Charlotte Sound, dealt with by the Native Land Court for individualising the interests therein, and issuing the Crown grants. The numerous bays which indent this block gives it a very irregular and rough coast-line, requiring six miles of ridge (scrub and bush) and nine miles of beach traverses.

Gold-mining Survey.—No applications have been sent in for mining surveys this year.

Road Survey (83 miles, Havelock to Mahakipawa).—This includes land-plan survey under Public Works Act of five miles of road through Mr. Cullen's property, of which two miles had to be selected and graded, and continuation of same three miles and three-quarters across the mud-flat to Havelock, and traverse of alternative line from the saddle to the Kaituna Ford.

Other Work.—The cost of survey to date of 180 acres applied for as a homestead site on the

Hampshire Hills Run has been £20.

Office-work.—Fourteen surveyors' plans were examined, reduced, and recorded on the blocksheets and record-maps. Seventy-nine marginal plans were placed on certificates of title in lieu of grants and ordinary certificates, and ninety-three on leases, licenses, &c. The revision of maps and schedules for the property-tax, commenced last year, was completed, and tracings showing pastoral runs expiring up to 1896 furnished to Head Office. In the Land Transfer branch 4 deposited plans, dealing with 263 acres, in seven allotments, were examined and passed, and 46 mortgages, 51 transfers, and 6 leases examined. With the reduced staff I find it is impossible to devote as much attention as formerly to survey office details, the work in connection with the Crown lands and land revenue occupying a large amount of the Chief Draughtsman's time.

Proposed Operations.—The season commences with 3,980 acres on application, for sale, deferred payment, and small grazing-runs, now in progress and drawing towards completion; trigonometrical and topographical survey over the Ronga, Tunakino, and part of Rai Valleys in connection with Mr. Robertson's contract for section survey of 5,500 acres in the Rai; 3,000 acres special settlement association block in Ronga Valley, and 2,000 acres in Rai Valley set apart for selection by holders of remission certificates under the Naval and Military and Volunteers Land Act; and 6,180 acres of Native Land Court survey, with subdivisions of the Rua-kaka, Tahuahua, and Waikawa Native reserves in Queen Charlotte Sound. We shall also have the usual calls for section and other work on requisition from the Land Board and other sources to attend to. Of this I can form no estimate of what may be required. With regard to the Ronga and military settlement blocks, there is some doubt whether these surveys will be required. As you are aware, there is a proposal to alter the mode of dealing with the forest lands in this part of the district, and until the report of the two members of the Land Board who are now inspecting the district has been sent in, and something definitely decided upon, it would be unwise to incur any additional expense in survey in this direction. In my report for last year I pointed out the desirability of having a topographical sketch-survey made of the Waipapa and Kincaid Runs. Since then a plan was prepared at your request, and forwarded to you in March last, which shows a large amount of country of which the topography is insufficient in detail to readjust the boundaries of the runs, should it be found requisite to do so in anticipation of the expiry of the leases. I therefore suggest, with that object in view, and with your approval, that steps be taken to carry this out not later than next year.

Henry G. Clark, Chief Surveyor.

#### NELSON.

Field-work.—Owing to the present period under review being only nine months, instead of twelve, which has ruled hitherto, much of the field-work completed during the summer months

has not been plotted, and is not returnable in this period.

Minor Triangulation.—A small amount of this work only has been done in connection with a traverse of a portion of the main road through the Buller Gorge not previously laid down on our maps. In the Amuri District the triangulation executed in the field in the previous summer season has not yet been plotted, owing to the District Surveyor being taken off to make surveys and superintend road-work provided for the unemployed during the winter months, and there is consequently now two seasons' work in arrear of plotting in this district.

Topographical Survey for selection under "The Land Act, 1887."—A block of about 60,000 acres

of this work, lying between the Takaka Valley and Mount Arthur, has been covered by Mr. J. D. Thomson, assistant surveyor. The country is rough, gorgy, and precipitous, covered with birch forest, and occasional patches of table-land, part of it being limestone formation.

Rural and Suburban Surveys.—During the past period 33,779 acres have been surveyed, in 130 sections, at an average cost of 1s. 0.1d. per acre. Messrs. Sadd and Thomson have completed the field-work of 7,702 acres in the Collingwood District, not yet plotted, and have 1,400 acres in progress. Mr. F. S. Smith has surveyed 20,186 acres at a cost of 6.53d. per acre, and has yet 56,820 acres unplotted. Several authorists the surveyors have been employed to assist the staff, being paid by fees. On the western side of the main range a large number of applications for lands within the area set apart for selection by the Midland Railway Company have been received, but which cannot be dealt with until the necessary mining reserves are proclaimed, as many of these are situate within the proposed areas of reserves, and the company will not be entitled to deal with such applications.

Town Section Survey.—Several blocks in the Township of Ahaura have been sectionised, in order to complete the original plan. A standard survey of the Town of Westport is in progress by

the District Surveyor as his other work permits.

Gold-mining Surveys.—Forty-three mining surveys have been made in the West Coast districts, containing 1,135, the demand for these having fallen off considerably, as well as in the Collingwood

Road Surveys.—Twenty miles and three-quarters of these surveys have been made, of which eight miles, in the Amuri District, were in connection with relief-works for the unemployed, in charge of the District Surveyor; seven miles and a quarter of Nelson and Westport Road traversed for placing on plans; 3 miles 55 chains were surveyed for the Inangahua County; and the remainder in short lengths to give access to lands.

Other Work.—Under this head is included surveys other than for settlement, inspection,

reports, district offices, and other miscellaneous items,

Land Transfer Work.—Seven Crown grants, with 28 plans; 117 certificates of title in triplicate, with 351 plans; 292 plans placed on certificates of transfer, and 121 plans examined and checked: 112 certificates of title are in arrear. This work is under the charge of Mr. W. S. Curtis,

with the assistance of Mr. A. G. Spreat.

General Office-work.—A hundred and eight leases and licenses, with 240 plans, have been prepared; 12 schedules of certificates of title in triplicate; 110 field plans and 301 sheets of tabulations examined; 10 block-sheets, 2 trig. sheets, 2 Crown-grant record maps and selection maps prepared; property-tax maps and schedules were posted up in transactions on sections for the past triennial period; monthly and quarterly returns, recording plans and surveys on block-sheets, have been kept up; 1,945 payment receipts in duplicate have been given, and 1,500 open accounts are in operation; 780 vouchers for payments prepared and examined; and 3,742 letters and telegrams received, despatched, and recorded.

I would again call attention to the necessity of preparing a new set of maps, to be published for the information of the public generally, as the sale of the old ones has been stopped, the information being fifteen years behind date of present surveys. This and other matters in arrear must be done by outside assistance, as at present the amalgamated office staff only consists of five for all purposes, independent of Land Transfer work and Receiver of Revenue. A considerable amount of business connected with Midland Railway lands has fallen upon the office during the past year, and

a large amount is still in hand.

Proposed Work, 1892–93.—The arrears of survey remaining under current applications to be undertaken amount to 109 sections, containing 13,263 acres, averaging in size 121 acres. Of these, seventy-four applications for land to lease are distributed over the Waimea and Collingwood Districts, and generally speaking are isolated surveys adjoining old sections, many of which will require revision to locate the newer surveys. These will be taken in hand by Messrs. Sadd and Thomson, assisted by authorised surveyors. Of second-class unsurveyed lands there are twenty-four applications for purchase, and perpetual-lease tenure, to survey and in hand. Mr. Smith, with Mr. Barron, Assistant Surveyor, will be employed on survey of blocks selected by the railway company, and the former will endeavour to bring up the arrears of the two past seasons' field-work not yet plotted. Mr. Snodgrass has current mining surveys and standard survey of Westport to continue. Mr. Montgomerie has also mining surveys, and both these officers will have a large amount of surveys to take in hand as soon as the applications for land within the railway company's area of selection can be dealt with, and also, probably, to define some of the boundary-lines of proclaimed mining reserves. Messrs. F. Thompson and Bullard have been transferred to the North Island surveys. Messrs. J. D. Thomson and D. Barron have completed their cadetships, passed examination successfully, and have been promoted to assistant surveyorships.

John S. Browning, Chief Surveyor.

## WESTLAND.

Topographical Survey.—Total area, 24,900 acres, at a cost per acre of 0.6d., from traverses and exploration surveys made during progress of adjacent isolated section surveys; also reconnaissance surveys of country at heads of unexplored rivers in South Westland.

Topographical Surveys for selection under "The Land Act, 1887."—Total area, 34,560 acres;

Topographical Surveys for selection under "The Land Act, 1887."—Total area, 34,560 acres; cost per acre, 3.4d. Also derived from extension of traverses, and exploration surveys, by Messrs. Murray and Wilson, while employed on adjacent settlement surveys, roads, &c., and with a view to

completion of application maps.

Rural and Suburban Section Surveys.—Total area, 1,340 acres; cost per acre, 4s. 7d. Comprising fifty-six sections of small areas and isolated positions. The whole country is covered with heavy and dense forest: this, with the excessive rainfall common to our Coast, and the distances between the various surveys, increases the cost very considerably.

Gold-Mining Surveys.—Total area, 213 acres; cost per acre, 4s. 9.3d. These have been principally executed by authorised surveyors under the fee system. In consequence of the considerable falling-off in mining speculation, these surveys are fewer in number than last year, and are generally of the larger special claims and licensed holdings: in regard to the smaller claims and holdings which are not usually surveyed, the transactions are probably much about the same.

Road Surveys.—Traverse and engineering surveys have been made of thirteen miles of road, at

Road Surveys.—Traverse and engineering surveys have been made of thirteen miles of road, at an average cost per mile of £20 5s. 4d. This fills up a gap in former survey of Main South Road, "Cook's River southward" Section, and it is proposed to ask for a sum to be placed on estimates

for partial construction thereof.

Other Work.—In this is included cost of sundry inspections for Land Department of various classes of holdings and improvements, and also of final completion of road contracts which had not been accepted as finished when inspected by myself; inspection of certain prospecting tracks for Mines Department, survey of tramway and saw-mill sites, general office assistance at odd times by members of field staff during bad weather, and also sundry repairs effected to survey buildings, fences, &c., by the survey labourers when stormstayed.

General Remarks on Field-work done by Staff and Contract Surveyors.—The total cost has been £1,321 6s. 1d. for the period, being a decrease in gross cost, as compared with last year, of £151 2s. 6d.; but, as the credits for fees received—£184 18s. 3d.—are less than for that period, the results, in regard to net cost, are practically the same. The fees for unsurveyed lands selected under

the Land Act Amendment Acts, amounting to £47 15s., may, however, be fairly considered as a

credit for the department, and would consequently reduce the net cost by that amount.

Office-work.—Appended are statements of the work done by the office staff generally, also for other departments, and a miscellaneous return: 30 surveyors' plans, with the accompanying tabulations, &c., were received, examined, and checked; 87 plans were put on certificates of titles in lieu of Crown-grants—42 on ordinary certificates of titles and 18 on certificates of Native titles; altogether 308 plans, large and small, were prepared, besides numerous tracings. Considerable progress has also been made with the plotting of valuable topographical information long locked up in our field-books; but I am sorry to say the many other demands on Mr. Roberts's time, as accountant for our Road Branch, in examining and checking plans, and in other occasional assistance in the ordinary routine work (rendered necessary by smallness of staff), greatly retards the progress of our map of Westland on the one-mile scale; indeed, lately, the work on it has come to a standstill altogether. The same may be said of our Crown-grant and Land Transfer record maps, of our 40-chain district maps (intended for photolithographing and reduction to the one-mile scale), and also of many of our block-sheets and application maps, which have not been touched for a long time. Mr. Clark's time is fully occupied with his duties as Receiver of Land Revenue, Application Officer, and Clerk to Land Board, and he has no time for draughting; consequently, Messrs. Roberts and Dixon are the only officers available for this class of work.

It may not be out of place to here draw attention to the amount of clerical work connected with the administration of the various branches of the department—namely, lands, surveys, roads, forests, and matters in connection with the Midland Railway contract, &c. The amount of such correspondence is greatly in excess of what would naturally be expected if judged by the area of land disposed of only. In illustration of this work relating to correspondence, vouchers, accounts, land notices, returns, and records, &c., the inward correspondence received and dealt with for the nine months in question amounted to 1,920 letters and papers, and the outward to 4,436; total, 6,356. I have already urged, and would again urge, upon you the necessity for appointing at least one experienced draughtsman to our staff to replace Messrs. Pfeiffer and Covil, who, as you are aware, were removed at the time I took charge of the district last year, and thus enable us to do

something towards bringing our maps up to date and of service to the public.

The credits in favour of the office received in fees for preparation of leases, licenses, and plans, and for amounts passed for work done for other departments, equal £51 15s. 6d.

Work proposed for the Year 1892-93.—The field staff will proceed with the rural and suburban section work now on hand and that may come in during the year, including areas applied for under the Midland Railway contract, and will, when opportunity offers during the progress of their work, bring under check any adjoining spotting and built surveys not already connected to the standard work. It will also be highly desirable to have the boundaries of the already-proclaimed mining reserves defined on the ground. With our present staff, however, we will not be able to do much at this during the year. The probable cost of cutting these boundary-lines I have already reported to you. Some minor road-surveys will also have to be done, the construction of which will probably be undertaken during the current year. Every opportunity will also be taken to extend our topographical information in the neighbourhood of current work. There are also many constructed roads and tracks of which we have no reliable record on our plans, and which should be traversed when time permits, but I am afraid at present they cannot be undertaken. John Strauchon, Chief Surveyor.

### CANTERBURY.

Topographical Survey: Minor Triangulation.—In consequence of the reduced number of the field staff it was not possible to proceed with surveys under these headings, although the necessity is recognised for their extension in the Hunter River District and north-west parts of the land

Topographical Survey for Sclection Purposes.—The only area of this class is the 32,320 acres which Mr. District Surveyor Brodrick executed on the Station Peaks. The work was completed in a few weeks, and furnished a scheme of sections which afforded satisfaction to the selectors who subsequently took up the country.

Rural and Suburban Settlement Surveys.—An area of 27,286 acres is returned, the average area

of the lots being about 153 acres.

Mr. District Surveyor Welch's surveys comprise 13,238 acres of lands selected by the Midland Railway Company in Blocks XLV. and L., and are included under this head, though the large area of the subdivisions almost bars the work from being classed as sectional survey proper.

Mr. District Surveyor Brodrick defined 2,268 acres of scattered sections in the Waimate and

Geraldine Counties, which had been purchased from the Crown in 1890.

Mr. Assistant Surveyor McClure's area of 2,811 acres includes the Medbury Farm Homestead Block, the subdivision of reserves near Rakaia and Dunsandel, and some small selections of the Midland Railway Company.

Mr. Assistant Surveyor Mathias returns 7,263 acres, made up of sections in the Ashburton County, which were mostly purchased from Government in 1890 and 1891. He also completed the

39  $C_{1}$ 

survey of the Waimate Educational Reserves, now the village settlement lands which are advertised for sale on the 31st May.

The other unspecified surveys under this heading call for no special notice, but it has to be noted that the three last-named officers' work was much hampered and increased in cost by reason of the manner in which they had to travel from one part of the district to another to survey small and scattered sections, and to make inspections and reports for the Land Board on reserves and river-bed lands.

Mr. Brodrick afforded substantial assistance to Mr. Ranger Fussell and the department by undertaking a number of urgent and difficult inspections of selectors' holdings. surveys which were returned as completed, Mr. Welch has in an advanced state of survey 1,913 acres in the Midland Railway Company's Block L. Mr. Brodrick has since completed the field-work of the Station Peak Run surveys, comprising 32,320 acres. Mr. McClure has nearly surveyed 3,410 acres of selected land near Rakaia, and also 15½ miles of standard traverses.

The small area returned for this period for Canterbury is due to the fact that the operations extended over only nine months, and because Messrs. McClure and Mathias were in the office about three months completing the mapping of the survey work which had been returned for the year ended 30th June, 1891. No claim can be made for town section or Native Land Court

Mining Surveys.—But one survey, and that of 111 acres, at Alford Forest, has been placed in this

class. Two leases of this area, one for working coal and one for minerals, were issued.

Road Surveys.—The traverse of ten miles shown in the schedule was executed in connection with the ordinary sectional surveys. An additional length of 23½ miles of traverses, executed principally by Messrs. Brodrick and McClure as a basis for their sectional surveys, were carried out with extra care, and, as the stations have been permanently marked, the traverses should prove of exceptional value for further reference.

Other Work.—The duties comprised in the schedules include, among other matters—repairs and renewals of trig. stations; extra expense of permanently making standard traverses; inspections of and reports on Crown lands and reserves; marking, preparatory to sale, by notice-boards, boundaries of Greta Peaks runs; the laying-down a 10-chain standard at Christchurch for testing

long steel bands, &c.

Office-work.—During the nine months under review the staff has been employed on varied and miscellaneous duties, the exigencies of the department rendering it impossible with the very much reduced staff to keep each officer on special or defined work. Mr. Shanks, the Chief Draughtsman, reports that seventy-three field plots, embracing 59,717 acres, were deposited for examination. Most of the plans were checked, but none of them have been reduced and brought up on Crown grant, Land Transfer, or the district maps. Indeed, this class of work has not, in consequence of the small staff, been attended to for some years past. As this is one of the essential requirements and safeguards of the splendid system inaugurated by the late Mr. J. T. Thomson, I felt justified in declining to approve the plots before they had been reduced and brought up upon the record-maps. Eleven tracings were drawn for reproduction by photolithography, in addition to six which were prepared and published by the Head Office. All these plans were required to illustrate notifications under the Land Acts.

The demands of the Property-tax and the Land Office returns (which have been unusually heavy) have necessitated the employment of the draughtsmen on semi-clerical work. The preparation of plans and tracings for the field staff, to illustrate reports and correspondence; searches in the Land Transfer Office registers; attending to the requirements of local bodies, other departments, and the public; the preparation of schedules, descriptions, &c., and an unusual amount of sick-leave,

account for the whole time of the draughtsmen.

Correspondence.—This is under Mr. Bendely's control, who supplies the following information: Letters received, 3,700; letters sent out, 4,647; circulars issued, 589; returns prepared and for

warded, 42; sale plans and advertisements circulated, 800.

Land Transfer Work.—Mr. D. H. Monro furnishes the following statement of work for the nine months ending 31st March, 1892: Plans deposited, 38; ordinary certificates, 717; Crown grant certificates, 156; transfers checked, 302; mortgages checked, 6; leases checked, 17; applications checked, 152; road-deviation plans, 12. Only one subdivide plan was prepared.

Mr. Monro finds that the clerical work has increased one-third in consequence of his having to furnish for record purposes a report on each plan examined. The number of certificates in lieu of Crown grants is about the average of the last two years. Though there has been a falling-off in the number of certificates of title, &c., issued, the work of the office has not decreased as the contract system formerly in vogue has been abandoned. The tendency latterly having been to embrace in one several former titles, the work in connection with the issue of a certificate of title frequently involves much additional time and labour. The cost of the branch for the nine months was £442 10s.

The system of check applied by Mr. Monro and his assistants in the examination of all plans and documents submitted for scrutiny is thorough and precise, with the exception that there are but few standard plots on which to record the multitude of surveys which have been effected by licensed surveyors under the Act, or in ordinary course by staff officers. The additional safeguards

afforded by standard plots render the practice worthy of general adoption.

During the nine months under review, though I found it impossible, owing to other demands upon my time, to make technical examinations, I found time to make six distant visits of inspection of surveyors' work, and devoted seventy-five days to the duty of making myself acquainted with my new district, attending to urgent and special matters over the whole extent of Canterbury, travelling by train 1,900 miles, by coach and on horseback 1,150 miles. During the current year I propose to resume the active examination of field-work, whether by the staff or private surveyors.

Proposals and Recommendations.—The arrears of survey shown in following table are very formidable, the sectional portion being mainly a legacy from former years:—

Surveyor.	County.	No. of Sections.	Area.	Position and Description of Sections.
J. S. Welch	Akaroa	28	Acres. 510	Scattered sections on Peninsula; a number will be revision surveys.
	Ashley	26	2,298	Small scattered sections and reserves, and a few revision
	<i>"</i> ··· ··	2	36,350	surveys. Midland Railway Company's Blocks L. and LIV.
		56	39,158	
T. N. Brodrick	Geraldine	1 29	24,200 5,577	Mr. Tripp's run, No. 5. Scattered sections and reserves, and a few large grazing sections, near Albury.
	Waimate	8	32,050	Large grazing sections at Station Peaks; survey now complete, but not mapped.
	,,	41	23,513	A number of small scattered sections and grazing sections at Hunter's Hills.
		79	85,340	
G H. M. McClure	Selwyn	57	7,633	Freehold and other sections, principally in the Selwyn
	,,	6	39,471	and Hurst Districts, around Heslerton Station. Midland Company's Blocks LXII., LXIV., LXVII.,
	Mackenzie	29	23,177	LXX., LXI., LXXVII.  Large grazing sections near the Silverstream, Three
		92	70,281	Springs, and Cave.
L. Mathias	Ashburton	90	15,079	Scattered sections on the Plains, Ruapuna Village
	Geraldine	23	17,783	Settlement, naval and military claims sections.  Large grazing sections on the Waitohi Hills.
		113	32,862	
		340	227,641	

With only four staff officers, and having no assistance from contract surveyors, it is manifest that even if undisturbed by other demands upon the staff's attention, it would take at least three year's to overtake the work. But the resumption of runs and the proposal to throw open for settlement all available Crown lands throughout this land district will add at least 70,000 acres to the area of country to be surveyed. As these arrears of surveys are of lands which have been disposed of by the Crown, and though provisional leases have been issued in some cases, it is evident that four surveyors cannot cope satisfactorily with the work so as to allay the dissatisfaction which prevails, and enable the department to issue titles and enforce the provisions of the Land Acts with less friction.

In regard to surveys under the Land Transfer Act, I am induced to recall your attention to the subject of standard traverses. Since my arrival in Canterbury I have been impressed by the drawbacks which surveyors experience owing to the absence of trig. and traverse stations and to the difficulty of connecting therewith. On the Plains most of the trig. stations have been built or planted in, and in some cases destroyed or buried. The original traverse stations and pegs also have been generally destroyed or buried under walls, banks, or hedges. You will readily conceive the loss of time and labour which even the survey of a small area of, perhaps, inferior land entails, and that the cost may render many surveys quite prohibitive. Notwithstanding the present difficulties to isolated survey, you are aware of and can appreciate the uncommon facilities which the innumerable roads on the Plains present to the rapid and economical extension of standard traverses, commencing with the towns and villages and those parts of the country where the value of the land or obstructions to survey call for immediate attention. If the Government hesitate to incur the expense, the Land Transfer Department might, with great advantage to the working of the Land Transfer Act, provide the money from the Insurance Fund. In any case I trust that I have made out a fair claim for additional assistance in the field. In my opinion at least four extra surveyors are required.

Office Requirements.—It is only necessary to refer you to previous remarks, and my predecessor's report and schedule of arrears, dated the 9th December, 1890, and to my memorandum of the 23rd February, 1892, to prove the unsatisfactory state of the office-work. Here it is but right to state that neither my predecessor nor myself is responsible for the accumulated work. The office staff, which has been reduced from time to time, requires augmentation in order that the field-plots may be thoroughly checked, reduced, and recorded; that block-sheets, district record, and standard maps may be prepared; and that the publication on the mile scale may be resumed of the survey district maps and also of maps of the whole land district. There are twenty-six survey districts of which maps have been published, and thirty-seven remain to be published. It seems unnecessary to trench upon your time by adducing palpable and well-recognised grounds for the granting of my application. I will only remark, further, that the land and territorial revenue of this district amounts to £69,259 3s. 7d. for the year.

Safe-accommodation.—I have to refer you to my previous representation regarding the erection of additional safe-accommodation. The estimated cost is £400, which is insignificant compared

with the importance and value of the Provincial and General Government records, which should be

deposited in a strong-room.

Departmental.—Since last June the following changes have been made in the staff: Mr. R. B. Trudgeon, the accountant, who was associated with this office for fourteen years, was transferred last November to Auckland, Mr. H. L. Welch, formerly of the Public Works Department, taking his place. You have already been furnished with a memorandum of salaries and general expenditure. I have to express my obligations to my fellow-officers here for the valuable information and assistance afforded me since I took charge. J. W. A. MARCHANT, Chief Surveyor.

#### OTAGO.

The strength of the field and office staff remains the same as it was last year at the date of my annual report. There are five surveyors and one cadet on the permanent staff in the field, besides three temporary field surveyors. In the office there are eight draughtsmen and the accountant, and two cadets. Four additional draughtsmen were temporarily employed during July and part of

August of last year, in order to assist in preparing the property-tax maps.

Topographical Surveys.—Mr. E. H. Wilmot has surveyed 22,000 acres for £30, which is only and per acre. I have also included under this head the work done by Mr. H. Maitland on Runs 134, 3d. per acre. I have also included under this head the work done by Mr. H. Maitiand on Runs 102, 300, and 301, in Macrewhenua, Domett, Kyeburn, and Kakanui Districts. He was engaged on this survey for about two months, when he was withdrawn, and sent to the Woodland District. subdivision of these runs was afterwards completed by Mr. D. Barron.

Minor Triangulation.—The area surveyed under this head is 20,640 acres, at a cost of 2½d. per

acre, by Mr. Wilmot, in the Tautuku Bush.

Minor Triangulation with Topography.—Mr. Langmuir has surveyed 80,000 acres, chiefly in the Tautuku Bush, at a cost of a little less than 13d. per acre; while Mr. Wilmot has surveyed 40,000 acres into somewhat smaller triangles in the western part of the same bush, at a cost of 2½d.

Topographical Survey for selection under "The Naval and Military Settlers Act, 1891."-Block IX., Woodland District, was set apart for this purpose, and 3,260 acres have been made ready for selection, the roads graded, and a map prepared showing about forty-five sections. The cost so far has been 1s. 4d. per acre; but when the land is selected the boundary-pegs will require to be put

in, and some of the boundary-lines cut.

Rural Section Surveys.—Under this heading 15,321 acres have been cut up into 123 sections, at an average cost of less than 2s. 3d. per acre. Nearly the whole of the land is dense bush.

Small Grazing-runs.—I have thought it advisable to place these under a separate heading, as, although some of the sections are as small as ordinary rural sections, the majority of them are over 1,000 acres, the largest having an area of 13,540 acres. The whole area amounts to 65,111 acres, divided into thirty-nine sections, at an expense of  $2\frac{1}{2}d$ . per acre.

Native Land Court Surveys .- The only survey under this item is one by Mr. G. M. Barr,

being 453 acres of the Taieri Native Reserve, at a cost of 1s. 10\(^3\)\_4d. per acre.

Gold-mining Surveys.—There has been a great falling-off in the area usually returned under this heading, only fourteen sections having been surveyed, comprising 449 acres, costing a trifle less than 6s. 10d. per acre.

Road Surveys.—These are all in heavy bush. The total length is five miles and seven-eighths,

and the average cost £12 4s. 1d. per mile.

Other Work.—A large proportion of the expenditure, which amounts to £920, was incurred by the section surveyors in clearing trig. stations on the bush blocks under survey by them; also, £96 10s. of the amount opposite Mr. Wilmot's name has been the cost of carrying on standard bearing from the geo. station in Mokoreta District to the blocks now being surveyed in the Taukupu Valley.

Survey Inspections, &c.—During the period under consideration I have made nine inspections of surveys, roads, bridges, &c. Besides the before-mentioned, in company with the other Land-classification Commissioners, I was absent from Dunedin for twenty-four days inspecting and

classifying runs falling in on the 1st March, 1893.

District Officers.—The Lawrence office is in charge of Mr. McLean, who attends to the public, records new surveys, and makes copies of plans when necessary. The Queenstown office is attended to in a similar capacity by Mr. Mackenzie, the Crown Lands Ranger, when not engaged on Land Mr. Mackenzie has undertaken several surveys of an urgent nature in the absence of The Naseby office is under the control of Mr. D. Barron, District Surveyor, who, Mr. Wilmot.

when time permits, keeps recording the surveys done in his district.

Dunedin Office.—The following plans were prepared and recorded during the past nine months: 114 Crown grants, 348 certificates of title, 90 Native titles, 268 perpetual leases, 28 deferred-payment leases, 12 prospecting licenses, 4 memorial licenses, 56 run licenses, and 4 agricultural leases; besides which the following plans were checked: From staff, 45; railway in triplicate, 34; Land Transfer, 54; road closing and opening, 3; special claims in triplicate, 39; license holdings in duplicate, 14. Six plans were reduced for photolithography, and seven reduced on transfer-paper, from which were printed 1,400 lithographs. Plans mounted, 260. (The correspondence is now Lands and Survey. The Survey, not being easily distinguishable from Lands, is kept out of report.)

Land Transfer Work.—There were 28 applications, 380 mortgages, 107 transmissions, 179 losses 37 cayeats and 777 transfers examined and checked

leases, 37 caveats, and 777 transfers examined and checked.

Proposed Operations for 1892-93.—The triangulation of the Tautuku Bush has been carried on vigorously, both by Mr. Langmuir and Mr. Wilmot. The latter expects to finish his part of the work about the end of May, but I expect Mr. Langmuir will require a few weeks longer. In case

6—C. 1.

Mr. Langmuir should be required to leave the triangulation for a time in order to go on with the more pressing work of settlement survey, I would strongly recommend that he should first be allowed to carry the standard bearing to Trig. G, Rimu District, and so close with Mr. Wilmot's This would enable the section surveyors to base their work on true meridian, and thus avoid essity of applying any corrections hereafter. A larger quantity of land than usual will rethe necessity of applying any corrections hereafter. quire to be prepared for settlement during the present year. There are fourteen runs, or parts of runs, reserved for settlement, the licenses of which expire on the 1st March, 1893. These comprise about 100,000 acres, of which 60,000 acres lie in the Lawrence District, and 40,000 acres in Naseby District. It is proposed to resume twenty-eight runs and part of another on the 31st March, 1893. These comprise 127,000 acres, of which 105,500 acres lie in Naseby District, 20,000 acres in Mr. Langmuir's, and 1,500 acres in Queenstown District—taking both classes together, say, 145,500 acres is under Mr. D. Barron, 80,000 acres is under Mr. Langmuir, 1,500 acres is under Mr. Wilmot; making a total of 227,000 acres of pastoral lands to be subdivided for settlement as rural sections and small grazing-runs. This is exclusive of about 9,000 acres now under survey by Mr. sections and small grazing-runs. This is exclusive of about 9,000 acres now under survey by Mr. D. Barron in his own district. Then, we have to provide for the survey of from 12,000 acres to 20,000 acres of bush-lands in the Tautuku District; and I would recommend that Messrs. Calder, McCurdie, Edie, and Falkiner be kept constantly employed in the Tautuku Bush subdividing blocks fronting on the main Catlin's-Waikawa Boad. If you approve of this, then Messrs. Barron, Langmuir, and Wilmot would be at liberty during the greater part of the next twelve months for runsubdivisions; but, in order to have the whole work completed by the end of the year or thereabouts, I estimate it would require the services of two extra temporary surveyors, and even with five surveyors no time should be lost in putting the work in hand.

C. W. Adams, Chief Surveyor.

#### SOUTHLAND.

Topographical Survey and Minor Triangulation.—There is nothing to record as completed under this class, but Mr. W. Darby was engaged on the temporary staff in November last, and has since then been engaged on the triangulating of about 30,000 acres of forest land in Waikawa District, and, as all stations require more or less clearing, the work is necessarily somewhat slow of Mr. Darby was also, unfortunately, seriously unwell for the first few weeks after taking

Topographical Survey prior to Selection.—Seven hundred acres were surveyed by Mr. Tresseder in Campbelltown Hundred, for satisfying claims under the Naval and Military Settlers and Volunteers Land Acts, and this has been and will be dealt with in precisely the same manner as if it

were under clause 18 of the Land Act of 1887, so far as survey and selection go.

Rural and Suburban.—Under this class 10,049 acres were surveyed into 165 sections, chiefly for settlement purposes, but a few saw-mill and coal areas are included. The total cost was £1,170 19s. 2d., or at the rate of 2s. 3d. per acre, and out of this total £326 17s. 9d. was paid by fees lodged by applicants.

Town Section Surveys.—Only 2½ acres have been treated under this heading, and were divided

into ten lots at a cost of £4 4s.

Road Surveys.—Four miles of road were laid off at a cost of £36 8s. 9d., or an average of £7

per mile.

Other Work.—Under this heading may be noticed two items—the one an expenditure of £27 by Mr. District Surveyor Hay, incurred in visiting and reporting upon the suitability of the Auckland and adjacent islands for grazing purposes; a question which, it is to be regretted, must be answered in the negative. It may possibly be of interest to surveyors and others to record one fact noted by Mr. Hay—that of the erratic and totally untrustworthy movements of the magnetic needle in the largest of these islands, three different observations giving 44°, 66°, and 175° respectively in a westerly direction to the normal magnetic meridian. The other item was £8 15s. 4d. incurred in

fixing position of a reef lately found off Dog Island.

The site of the Te Anau Jetty has now been fixed, and the work is in progress. In all probability the jetty will be completed by the beginning of July.

Inspection, &c.—Much of my time has been occupied in inspecting roads and Crown lands under survey, as well as in travelling about the district to make myself personally acquainted with local wants and grievances; also in visiting the large number of pastoral runs which were classified

early in the year.

Office-work.—In the Land Transfer branch 29 plans were examined and passed at a cost of £30; 23 applications similarly treated at a cost of £8; 432 diagrams were placed on certificates of title for £44; 53 leases were prepared and 3 plans of roads to be taken or closed were dealt with besides 2 plans of lands to be taken under the Public Works Acts for railway purposes; 4 lithographs of lands opened for settlement were printed, at a cost of £8; 39 plans were placed on perpetual leases, 2 on coal, 6 on gold-mining, and 2 on other leases, besides 24 on pastoral licenses; 24 plans were mounted on calico and 72 on cardboard for use in Land Office; 27 lithographs were large warned. graphs were also mounted.

Work done for other Departments.—The principal item under this class was the revision of plans and schedules for the triennial assessment of the Property-tax Department. This work was in hand after my previous report went in. The total cost was £79 8s. 4d., and that for the period subsequent to the 1st July last £32 15s. The other items were trifling amounts for services performed for local bodies, &c; £23 9s. has been collected in the Survey Office for sundry fees.

Future Operations.—Owing to the strong demand for land which has been experienced within the last few months, it has been found necessary to considerably strengthen the field staff, three temporary surveyors having been engaged since November last, and probably one or two more will 43  $C_{2}$ .

be required, as, taking the area shown "on hand" in last month's report—viz., 93,457 acres—and the pastoral runs which will fall in early next year—145,569—acres there will be in round numbers a quarter of a million acres to survey for settlement and small grazing-runs. I propose to put the survey of these runs in hand almost immediately, as it will take all the time at our disposal to make the necessary surveys, prepare plans, and fix dates of sales, &c., before the 1st March next. It is desirable that this should be done as well to obviate loss of revenue as to cope with the rabbit pest. Settlement surveys west of the Waiau will be pushed on as fast as possible, and I am also desirous of opening the forest Crown lands at Waikawa as soon as possible, so that it may be necessary to place another surveyor there as soon as the triangulation is in a forward condition. Stewart Island has been attracting considerable attention lately, and I have placed a surveyor there with instructions to prepare a few thousand acres for settlement as soon as possible.

G. W. WILLIAMS, Chief Surveyor.

## APPENDIX No. 8.

ROADS: REPORTS ON THEIR MAINTENANCE AND CONSTRUCTION FOR THE NINE MONTHS ENDING 31st MARCH, 1892.

### AUCKLAND.

Fern Flat.—This road opens up about 3,000 acres of Crown land. Nothing has been done during the past nine months to the roads, though works are now being proceeded with. On the first portion of the road leading to this settlement, which is under the charge of the county, the bridge over the Oruru River, for which the county obtained a subsidy of £57, has, at their request,

been practically rebuilt under the supervision of this department.

Ökaihau-Victoria Valley.—Main road, opening up about 7,000 acres of Crown land, and giving a through communication between Waimate and Mangonui via Victoria Valley. The principal works have been the construction of about 22 chains of bridle-track, averaging 8ft. wide, and twenty-The road now open is 3 miles at the northern end. two small bridges and culverts. end, 8 miles have been constructed into a bridle-track. At present, however, the track is in very bad order, the bridges are many of them rotten, and unsafe for traffic. The works of repair are at present being carried out, but with the small sum of money available they are not of a very substantial nature.

Ahipara-Herekino.—Main road, opens about 6,000 acres of Crown land. Very little work has been done during the past nine months, though works are now in progress to widen in places; 5 chains of fascining and ditching have been made, and slips removed over 5 miles of road. This road, being the only outlet for the Herekino Village Settlement, ought to be widened so as to make it perfectly safe for wheel-traffic.

Herekino Village Settlement.—Beyond the removal of a few slips, and general repairs, nothing

has been done to these roads.

Herekino-Whangape.—Opens up about 7,000 acres of Crown land. No works have been done to this road during the nine months. It is intended, however, to construct two small bridges and

remove a few slips during the month, so as to make the road available for horse-traffic.

Herd's Point-Takahue Road.—Opens up about 20,000 acres of Crown land. A considerable amount of work has been and is being done on this road. The bridge over the Waitaraire River is now nearly completed. Twenty-six chains of road, known as Dunn's Flat, a continuation of the Herd's Point-Takahue Road northwards, has been metalled. Several portions of the road have been formed 15ft. wide, north of Takahue Settlement. Between the Takahue Settlement and Manganui-o-wai the track (average 6ft. wide) has been cleared of all scrub and kept in repair. Between Manganui-o-wai and Herd's Point the track has been widened at several of the bends, and the scrub cleared, so that now, by careful driving, a sledge can be taken along the line. The branch line to Kohukohu has been cleared of bush 1 chain wide for a distance of 20 chains, and the track throughout put in order.

Motukaraka Village Settlement.—Opens 3,000 acres of Crown land. Little work has been done in the settlement during the nine months. Works, however, are now in progress to improve the roads. The money available is small, and consequently many important works cannot be

undertaken.

Waimamaku-Pakanae.—Opens about 5,000 acres of Crown land. The work done during the nine months consists in widening roadway to 14ft. for a distance of 15 chains, and making 11 chains ditching and four culverts of a width of 15ft., and keeping in repair the road throughout.

Waimamaku Village Settlement.—Road opens up 4,000 acres of Crown land. The work done during the past nine months has been the construction of about 20 chains road 14ft. wide, and three open culverts 28ft. The present road to the Canterbury Settlement being found, from the nature of the country, to be continually slipping, it was considered advisable to make the track on the other side of the Waimamaku River available for wheel-traffic. The works were accordingly laid out, and the formation given to the settlers, who are now at work. About 10 miles of road have been laid out by Mr. Wright further up, which when constructed will open up some of the best land in the North Island. the North Island.

Punakitere Village Settlement.—Eighteen chains of road have been formed and three culverts repaired. The wire suspension-bridge, damaged by the floating logs, is being repaired, and the road

throughout the settlement has been kept in fair order

Opanake to Hokianga, or Kaihu-Punakitere Road.—Opens up 100,000 acres of Crown land, and will be a great boon to the Hokianga settlers, as it will enable them to get to Auckland within twenty-four hours, viâ Dargaville. The work done during the past nine months is 17 chains of roadway 14ft. wide, four culverts, and sawing timber for the bridges. When the small contracts now in hand are completed the most expensive portion of the road will be made. The road formed at present is about 7 miles at north end into a dray-road, and 6 and a half miles at the south end into a bridle-track.

Wairua-Helena Bay.—Opens up 2,000 acres of Crown land. The work done during the past nine months has been the widening-out of half a mile of the road and the construction of two

culverts, and the maintenance of the road throughout.

Opuawhanga-Whananaki.—One contract on this road has been let, and tenders are now called for the second contract. When completed the road will be formed through the Wanahe Block. The settlers are to be employed, with the money available for works in the Whananaki Village Settlement, in completing the road to the settlement.

Kawakawa-Whangarei Main Road.—The work done has been to improve 10 miles of the road

by widening it to 14ft.

Kukerenui Village Settlement.—Opens up 3,000 acres of Crown lands. No work has been done during the nine months. There is now being constructed about 3 miles of bridle-track from Towai to the perpetual-lease sections; also about 2 miles of bridle-track to give the Ramarama settlers an outlet to the main road. The other roads in the settlement are in fair order. The main road at Hukerenui South is being raised to keep it above floods, and the road leading towards the

Wairua Settlement is being constructed.

Wairua Bridge, and Road beyond.—Opens up about 10,000 acres of Crown land.

During the nine months 1½ miles of road was formed, and the portion of the road already formed kept in repair. At present one contract is let for the construction of about 6 chains of road across

Parua Bay Village Settlement.—During the nine months 2 miles of road 10ft. wide have been

constructed, and two small bridges of 8ft. span.

Paparoa-Waikiekie.—Opens up about 3,000 acres of Crown land. The works have been carried out under the supervision of the Otamatea County Council.

Opua-Waimate.—Opens up about 4,000 acres of Crown lands. Nothing has been done during the nine months, owing to the delays in securing the land through which the road will have to go. Two contracts are now in operation for the construction of about 2 miles of road. Nothing has been done during

Whangarei through Taheke.—Opens up 1,500 acres of Crown lands. Nothing has been done

during the nine months.

Whangarei-Mangakahia-Opanaki.—About 3 miles of this road has been surveyed. This road will open about 10,000 acres of Crown lands, and give connection with the Dargaville Railway.

Roads, Punakitere Survey District, Block IV.—This road is to be made so as to give an outlet

to the settlers at Ngapipito, and opens up about 4,000 acres of Crown land.

Helensville-West Coast.—About 2 miles 54 chains of dray-road have been constructed.

Omaha Village Settlement.—Nothing has been done during the past nine months. repairs and other improvements are now being proceeded with.

Waikomiti-West Coast.—About 1 mile 14 chains of dray-road have been constructed, and

about 5 miles maintained.

Hunua Road.—Opens up about 5,000 acres of Crown lands. Nothing has been done during the past nine months. A grant of £160 is now being expended by this department on the Whiskey Creek Road.

Akaaka Swamp.—Improves 3,000 acres of Crown land. Mr. Phillips has been engaged in subdividing the swamp into sections, and preparing plans and specifications for roading the swamp. Tenders being called, they were found to be so much above his estimate that none were accepted. Fresh tenders are to be called for.

Te Archa Swamps.—Nothing has been done; but tenders are now being called for deepening

and improving the drains.

Waingaro-Akatea.—Opens up 10,000 acres of Crown land. Nothing has been done; but works

are now being carried out to improve about 11 miles of road.

Whaingaroa to Mangapiko.—Opens up about 10,000 acres of Crown land. About 20 chains of road have been widened to make it available for wheel-traffic, and about twelve miles are now being widened and improved.

Whaingaroa-Waitetuna.—Opens up about 3,000 acres of Crown land. About 3½ miles of road have been widened so as to make it available for wheel-traffic, and about four miles and

a half are now being widened and improved.

Kawhia to Waipa and Raglan.—Beyond clearing away a few slips, nothing has been done to GERHARD MUELLER, Chief Surveyor. this road.

#### TARANAKI.

Pukearuhe to Mangaroa (Mimi).—The engineering survey of four miles of this road has been completed, and plans prepared for calling for tenders for the continuation of the portion already formed, six miles; but the work has been deferred for want of funds. The six miles already formed have been maintained, and a bridge injured by a heavy flood, is now being repaired.

Junction Road, Inglewood to Ngatimaru.— The Moa Road Board raised a loan (under the

Loans to Local Bodies Act) of £1,000, to which the Government added a subsidy of £1,000, in

order to form and metal part of this road. The work has been carried out by the Moa Road Board, and is nearly completed. The road has been metalled continuously from Inglewood to Board, and is nearly completed. about 15 chains past the Kaimata Road; and the worst parts are metalled fromthence to Mangaone

Roads east of Waitara (Ngatimaru).—The formation of the junction road between Mataro Road and Purangi has been carried out by the Milsom special settlers by piecework. Two miles have been completed, and the third is well advanced. The remaining 3 miles 57 chains have been let in four contracts, by tender, to settlers in the district. The first three miles is a cart-road; the remainder will be an 8ft. wide bridle-road, with cart bridges; and it should be open for traffic by about August next. The work is under the supervision of Mr. F. Hursthouse.

Huiroa District.—The expenditure under this head has been in felling the road-frontages to lands being felled by settlers. No track or cartway has been cleared, this work being left for the local bodies to do out of deferred payments and perpetual lease "thirds," after the bush has been burned. About six miles of road were felled in this manner.

Mangaroa to Stratford (East Road).—Since the 1st July, 1891, six contracts have been completed on this road, of a total length of seven miles, and eleven miles and three-quarters are in progress, three of which are to be metalled with machine-broken stone. The formation is of the standard widths, and the contracts will probably be completed by about September next. A length of 2 miles 16 chains (plans of which have been prepared and sent to Wellington), commencing at four miles from Stratford, still remains unlet. When this and the contracts in hand have been completed, the road will be formed to the Mangaere Block—a distance of twenty-one miles; but it will require metalling before it will withstand the heavy winter traffic of the inland country. The contracts are under the charge of Mr. J. Morgan. The survey of the extension of the road to Mangaroa will commence early in April.

Rotokare Road.—It having been decided to form a bridle-road from the Whareroa Road to and into the Mangamingi Block, the engineering survey of 3 miles 62 chains of the road was made, and plans prepared for the work, and sent to Wellington for approval. Up to the present, no tenders have been called for the formation. The line is a rough and expensive one to make, requiring an

unusual number of bridges.

Whenuakura Valley Road.—When the survey of this road—conducted by Captain Turner—had sufficiently advanced, a party of men was put on to form a bridle-road from the Kaharoa Road to the Kaitangiwhenua Block. The line is an exceedingly rough one, and expensive to make, and at the crossing of the Whenuakura Stream a high suspension bridge will be required, to avoid the rise of the stream in floods. About a mile and three-quarters is completed, and the work will advance at the rate of about three-quarters of a mile per month. The work is in charge of Mr. P. F.

Tikorangi Bridge.—The plan is now being prepared for this bridge, which will be of a length of about 179ft. The main span will be of a timber truss; the other spans will be of iron girders.

Tenders will be called for the work early next month.

Miscellaneous.—Under this heading is included the felling 1 chain wide, and clearing and stumping 12ft. wide, of over ten miles of bush roads leading to and through Crown lands sold during the past year. An additional four miles of this work is still in hand. It also includes the erection of a tourist-house 60ft. by 24ft., divided into five rooms, situate on the slope of Mount Egmont, at an elevation of over 3,000ft. The total cost, including fittings, &c., was £201, of which £101 was

raised by public subscription.

Expenditure.—The total expenditure on the above work (exclusive of works under the control of local bodies) for the nine months ending the 31st March was £4,020 15s. 3d., and the work was let in forty-one contracts. The contracts now in hand are—one, for metalling and formation, four miles; three, formation of East Road, seven miles and three-quarter; five, formation of Junction Road, four miles and three-quarter; one, repairs to Mangamaeho Bridge, Mimi Road; three, road-felling and stumping cart-way; four miles and the labour-party in the Whenuakura Valley Road. All the levelling and preparation of plans and specifications has been executed, as hitherto, by Mr. G. F. Robinson, who has also had general supervision of the work.

SIDNEY WEETMAN, Chief Surveyor.

### ROADS ADJACENT TO MAIN TRUNK RAILWAY.

Tunnel-Karioi Road.—On this road the maintenance by the contractors of No. 1 contract, 2 miles 68 chains, was satisfactorily completed, and the work taken over on the 18th August, since which time a sum of £16 has been spent in the removal of slips, &c. No. 2 contract, for 5 miles, has been let, and the work was satisfactorily completed on the 16th March. The contract is now under maintenance by the contractor. Two sections, of 3 miles, and 3 miles 30 chains, one joining each end of No. 2 contract, have been completed by Maoris under petty contracts or piecework. The whole of the work has been very well done. The total length of road made, but not metalled, during the period, is 11 miles 30 chains. All bridges and culverts are of first-class heart of totara. Plans and specifications for two more contracts, covering the distance of 11 miles 67 chains, which would connect the Mokau Railway-station and the tunnel, have been prepared. As the road- and railway-lines are in some places identical, and throughout the distance in close proximity to each other, and as the formation of the latter is now being done, the road will not be required—at any

Mangaroa-Stratford Road.—This road leaves the line of the main trunk railway, in the Ongaruhe Valley, at a point twenty-nine miles south of the Mokau Railway-station. It passes over the divide between the waters of Ongaruhe and Ohura, following down the valley of the latter for twenty-four miles, when it crosses the river and a low saddle, entering the valley of the Mangaroa.

and crosses that river at thirty miles from the starting-point. The first ten miles of the distance is through land which is not of good quality, although no doubt it will some day be used for grazing purposes. The hills are generally bush-clad on the top, the remainder being covered with fern and manuka scrub. From ten to thirty miles the soil is nearly all first-class. The width of the valley varies, but averages, I should say, about half a mile of level first-class land, with, in most places, easy slopes, steepening as they rise to the hill-summits on either side. I think the width of useful land will be from one and a half to two miles. There are no large streams to cross except the Ohura, and no swamps of more than about a chain in width. This length of the road can be easily made. One contract for six miles of bridle-track, beginning at the Ongaruhe end, was completed early in October last: since then no further work has been done. Before I took charge of the road Mr. A. B. Wright had completed the survey of the thirty miles above described, but no extension of the survey was made up to the 31st March. A party under Mr. W. H. Adams is now, however, carrying on the survey towards Stratford. I believe the Government has lately purchased some 20,000 acres of land near the Mangaroa, which this road will assist in opening up.

Otorohanga to Kihikihi.—No work has been done on this road excepting some small repairs to

the approaches to the Puniu Bridge, at a cost of £4.

Waitomo Caves Road.—This has been maintained for traffic at a cost of £6 11s., but now requires to be cleaned up before winter. I enclose a statement showing length, &c., of roads, and

Turangarere-Tokaanu (to boundary of district, 30 miles).—A length of 11 miles of new road has been completed except bridging the Mangatarata Stream, where at present there is a ford. It will require a 40ft. span, and should be done, as the ford is not good, and when the stream is in high flood traffic is stopped. Four miles of the new road was done by Maoris in petty contracts, and the remainder by ordinary contract by Europeans. Another contract for a length of  $3\frac{1}{2}$  miles is in hand, and so far good progress has been made with it. When the contract in hand is finished the road will be completed to the district boundary, excepting the bridge above mentioned and one to cross the Mangatoetoenui in the length now under construction, but which is not included in the contract, which provides for a ford only. I consider that both these bridges should be built as soon as possible, as both or either of the streams when in high flood will completely stop traffic. The Mangatoetoenui will require about 80ft. of bridging. Two men have for two months been constantly employed in repairing damage done by rain-water. The soil is very light, and of an extremely friable neture, so that the beauty rains which frequently covery in the legality cause great erodetion. nature, so that the heavy rains which frequently occur in the locality cause great erodation. From this cause the part of the road between the Poutu Bridge and Rangipo Desert, will, I think, be expensive to maintain.

Rotoaira-Waimarino (32 miles).—At present there is very little traffic on this road, but it requires repairing after very heavy rains. The Mangatepopo Bridge has been built and the approaches to it made; four new culverts also have been put in at Heretoa. The erection of the Wanganui Bridge

is in hand. Maintenance men are employed as occasion requires.

Taupo-Tokaanu (36 miles).—This road requires a good deal of widening in places, and putting in a better state of general repair by the time the Turangarere-Tokaanu Road is finished, so as to afford a good continuation of that road on to Taupo Township. Hitherto the road has been repaired only when and where it was absolutely necessary to do so to keep it open. No men are regularly employed on it. There are three unbridged streams on it which, when flooded, are not fordable; to bridge them would cost about £1,500. The road is in a passable state for light traffic.

Main Roads.

Oxford-Rotorua (33 miles).—The work done on this road has been entirely in the nature of maintenance. The road is in as good order as can be expected, considering that no part of it is metalled. The Ngongotaha and Utahina Bridges, which are common to this and the Tauranga-Napier Road, require extensive repairs, which must be done before next summer. Four men were employed in maintaining this road during the summer, but it will be necessary, in order to keep it passable, to increase the number to five during the winter and spring. There is considerable heavy-wagon traffic on the road, a large quantity of stores and timber for Rotorua pass over it, and the return wagons are generally laden with sulphur ore. There is considerable heavy-wagon

Tauranga-Napier, via Taupo (190 miles).—Only maintenance work, so far as I am aware, has been done on this road. It is in fair order. The bridges at Tahungatara and across the Waikato River at Atiamuri require considerable repairs to be made soon, as also does that at Mohaka. Ten men are constantly employed on the maintenance. Sixteen miles in length of a branch of this road—from Atiamuri towards Lichfield—has been maintained; one man is employed on it. Most of the imports into the Taupo and Tokaanu districts now pass along this branch from the railway at

Lichfield.

Maketu-Rotorua (36 miles).—This road is in very fair order; as soon as possible, however, a bridge should be built across the Waiwhakaritu stream, the ford at which is constantly getting out Two men are employed on the maintenance of this and the short branch of 2 miles to of order. Tikitere.

Miscellaneous Works.—The works at Lake Rotorua outlet have been very nearly completed; what remains to be done is some work for the better protection of that already done, and some small groins. The alteration of a pier in the Morea Bridge and the removal of a few snags are necessary to deepen and otherwise improve the waterway of the Ohau channel and render it navigable for small When this is done there will be opened a very pleasant and picturesque water-trip around both Lakes Rotorua and Rotoiti.

Rotorua-Waiotapu (20 miles).—The road has been maintained in good order. widening at some of the bends, which are too sharp and narrow for wagons with long teams to be safely driven around them. One maintenance man has been constantly employed.

Waiotapu-Wairakei (about 28 miles).—A survey for a road running down the Valley of the Waiotapu towards Wairakei has been made from the end of the present formation to the Waikato River, a distance of 113 miles. On the Wairakei side of the Waikato nothing has been done that I am aware of except some exploring by the late Mr. Blythe. The construction of the part surveyed will be easy and inexpensive. I have not yet been to the crossing of the Waikato River on this road-line,

but understand that a somewhat extensive bridge will be required.

Rotorua-Galatea (38 miles).—The first 20 miles of this road from Rotorua is identical with the Rotorua-Waiotapu Road. Beyond Waiotapu about 3 miles of the road is formed, and beyond that a survey is in hand for an extension of the works up the grade to the plateau of the Kaingaroa Plains. Tenders for the work of forming this part of the road will be called for as soon as possible. Across the plains and down the incline to Galatea the road is pretty well in a state of nature. No labour has been employed on the maintenance except close to Waiotapu, where some repairs have been done.

Huka Falls-Puketarata (9 miles).—This road has been kept in fair order. Some points in the side-cuttings, which are narrow, require widening, more especially on the part between Wairakei

and Puketarata; this can be done from time to time when other repairs are being made.

Rotorua—Te Wairoa.—This road has been repaired from time to time as the necessity arose, and is only kept open as a bridle-road. I think, however, that it might now be reopened for wheeltraffic, which would enable many more visitors to see Lake Tarawera and the seat of the recent eruption than can do so now.

Three overseers are employed in the district, and are stationed at Rotorua, Taupo, and

C. W. Hursthouse, Road Surveyor.

Wanganui-Murimotu Road (more generally known as Field's Track).—The work done on this road since the 30th June last has been chiefly maintenance, there not being sufficient money available for undertaking new works of any magnitude. The worst part of the whole road lies immediately beyond where the dray-road at present ends. Last July about a mile was there laid out for construction, but nothing so far has been done to it. This part is specially objectionable on account of there being two deep ravines, across which in wet weather it is very difficult and dangerous to take pack-horses. One requires a tunnel and large filling, and the other requires a 40ft. bridge. About two miles at this part ought, if possible, to be constructed during the coming year. A summary of the work done during the period under consideration is as follows: Fifty-three new culverts, one new bridge, 10 chains water-tables, 41 chains side-drains, 88 chains light sidecutting, 100 chains scrubbing, burning, and sowing; one whare. F. Pemberton, the present overseer, is leaving on the 30th April, after several years' very diligent service. The total expenditure for the period is £239 9s. The returns of traffic are: Travellers on horseback, 2,368; pack-horses, 1,407; sheep, 125; cattle, 69. From the 1st October to the 21st December I had two men engaged in cutting a walking-track and Tunning trial-grades from Parapara up the Mangawhero and Makotnku Valleys, as far as the Pipiriki-Ohakune Road. This work cost £47 14s. The first mile from Parapara will entail some heavy work; otherwise the route is almost entirely over easy sidelings and flats, and will cost very little to convert into a good horse-track. The proposed line traverses a large extent of bush country, which will, when cleared, make excellent grazing-farms. This route will be about twelve miles shorter from Wanganui to the Wanganui route will be about twelve miles shorter from the will be about twelve miles and the will be about twelve miles an

Kuripapanga-Karioi Road.—The sections of this road from Kuripapanga to Moawhango, and from Waitangi to Karioi, have been chiefly maintained by station-owners along the line, and by Road Board rates. The road from Moawhango River to the Waitangi Stream is the only part which has been maintained entirely by the department. The expenditure for the nine months on this twenty-two miles is £80 10s. When required, one or two men have been engaged on the this twenty-two miles is £80 10s. When required, one or two men have been engaged on the road, but there is no one permanently stationed on it. The principal work done has been putting a rubble bottom, aprons, and wings on the Tuhirangi Creek culvert, corduroying the road at boggy places, and cleaning out culverts, water-tables, &c. The Moawhango ford still remains undone, and urgently requires improvement; but the Natives will not yet consent to letting it be constructed. This, with the widening and metalling of the road through the Turangarere Bush, and the erection of a bridge across the Hautapu, are the works which should be undertaken during the ensuing year. In the open country there are also some places where extra tussocking and levelling might be done with great advantage to the road. The traffic between Moawhango and Turangarere has been heavy, consisting chiefly of bullock-drays laden with wool. On the remainder of the road to Wai-

tangi there has been very little wheel-traffic.

Hunterville-Turangarere Road.—During the past nine months there has been a very large amount of work done on this road. It is anticipated that by the end of May through draycommunication will be possible between Hunterville and the open Murimotu Plains, and by next Christmas coaches will be able to run from Hunterville to Tokaanu, a distance of about a hundred Great delay in the completion of the road and annoyance to the travelling public has been caused by contract No. 4 being thrown up by the contractor on account of alleged breach of contract. Eventually, however, he has agreed to complete it. The total expenditure for the period ending the 31st March is £7,731 Ss. 8d. Of this sum, £6,869 19s. 4d. has been expended on large contracts; £480 4s. 1d. on contracts under the co-operative principle; and the remainder, £381 5s. 3d., on surveys, inspection, and maintenance. Mr. J. Barron has for the whole time been inspector of the large contracts and maintenance party, and Mr. A. L. Soufflot has been in charge of the co-operative contractors since the middle of January. A summary of the work done under contract is as follows: 15½ miles dray-road formation; 14 miles bushwork (felling,

stumping, and clearing); 100 chains metalling; 4,450 lineal feet of culverts, varying in size from 6in. by 8in. to 6ft. by 8ft.; 210 running feet of bridges. The work done under maintenance includes the usual removal of fallen trees, slips, clearing out of water-tables, culverts, &c., and also extra bushfelling at places along the road which remained constantly wet by reason of the road not being sufficiently exposed to sun and wind. This bush-felling has had a most beneficial effect, and evidences the advisability of having the bush felled 3 chains wide in heavy forest country. Between 13 miles and 21 miles this road is very subject to slips, and will for some years to come entail constant attention. Between 29 miles 60 chains and 31 miles 40 chains the road is also over sideling of a slippery nature. Otherwise the route will be easy to maintain. Good beds of metal have been encountered at various places, but long haulage will be necessary at both the above-mentioned slippery sidelings. The traffic along this road is certain to be so heavy that it should, if possible, be metalled throughout as early next summer as the state of the road will permit of such work. A contract for  $2\frac{1}{2}$  miles of metalling is at present in progress: this, when completed, will insure a good winter road as far as the 10-mile peg.

good winter road as far as the 10-mile peg.

The co-operative contracts have so far been very successful. The men have found their own picks, shovels, mattocks, and axes (all other necessary tools being supplied to them), and are receiving 7d. per cubic yard for earthwork and 1s. per cubic yard for papa, with other prices in proportion. The wages earned have ranged from 8d. to 1s. 3d. an hour, according to the ability of the men and the character of the work. This co-operative section will be completed by the 30th April, and will probably cost less than the estimate. The Awarua Block (Native), through which the road passes for over 20 miles, contains land of good quality; besides, the road provides better access to the Otamakapua Block on the east and the Tekapua Block on the west. The worst part of the whole road is known as Vinegar Hill, near Hunterville. It is under the supervision of the Rangitikei County Council. It was badly formed at first, and, through defective maintenance, is

now every winter in a disgraceful state.

Turangarere-Tokaanu Road.—Contract No. 4 of this road—price, £1,350—is at present in progress, and I have a party staking out the eighteen miles which still remain to be let. Some slight deviations are being made where this can be advantageously done. This road will be opened for

through traffic next Christmas.

Tunnel-Karioi Road (South End.)—Practically no work has been done on this road during the past nine months, except since the middle of March, when I started a party of six men stumping and clearing the section from Ohakune to Karioi, a distance of eight miles and a half, of which seven miles is through bush. One party of co-operative labourers is already at work on the formation, and three other parties will be started immediately. Only work which is absolutely necessary to allow of dray-traffic is being done at present, and care is being taken that all work executed is on the permanent lines and grades. These works are under the supervision of Mr. C. Field.

Pipiriki—Ohakune Road.—The total expenditure upon this road for the nine months ending the 31st March is £4,963 19s. 3d. The engineering survey of the central nine miles of this road was completed in August, 1891, at a cost of £128 7s. 5d., including plans and specifications. There has been a day party of from two to four men constantly at work for the last nine months on the central nine miles. Cost of day party to date is £255 13s. The work done consists of 9 miles scrub-cutting, 12 acres bush-felling, 60 chains stumping and part clearing, side-ditching, culverting, repairs to bridges, &c. From 6 miles to 8 miles and from 17 miles to 25 miles the horse-track (previously existing) is at present under conversion by contract into a coach-road. About eighty men are engaged on these works. Both these parts will probably be completed early in June. The total cost of these contracts will be £5,158, and the expenditure to date has been £1,984. The work done consists of 545 chains stumping and clearing, 450 chains formation, 330 lineal feet of culverts varying from 6in. by 8in. to 4ft. by 4ft., with one 60ft. bridge and one 30ft. bridge. These works, as well as the day party, have been under the supervision of Mr. C. Field. From Pipiriki, at 0 miles, to 6 miles is now almost completed, and will by the end of April be open for dray-traffic. This part has been constructed by unemployed labour, under the supervision of Mr. A. W. Brooking. Total cost to date, £2,595 18s. 10d. This includes 60 chains re-formation of old road, 4½ miles new road-formation, 1½ miles bush-felling, 3 miles light stumping and clearing, 500 lineal feet culverts varying in size from 12in. by 12in. to 48in. by 48in.

The number of men ranged from seventy in November, 1891, to thirty in March, 1892. The

The number of men ranged from seventy in November, 1891, to thirty in March, 1892. The prices were 8d. per cubic yard for earthwork, and 1s. 2d. per cubic yard for papa, with other prices in proportion; and the earnings have ranged from 4d. to 1s. 6d. an hour, according to the ability of the workers and the nature of the materials. The cost has agreed very closely with the estimate,

and the work as a whole has been unusually well done.

It is very desirable that the central nine miles of this road should be made passable for coach-traffic by next February. It should therefore be put in hand as soon as ever the money is available. The Ohakune–Karioi Road should also be properly constructed throughout as early as possible. During the next few years there is certain to be a very large amount of settlement going on in the Waimarino Block; consequently a road must soon be made, and I am of opinion it should be done at once.

Wanganui River Improvement.—The expenditure for the nine months ending the 31st March is £842 12s. 1d. The work was commenced on the 6th April, 1891, and has been carried on continuously since. All the rapids have been cleared of snags as far as Pipiriki—that is, a distance of fifty-six miles from Wanganui—though actual operations extended only over forty miles. Up till the first February there was only one punt and, on an average, about six men engaged at snagging; but since then there have been two punts at work. Work is at present going on at four different places. About thirty men in all are employed, partly at contracts and partly at day-work, all under the supervision of Captain Marshall. The work will be handed over to the Wanganui River Conservators Board as soon as the total amount of the present authorities is reached. I am submitting a report on the

whole subject to the Chairman of the Board. The river is now practically clear of snags for a width of 80ft. throughout, and when the groins now in hand are completed the navigation up to forty miles will be unimpeded for any boat up to 18in. draught, and above that distance, except for perhaps two months in the year, there will be nothing to stop a steamer of such draught. The Conservators Board will require to make further improvements at four or five rapids before the river can be said to be navigable at all seasons for steamers of 18in. draught. If the river were made capable of unobstructed navigation to Taumaranui at all seasons for steamers of this draught it would give an immense impetus to the up-river settlements; but even to Pipiriki it will have a very beneficial effect on settling the Waimarino Block.

G. T. MURRAY, Road Surveyor.

### HAWKE'S BAY.

Ormond-Opotiki. £272 8s. 6d. has been spent in maintenance since 30th June last. Sixty miles of this road is through the forest known as the Motu Bush. It is felled a chain wide, and a horse-track formed. Three maintenance-men are constantly employed upon it, clearing fallen timber, repairing culverts, and generally improving the track. Last winter two extra hands had to be taken on for a time to assist in clearing the slips that had blocked the traffic. Drays can now be taken to within 5 miles of the bush, 36 miles from Gisborne, and contracts are let for the widening of another 3½-mile section. It is an important road, forming the main one to 40,000 acres of Crown land, which is being rapidly settled, and it would be a boon if a vote of one or two thousand pounds could be procured for continuing the widening for wheeled traffic.

Tautane-Weber.—The only work under this vote has been the completion of two important bridges, one of 55ft. span over the Rhone Creek, about three-quarters of a mile from the Weber Village; the other of 41ft. span over the Crooked Creek, on the Danevirke-Wainui Road, four miles

from the village. £372 12s. 2d. was paid on account of these two bridges.

Miscellaneous and Engineering.—£279 1s. has been paid on account of Messrs. Hallett and Laing's contract for the engineering survey of 54 miles of the roads Frasertown to Waikaremoana and Wairoa to Mahia. The cost of the survey was the Government's contribution, the County Council raising a land Weiler of the purpose of forming them. The first-mentioned section benefits the

Crown land near Lake Waikaremoana, and the Mahia Road that at Nuhaka North.

Tauranga-Napier Road (Taupo Road).—Fifteen miles and a half of deviation is being made to avoid the numerous crossings of the Esk River, and the bad hill near Kaiwaka. It commences at Marshall's Flat, and rejoins the old coach-road at Moore's Gate, near Pohui. The Government has agreed to assist the County Council in the construction to the extent of £2,500, £1,600 of which has been handed over to that body on account of works completed or in progress. Contracts have been let for 11½ miles, the greater part of which has been finished. The cost of the work will be far in excess of the grant. THOMAS HUMPHRIES, Chief Surveyor.

# WELLINGTON.

Mangawhio Road, with which may be considered the votes for Kaimanuka-Rawhitiroa, Waitotara-Omahine items (51, 59, and 71).—Mr. Bristed prepared plans and specifications of 6 miles 15 chains of horse-road, Mangawhio to Waitotara River, contracts for which are nearly finished. Four miles and a half of the continuation of this road up to the Taranaki District, via Waitotara River, has also been engineered, and is now ready for contract, the expenditure on construction for

the period being £486.

Puketoi Roads.—Mr. J. D. Climic prepared plans and specifications, together with an engineering survey of 1 mile 48 chains, of the Makuri-Aohanga Road. Two contracts, comprising 2 miles 43 chains, of the Holmes-Warren Road were completed for dray-traffic. Mr. King prepared a further length of 2 miles, which is now in progress; and a further continuation of 6 miles has been surveyed and levelled by Mr. Hughes, tenders for which could be called for at any moment.

Mr. Greville, as well, has 4 miles nearly completed, and other portions are in hand.

Kaiwhata Valley Road.—Work under this vote has been confined to an expenditure by Mr. Sheep Inspector Drummond of £23 for sowing with grass roads and bush over which fires had

previously run.

Pohangina to Oroua.—2 miles 20 chains of Branch and London's road was completed for horse-traffic at a cost of £241. Mr. Lowe laid off and prepared plans and specifications for an additional length of 2 miles 57 chains, which is now in progress.

Road, Oroua River: Subsidy, £1 for £1.—The Kiwitea Road Board spent £50 in making 1 mile

15 chains for dray-traffic.

Otamakapua Roads.—The Kiwitea Road Board have completed the following works—namely, 2 miles 56 chains of the Tapuae Road for horse-traffic, the Government contributing to the extent of £300.

Pukerimu Road in the same manner for 1 mile and 41 chains, the subsidy from Government

being £194.

Whare Road for a length of 2 miles and 26 chains was constructed for dray-traffic, the Govern-

Otaki to Foxton Road.—Fifty-one chains of metalling was completed by the Horowhenua County, the Government assisting to the extent of £156.

Miscellaneous and Engineering.—The Taratahi-Carterton Road Board formed for dray-traffic, 1 mile and 40 chains, the Government contributing £300.

7—C. 1.

Gladstone to East Coast.—The Pahiatua County Council had the bush fallen on 62½ chains

of the Opuratai Road, £10 being granted by Government.

The Eketahuna Road Board constructed a bridge for dray-traffic on the Mangaoronga Road, The same body completed 25 chains of Hefty's Road for dray-traffic, the Government giving £40. the Government finding £25.

Engineering and Supervision generally.—£502 15s. 1½d. was spent in preparing plans and supervising road-works on hand, as specified in statement of accounts attached. This all came out

The Unemployed.—£472 15s. 4d. was paid out of Survey vote for Messrs. Greville and Reaney's supervision of "unemployed" works in the Pahiatua County.

Village Settlements.—The Pahiatua County Council expended a Government grant of £200 in clearing and deviating the Mangaramarama Stream to prevent damage from overflow in the Pahiatua Village Settlement. The same body stumped and cleared a road 31½ chains long by 16ft. wide, together with drains and culverts, in the Mangatainoka Village Settlement, the Government

giving £30.

The Rangitikei County Council constructed a bridge 12ft. span, and felled the bush for Village Settlement, the Government contri-20 chains, on the Paraekaretu Road, Hunterville Village Settlement, the Government contri-

buting £10.

Mr. Reaney, Road Surveyor, Pahiatua, reports: During the nine months ending 31st March, 1892, I have been entirely engaged in the construction of roads by the unemployed, who have been recently developed into co-operative contractors, the work being on the Makairo, Makuri Gorge, and the Palmerston-Pahiatua Roads. I have during that period found employment for over four hundred men, most of whom were provided with stores, including clothes, and medical aid when necessary, and all of them with tools and tents.

I have also done, in connection with the above, six miles of engineering surveys and plans on the Makairo Road, and have taken out the quantities of four and a half of them during the progress of the work. I have also taken out the quantities and progress and plans on the work. I have also taken out the quantities and prepared twenty small contracts for four miles of the Makuri Gorge Road, and have constructed eight miles and and a half of that and the

Makairo Road for dray-traffic.

The first 150 men placed on the Makairo Road were anything but a satisfactory lot of workers, and the work done by them was consequently expensive, both in execution and supervision. On the Makuri Gorge Road a better class of men were put on at the start, and a better system of working was adopted. The work, which was of a somewhat difficult nature, has been done in a satisfactory manner at a reasonable cost. On the Palmerston-Pahiatua—Road thirty men have been started, the works having practically just been commenced. The majority of the four hundred men having been dealt with individually entailed a considerable amount of office-work, accounts and book-keeping, the inward correspondence being 515 letters and papers, outward 575, being a total of 1,090; the amount of imprest money paid away, mostly in small amounts, and accounted for, being £2,800.

During the first three months of the period Mr. R. P. Greville, Assistant Surveyor, had the

management of the works on the Makairo Road.

I am glad to report that all our work, although of a dangerous character, and many of the men inexperienced, has been carried out free from any serious accident, a fact largely due to careful and patient instructions given by the overseers, of whom I cannot speak too highly. The following is a detailed statement of the work performed:—

Makuri Gorge Road.—Formed 14ft. wide, 4 miles; cost to date, £1,418 10s. 11d.; number of contracts in operation during period, 19; number of men employed, 80. Mr. J. D. Climie made an engineering survey, and prepared plans and specifications for 3 miles and 67 chains of dray-road, which is now being carried out under the co-operative contract system.

Makairo Road.—Surveyed, 6 miles; graded and pegged, 6 miles; formed 14ft. wide, 4½ miles; culverts, 163ft. total length; cost, £3,236 7s. Forest-felling and clearing, 66ft. and 33ft. wide, 41 miles; number of contracts in operation during nine months, 67; number of men

employed, 232.

Palmerston-Pahiatua Road.—Mr. Frith prepared plans and specifications for the construction of a horse-road, and the formation is now being made by co-operative contracts.

J. H. Baker, Assistant Surveyor-General.

## MARLBOROUGH.

Bridle-track, Rai Valley to Tennyson Inlet.—A continuation of present track up the Rai Valley over the dividing-range into Tennyson Inlet. Formation, 4ft. wide, with bush cleared half a chain wide. 1 mile 49 chains of formation completed, and 17½ chains of bush felled, and 111 chains partly felled. This work is being done by day-labour under the charge of Overseer Huddleston, and

will shortly be completed, and it will render more accessible about 14,000 acres of Crown lands.

Spring Creek Wharf, and removing Snag.—An extension of the present wharf in the Wairau River, near the railway-bridge. Fifty pounds of this vote has been granted for expenditure by the Spring Creek Rivers Board, and plans and specifications prepared and approved, and a contract let,

but no work has been commenced.

Pelorus and Rai Valley Road.—Part of vote 92, item 9. Formation and gravelling, clearing water-tables, &c. A hundred pounds has been granted to the Pelorus Road Board. Sixteen chains have been formed, and 16 chains metalled. This work is just completed, but it has not yet been HENRY G. CLARK, Chief Surveyor. passed for payment.

### NELSON. MAINTENANCE.

Nelson, Tophouse, and Tarndale.—The Waimea County Council has expended £114 7s. 6d., part of vote for previous year and partly from county revenue. The work done is general repairs, removing slips, repairing bridges, &c., over a distance of 28 miles from Bellgrove to Tophouse. Beyond the latter point the road to Tarndale has been allowed to get into such bad repair that great difficulty is experienced in getting through; and the accommodation-house at Rainbow Crossing has been burnt. A sum of about £200 should be available next year to keep this road open, as it is the only direct inland road between Nelson and Canterbury. The portion from Tophouse  $vi\hat{a}$  Wairau Gorge is in the Amuri County, the Board of which has expended nothing on it, and has declined to undertake the repairs required.

Nelson, Westport, Greymouth, &c.—The Waimea County Council has expended £325 3s. in maintenance and general repairs over a distance of 19 miles between Spooner's Range and Hope Junction. The Inangahua County Council has expended £800 out of this vote in maintaining 45 miles from the crossing of the Grey to the Dee River, Nelson Road, and White Cliffs-Westport Road, and 40 miles length from the Eight-mile Creek, Lyell, to the Hope Junction; a total of 85 miles. The Buller County Council has expended £1,648 0s. 9d. in maintenance and repairs of this road for a distance of

48 miles, from the Nine-mile to Junction, and Eight-mile Creek east of Lyell.

Nelson, Havelock.—A sum of £43 17s. 6d. has been expended by the Waimea County Council in repairs between the Wangamoa and Rai Saddles outside of the county boundary, which has been refunded by the Government. No expenditure out of vote has taken place within the boundary of the county this year; but the gravelling of the Wangamoa Valley has been authorised and will be undertaken by the county shortly.

Ahaura Bridge.—Contribution. Of any expenditure on this I have no information.

### Construction.

Port to Stoke, viâ Coast.—This work is under the supervision of Nelson City Engineer, and the work has been commenced.

Waiau-Hanner.—Relief-works for the unemployed were put in hand last September by the Government under the supervision of Mr. F. S. Smith, District Surveyor, and £1,530 has been expended. The work was let in small contracts, consisting mostly of cuttings and formation. Report attached.

Ngatimoti Bridge.—The main wire for this bridge has been provided by the Government and delivered to the Pokororo Road Board. Tenders were called for its erection, but the prices received were considerably in excess of the vote. Since then the Board has merged into the Waimea County Council, and the work has not been proceeded with to date.

Wairoa Gorge Road.—The sum of £261 7s. has been expended on construction of dray-road, —bush-felling 66ft.—12ft. wide. The total length constructed is 99 chains. Access will be given to about 8,000 acres of land. In charge of Waimea County.

Dovedale Road.—No expenditure has taken place on this road within the year by the Waimea County Council; but the sum of £100 has been authorised, and works will be done to that amount shortly.

Mangles and Matakitaki.—Tenders have been accepted by the Inangahua Council for construction of 3 miles of dray-road, on the 4th February, for £627, and on the 18th March for 4 miles further for £889; making a total of £1,516: the Government contributing £400. This work is in

Riwaka Valley Road.—Relief-works were provided by the Government under supervision of Chief Surveyor. Ninety-one chains of dray-road was constructed 14ft. wide; 3½ chains stone drains and culverts. Crossing of deep ravine filled in with crib-logging protection. Formation included \$\mathbb{E}\$ chains of cutting through hornblende and granite rock. Thirty small contracts were let, averaging \$\mathbb{L}\$2 16s. per chain. The total expenditure was, \$\mathbb{L}\$367 3s. 1d. less value of tents, tools, &c., remaining.

\*Purchase of Roads to open Crown Lands.—There has been \$\mathbb{L}\$91 18s. expended as compensation

for taking short pieces of road through freehold sections to give access to about 4,000 acres. John S. Browning, Chief Surveyor.

# Amuri District.

In August last I received instructions to report on the roads with a view of placing some The road which appeared to be of the most importance was the of the unemployed on the work. Culverden—Hanmer Plains Road. This required the grades flattening and the flats metalled; but, owing to the road not having been put in the proper place in the first instance, no great improvement could be made without having breast cuttings, which had to be done in some instances, while in others Mr. W. O. Rutherford allowed me to make some small deviations on to his land, with the understanding that we should pay for the fences being put in good order again, he doing the work himself, and sending in the bills to the Government; this has not been done yet.

The work was started with fifteen men on the 31st August last. They were joined by fourteen others on the 15th September, eight more men came up on the 3rd October, and four more on the We had generally about thirty-five to forty men on the works up to about Christmas time; they then left to take other work. A sum of £1,530 17s. 6d. has been expended up to date. This includes everything except the item for fencing above alluded to, which will probably be about £20. Against this, however, there is a credit of £28 7s. 6d., made up of cash from contractors

for powder, forge, &c., and new, or nearly-new, tools got for the work, and now in hand.

The work was done by piecework or petty contracts—that is, we priced the work and offered it to the men at that price. This worked fairly well, although it is almost impossible to put a price on any work—where one party will make good wages another party would not make tucker; but,

considering the varying capabilities of the men, it works fairly well, but necessitates a very large discretionary power being placed in the hands of the person in charge. I think that in the event of any new works being started it would be decidedly better to call for tenders amongst the men sent up, and let them arrange their own parties. It would probably result in a slight increase in the cost of work, but it would give greater satisfaction to the men themselves, and reduce the responsibility of the person in charge. The only time we called for tenders was when several parties had cut out at the same time: it then resulted in an advance of nearly 20 per cent. on the former rates. This established a sort of precedent, which was amply quoted against us when pricing other jobs to

The wages made on this work varied as the capabilities of the men—good men could make from 1s. to 1s. 2d. per hour, while poor workers only made 7d. to 8d. per hour. The men generally worked very long hours, and worked very hard. Some of the men who were able to employ carts, ploughs, &c., made more than those who could not get these helps. I believe this kind of work costs from 20 to 30 per cent. more than it would if it was tendered for in the open market, chiefly because the unemployed have not got the means to get teams and other appliances necessary for the economical and expeditious working of the job.

The greatest difficulty we found in this work was getting the men to work together. They always thought that the others were not working as hard as they might. All the good men want to get together, and will not take a doubtful man in their party: the result is, all the good men do get together, and all the bad are left to get on as well as they can. This greatly increases the difficulty of pricing the work so that all can make fair wages, for if you give the poor men an extra price it is giving a premium to incompetency, and creating discontent among the others; while, if you only give him the same as the good workers, it simply means starving the poor workers off the job.

Parties over four men do not appear to work well, and the difficulty appears to increase with

the number of men.

A line of road has been surveyed on the Hanmer Plains between the Hot Springs and Jollie's Pass, the plans and specifications for which will be ready soon.

The tools are now stored at the Hot Springs to be handy for the above work, should it be under-

taken this winter.

The cost of survey, supervision, &c., has been very heavy for many reasons, chiefly owing to the fragmentary nature of the surveys, the small contracts necessitating constant attention, and letting other small jobs, the frequent payments required, and the immense amount of what one may call "dry-nursing" the men required, that wanted everything done for them.

F. STEPHENSON SMITH, District Surveyor.

## WESTLAND.

Hokitika-Christchurch Road. - As indicated by the name, this road forms the connecting-link between the East and West Coasts, via Arthur's Pass, and is a favourite route for tourists, who come from all parts of the world, and cross over by coach to see the far-famed Otira Gorge. During the past summer there has been a large influx of tourists, and on an average there have been three five-horse coaches running twice a week each way. The season has been an expensive one on account of several severe floods, which have in succession damaged the road, in many cases carrying it completely away, and in others covering it up with heavy landslips, while the fords have to be made afresh after each, as they are constantly shifting. Several of the bridges have been repaired, strengthened, and tarred, a large number of culverts have been lifted and renewed, and a considerable amount of river protective works constructed by means of crib-logging, &c., also one or two short deviations made to avoid steep pinches. Notwithstanding the frequent breaks through floods, however, and thanks to the energy of Mr. McIntosh (our local Inspector of Works) and his men, the interruption to coaching traffic has been but slight. The destruction by fire of one of the roadmen's huts (which had to be rebuilt), and also the purchase of a couple of young draught horses during the period, help to increase the total cost, which amounted to £1,750 14s. 9d. The length of road maintained from Harris's to Pass is thirty-nine miles.

Haast Pass Road.—This is a bridle-road leading from the mouth of the Haast River via the Haast Pass to the Wanaka Lake and East Coast, the portion of it in this district being fortyeight miles. This is a fairly passable track during the autumn and winter months, but in spring and summer it is not so safe, owing to the melting snows swelling the rivers. The greatest obstacle to traffic, however, is the Clarke Bluff, near the junction of the Landsborough with the Haast River. This is a precipitous rocky bluff against the base of which the river runs, and when the latter is high a complete stop is put to traffic, but in ordinary times the bluff is avoided by crossing the river twice. On the upper end of the bluff, a track was cut round for some distance, and again on the lower side; but a gap of some 10 or 12 chains of the most difficult part was left untouched, and, as this is pretty well a straight face and solid rock, it would probably cost about £200 to complete it. There are also three other bluffs lower down where a track has been cut round, but which could be greatly improved. In one or two other places, where the present track takes up the river-bed, a track would require to be formed round the foot of terrace if there was to be any considerable traffic on the road. The bridge over the Wills River has been replanked, sundry culverts repaired, slips removed, and a few chains of very boggy ground near Grassy Creek flat have been drained, formed, and fascined. The total cost, by our books, has been £131 10s. 2d., but I understand sundry other works were done on the occasion of His Excellency's trip through. As these were not done through this department I am unable to state the Clarke Pluff and the open the control of His Excellency and the open the open to be the open shelter-huts (built of iron)—one below the Clarke Bluff, and the other on the opposite bank of Haast River from the Burke River junction.

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Hunt's Beach to Makawiho.—A bridle-road on main south route; length of section, three miles. This road was constructed by the department a couple of years ago, and has since been understood to be a county road. That body, however, states they never took it over. The road is now in a bad state, and will have to be attended to. We have spent nothing on it during last year.

Cook's River Flat Road.—This is also a bridle one, and portion of the Main South Road.

contracts for construction and metalling of about 1 mile 20 chains have been completed during

period—clearing, 33ft.; formation, 7ft.; metal, 4ft.: cost, £215 6s. 6d.

Cook's River southward.—No construction work done, but an engineering and traverse survey has been completed of the gap formerly existing, about thirteen miles, and the plans of greater portion received. Tenders are now invited for construction and metalling of 102 chains. Similar tenders were called in December last, but were all too high, and none accepted.

Makawiho to Mahitahi.—A bridle-track, and on the main south line; length of section, about eight miles. A contract for the construction and metalling of 3 miles 7 chains has been completed—clearing, 33ft.; formation, 7ft.; metal, 4ft. wide: cost, £243 17s. 2d. Tenders were also called for a further distance of four miles, but none accepted, and we are now inviting tenders for construction

of one mile.

Cascade River to Barn Bay.—A bridle-road proposed to be constructed by Mines Department, under my supervision. The line has been explored and surveyed, and we are at present in treaty with the settlers in Jackson's Bay for letting the clearing, &c., of a portion of it in small contracts at piecework rates. Length of section, 8 miles 25 chains; expenditure to 31st March, £55 6s.

Nelson, Westport, Greymouth, and Hokitika Road.—Grey County Council received a subsidy

of £450 towards maintenance of this road, the length within county being forty miles. pended. The Brunnerton Borough Council received a grant of £50 towards maintenance of portion of same road through their bounds, some four miles and a half. On 31st March they had only drawn £40, leaving a balance of £10 still to their credit. This borough also became entitled to a further grant of £100 for river protection works but, as they considered the amount totally inadequate for the purpose, it was declined, and the vote remains untouched. The Westland County Council, on account of maintenance of the portion of above road in their county, received a grant of £500. All expended. Length, about eighteen miles.

Paroa-Teremakau Road.—The Grey County Council have received a grant of £500 towards construction of this road, which is to be a dray one, and have already let some 2 miles 48 chains of formation—contract price, £269 5s.—and this work is now in progress, although up to the 31st March

no payments from grant have been made. Total length, 3 miles 58 chains.

Approaches to Arahura Railway and Traffic Bridge.—Westland County Council received a grant of £450 towards cost of this work, which has been completed, and the vote expended.

#### PROPOSED ROAD WORKS FOR THE YEAR 1892-93 IN WESTLAND.

Hokitika-Christchurch Road.—In addition to the ordinary maintenance work on this road, we will be forced to construct several deviations, these being rendered necessary through damage done by floods. In places this damage has been made good, but to insure a safe road a new one will have Since making up the estimates, circumstances on this road have altered very conto be laid out. siderably through the commencement of the Midland Railway works and Teremakau Railway-bridge near Jackson's. Very heavy traffic has begun, and a portion of the road on each side of the Taipo, which used formerly to be the best on road, has now begun to cut up badly. Having been metalled when constructed with mica-schist, it is now unable to resist the heavy wagons, and about five miles of it will have to be remetalled with gravel, which at this particular part is difficult to obtain. To do the work thoroughly would cost about £1,400. In addition to this, some of the small bridges should be strengthened and replanked. Since the commencement of the heavy traffic I have had all the bridges and culverts (which we considered likely to stand the former traffic for years) re-examined, and find that six of the bridges have been built with only four stringers each. To insure safety they should be wholly replanked with 8in. by 4in. planking. The cost, including labour, ironwork, &c., would be about £140. In fact, to put this road in a state to stand the new traffic, an expenditure of £1,600 is necessary, and will have to be faced sooner or later—if long deferred, a much larger sum. doubt we could put on five or six more men and patch the worst places in metal with the best material easily obtainable, obtain the necessary timber and replank the bridges at a cost of from £600 to £700; but I would strongly recommend doing it thoroughly when at it. I would also point out that, beyond the ordinary maintenance expenses, little or no money has been spent on this piece of road for years past, the bulk of expenditure under the vote being necessarily in the Otira Valley In any case, it will be absolutely necessary to adopt one or other of the courses suggested, and to add one or other of the respective sums stated to the estimates already sent in, as there is no doubt that, should an accident happen through defective state of road or bridges, the Government would be liable for damages.

Paroa-Teremakau Road.—I would recommend that work on this road be continued, and that a

further sum be granted to the Grey County Council for this purpose.

Kumara and Lake Brunner Road.—It is proposed to renew the Three-mile Creek Bridge on this

road—a very necessary work.

Cook's River southward.—It is proposed to construct this road during the year to a point on Havelock Creek. On completion of this, and the contract now let, a horseman could then go through to Karangarua River.

Hunt's Beach to Makawiho River.—This is a very necessary work, and should be taken in hand as soon as possible. I think the construction of a new road from the beach up the south-west bank of the Manakaiau River, to join the present road near ford, would be both cheaper and more permanent than reconstructing the present one and putting a bridge over the river, as would have to be done if the old route is retained, the ford (the only one near) having now become too deep to enable goods

to be packed over dry. The portion of present road from beach to ford is through very low, swampy ground, and is constantly scoured by water from river and several small creeks in times of flood. The only objection to proposed route is that all traffic would have to be regulated to suit the tides, as the river could not be forded on the beach for, say, an hour before and after high water; but this is nothing uncommon on the Coast, and the ford is firm and good.

Makawiho to Mahitahi.—Four miles of this section of road remains to be constructed. A considerable portion of it being through deep swamp, it will also be expensive, and will be continued

as funds are available.

Bruce Bay to Makawiho.—This is an entirely new road, and of far greater importance than the Makawiho to Mahitahi one. The length is only three miles, and, if constructed, the whole of the through as well as the local traffic would pass over it. At present a choice of evils is open to the traveller and packer—viz., to cross on the beach if the river is fordable; if not, swim up at the Native village, and go round a long, rocky, and dangerous bluff, only passable at or near low water; or else go up the river, through the Native reserve (with, on this route also, a deep lagoon or creek, fordable or not according to tide—the Natives have now given notice to County Council of their intention to stop this track), and down the Hunt's Beach to Makawiho section. Bruce Bay is the port at which all goods are landed for Gillespie's Beach, Cook's River, and intervening districts, and frequently also for Okarito, Mapourika, and Waitangi, when the Okarito bar is blocked up or

As this is one of the most populous parts of South Westland, the traffic is very considerable, and the construction of road in question would be a great boon to a large district. I consider this and the Hunt's Beach to Makawiho section our most urgent works on South Westland roads, and

would recommend them for first consideration on the estimates.

Haast Pass Road.—The vote asked for on account of this road is proposed to be spent in making a track round the Clarke and other bluffs that now obstruct the way when there is any fresh

in river, and in general repairs necessary to keep the track open for traffic.

Jackson's Bay to Cascade River.—A portion of this road was felled and stumped under a former vote, and it is now proposed to form this part if funds are available, as a step towards filling

up the gap between portions already constructed.

Cascade River to Barn Bay.—This is a road now being constructed (under directions from the Hon. Minister of Mines) by small piecework contracts, and which it is proposed to continue and complete if the vote is passed. John Strauchon, Chief Surveyor.

### CANTERBURY.

Summit Road.—The work comprised 2 miles 57 chains, let in three contracts on the 9th May, 1891, by the Akaroa County Council, for widening and re-forming the original track to 15ft., and constructing stone culverts and laying pipe-drains on portions of the road between the point where the Pigeon Bay and the Little Akaloa Bay Road cross it, at a total cost of £306 2s. 6d. The works are now reported as completed. Good progress had been made on my first inspection, and the work appeared to have been carried out in a workmanlike and satisfactory manner under Mr. Bristow, the County Engineer's supervision. I passed a payment for £150 on account of these contracts on the 6th November, 1891. The Akaroa County Council also let three other contracts on the Summit Road, for 2 miles 12 chains of precisely similar work as the foregoing. The amount of the contracts is £212 9s. The location of the works is between the Long Bay and Le Bon's Bay saddles. The works are not yet finished, as, pursuant to custom, the contractor has been allowed to postpone the completion till the winter months. If the Summit Road was completed for traffic, and connected by lines of fairly easy grades with Akaroa, Little River, and Lyttelton, there would be open for the ordinary tourist and health-seeker a route which affords the most charming views of open grassed hills, belts and clumps of trees, deep inlets, ocean expanse and coast, and of distant mountains. On this account alone the road should be hastened to completion, and the route utilised for tourist traffic.

Waikerikiri Road.—The Akaroa County Council were offered, on the 15th October, 1891, £200 on condition that they found a similar sum; but nothing was done under the arrangement during

the last financial year.

Gough's Bay Road.—A sum of £100 is to be paid by the Crown to the Akaroa County Council imilar conditions. The specifications have been submitted and approved for the widening of on similar conditions. 120 chains of the road, and for the construction of crossings and culverts, all of which it is reported have been finished at a cost of £111 10s.

Alford Forest Village Settlement Roads.—Proposals have been made by the Mount Somers Road Board for forming, shingling, and draining roads in the settlement. It is proposed to offer the work

so that the villagers may be able to obtain employment; but the works are not yet started.

Adair Village Settlement.—The original grant of £50, which was authorised on the 17th August, 1887, was expended on works to benefit the villagers in the locality. There is a balance of £22 4s. 3d. due, which the Levels Road Board report was expended in rebuilding a bridge in the settlement. The work has not yet been inspected, but would have been some time back if, unfortunately, I had not missed meeting the overseer when I called at Timaru. A further sum of £120 has been allotted to the Levels Road Board, on the understanding that the Board finds £30 additional for the construction of roads in Adair Village. The specifications have been approved provisionally, but no work was done during the year. The Ashley County Council having declined the £500 on the terms offered by the Government, there is nothing further to report on the subthe £500 on the terms offered by the Government, there is nothing further to report on the sub55

Christchurch-Hokitika Road.—The portion of this road which lies between the Kowai River crossing, three miles from Springfield, and Arthur's Pass Saddle, comprising a length of about fiftytwo miles, was under the supervision of Mr. Frederick Wither, Resident Engineer, till the end of January last. Mr. Wither's report thereon is as follows: "On the road from the Kowai River, three miles from Springfield, to the top of Arthur's Pass there has been the ordinary maintenance. In the Bealey Valley, where a new piece of road is being constructed, one section, about two miles in length, was completed last December, and opened for traffic. Part of it had been constructed previous to the 1st July, 1891, but when the road was nearly finished the whole section had to be gone over. Altogether, about a mile and a quarter of this section was done between the 1st July and the 31st December, 1891. This section is between 47 miles and 49 miles. The other section is between 49 miles 20 chains and 50 miles 20 chains, and this is not yet open for traffic. About three-quarters of a mile was completed, and the rest, including a bridge, which I estimated to cost £318, is unfinished. The bridge is not begun, and about 8 or 10 chains at the start is not begun either. No doubt the heavy rains during this month have done some damage to this section, and a little more work will in consequence be necessary before the road is opened for traffic."

The cost of maintenance for the nine months, including £820 7s. 10d. spent under Mr. Wither's directions, was £1,067 0s. 9d.; and upon construction of new road in the Bealey Valley the same officer expended £4,101 7s. 8d., as stated in the report quoted above. I have inspected the road on two occasions, and have already reported to you thereon. I have now to state that the large bridge in the valley, which is said to have been built as far back as 1876, slightly repaired at various times, and redecked in 1888, requires overhauling. Mr. Wither had the bridge examined in September, 1891, when it was reported that the bridge required repair and renewals; and he recommended in April, 1891, that £500 should be expended on the bridge. There are no other bridges on the road worthy of mention. The road has suffered more from the action of water and frost than from the traffic, and, as long straight grades are common, the road has become lower than the sides, making it difficult now to prevent scouring action. As a consequence of this, long lengths of the road require remetalling. I have had an examination made, which shows that at least £500 will be required during the year for this class of work. The road near the Kowai has become enclosed by gorse and broom, which should be burned by the adjacent landowners.

During the months of February and March the rainfall was excessive, and there were heavy floods in the rivers, which caused much damage and extra cost, the traffic being blocked on two

occasions by floods and slips. Eight men and an overseer have been constantly employed on the fifty-two miles. The number is not sufficient to save the road from serious damage and to maintain it properly; but the former Inspector had no power, I understand, to increase the number. The unfinished portion of the road in the Bealey, between 49 miles 20 chains and 50 miles 20 chains, mentioned by Mr. Wither, and which he estimates will cost about £760 (instead of £600, quoted in my estimates) to finish, would save two crossings of the river; nevertheless, it appears to me more unreally processory to attend to the large bridge, repetabling where most procedured. to me more urgently necessary to attend to the large bridge, remetalling where most needed, and

to rebuild and strengthen retaining-walls.

Proposals.—For particulars of new works and road-maintenance during the current year, please refer to my memorandum of the 3rd May, and schedule of items and amounts. I have not included any proposals for Mount Cook or other tourists' resorts, for the reason that you have full reports on the subject, and are alive to their importance. If any money is available, we should reopen the old track from the Bealey to the Waimakariri Glaciers.

### MOUNT COOK TO THE GLACIERS ROAD.

Mr. Young, Overseer, reports,-

The construction of the track up the Hooker to the point where Mr. Huddleston expects to

The construction of the track up the Hooker to the point where Mr. Huddleston expects to have a hut erected, and where the snow prevented us going further, has been continued.

During the last fortnight the party was engaged repairing the landing and track round the bluff where the cage crosses the Hooker to the Tasman Valley Track. Owing to the numerous land-slips the work was very dangerous, the track being quite impassable. The obstacles complained of so much by Mr. Huddleston no longer exist, and I think the season's work may be considered satisfactory. The cutting gives easy access to all the grandeur of the Hooker Glacier, St. David's Dome, and Mount Cook. Previously only those who were physically strong could attempt the ascent, but now it is available for every one, and the time saved through travelling by the cutting is six hours. is six hours.

The Blue Streams up the Tasman Valley have been bridged, and a handrail placed over the Suspension Bridge.

J. W. A. MARCHANT, Chief Surveyor.

### OTAGO.

Pomahaka Bridge (subsidy, £1 for £1).—This bridge was completed some months ago, and is a very substantial work. The piers are of concrete, with a timber superstructure. There are four spans—two of 30ft., one of 42ft., and one of 25ft. Erected by the Clutha County.

Maniototo County.—The roads under construction and repair were—the road to Gimmerburn,

the main road, and the main road near Eweburn. The work carried out consisted of the gravelling, scrub-clearing, ditching, and side-cutting of those roads; also the making of several culverts and open crossings. In Block VII., Gimmerburn, a pile-bridge of 12ft. span was erected. The total cost of these works amounted to £1,118 15s. 6d., which have been expended on nearly 23½ miles of road. The area of land improved by these roads is—surveyed land 11,090 acres, and of unsurveyed land 900 acres; and Mr. Richard Brown, County Engineer, supervised them.

Waikouaiti County: Waitati Road.—About 45 chains of this road have been gravelled, the

work still being in progress.

Taieri County: Otakia.—A timber pile-bridge of eleven 30ft. spans, opposite Section 41, Block IV., Maungatara, has been constructed, under the supervision of Mr. R. Hay, C.E.; the cost of construction being £1,497 3s. Roadworks in Block III., Nenthorn, of over two miles in length, are under construction, at a cost of £452 5s. 2d., and when opened will improve 9,600 acres of surveyed land.

Tuapeka County.-2 miles 66 chains of roading in this county have been constructed, and several culverts built. Two punts for river use have been built, at a cost of £60. The work has cost £614 18s. 6d. These roads give access to 850 acres of surveyed land and 13,900 acres of unsurveyed land.

Clutha County.—11 miles 27 chains of road have in parts been cleared of bush, formed, bridged, and provided with culverts. The area of land opened up is 3,120 acres of surveyed and

7,000 acres of unsurveyed land.

Waihemo County.—Thirty-three chains of road through Block I., Hawkesbury, were made, at

a cost of £10. Seventy-five acres of surveyed land were benefited by this road.

Catlin's-Waikawa Road.—This is the most important road under construction in this district. The whole of the formation, bridges, and culverts are completed from Catlin's River to Tautuku Bay, with two exceptions—viz., about a chain of rock-cutting on the road down to Taukupu Beach, and about 15 chains of swamp on the other side of the Taukupu River. As most of the formation is through clay, and the climate wet, the road as formed will be readily cut up by horse or wheeled traffic.

Catlin's Valley Road.—This road is completed for four miles up the river from Catlin's Bridge,

with the exception of a few chains now under construction.

Taukupu Valley Road.—Five miles of this road have been cleared of timber, and culverts are now being built, together with sufficient formation to form approaches thereto.

C. W. Adams, Chief Surveyor.

### ROADS TO OPEN UP MARUWENUA SMALL GRAZING-RUNS.

The total length of road opened is  $12\frac{1}{2}$  miles, made upas follows:—Maruwenua Pass Road,  $8\frac{1}{2}$  miles; road from Livingstone towards Kakanui through Gardener's run, 3 miles; road to top of ridge between branches of Maruwenua, 1 mile. The total cost has been £7,503, of which amount

£6,700 has been spent on Pass Road.

As to value of work done, I may say that my estimate, prepared for the County Council some time ago for the formation of the portion of the Pass Road which has just been formed was £5,400. This was on the supposition that the work would be done by contract. On the whole, the ground has turned out more difficult than I calculated upon, almost all the excavation having been more or less rock, and on some very steep faces where I had expected sound rock, and consequently little excavation, the material on being opened out proved to be so much shaken as to require long slopes. Owing to difficulties with Howe's race, too, the line had to be shifted, causing extra excavation and increased cost in taking it out on account of risk of damaging race; but some saving was made by shifting line at other places. The necessity for finding employment for so many men before the first portion of road was passable added considerably to cost. Taking everything into consideration, I do not think the difference between cost and estimate excessive. Some excess above contract rates, I think, there always will be in working upon this system, even when men are capable and work well, and the amount will depend upon the character of the country. Where the excavation is heavy, and in rock or cemented shingle where horses cannot be employed, men do the work at a fair contract price, but on ground suitable for plough and scoop the cost of work done by pick and shovel and barrow is far greater—in some cases double. Another reason for excess of cost, even on suitable ground, is the difficulty of fixing price. Where the material is of a uniform nature, the cost can usually be estimated with a fair amount of accuracy; but where it varies much, consisting, say, of hard and loose rock shingle and clay, in varying proportions, the difficulty is very great. Giving different prices for different materials does not get over the difficulty, even where is is possible to measure them separately, as the cost per cubic yard, after taking out rock, depends so much on quantity and position. In doing work by contract, this difficulty does not come in, as, although it may not be possible to estimate the cost of each few chains, a fair estimate can be made of average cost. There is, indeed, more uncertainty than in uniform material; but mistakes affect both sides alike, sometimes contractor gaining, sometimes losing. Now, in letting to gangs of men, if material turns out much worse than expected, and, consequently, price fixed so low that good men cannot make good wages, it must be raised; but if, on the other hand, material turns out better, the price cannot be lowered, so that mistakes tend to increase cost. Raising the prices after letting the work has a very bad effect, and it has only been done here in a few cases, but trying to avoid the necessity tends also to increased price. The men nearly all worked well, and, in most cases, very long hours. This was especially the case when they thought they had a good price. The average wage earned by them was 7s. 6d. per day worked, no allowance being made for overtime.

With regard to the value of work in opening up land, the roads now formed are all that are required to completely open the runs now being surveyed, with the exception of a small extension of Pass Track, which may be necessary, and would cost about £50, and a road up Livingstone Ridge, which would cost about £250 if formed for the whole length; but I do not think more than

half will be required.

The Pass Road also opens up the Ben Lomond Run, between the Maruwenua and Otekaike Rivers.

CHAS. BANKS, Engineer.

### CATLIN'S-WAIKAWA ROAD,

From the Purakanui Creek to the Tautuku Beach, which was in course of construction from about the 30th of June, 1891, to the 31st of March, 1892.

### Schedule of Works.

This road is the main through road from Owake to Waikawa, the approximate distance formed from the 30th June, 1891, to the 31st March, 1892, being 3 miles 41 chains. Contracts were let on the co-operative principle on the 15th May, 1891. The road-formation is 15ft. wide; slopes in cuttings ½ to 1, and of embankments 1½ to 1. In some cases the work consisted of "spoil-bank" and side-cuttings, and in others block-cuttings, with from 2 to 3 chains of a lead. Within half a mile of the Taukupu Beach very heavy rock-cuttings were encountered, one cutting in the deepest part measuring about 26ft. deep. The rock was approximately half clay and soft rock, and the other half of a hard bouldery nature. This part of the road, though expensive considering the distance, is of a thoroughly permanent character. Culverts have been built as circumstances required all along the road to the Tautuku. They are built principally of kamai, blackpine, and totara where available. Particulars as to number and cost, &c., are given on the attached schedule.

The number of men employed on this road, including the few who were on the works before the co-operative contract system was initiated, were, approximately, from July, 1891, to March, 1892, as follows: 75, 99, 108, 98, 86, 63, 37, 22, and 13 for each month respectively. These men were nearly all from Dunedin, as far as I am aware. The agreement with the contracting parties was to form the road according to plans and specifications, including stumping, water-tables, and culverts. Contractors had to find their own tents and tools. They were supplied by the department with all necessary appliances, and charged by instalments the cost of the same. All material sold was at cost price on the works (see accompanying schedule for prices). On the whole the men earned fair wages. Considering the number of men there was very little grumbling; the best workmen would earn from 8s. to 9s. per day, and the old men and others not acquainted with the work from 4s. to 5s. With the exception of a few parties who were new to the work the men formed the road up to the requirements of the specifications. Taking into account the nature of the work, and the distance the material had to be conveyed, the work could not have been done cheaper by any other mode of contract. Rock that can be utilised for metalling the road shows in four places all along the road to the Tautuku, and quarries have been reserved here and there in suitable places; but for all that it will be a serious item of cost to metal the road, owing to the wet climate. Being a bush-country, the cost of quarrying and haulage will be expensive.

Schedule of Prices given for the Earthworks, Rock, Stumping, Culverts, and also Number of Culverts built.

Earthworks.—In some cases earthworks included stumping, and in others the stumping was paid for separately. The prices ranged from 10d. to 1s. 2d. per cubic yard, according to length of lead, &c. The extra on the price per cubic yard was calculated on the total number of yards in the contract; and if, say, £1 per chain gave 2d. per yard that was added on to the price given according to the lead, so that practically so much per chain and so much per yard were the same. The stumping was valued at per chain first. The price per chain ranged from £1 up to, in one particular case, as high as £3 per chain, but the average would be about £1 5s. Rock was got in one place, and the price paid to get it out was 2s. 6d. per cubic yard; but the quantity was small. At the cliffs near the Taukupu Beach the prices paid were 10d. for soft and 1s. 9d. for hard rock, and at the Tautuku Beach 1s. 3d. was paid for the rock. These prices were reasonable, and the men made good wages.

Culverts.—The prices almost invariably were 4s. per lineal foot, including all excavations; a few culverts were let from 2s. 6d. to 3s. and 3s. 6d. per foot, but these were smaller than usual. The prices were rather high, but were the lowest that could be got by tendering. The total number of culverts on the road from the Purakanui Creek to the Tautuku Beach is thirty-four. These bridges were built over the following creeks: Purakanui, Purakauiti, and the Pillans; the spans (one span to each bridge) being respectively 20ft., 15ft., and 17ft.

General Remarks.—The roadworks in the Catlin's District are heavily handicapped, owing to the larger number of men being sent up in the winter time. If it were possible to keep the men vigorously employed during the summer months without injury to the farming interests the work would be done better and cheaper, and more satisfactorily to the department and to the men employed. As it is we are leaving the metal roads far behind, and the haulage of material and provisions becomes very expensive. I would suggest that I be empowered to purchase back from the men when leaving any tools, barrows, &c., at a fair valuation. The men at present on leaving simply sell the tools, &c., at a sacrifice to the settlers, who have now become possessed of nearly all the plant that was bought last year. This would entail a bit of book-keeping, but would be more satisfactory to the men, and the department would have less plant to purchase than at present.

## Schedule of Prices of Tools, &c., sold on the Works.

Short shovels, 3s. 6d. each; mattocks, 4s. 10d. each; picks, 3s. 8d. each; barrows, 19s. each; axes, 4s. 11d. each; axe-handles, 9d. each; 8ft. by 10ft. tent and 10ft. by 12ft. fly, £1 [each; L.H. shovels, 4s. 3d. each.

8-C. 1.

## CATLIN'S RIVER ROAD. Schedule of Works, &c.

This road starts from its junction with the main Catlin's-Waikawa Road, near the Catlin's River Bridge, and extends up the left bank of the river for a distance of 4 miles. Contracts were let to the first party of contractors on the 22nd May, 1891, so that about one month's work was done on the first half mile previous to the 30th June, 1891. The road formation is 15ft. wide, slopes of cuttings  $\frac{1}{2}$  to 1, and of embankments  $1\frac{1}{2}$  to 1. On the whole the "leads" were long, notably in the second mile, where the "lead" extended to over 20 chains. Owing to the nature of the ground provision had to be made largely for the page of vector under the model of the second mile. provision had to be made largely for the passage of water under the road. The culverts are built of black-pine, totara, and kamai. Two bridge-platforms have also been built over the larger creeks. Particulars as to cost, number, &c., given on the attached schedule.

The number of men employed on this road for the first few months run about thirty, and about the 31st March fifteen. These men were all settlers, the most or them resume of the state of the road. The arrangements made with the contractors were that they form the road and arrangements this included stumping, culvert-building, and in accordance with the plans and specifications; this included stumping, culvert-building, and finding their own plant and material for the due performance of the work. The prices given for earthworks included stumping, and were regulated according to the amount of work in that respect, and to the length of the "lead." (See schedule.)

I can only estimate the wages earned approximately. If I were to judge by the time taken to perform the contract, even allowing for wet weather, my estimate would be erroneous, because, as all these men were settlers, they very often were at work on their own land when they could have been working on the road. I think on the whole they earned wages—that is, from 6s. to 8s. per day.

The work done by the contractors is fairly up to the requirements of the specifications, and in some cases particularly well done. There is no reason to complain of the quality of the work done by the settlers. Considering the work done as regards formation, stumping, culvert-building, and the prices given per cubic yard or per chain, I think the cost of the work very moderate. The climate, too, must be taken into consideration as militating against the speedy performance of the work and adding a little to the cost.

There is no gravel showing in the cuttings, but in two places rock shows in well defined faces, and at other places rock can be got by opening out quarries either in private property or Government reserves. On this road the stone is fairly well distributed, but will require to be blasted, and consequently expensive. Note.—Any metalling ought to be done during the summer

months only.

Schedule of Prices given for the Earthworks, Rock, and Culverts, and Number of Culverts built.

Earthworks.—Formation only: From £1 10s. to £2 per chain, according as the stumps were numerous or otherwise. Side-cuttings: From 11d. to 1s. per cubic yard, including the stumping. Block-cuttings: The lowest 1s., the highest 1s. 6d., according to the length of lead; the lead being from 1 to 3 chains for the 1s., and averaging about 11 chains for the 1s. 6d., with intermediate prices and distances. In all cases prices included stumping. The prices given for rock were 1s. 9d. and 3s. 6d. per cubic yard. In the first case there was no lead, and a fine open face; in the second case the lead was long, and the excavation in a solid block-cutting. In both cases dynamite had to be used. Culverts: The prices varied from (per lineal foot) 4s. to 5s. for a 12in. by 12in. in the clear, including the necessary inlets and outlets. The side-logs are 12in. square: timber scarce, and had to be brought a considerable distance by bullock-teams. Culverts, 18in. by 18in. in the clear, cost 6s. 6d. per lineal foot, including excavations as above; and 2ft. by 2ft. cost 7s. 6d. per lineal foot. Instructions were given by the engineer to call for tenders locally, and the prices as quoted above were the prices of the lowest tenderer. The number of culverts on this road, all sizes, being forty-eight. Two bridge-platforms, similar to any ordinary bridge-decking, cost each £22.

### TAUKUPU VALLEY ROAD.

The work done on this road between the 30th June, 1891, and the 31st March, 1892, consisted only in logging up the timber fallen on the first five contracts up to the 5 miles. A contract was let towards the end of March for the building of sixteen culverts, but was scarcely begun by the 31st This contract, and another one let since for the remainder of the culverts to the 5 miles, will be accounted for next financial period. The cost for the logging ranged from 15s. down to 10s. per chain, according to the nature of the timber to be logged up. The logging was 40ft. wide. The wages earned by three contracting parties did not exceed 5s. per day. The other two contracting parties earned about 8s. or 9s. per day. In the former case bad management in carrying out their contract was the principal cause of their earnings being small.

A. Cross, Inspector.

### SOUTHLAND.

Mossburn-Te Anau Road.—A grant of £300 was placed in the hands of the Wallace County Council for the purpose of maintaining and improving the portion of this road between Centre Hill and Mararoa River, and was spent in draining the worst parts, renewing culverts, and easing grades, &c. As this line gives access to some 43,000 acres of resumed runs, which are to be divided and offered as small grazing-runs early next year, I propose to ask for authority to expend money under the provisions of "The Government Loans to Local Bodies Amendment Act, 1891," for the urther improvements of this road.

59 C.—1.

Lake Te Anau Jetty.—The Wallace County was authorised to spend £100 on a jetty, to be erected near the hotel at that place, for the convenience of tourists and others, and I fixed on the

site and approved plans and specifications, but the work has not yet commenced.

Riverton-Orepuki Road.—A grant of £250 was made to the Wallace County for clearing and forming a road leading from Pahi Village, parallel to the railway, as far as Section 26, Block IV., Longwood District, a distance of about two miles. A contract for this work has been let, but it will not be completed before the end of May.

Otautau Bridge.—A subsidy of £250 was granted to the Wallace County for erecting a bridge over Jacob's River, at the Red Bluff, near Otautau, and a contract has been entered into for a bridge of 320ft. span, at a cost of £634. This work will probably be completed before the end of

July.

Wrey's Bridge.—£1,000 was granted to the Wallace County for this work, and tenders have been let for a bridge of 520ft. span over Jacob's River, at about a mile below Wrey's Bush, at a cost of £940 9s. 8d. The work is expected to be finished about the middle of next October.

Waimatuku Bush.—A grant of £100 has been made to the Southland County to complete one mile of gravelling and formation of road through the bush, but, as the authority for expenditure has only lately been received, it will be some weeks before the work is done.

Blocks II. and III., Campbelltown.—A grant of £100 has been made to the Southland County

for expenditure on the road through these blocks, but the money has not yet been expended.

Waikawa Road.—Three miles of this road, between the townships of Niagara and Waikawa, have recently been completed under supervision of Mr. C. H. Howarth, Engineer to the Southland County. The formation is 20ft. wide, and substantial stone and earthenware culverts have been laid. The bush portion has been felled 1 chain wide and cleared 33ft. in centre; 35 chains of sidedrains have been cut in swampy places. The embankment along the shore of the Waikawa Tanham for all the shore of the waikawa the Harbour, for a distance of 17 chains, has been faced with rubble, to protect it from the tide-wash during easterly weather. The cost to date is £1,644, but to complete the work it will be absolutely necessary to gravel the remaining 107 chains, in order that the jetty and goods-shed may be used and full advantage taken of the large sum already expended, for without this the road is

impassable for wheel-traffic during all but the finest weather.

Waikawa Jetty and Goods-shed.—This work has been completed about three months, and is used by small craft and steamers, there being 7ft. of water during the lowest tides, with a rise of from 6ft. to 8ft. The jetty is 225ft. long, having a T 40ft. x 20ft., and is provided with an iron tramway and trolly for conveying goods to the shed, with which it is connected. The shed is 50ft. x 30ft., well built, and painted with hæmatite. The contractors, Messrs. Kennedy, carried out the work in a very creditable manner. The cost was £914.

Waikawa-Catlin's Road.—The first mile of this road was handed over to the Southland County to construct, and was completed a few weeks ago. The work comprised a bridge over Waikawa River of two spans of 40ft. each, resting on masonry piers, 40 chains of formation, 80 chains of tussocking, ten log culverts, and 15½ chains of side-drains, at a cost of £407. During last winter tenders were invited for clearing and logging-up eighteen additional sections of this road, each about one mile in length. This work was arranged on exceptionally easy terms so far as the conditions went, in order that persons out of regular employment might avail themselves of it; but, as a matter of fact, no persons representing what are commonly called the unemployed actually carried out any of these contracts; and, although the work should all have been finished before the close of last year, only seven miles out of eighteen have been finished. It was found necessary to engage an inspector to see that the work was properly done, and to measure up the portions completed when progress-payments were made. The cost to date has been £562 4s., including inspec-

Orepuki-Wairaurahiri Road.—Three miles and 13 chains of this road (including a branch of about one mile in length to the mouth of Waiau River) have been cleared and formed at a total cost of £924 9s. 1d. This amount, however, includes an engineering survey of  $5\frac{1}{2}$  miles, for which tenders have been accepted for felling and logging-up, at a cost of £374. This work is expected to be completed about the end of next October, and will open the road up to the bridge site chosen at the Waiau river. Some 15,000 acres will be rendered more accessible by this road.

Stewart Island.—No new roadworks have been undertaken this year, but arrangements have been made for effecting some trifling repairs on the track constructed round Half-moon Bay, and the unexpended balance of the vote, about £140, will be kept in hand to assist in clearing roads to

lands now under survey for settlement.

Clifton to Seaward Bush.—£200 was granted to the Borough of South Invercargill for works as follow: 46 chains outfall drain for Tramway Road, 43½ chains bush-felling, and 32 chains corduroying on Bloxall Road, and the balance to be expended on extending gravelling on Scott Street and Engineer's commission. As these works were undertaken for the special benefit of the surrounding small settlers, they were invited to tender at half the actual value of the works, giving their labour as an equivalent for prospective benefits; but this arrangement has, as might have been expected, led to considerable trouble, and two persons have abandoned the works, consequently these are still unfinished. In addition to the above, £20 was authorised to be spent in opening a few chains of road through Sections 9 and 12, Block IV., Seaward Bush, but the work has not yet been carried out.

Waikawa to Wyndham Valley Road.—£500 has been authorised for expenditure on this road, but hitherto I have not seen my way to lay out the money, as the line has only been located a short distance up the valley. It is, however, proposed to put a bridge over the Waikawa River, and to form a section of about one mile in length in the neighbourhood of Scrubby Hill; and Mr. Howarth has been instructed to prepare the necessary specifications. This road will give access to some 5,000 acres of Crown land, besides 7,000 acres of education endowments.

Riverton and Colac Bay.—The Wallace County Council received a grant of £400, which has been expended on two contracts—each one mile in length—for formation, drainage, and culverts, at a cost of £392 6s. 10d. This work will render some 1,500 acres of Crown land more accessible, besides being a great convenience to persons having business between Riverton and Colac. The track was originally corduroyed, and, being much worn, is at times dangerous for traffic. The grant above

referred to will not nearly complete the whole distance.

Grove Bush.—A grant of £200 was made to the Southland County for this road, and a contract has been let for 38 chains gravelling, 8 chains fascining, and 60 chains formation with four pipe-culverts and coracterial size of £195.

Winton Drains.—£700 has been granted to the Winton River Board for carrying on these works, and Mr. Sharp has drawn out plans, &c., for works estimated to cost £1,100, the additional £400 being found by the local bodies. These plans have been approved by me, and the works will probably be completed by the end of August. This work will reclaim some 2,500 acres of Crown land from a state of swamp.

Forest Hill Road.—£200 was authorised for this work, but when this came to be laid off and tendered for, it was found that the money was not sufficient to do what was contemplated, therefore the lowest tender was accepted, subject to the condition of being cut down so as to bring it within the amount authorised, and I have asked for a further vote of £200 to complete the work next year. The contract now in hand is for 29 chains side-drains,  $91\frac{1}{2}$  chains bush-felling and logging up, one 36ft. bridge, and six culverts, &c., at a cost of £189 9s. This road will give and logging up, one 36ft. bridge, and six culverts, &c., at a cost of £189 9s. better access to thirty-seven 10-acre sections in the township of East Winton.

Scrubby Hill.—£200 were granted for giving better access to about 2,000 acres of Crown land, and to the settlers already located in that neighborhood. A contract has been let for 52 chains formation,  $16\frac{1}{2}$  chains ditching, 12 chains fascining, and eighteen culverts, for £161 10s. 2d. The balance of vote will be used for extending the formation, Engineer's commission,

Roads to Village Settlements.—A subsidy of pound for pound up to £300 was granted for the purpose of making roads within the villages of Makarewa, Ryal Bush, Linley, Woodfield, Argyle, and Longridge. The work was let in eight contracts, and 100 chains of formation and gravelling have been completed. Only £215 8s. of the vote has been used, and it is not proposed to ask for the balance.

#### NEW WORKS.

Of the works which do not appear in last year's votes, but for which I have asked consideration

in the estimates for 1892–93, I would notice the following:-

Waiau Bridge.—This work is urgently needed to give access some 32,000 acres in the immediate, and probably twice that area in the near, future. Mr. Howarth has been instructed to survey and report upon the site, and has just informed me that a suspension-bridge will be necessary on account of the depth of water, rapidity of current, and large quantity of timber brought down by

floods. I have estimated the cost at £6,000.

Otapiri Gorge Road.—At present the settlers in this gorge are dependent upon a track through private property as an alternative to having to travel some twenty-five miles to the railway,

whereas if the proposed road were made they would be within five miles of the nearest station.

Block I., Oteramika Hundred.—£50 is asked for to purchase a roadway through private property, and I recommend the proposal be entertained in the interests of settlement. The matter was brought under the notice of the the Hon. Minister of Lands during his recent visit.

Stock Bridge over New River.—This is a matter which is of some importance to settlers on the eastern side of the river, and those in the neighbourhood of Mossburn. It is thought that both the Southland and Wallace Counties would subsidise the work.

G. W. WILLIAMS, Chief Surveyor.

Table A.-Summary of Lands taken up during the Year ended 31st March, 1892.

						•——				Transac	tions	during the Ye	ar endin	g 31st	March.	1892	2.——				·								
	For Details see	Auck	land.	Hawke's	s Bay.	Таган	aki.	Welling	gton.	Nels	on.	Marlborough.	Cante	bury.	Westl	: : and.	Otag	go.	Southland.	upd	tal Area taken uring the Year.	Revenue received for Sales, Rents, &c., on Lands se- lected during the Year.	previous Ye to 31st	ears	Total Forfeiture	Total Arcon 3 March, Past Curre	lst 1892 : and ent	Revenue received during Year on Previous Transac- tions.	
Table	C—Cash lands	A. 13,047	в. р. З 1		в. р. I 13	A. 1,112	R. Р. З 16		R. P. 3 22	A. 6,124		A. R. P. 196 1 0	A. 3,490	в. Р.	A. 850	R. P.	A. 4,519	п. р. 2 15	A. R. P. 6,937 2 28	 3 40,	 <b>B.</b> P. 501 0 11	£ s. d. 41,829 11	A. 0,12,813,616	в. р. З 35	A. R.	P. A.	R. P.	£ s. d 804 0 8	A. R. P. 512,854,819 3 25
	O- Deferred payments	10,569	2 3	287	0 0	9,916	3 39	7,569	2 25	4,694	2 16	781 1 10			100	0 0	4,636	2 34	1,911 22:	40,	467 1 36	1,545 2 (	1,167,941	3 25	225,877 2	$-\frac{1}{8_{  }}$ 513,773	0 27	18,368 15 1	1 481,637 0 34
	2—Perpetual lease and small areas	71,952	1 19	31,975	3 33	38,357	2 9	54,028	1 32	2,172	2 38	594 0 0	11,443	0 14	60	0 0		3 8	20,140 0 34	282,	547 0 27	5,289 1 7	953,035	8 26	80,356 2	23 1,075,413	1 25	34,810 7 1	29,049 3 12
-	F—Agricultural lease		• •		1		•	••				••		•				1 4	••	1	90 1 4	i 11 <b>7 (</b>	285,204	1 8	141,920 1	6,600	2 24	221 10 1	137,139 0 39
	-Village settlement, cash	0	1 0	: 5	0 4	6	0 0		2 27		.	••	89	1 37		!	232	0 10	43 1 38		428 3 31	1,554 3 4	5,992	2 9	••	٠.	!	75 0 0	6,420 2 11
	IVillage settlement, deferred payment		• •	·			. !	13	0 11			30 0 16	1	3 0		i	49	3 24	86 3 34	]	181 3 5	58 7 7	14,001	3 21	1,612 3	5,43	0 37	2,599 8 8	7,200 0 31
•	I - Village settlement, perpetual lease			· 21	1 0		· i	••			.	••	130	<b>3</b> 3		!	289	1 8	451 1 39	. 8	892 3 10	47 18 (	3,269	3 33	190 3	13. 3,746	2 10	292 10 10	205 1 20
•	J-Village - homestead special settlement		••	· ••			. !	954	1 37		.	5 0 0	412	1 12	• •		783	0 28	58 0 27	2,5	213 0 24	9.11 8	25,571	3 20	9,113 2	23,535	3 37	1,748 1 7	••
. ]	Special - settlement associations under clause 163	١.	••			•	• i	••		•	•	••	1,922	1 8		!		-		1,9	922 1 8	·	i 96,096	1 16	2,885 2	12 82,465	1 3	9,446 12 9	12,522 0 34
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. 1	ISmall-grazing runs	8,540	0 0		İ	5,864	0 0	19,188	2 0			1,410 0 0	45,341	0 0		1	79,121	1 7		159,4	46 <b>4</b> 3 7	3,569 17 7	630,824	2 2	99,797 3	690,059	1 32 1	3,500 9 5	; !
	Totals	105,119	3 23	36,007	2 10	55,287	1 24	82,310	2 34	12,991	3 34	3,016 2 26	62,830	3 10	1,010	0 0	141,565	0 18	29,629 2 24	529,7	719 <b>3</b> 3	54,037 16 9	16,023,729	0 23	569,686 2	29 2,419,468	0 17 1	11,866 17 2	13,592,085 1 13

Note.—For analysis of holdings, see Table B.

Table B.—Analysis of Holdings taken up during the Year ended 31st March, 1892.

Description of Land.		No. of Selectors.	No. of Selectors under 1 Acre.		No. of Selectors 1 to 50 Acres.	No. of Selectors 51 to 250 Acres.	No. of Selectors 251 to 500 Acres.	No. of Selectors 501 to 1,000 Acres.	No. of Selectors 1,001 Acres and upwards.
Cash	!	493 i	167	,	191	96	21	11	7
Deferred payments	:	223	1		47	127	31	11	ģ
Perpetual lease and small areas	!	824		-	74	379	196	137	યદ
Agricultural lease		2			1	1	- 1	. !	90
illage settlement, cash	:	88	38		50	•	• • •		••
fillage settlement deferred neumont		23	7		16	• •	••	• • •	••
fillaga sattlament narnatual logga	1	59	'		59	••	••	1	••
fillage homestand special settlement		140	,		139	• •	• • •	• •	••
pecial settlement associations under clause 163		13			9	,	ا ن	!	••
Tomastand	• • •	10	••		,	,	3	• • • • • • • • • • • • • • • • • • • •	••
mall mine	• • •	60	••		1	0	1 1	. •	•••
mail runs	••!	80	••		'	1	3	25	51
Total		1,953	214		581	617	255	187	99

Table C.—Return of Crown Lands sold for Cash during the Year ended 31st March, 1892.

				Area	disposed of	•			· ·				
District.	Т	own.	Sub	ourban.	Rural.		Ι ,	Γotal.	Aver	age Price per Acre.	Con	sideration received.	
Tristrict.	Number of Pur- chasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Pur- chasers.	Area.	Town.	Suburban. Rural.	Cash.	Scrip. Tota	<b>.</b>
Hawke's Bay Taranaki Wellington Nelson Marlborough Canterbury Westland Otseland	. 40 . 20 	A. R. P. 6 3 27  18 3 17 11 2 17   6 2 14 0 3 38	8 5 67 66 13	A. R. P. 56 2 37  14 3 34 62 2 39   28 1 2 65 2 20	132 9 4 8 39 3 30 4 30 33	A. R. P. 12,984 0 17 3,718 1 13 1,079 0 5 429 2 6 6,124 2 20 196 1 0 3,490 0 16 850 0 0 4,484 2 39 6,871 0 10	159 9 49 95 39 3	A. R. P. 13,047 3 1 3,718 1 13 1,112 3 16 503 3 22 6,124 2 20 196 1 0 3,490 0 16 850 0 0 4,519 2 15 6,937 2 28	73 5 9 36 11 9	0 10 7 3 8 0   0 13 11 17 10 0   0 18 4   0 7 0   0 9 7   1 2 7   0 15 0 4 11 5½   0 14 S.	9,735 5 4 5,039 9 1 2,198 1 0 11,746 17 5 1,641 7 8 94 12 7 2,379 18 4 637 10 0 1,3,490 7 5	9,735 5,039 2,198 15 0 0 11,761 1 1,641 1,700 17 0 4,080 1	7 8 12 7 15 4 10 0 7 5
Total .	101	44 3 33	99	228 1 12	292	40,227 3 6	492	40,501 0 11	··		42,395 5 6	1,954 3 8 44,349	9 2

\* Includes cash received for perpetual leases made freehold.

Table D.-RETURN of DEFERRED-PAYMENT LANDS taken up during the Year ended 31st March, 1892.

					ante	J)101	TOKN	OI DEFE	MAED-IA	1 DI L' N. I.		Ken up uur	ing the i	ear ended	OTDU T	march, 10						
pplications	Taken u	p during the	e Year.	Forfeiture	s during	g the Year.	· c	apitalised dı Year.			l Area held c 1892, incl Capitalised I		the Y	received during Year ended Iarch, 1892.	acqu	reeholds ired during he Year.	Con	Made Freeh nmencemen to 31st Mar	t of System		ors in Arrea March, 189	
Number of Alamber of A	Area taken up.	Average to each Selector.	Yearly Instalments payable.	Number of Selectors.	ea. I	Yearl <b>y</b> Instalment Payable.		Area.	Yearly Interest payable	ig p	Area.	Yearly Instalments and Interest payable.	Trope	Trans-	Number of Selectors.	Area.	Number of Selectors.	Area.	Total Amount realised, exclusive of Interest.	[ <del>5</del> 23	Area.	Amount.
Auckland	10,569 2 3 287 0 0 9,916 3 39 7,569 2 25 4,694 2 16 781 1 10  100 0 0 4,636 2 34	95 2 26 280 1 15 291 0 22 106 2 29 260 1 30 	44 11 (672 9 8 1,037 3 5 239 8 6 22 16 8	$egin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0 0 1 23 2 30 3 24 2 22 3 17	83 9 220 13 27 8  3 19 1 9 4	2 7 6 31 51 6 38 0 4 0 4 26	635 2 15 2,509 0 14 8,503 3 15 5,834 3 25 200 0 7	3 7	$egin{array}{cccccccccccccccccccccccccccccccccccc$	91,045 3 2 50,996 3 1 101,399 3 3 3,207 0 2 25,339 1 1 3,443 0 1 88,300 2 2	$egin{array}{cccccccccccccccccccccccccccccccccccc$	3 20 13 3 336 4 1 518 11 190 14 11 16 1 3 3 18 5 115 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 39 6 112 0 28 6 32 9 3 4 2 6 1 9 63	3,437 0 16	48 638 4628 455 \$370 14 58 43 783 1	61,656 2 1 87,190 1 3 15,757 1 1 1,472 0 2,680 0 3 1,504 3 2 111,101 0 3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	65 6, 10 2, 299 37, 44 6, 2 13 2, 46 1, 90 20,	A. R. P. 917 0 12 789 1 31 095 3 26 906 0 3  176 3 0 184 3 18 905 1 38 004 3 34 841 1 9	£ s. d. 783 19 5 86 7 7 2,149 3 2 375 9 8 8 16 6 619 6 10 429 15 4 810 15 3 793 1 11
Totals 223	40,467 1 36	••	3,020 1 4	56 6,846	1 22	650 8 1	0 163	23,343 2 36	715 2 1	03,512	513,773 0 2	7 37 ,879 19 9	1,545 2	6 48,368 15 1	1 346	44,850 2 25	3,987	481,637 0 3	4657,240 17 5	734 103,	820 3 11	6,056 15 8

<sup>\*</sup> Including exchanges to perpetual-lease.

Table E.—Return of Perpetual-lease and Small-area Lands taken up during the Year ended 31st March, 1892.

		Taken u	p durin	g the	Year.	Previ		nsacti ch, 189	io <b>ns t</b> o 31si 91.	For	feitures and during the		rs To		d on 31st March, 892.	the Ye	eived during ar ended rch, 1892.	Freeh acquired the Y	during	Commence	reehold from ment of System March, 1892.	Selectors in Arrear, 31st March, 1892.
District.	No. of Selectors.	Area.	Average	Upset Rent per Acre.	Annual Rental payable.	No. of Selectors.	Area		Annual Rental payable.	No. of Selectors.	Area.	Annua Rental		Area.	Annual Rental.	On Year's Trans- actions.	On Past Trans- actions.	No. of Selectors.	Area.	Selectors.		
Hawke's Bay Taranaki Wellington Nelson Marlborough Canterbury Westland		71,952 31,975 38,337 54,028 2,172 594 11,443	3 33 0 2 9 0 1 32 0 2 38 0 0 0 0 0 14 1 0 0 0 3 8 0	5½ 7⅓ 11 11⅔ 2⅓ 10⅓ 10⅓ 10⅓	1,752 18 6 2,653 13 8 34 3 16 15 16 6 686 16 6 2 11 6 1,876 13 6	3 659 1 3 277 1 3 334' 3 730 2 0 4 12 1 179 1 11 5 731 1	12,772 69,151 277,811 1,131 965 72,471 782 166,669	1 7 3 33 3 17 2 29 3 11 0 11 3 37 1 32 3 31	4,583 2 3,410 5 13,646 0 109 8 37 18 4,482 16 38 15 9,274 13	3 25 4 4 8 4 6 17 6 3 6 0 1 5 35	A. B. P. 7.119 2 26 1,424 0 28 601 1 6 7,834 1 24  1,734 1 20 40 0 0 8,545 1 26 4,478 3 32	137 16 49 18 29 4 378 15  120 16 1 3 369 17	7 85 8 131 6 43 4 78 1 1 6 21 0 1 7 74	2 139,667 4 105,455 7 304,970 0 3,304 4 1,559 0 82,130 1 802 8 175,084	3 32 5,520 6 2 38 5,364 9 1 0 34 5,052 11 1 35 14,892 14 2 9 141 11 0 11 53 14 3 29 5,043 16 1 32 40 3 3 0 6,292 15 1	1 652 3 10 0 876 9 0 8 1,326 16 10 4 34 3 10 9 7 18 8 9 255 16 8 0 1 5 6 1 906 8 5	2,803 18 0 4,203 6 2 0,4,579 15 7 0,11,442 1 1	3 22 10 3,63 10 1,43 26 10,33  1 4	57 0 0 32 3 26 96 2 25  49 3 2	6   1,005 21   9,306 13   2,275 41   14,501 	1 14 854 15	0 97 14,228 2 31 480 17 4 13 4,133 2 37 89 19 6 196 42,288 2 27 1,526 3 3 156 47,152 3 32 1,629 3  1 40 10,975 1 12 415 13
Totals	824	282,547	0 27	1	0,378 13	3,092	379,515	1 9	41,134 2	10 107	32,778 1 2	1,168 15	73,60	71,075,413	1 25 44,658 13	4 5,289 2 5	34,810 7 1	56 16,97	76 0 32	01 29,049	3 12 26,165 12	6 792 191,639 1 7 6,248 12

<sup>\*</sup> Including exchanges to deferred-payments.

<sup>†</sup> Five selectors included in last year's return in error.

<sup>‡</sup> Twenty-three selectors—1,376 acres 1 rood 39 perches—omitted from last year's return.

<sup>†</sup> One lease subdivided.

One old selector took up additional land during the year.

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£ s. d. 5 0 0 5 0 0 6,809 0 9 2,928 18 8 200 0 0 75 16 10 5,390 17 2 1,689 17 2 7,761 13 0

A. 614 841 443 12 22 1,183 855 2,445

228 228 293 254 38 9 9 157 96 498

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Auckland Hawke's Bay Taranaki Wellington Nelson Marlborough Canterbury

Otago Southland

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Total Amount realised.

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LANDS
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AGRICULTURAL
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	* *						
sar on 31st 392.	Amount.	£ s. d.	112 1 0	:	1,736 14 7	4 15 0	1,853 10 7
Selectors in Arrear on March, 1892.	Area.	A. B. P.	980 3 20	:	3,622 2 35 1,736 14	18 2 16	4,622 0 31 1,853 10
Selec	Number of Selectors.		20	:	30	-	
	Total Amount realised.	£ s. d.	590 5 0	488 12 11	9 128,710 15 0	6,570 5 0	6 221 10 11,448 137,139 0 39 136,359 17 11 51
Made Freehold from Com- mencement of System to 31st March, 1892.	Area.	A. B. P.	1,539 2 10	279 0 15	6193 7 71,303128,750 1 9	6,570 1 5	137,139 0 39
M	Number of Selectors.		69	32	1,303	50	1,448
Amount received during the Year ended 31st March, 1892.	On Past Trans- actions.	£ s. d.	25 0 0	3 2 6	193 7 7	:	221 10 1
Amount received during the Year ended 31st March, 1892.	On the Year's Trans- actions.	£ s. d.	:	:	611 7 6	:	611 7 6
l on 31st 192.	Yearly Rental pay- able.	£ s. d.	128 13 6	•	604 2 6	2 7 6	735 3 6
Total Area held on 31st March, 1892.	Area.	A. B. P.	1,775 2 27	:	57 4,812 1 21	18 2 16	6,606 2 24
Tota	Number of Selectors.		30	:	57 4	H	88
es and Surduring the	Yearly Rental pay- able.	£ s. d.	:	6 2 6	2 15 0	:	5 17 6
Forfeitures and Surrenders during the Year.	Area.	A. R. P.	:	24 3 13	21 1 22	:	46 0 35
Forf	Number of Selectors.		:	н	-	:	61
.:	Yearly Rental pay- able.	£ s. d.	:	:	11 7 6	:	11 7 6
Taken up during the Year.	Average to each Selector.	A. B. P.	:	:	445 0 22 11	:	90 1 4 45 0 22 11
Ta. Juring	Area taken up.	A. B. P.	:	:	90 1 4	:	0 1 4
	Number of Selections.		:	:	C3	:	67
			;	:	:	:	:
			:	:	:	:	:
	District		:	, <b>:</b>	:	:	:
10-	-C. 1.		Auckland	Westland	Otago	Southland.	Total

•	eehold from System to 1892.	Total Amour realised.
	Cotal Area made Freehold from Commencement of System to 31st March, 1892.	Area.
rch, 1892	Total A Comn	No. of Selectors.
ed 31st Ma	ear ended .892.	Amount realised.
e Year end	Total during the Year ended 31st March, 1892.	Area.
during th	Total	No. of Selectors.
of for Cash	ons.	Amount realised.
disposed o	Small-farm Sections	Area.
NT LANDS	Sm	No. of Selectors.
Table G.—Return of Village-settlement Lands disposed of for Cash during the Year ended 31st March, 1892.	ons.	Amount realised.
of VILLAG	Village Sections	Area.
-RETURN	·	No. of Selectors.
Table G.	District	

428 3 31 1,629 3 4 1,574 6,420 2 11 28,854 3		eehold.
83		ase made
812 3 4		on perpetual le
389 3 37		llage settlement o
38	-	ived for vi
585 10 0		des amount rece
38 3 34		* Inclu
51		
:		
:		
:		
Total		
	1	

1892.
March,
31st
ended
Year
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during
PAYMENTS
DEFERRED
on
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disposed
LANDS dis
VILLAGE-SETTLEMENT
lo N
I.—Return
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Table

uo ,	~ <b>:</b>	Amount.	8. 3 % d 8 1C 1 1 1 1 3 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1	7 11
Selectors in Arrear on	31st March, 1892	Атс	£ 114 30 70 70 53 53 95	531
rs in	March	Area.	R. P. 2 12 12 12 12 12 12 12 12 12 13 14 4	1,839 0 22
elector	31st	Ard	57. 260 137 309 310 763	1,839
 <u>w</u>	·	Number of Selectors.	3 16 3 16 3 16 3 20 420	4 125
rom	2.	sal ount ised.	s. d. 19 6 18 4 17 8 17 8 0 9	8
ired f	ı, 189	Total Amount realised.	£ 1,430 9,383 1,113 15,218 1,205 6,332	4,685
acqu	March	:	8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	313
Freeholds acquired from	to 31st March, 1892.	Area.	A. 505 852 269 269 400 534	7,200 0 31 34,685
Free	5 2	Number of Selectors.	P. 256 4107 1, 9 31 37 406 1, 6 40 87 161 2,	
Jd.	ihe ·		1 1 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3	2 15 801
Made Freehold	during the Year.	Area.	A. 117 121 41 146 112 436	974
		No.	d. 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 8 44 8 19 8 19	88
ived	during the rear ended 31st March, 1892.	On Past Trans- actions.	s. 112 112 113 113 119	∞
Amount received	aring die 1 ear end 31st March, 1892.	On Tr:	£ 235 125 125 594 570 870 385	72,599
moun	ng trie st Ma	On the Year's Transac- tions.	s. d. 9 4 19 8 0 0 18 6 1 0 1	7 7
A	317	On Ye Tran tio	£ 44 16 26 26	58
	.892.	Instalments payable.	s. d. 19 0 7 6 17 2 11 11 8 9 6 0	14 1
68	rch, 1	Yearly	£ 250 67 67 550 9 794 299	2,246
Total Area	st Ma	ei ei	H. 20 2 3. E. 20 4 4 20 8 8 8 15 8 15 8 15 8 15 8 15 8 15 8 15	0 37
To	held on 31st March, 1892	Area	A. 1 656 387 724 43 1,248 1,529	5,434 0 37 2,246 14 11
	held	Number of Selectors.	53 113 80 5 135 67	0458
		Instalments payable.	S. G.	1 0
1100	· co	Yearly	P. £ 10 3 0 10 1 0 4 0 4 23 42	29 92
Powfeitimes		Area.	A. B. 1 4 0 1 36 0 2 1 2 1 90 1 3	240 3 2
12	4	Number of Selectors.	2 :H :Q 20 4	14 22
	}	payable.	s. d. 119 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 5
	_	Yearly Instalments	£ 8 8 33 35 52 52	5112 1
	Total	Area.	B. P. 0 111 0 116 3 2 4 3 3 4	က
	]	Selectors.	A	3 181
Year.		Number of	190 -48 g.	5 23
Taken up during the Year.	Small-farm Sections.	Yearly Instalments payable.	£ s. 8 18 3 19 33 17 52 0	98 15
durir	arm S	Area.	B. P. 0 11 0 16 3 24 3 34	0 5
dn uə	nall-f	Selectors.	A. 113 30 49 86	180
Tak	ļ	payable. Mumber of	. :	0 16
	tions.	Yearly Instalments Instalments	सः <u>4</u>	4.0
:	Village Sections.	Area.	, <sub>6</sub>	3 0 14
	Villag	Selectors.	A. B. B. C.	7 1
		Number of	• • • • • •	:
		District.	Hawke's Bay Taranaki Wellington Marlborough Canterbury Otago Southland	Total .

Table I.--RETURN of VILLAGE-SETTLEMENT LANDS disposed of on PERPETUAL LEASE during the Year ended 31st March, 1892.

rrear 892.	•!	nnomA	P. £ s. d. 2910 3 9 2910 3 9 115 4 18 6 36 33 15 9 85 84 15 6
Selectors in Arrear on 31st March, 1892.		Area.	A. R. P. & & & & & & & & & & & & & & & & & &
Sel 31s	stors.	Mo. of Selec	6 113 113 23 53
juired Fear.	.bia	d qunomy	P. £ s. d. 028 15 0 0 5 12 6 19 2 17 0 19 37 4 6
Freehold acquired during the Year.		Area.	A. R. P. £ 80 0 028 30 0 5 19 0 19 2 
Fr	store.	No. of Selec	;∞ ;α⊣ ; o
received Year ended 3h, 1892.		On Past Transactions.	£ s. d. 14 14 8 27 11 1 1 5 0 101 9 3 98 0 4 49 10 6 292 10 10
Amount received during the Year ended 31st March, 1892.	24	Year's Transac- tions.	8 9 11 8 9 11 8 9 7 11 47 18 0
əld 392.		Annual Rent payable.	s. d. 0 0 6 118 4 119 6 17 22 8 2
Total Area held on 31st March, 1892		Area.	A. R. P. E. E. 168 0 1168 0 1 17 116 3 22100 11,116 3 22100 11,1072 2 271100 11,072 2 37140 11,074 2 37140 11,074 2 37140 11,075 2 37140 11,0
To 31st	stors.	No. of Selec	11 22 1 48 1, 52 1; 72 1, 72 1,
und ng the		Annual Rent.	£ s. d 2 18 0 4 0 0 1 118 4 8 16 4 2
feitures and iders during Year.		Area.	A. B. P. 15 15 0 0 24 3 20 71 3 13
For	ctors.	Mo, of Selec	:::ØHH 4
		Total Annual Rent payable.	£ s. d. 3 5 10  27 19 1 16 6 4 58 15 10 106 7 1
-	Total.	Area.	A. R. P. £ 21 1 0 3 130 3 3 27 289 1 8 16 451 1 39 58 892 3 10106
ar.	-	No. of Selectors.	2 ::11 111 2 38 38 89 89
ng the Ye	tions.	Annual Rent payable.	£ s. d. 3 0 10  19 19 1 16 6 4 58 15 10 98 2 1
Taken up during the Year.	Small-farm Sections.	Area.	A. B. P. 20 1 0 123 3 3 289 1 8 451 1 39 884 3 10
Таке	Smal	No. of Selectors.	1 1 4 1 1 2 3 4 4 1 1 8 1 1 8 1 8 1 1 8 1 8 1 1 8 1 8
	ions.	Annual Rent payable.	8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	Village Sections.	Area,	A. B. P. 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Vi	No. of Selectors.	H::F::
			;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
	District.		Hawke's Bay Wellington Marlborough Canterbury Otago Southland Totals

Table J.—Return of Selectors under the Village-homestead Special-settlement Regulations (Perpetual-lease) for the Year ended 31st March, 1892.

	Taken up during the Year.	Forfeitures and Surrenders during the Year.	Total Area held on 31st March, 1892.	Amount advanced to Selectors during the Year.	Total Amount advanced to Selectors: Past and Current Transactions.	Payments made by Selectors during the Year.	Total Payments made by Selectors from Commencement of System.	Selectors in Arrea	r on 31st March, 1892.
District.	Number of Selectors.  Parage Average Area to each Selector.  Average Rental per Acre.		Rental, including Interest on Advances.	For Bush Total felling. Advances.	For For Bush Total Houses. felling. Advances.	Rent. Interest.	Rent. Interest.	ried Hubban	Amount.  Rent. Interest.
Southland	85 954 1 37 11 0 37 0 4 7½ 1 5 0 0 5 0 0 3 0 10 412 1 12 41 0 37 2 14 4 36 783 0 28 21 3 00 1 4½ 8 58 0 27 7 1 30 2 7	1 50 0 0 3 2 6 12 132 2 5 22 15 0 	A. R. P. £ s. d 298 12,497 2 39 888 4 2 31 203 2 20 83 12 10 207 2,678 2 12 481 5 3 1 5 0 0 0 15 0 14 236 0 5 23 12 9 172 5,532 0 10 652 3 2 107 1,706 1 31 196 2 4 65 676 2 0 80 18 4	161 248 13 9 409 13 9 26 15 0 46 15 0 311 9 0 311 9 0 20 0 0 20 20 0 0	2,320 0 0 2,374 2 2 4,694 2 2	42 6 11 37 19 6 224 8 11 204 17 6 21 0 6 5 14 6 547 3 2 105 0 6 85 2 3 71 13	5 219 9 1 177 14 11 61,113 16 5 702 5 8 0 89 8 0 17 2 10 02,409 11 2 398 10 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	£ s. d. 674 4 11 726 17 3 1 12 6 1 13 0 177 6 0 87 8 2 0 15 0 306 16 0 56 0 0 19 14 11 24 19 6 15 4 9 4 15 4 9
Totals	140 2,213 0 24	351,081 1 9 63 8 6	895 23,535 3 37 2,406 13 10	261 673 2 9 984 2 9	12,377 2 1 10,006 3 7 22,383 5 8	1,259 7 2 642 13 10	06,106 13 102,245 18 6	428 14,052 0 30	1,214 18 8 912 2 8

\* Including Auckland and Parnell endowments.

Table K .-- RETURN of SPECIAL-SETTLEMENT ASSOCIATIONS under section 163 of "The Land Act, 1885," for the Year ended 31st March, 1892.

				Old '	l'ransac	tions.		. 1	lew Selec	tions	taker up	during (	the Ye	ar.	!		otal		Mad	Freel	ho <b>ld.</b>		31st \	l Area held Iarch, 1899	tors			Forfe	itures an during th	d Surrende	rs 31	Selecte st Marcl	ors in .	Arrear, : In <b>ter</b> est
District and Survey District.	: 1	Name of Special Settle- ments.	Onic	dual	ginal rs.	nsfers.	iginal ors iding.	.				Aver Ar		Price	Amount	rece Curr	ount ved on nt and vious	Duri	ing the Ye	me	om coment of S	mence System	· m	and Currei nsactions.			Area.		auring tr	e rear.		on Adva		
District.		тень.	Orig Arc Blo	a of	– 5. of Origin Selectors.	of Tru	o. of Ori Selecto now resid	No.	Area.		Total Area of Block.	of earlier Selection to Bloom	etor the	per Acre.	during the Year.	Tran	actions		· <u>-</u>	"	1899	2.	lo. of ectors.	Area.	Number of Se			No. of electors.	Area.	Amount	No. of lectors.	Are	<b>b.</b>	Amount.
<del></del>		· . <u></u>			ž	No	Ž č	.				Blo	ek.		·			No.	Area.	: No	). A	ren.	Sel		įž			ြည္တ			လို			
Auckland-		On Deferred payments.	Δ.	R. F					A. R	. P.	A. R.	P. A.	в. р.	g s. d.	£ s.	d. £	в. <b>d</b> .	.	A. B.	P.	A	. в. р		A. R.	Р.		A. B. P	,	A. B.	. £ s.	đ.	<b>A.</b>	R. P.	£ s.
Wairere Onewhero Waoku		Gordon Tuakau Canterbury	3,326 3,035 71	2 3 1		11   7 	$ \begin{array}{c} 21 \\ 10 \\ 14 \\ \end{array} $		••	,	••			• •	435 18	9 2,07	2 16 5	5	••			••	67	5,651 2 1	61	5,8	373 3 1	1 4	436 1 1	43 15	0 46	3,808	2 39	438 3
Hawke's Bay— Norsewood		Danevirke Waipawa	1,899 3,22	9 1 3		12 15	9 } 9 }		••	:	••		-		. 510 8	1 3,48	3 15 7	 	186 0	36	5 99	9 1 9	47	4,121 2 5	22 18	1,7	772 0 37	7	••	••	9	962	2 0	43 10
Wellington— Makuri Apiti Makuri and Mangahao Mangahao Mangahao	••	Woodville-Tiraumea Feilding Pahiatua-Puketoi Woodville-Mangahao Wellington	5,000 9,259 5,080 5,329 9,531	9 2 13 9 3 6 7 1 13 7 2 36	91 50 50 5 50 50 50 50 50 50 50 50 50 50 5	21 56 11 13 43	$\begin{bmatrix} 2 \\ 17 \\ 7 \\ 6 \\ 7 \\ 10 \end{bmatrix}$			:		   1   1   1   1	•		,    - 																			
Pohangina Apiti Apiti and Ongo Mangahao	•	Parkville Awahou-Pohangina Birmingham Sandon Masterton-Mangahao Woodville-Mangatainoka		4 2 20 0 0 0 9 3 10 5 2 30 0 0 0	61 87 0 53 6 63	19 10 53 9 28 24	31 13 14		••		••		•		<b>6,</b> 500   <b>5</b>    -  -	1145,84	3 11 8	3 30	2,76 <b>5 0</b>	1 11	8 11,52	2 3 25	7067	0,769 2 3	264	24,0	096 0 18	3 5	508 0	508 0	0 199	19,891	0 30	1,236 3
Apiti" Mangahao and Mangaone Canterbury—		Masterton-Hawera Pemberton Hutt		3 0 3		11 19 7	17 6																									:		
Waikari Waipara Waitohi	}	On Perpetual-lease.  Medbury		••	•••	.	••	13	1,92 <b>2</b> 1	8 2	,201 1	33 147	3 19 1	3 0			••		••			••	13	1,922 1	8		••		••	•••		,		
Total	1	••	96,09	G 1 1	976	349	206	13	1,922 1	8 2	,201 1 3	33 147	3 19	3 0	9,446 12	951,40	) 3 3	32	2,951 0	37 12	$\frac{-}{3}$	2 0 34	8338	2,465 1	3 343	31,2	42 0 21	1 9	944 1 1	551 15	0 254	24,662	1 29	1,717 17

Table L.—Return of Homestead Lands taken up during the Year ended 31st March, 1892.

			Take	n up during th	e Year.	For	rfeitures.	!	31st N Past	Area he Iarch, 1 and Cui nsaction	892: rent	Com	le Freeh since mencem System March, l	ent to
Di	istrict.		Number of Selectors.	Area. 1	Average to each elector.	Number of Selectors.	Area.	     	Number of	Are	<b>1</b> .	Number of Selectors.	Are	<b>8.</b> .
Auckland Westland Otago	••		8	A. R. P. A 1,010 0 0 25				. Р. 30	114 1 21	A. 15,533 40 2,860	R. P. 0 3 0 0 1 19	361 38	A. 61,650 1,440	R. P. 3 7 0 0
Total	• •	••	8	1,010 0 029	26 0 0	5	396 0	30	136	18,433	1 22	399	63,090	3 7

Table M.—Return of Small Grazing-runs taken up during the Year ended 31st March, 1892.

					T	aken	up duri	in <b>g t</b> h	e Year			;			res a ring t		urrender Tear.	'S	To	1892:		n 31st March d Current iions.	,   	Amount receipthe the ended 31st	Year		•		Arrears or	n 31st l	March, 1892.
Distri	ct.		Number of Holders.	A	rea.		Avera Are		Average Rent	An Re pay	nual ntal		Number.	Ar	ea.		Annus Rents		Number of Holders.	Are	ea.	Annual Rental.	··	On the Year's Transactions.		n Pa	sst tions.	Number.	Are	a. 	Amount.
		<u>'</u>		A.	R.	Р.	Α.	к. Р	s. d.	1	s.	d.		Α.	R, I	; ;	£ s.	. d.		Α.	R. P.	£ s.	d.	£ s. d.		£	s. d.		Α.	R. P.	£ s. d.
Auckland			1	8,54	0 0	0	8,540	0 0	0 1	5	3 <b>7</b>	6	1	8,540	0	0	53 <b>7</b>	6	13	43,145	0 0	349 8 1	ιo	26 18 9	;	391	6 3	8	22,039	0 0	209 4 3
Hawke's Bay					••								1	· 464	3	0	5 16	6	44	116,418	3 2	1,276 2	1	••	1,5	231	2 6	1 7	19,482	0 14	<b>7</b> 3 10 5
Taranaki			4	5,86	4 0	0	1,466	0 0	0 3	7	3 <b>6</b>	0			•				14	17,240	0 0	233 18	2	36 13 0	:	146 1	9	<sub>!</sub> 11	11,906	0 0	164 5 10
Wellington		••	16	19,18	8 2	0	1,199	1 5	0 4	30	0 7	8 :	1	638	o	0	15 19	0	89	85,164	2 30	2,259 13 1	10	150 3 10	2,0	029 1	1 3	25	2,330	2 4	419 5 6
Marlborough		••	4	1,41	0 0	0	352	2 0	0 3	1	7 12	6 <sup>j</sup>	••	<u> </u>		ļ			27	14,625	2 34	182 16	6	21 5 2		171	8 4	2	1,327	0 0	13 9 4
Canterbury		••	16	45,34	1 0	0	2,833	3 10	1 1	2,58	4 2	6				- !			31	;   <b>7</b> 9,305	0 27	4,832 15	8	1,292 0 6	2,	117 1	1 7				••
Otago	••	••	39	79,12	1 1	7	2,028	3 0	1 0	4,08	6 <b>2</b>	8	5	10,527	1 3	6	518 4	10	151	334,160	0 19	11,958 4	2	2,043 1 4	7,	412	9 9	90	200,580	0 9	4,168 17 5
Totals	••		80	159,46	4 3	7	1,993	2 5	•	7,11	4 18	10	8	20,170	о а	- 6	593 7	10	369	690,059	1 32	21,092 18	5	3,569 17 7	13,	500	9 5	143	257,664	2 27	5,048 12 9

Table N.-NUMBER and AREA of PASTORAL LICENSES for the Year ended 31st March, 1892.

				Taken up during the Year.	Year.		Total Area held on 31st March, 1892.	31st March, 18	33.	Holder	Holders in Arrear on 31st March, 1892.	t March, 1892
District.	ict.		No. of Holders.	Area.	Annual Rental.	No. of Holders.	Area, approximately.	Average Holdings.	Rent paid during the Year.	No.	Area.	Amount.
	-			A. B. P.	£ s. d.		1	A. B. P.	બ		ρŧ	υż
Auckland	:	:	:	:	•	띦	128,119 0 0	6,100 0 0	246 8 5	4	21,848 0 0	52 0 0
Hawke's Bay	:	•	:	:	:	*25*	0	CA	972 14	:		:
llington	:	:		147 0 0	7 5 4	23	0	-	457 12	:	:	;
Nelson	:	:	41	32,425 2 38	142 13 4	346	0	0	9,065 4	-	2,000 0 0	16 13
Marlborough	:	:	18	18,016 1 16	183 13 7	130	1,099,127 0 0	0	8,770 12	:	:	:
Canterbury	:	:	eo •	54,500 0 0	349 4 0	148	0	က	48,680	က	0	0
Westland	:	•	7	56,000 0 0	26 0 0	26	0	0	507 12	<u>_</u>	0	Ŋ
Otago	:	•	34	519,698 0 0	7,228 0 0	392	4,428,751 0 0	ന	58,218 6	19	117,323 1 14	254 7 6
Southland	:	:	22	164,165 0 0	1,335 14 8	132	1,366,558 0 0	0	5,706	01	5,600 0 0	10
Totals	:	:	. 126	844,952 0 14	9,302 10 11	1,270	11,829,199 0 0	9,314 1 13	132,605 17 0	98	390,471 1 14	1,492 15 10

† Two runs resumed by Government; one run, lease expired. \* Two runs increased by 680 acres during the year.

Table O.—Return of Miscellaneous Leases and Licenses not otherwise enumerated issued during the Year ended 31st March, 1891.

57 .			C	-1.
Lessees in Arrear	on 51st March, 1892.	Amount.	2 8. d. 167 5 0 53 19 17 11 30 0 0 5 0 0 1,292 15 9 351 17 2 351 5 5 2,518 0 9	
Lessee	on so	No.	111 8 8 3 3 3 3 45 45 95 95 95	-
uo action on	1892.	Annual Rental.	P. £ s. d. 105 19 0 39 125 16 10 18 308 12 11 19 125 16 10 4 10.380 14 9* 24 1481 12 4 743 19 1 24 881 14 2 24 743 19 1 24 881 14 2 24 881 14 2 24 881 14 2 25 881 14 2 26 837 13 9	
Total Area in Occupation on	31st March, 1892.	Area.	d. 26 5,982 2 37 2 55 5,982 2 39 11 9 446 2 18 5 7 29,354 2 28 4 174 44,146 3 24 6 433 2,760 1 24 6 433 2,760 1 24 6 433 2,760 1 24 1 181 13,383 0 24 1 181 13,383 1 29 1 309 29,685 1 6 1 343 169,917 3 8	
Tota		No.	26 55 9 9 57 174 174 181 309 1,3431	_
Tota!	Amount re- ceived during the Year	ended 31st March, 1892.	d. £ s. d. 0 725 6 10 292 7 5 6 292 7 6 10 295 18 2 4 210 8 11 1,481 12 4 0 258 11 6 1 721 2 10 2 2 385 1 1 0	
	Total Annual Dontal	L'etteat, œc.	2. S. 6. 592 19 81 10 83 10 14 10 13 10 14 12 11 11 11 11 11 11 11 11 11 11 11 11	
	Total Area.		1. A. R. P. £ S.	-
	eous.	Annual Rental payable.	26 8. 109 19 19 19 19 19 19 19 19 19 19 19 19 19	lties.
	Miscellaneous.	Area.	1. 22 3,382 2 37 2 1,156 2 8 10 99 2 39 4 84 1 33 6 3,402 0 0 23 1,024 3 30 23 1,024 3 30 16 3,946 0 0 16 3,946 0 0	* Including royalties.
,	۵	Amount Z		*
ch Leased.	Flax-cutting.	Area.	S. d. 31,380 0 0 17 0 17 0 17 0 17 0 17 0 17 0 17	-
Object for which Leased.	tting.	Amount or received.	88 38 12 12 83 83 83 83 83 83 83 83 83 83 83 83 83	
	Timber-cutting.	Area.	A. B. P.	-
	neral.	Annual o Rental.	R. P. & S. d. 0 0 136 7 10 1 22 65 3 6 2 14 63 0 0 3 28 416 18 9 8 24 681 10 1 19	-
	Coal and Mineral.	Area.	A. 2,600 2,600 	
	·	.oV	4	-
	District.		Auckland Hawke's Bay Taranaki Welington Nelson Marborough Canterbury Westland Otago Southland	

Table P.—Return of Land and Territorial Revenue received during the Year ended 31st March, 1892.

1	Auckland.	Auckland. Hawke's Bay	Taranaki.	Wellington.	Nelson.	Marlborough. Canterbury.	Canterbury.	Westland.	Otago.	Southland.	Total.
Cash lands LAND REVENUE.  Deferred payments	£ s. d. 9,735 5 4 1,937 16 8 5 0 0	£ s. d. 5,039 9 1 4,267 17 4 58 5 0	£ 2,198 16,956 35	£ s. d. 11,746 17 5 6,154 9 5 819 8 2	£ s. d. 1,641 7 8 7,250 2 0	£ s. d. 94 12 7 190 9 8	બૂ બુ	£ s. d. 637 10 0 81 16 3	£ s. d. 3,490 7 5 6,429 8 9 276 10 0	ည်က်	.s. 25
Village-settlement, deferred payments Special-settlement associations Crown-grant fees Transfer, lease, and license fees, &c State forests	435 18 9 183 3 3 448 7 4 806 16 1	235 12 0 510 8 1 74 11 10 145 16 7	125 12 0  182 16 8 236 6 0	599 0 2 8,500 5 11 282 9 6 1,094 12 0	89 0 0 259 16 6	9 4 8 6 1 0 57 7 0		3 12 0 36 13 0 3 13 0	41 . <del>7</del> 4 61	407 19 136 13 121 9 1,898 13	2,657 15 10 9,446 12 9 1,202 3 1 2,856 7 5 2,761 2 3
Survey rees,— Amounts which do not form part of payments for land Amounts which do form part of payments for	3,428 8 10	662 8 4	: :	3,163 8 10	866 12 6 506 19 10	95 5 10	553 17 6	122 0 0 24 0 0	345 10 3 7 10 0	243 5 0	1,577 7 9 8,441 19 2
land Miscellaneous Total Land	248 13 10	1 10,997 8 31	80 4 4 9,814 13 4	247 11 3 32,608 2 8	56 9 0 10,670 7 6	4 8 4	19 10 9	56 17 6	168 19 0 11,626 10 9	0 319 7 2 9 12,597 3 6	1,205 1 2 124,086 16 8
Territorial Revenue.  Repetual lease and small areas Agricultural leases Village-settlement perpetual leases Village homestead special settlements	80 8	4,855 10 0 16 11 8 80 6 4	5,456 4 7	27 11 11 27 11 11 429 6 5	215 8 11	46 7 7 1 5 0 26 14 6	5,052 16 11 109 19 2 652 3 2	64 15 0	6,269 6 0 204 15 1 106 3 6 156 15 10	1,694 14 7 78 18 5 143 11 9	
Homestead Small grazing-runs	122 15 9 418 0 0 246 8 5 132 7 10 10 0 0 17 0 0	1,231 2 6 972 14 8 41 8 8 3 16 6 233 13 9	183 12 9  38 17 3 55 19 0	2,179 15 1 487 12 5 	9,065 4 5 1,081 3 10 12 3 3	192 13 6 8,770 12 0 62 4 4 15 0 0 19 2 9	3,409 12 1 48,680 11 6 155 0 3 12 10 0 630 5 11	507 12 118	9,455 11 1 58,218 6 4 359 2 6 121 0 0 83 10 10	5,706 14 4 135 18 9 49 5 0 350 9 7	122 15 9 17,070 7 0 182,605 17 0 1,905 17 0 457 3 1 457 3 1 1,598 10 9
Total Territorial		6		2 16,053 11 101	14	12 4	1 =	0	,   0	8,159 12 5	4

Nors.—The Treasury shows the land revenue to be £103,240 15s. 6d., and the territorial to be £206,195 19s. 8d., but the items are classified differently by that department, and some of the items in this table are also charged to different accounts not specified herein. The table shows the total amounts collected by the Land and Survey Department, exclusive of endowment revenue.

Table Q.—Summary of Arrears due to the Crown on the 31st March, 1892.

	rence to etail Table	r of ors.			Amo	ount.	
System.	Reference Detail see Table	Number of Selectors.	Area.		On Year's Transactions.	On Past Transactions.	Total.
Deferred payment	D	734		в. р. 3 11	£ s. d. 2,197 2 3	£ s. d. 3,859 13 5	£ s. d. 6,056 15 8
Perpetual lease Agricultural lease	E	796 51		$egin{matrix} 1 & 7 \\ 0 & 31 \end{smallmatrix}$	1,573 15 11	4,674 16 10 $1,853 10 7$	6,248 12 9 1,853 10 7
Village settlements on deferred payment	$\mathbf{H}$	125	1,840	0 22	37 3 10	494 4 · <b>1</b>	531 7 11
Village settlements on perpetual lease	I	53		2.35	2 4 0	82 11 6	84 15 6
Village-homestead special settlements: Interest on advances and rents	J	428	14,052	0 30	1 14 6	2,125 6 10	2,127 1 4
Special-settlement associations	K	254		1 29		$1,717 \ 17 \ 2$	1,717 17 2
Small grazing-runs	M	143		$2\ 27$	660 9 3	4,388 3 6	5,048 12 9
Pastoral runs	N	36		1 14	65 8 4	1,427 7 6	1,492 15 10
Miscellaneous (not otherwise specified)	0	536	12,860	0 12	800 4 5	1,717 16 4	2,518 0 9
Totals		3,156	1,007,910	3 18	5,338 2 6	22,341 7 9	27,679 10 3

Table R.—Return of Lands Reserved, Alienated by Act, Scrip, &c.

		Du	ring the Year end	ed 31st March, 18	392.	Total Area reserved, granted under
District.		Area Reserved for Various Purposes.	Area Granted under Acts.	Area taken up by Scrip.	Total Area alienated during the Year.	Acts, &c., from the Foundation of the Colony to the 31st March, 1892.
Auckland Hawke's Bay Taranaki Wellington Nelson Marlborough Canterbury Westland Otago Southland		A. R. P. 1,220 0 30 9,069 1 37 206 0 0 5,054 3 15 7 1 22 56 2 31 7,437 1 9 96 0 9 10,079 0 21 47,516 0 9	A. R. P. 1,612 2 3 17,063 3 13 1,192 2 1 2,177 0 25 9,050 0 0 187 0 0 3,424 0 0	A. R. P	A. R. P. 2,882 2 33 9,069 1 37 17,269 3 13 6,247 1 16 2,184 2 7 56 2 31 18,294 3 35 233 0 9 10,079 0 21 50,940 0 9	A. R. P. 2,797,223 0 16 227,449 3 21 587,453 1 39 736,606 3 2 177,493 1 32 178,233 2 38 687,252 3 16 75,061 3 28 585,092 0 10 587,311 0 5
Totals	••	80,743 0 23	34,657 0 2	1,807 2 26	117,207 3 11	6,589,178 1 7

Table S.—Statement of the Number of Selectors on the Books of the Lands and Survey Department on the 31st March, 1892.

			<u> </u>				•				
District.	Deferred- payment.	Perpetual-lease.	Aguricultural Lease.	Village-settle- ment Deferred- payment.	Village-settle- ment Perpetual- lease.	Village Homestead Specialsettlement.	Associations.	Homestead.	Small Grazing- runs.	Pastoral.	Total.
Auckland Hawke's Bay Taranaki Wellington Nelson Marlborough Canterbury Westland Otago Southland	447 171 710 246 1,049 37 62 72 358 381	869 323 434 787 10 14 210 11 748 224	30 57	53 13 80  5 135  67 105	11 22 1 48 52 72	282 31  207 1 14 172  107 65	67 47  706 	114     1 21	13 48 14 89  27 31  151	21 22 23 346 130 148 56 392 133	1,843 706 1,171 2,160 1,406 228 806 140 1,953 979
Totals	3,533	3,630	87	458	206	879	820	136	373	1,270	11,392
Year ended 31st March, 1891 Year ended 31st March, 1890	3,685 3,754	2,946 2,274	128 156	537 615	160 108	790 823	859 913	184 480	300 271	1,266 1,429	10,855

Year ending 31st March, 1882 1883 1890 1881 1884 1885 1886 1887 1889 1891 Table T.—Comparative Statement of Selectors and Lands selected under the Various Systems in Force for the Twelve Years ending 31st March, 1892. 156,482 60,340 161,652 86,161 159,464 105,857 Acres. Area. : Small Grazing-runs. No. 89 83 43 80 81 35 11,9845,6288,525 4,378 4,160 5,830 6,9774,220 1,050 1,751 1,010 945Acres. Area. Homestead. No. 55 38 35 49 28 Η 19 6 œ Ξ. 24 3116,820 43,87331,74019,905 4,9701,922Special-settlement Associations. 71Area. Acres. 455 309 209 158 46 C3 13 No. : 2,2139,451 345 270 350 28,700 Village-homestead Special Settlement. Area. Acres 968 309 20 10 No. 24 140 : 1,729Village Settlement: Perpetual Lease. 622 954 893 Area. Acres 92 36 56 59 Š. : 1,1891,3161,182782Acres. 2,095 314527 585 969182 251499 Village Settlement: Deferred Payment. Area. 112 259 198 65 69 75No. 64 85 147 99 51 23 Village Settlement: Area. Acres. 210 429 99 294227664656 Cash. 28 No. 65 68 143 159 83 87 4,603 6,4101,222 Agricultural Lease. 6,7824,879 2,932 4,491 Area. Acres. 475 150 53 8 551 No. 42 15 C/J 56 83 14 Ħ 74 41 24 28,166 50,329 14,38624,410 72,401236,905 288,917 204,749 282,547 Acres. Area. Perpetual Lease. 72111 138 272367768 756788 824 No. : 144,33798,960 80,125135,603 69,73950,527 41,100 54,419 41,376 58,451 40,467 34,091 Acres. Area. Deferred Payment. 895 624 319506 500 304 258 Ņo. 621 581 557397 223 32,633 46,922100,014 195,630 164,337 64,97564,38328,22968,498 195,390 144,589 40,501Acres. Area. Cash. 2,068 2,2321,518 1,4771,242 554613 543 573 492 426 770 No. Year ending 31st March, 1882 1883 1884 1885 1888 1881 1886 1887 1889 1890 1892 1891

\* Included in cash lands.

Table U. Endowments.—Lands taken up during the Year ended 31st March, 1892.

		-			_			<b>,</b>
	ual ıt.	s. d. 0 0 15 6			7 10 0			5 6
Miscellaneous Leases.	Annual Rent.	3,000	:	:		::		3,081
eous ]	_	ч. С			0			3,431 0 0 3,081
ellan	Area.	A. B.	:	:	15 0	::		31 (
Misc	Lessees.	1, 4, 4,						9 3,4
	Number of	d.	' : ——	:	0 2 2 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	::	<del></del>	8
	Annual Rental.	· · ·	: :	:	° :	15		
duns.	 RA B	약. A			0 250	0 45		0 295
Pastoral Runs.	ಣೆ	ъ.				. 0		24,999 0 0 295 15
Past	Area.	Α.		•	1 19,026 0	5.974		4,999
	No.	:	::	:	<del>=</del> :	: =		01
		٠-j				0		0
Runs	Annual Rental.	ુ:	: :	:	::	40 0		40 0
Small Grazing Runs.		d.				9		9
ll Gre	Area.	<i>vi</i> :	: :	:	::	e:		60
Sma	No.	<u> </u>	::	:	::	1 861		1 861
	1	d. 0				0.1 4		9
	Annual Rental.	s. 1 14	::	:	::	4 (	<u>;</u>	391 17
ease.		P. £ 0				2 340 4 29		68 39
nal I	Area.	400	; <b>:</b>	:	: :	1 32 2 14		က
Perpetual Lease.	Ar	A. 665				3,638 861		5,165
•	Mumber of Selectors.	4	::	:	::	27		34
ri.	na! al- ts.	5. d.				©1		61
Land	Annual Instal- ments.	£ s. d. 2 15 0	: :	:	::	286 2		288 17
nent ]		. P.						1 14 2
-payn	Area.	A. B.	::	:	::	4,952 1 14	:	96 1
Deferred-payment Lands.		<b>P</b>			·	4,9%		4,996
De:	Number of Selectors.	H	::	:	::	14	:	15
	ž.	s. d.	1 3	3	4 0+	0 0		5 4
	Amount realised.	£ 8 62 (	$^{2,282}$ .	200 13	.:	1.398	}	3,971 15
nds.								
Cash Lands.		в. 2 20	. 24	3	.0	2 0 348	; 1	1 0
Cas	Area.	A. 25	1,825 2 24	11	137.0	1 159		3,160
	Purchasers,	- 61	.9	16	:-	- F		32 3
· · · <del>-</del>	to radmuN	:	:.		a. :	: .5	uff	:
	Endowments, &c.		Harbo	Railw	Railw	Tomm	sioners and Bluff Harbour Board	
	wmer	g.	rsity anui 1	nd	Company ollege iidland ]	Company	ers an	:
	Endo	Museum	Oniversity Wanganui Harbour	Midland Railway	Company College Midland Railway	Company	sion Har	SI.
		, FI +		Fi				Totals
		:	::	, <b>:</b>	::	:	:	ĭ
· · ·	District.		Taranaki Wellington	Neison	Canterbury Westland	Otago		Ĭ

\* Timber license (7,400,000ft.). † Deposit of 10 per cent. only. † Greymouth Harbour. § Perpetual lease made freehold.

Table V. Endowments.—Return of Land and Territorial Revenue received during the Year ended 31st March, 1892.

	C.—1.
Total.	28 8. d. 3,487 3 3 1,813 10 7 225 12 9 3,415 13 4 19 2 8 508 12 10 1,311 4 7 14,506 5 5 11 10 0 436 11 0 94 2 7 197 11 3 639 0 3
Southland.	£ s. d. 1,059 19 5 1,2 12 5 0 1,918 17 9 300 15 2
Otago.	£ s. d. 15 0 0 213 7 9 296 7 0 452 3 2 758 5 5 
Westland.	£ s. d. 13 14 0   60 0 0 436 11 0 197 11 3
Canterbury.	£ s. d
Nelson.	£ s. d. 48 13 6   14,446 5 5 11 10 0 10 0 0 639 0 9*
Wellington.	2,365 15 0 689 17 8 
Taranaki.	£ s. d
Hawke's Bay.	£ s. d 200 8 7 56 9 8
Auckland.	£ s. d. 1,107 14 3  10 11 5 8 11 3  7 10 0
-	
	:::::::::::::::::::::::::::::::::::::::
	:::::::::::::::::::::::::::::::::::::::
	1::::::::::::::::::::::::::::::::::::::
	eas ttlements sees
	cash I small are special set s
	Cash lands Deferred payments Village settlement cash Perpetual lease and small areas Village-homestead special settlements Special settlements Special settlements Coal and mineral leases Timber licenses and other leases Miscellaneous leases State forests Miscellaneous Totals Totals

\* Midland Railway.

No. 1.—Abstract of the Surveyors employed and of the Work on Hand in each Provincial District on 1st April, 1892.

	Surveyor	s employed.			Wor	k on Hand.			
Chief Surveyors.	Staff.	Tempo-	District.	Trig.	Settle- ment.	Native Blocks, &c.	Roads, &c.	Town.	Mining and Minera Leases.
	]	}	-	Sq. Mls.	Acres.	Acres.	Miles.	Acres.	Acres.
G. Mueller	13	20	Auckland	51	121,577	158,400	119		53
S. Weetman	5	9	Taranaki	20	133,188	70,668	50		
T. Humphries	6	3	Hawke's Bay	39	185,550		109		
J. H. Baker	8	13	Wellington	935	155,557	469,358	293		
J. S. Browning	6	1 1	Nelsou		13,141		• •		122
H. G. Clark	1	1	Marlborough		12,900	6,180	• •		
J. Strauchon	2		Westland		9,358	0,100	229		::
J. W. A. Marchant	4		Canterbury		227,641				
C. W. Adams	5	3	Otago	218	21,395	1,104		•••	248
G. W. Williams	ĭ	3	Southland	47	93,457		•••		
Totals	51	52	• •	1,310	973,764	705,710	800	••	423

No. 2.—Crown Grants and other Instruments of Title from the Crown prepared.

	Distri	ct.	Number.	Cos	st.		Distri	ot.	Number.	Cos	st.	
Auckland Taranaki Hawke's Bay Wellington Nelson Marlborough	• •		 1,458 209 605 1,209 386 13	£ 163 25 40 133 113	18 13	d. 3 0 0 4 0	Brought for Westland Canterbury Otago Southland	orward  	 3,880 308 440 748 122	£ 481 54 63 144 10	s. 13 7 0 0 10	d. 7 0 0 0
Carr	ied fo	rward	 3,880	481	13	7	Totals	••	 5,498	753	10	7

No. 3.—LAND TRANSFER WORK.

	District.			No. of Plans passed.	other In-	No. of Plans placed on Certificates of Title.	Miscel- laneous Plans, &c.	Cost.	_
								£s.d	i.
Auckland				91	50	1,458	34		9
Taranaki				49	2	1,291	12	168 3	8
Hawke's Bay				68	7	1,285		180 11	0
Wellington				99	٠.	2,891	10	416 15 1	0
Nelson				121		671		249 14	0
Marlborough				4	1	79		11 9	0
Westland				32		147	18	29 2	0
Canterbury				115	• • •	2,275		305 10 1	0
Otago	• •	• •		54	3	1,444	34		0
Southland				29	3	554		85 5	0
Tot	als		••	662	66	12,095	108	2,271 14	1

No. 4.—Return showing the amount of "Thirds" of Deferred-payment and Perpetual-lease Lands, and "Fourths" of Small-grazing Runs, paid to Local Bodies during the Nine Months ended the 31st March, 1892.

Nam	e of Distr	ict.		Amount paid.	Name of District.		Amount paid.
Auckland Taranaki Hawke's Bay Wellington Nelson Marlborough		•••		£ s. d. 1,127 10 10 3,747 19 4 2,974 18 2 6,210 12 3 926 9 5 30 15 1	Brought forward Westland Canterbury Otago Southland		£ s. d. 15,018 5 1  1,857 18 10 4,884 4 0 2,173 13 6
Car	ried forw	ard	••	15,018 5 1	Totals	••	23,434 1 5

No. 5—Return of Work done for other Departments, 1891-92.

	District.			Cos	st.			District	,		Cost.
Auckland Taranaki Hawke's Bay Wellington Nelson Marlborough				£ 603 301 245 73 34		d. 0 5 7 3 4	Bro Westland Canterbury Otago Southland	aght for	ward 	••	£ s. d. 1,261 9 7 191 10 2 624 1 2 581 0 10 81 9 4
Car	ried forw	ard	••	1,261	9	7	Tota	ls	••		2,739 11 1

No. 6.—Lithographic Printing and Photographing, from 1st July, 1891, to 31st March, 1892.

				${f L}{f i}$	thographic Prin	ting.	Photog	raphs.
	Departr	nent.		Number of Separate	Number of I	mpressions.	Number of	Silver
				Printings.	By Machine.	By Hand.	Plates.	Prints.
Lands and Sur	vev			 862	312,863	13,117	471	6
Public Works				 92	10,600	3,140	5	
Mines				 37	40,350	•••	21	•••
Native			• • •	 2	1,000	30	1	
Marine				 21	4,775	1,065	7	
Colonial Secret	ary			 9		290		
Justice				 17	650	1,236	٠	
Registrar-Gene	ral			 9	6,500	•••		
Geological				 . 24	18,485		21	
Customs				 1		270		
Premier's				 1	1,000			• • •
Telegraph				 10	6,500	400	6	
Agricultural an	d Stock			 3	·	653	8	
Defence				 11	200	452	9	
Education				 11	7,800		2	
Legislative				 29	34,700	150	1	
Land- and Proj	perty-tax			 2	7,400			
Railways				 44	117,300	••••	7	
Hospitals	• • •	•••	•••	 $\frac{2}{2}$		150	4	• • • •
	Totals			 1,187	570,123	20,953	562	6

No. 7	-Abstract	of	LITH	IOGRAPHS	printed	during	the Nine	${ m Months.}$
At the Head	Office			•••			591,076	impressions.
Auckland	•••				• • • •			"
Dunedin	•••		•••	• • •	• • •	• • •	1,400	"
							594,876	"

Maps mounted at Wellington, 650; maps mounted at Dunedin, 260.

STATEMENT showing the Length and Character of the Roads Constructed, Improved, and Maintained, and the Amount expended thereon, from 1st July, 1891, to

Districts.														
i	-			Engineering	Roads cor	Roads constructed.	Bridges	Roads improved	aproved.	Roads m	Roads maintained.	Area of Crown Lands	Expenditure on	Total
LD.IS	District.			Survey.	Dray-road.	Bridle-track.	constructed.	Dray-road.	Bridle-track.	Dray-road.	Bridle-track.	rendered more accessible.	Koads to open up Crown Lands.	Expenditure.
Auckland	:	:	:	M. ch. 53 60	M. ch. 35 40	M. ch. 7 0	No.	M. ch. 15 40	M. ch. 11 60	M. ch. 462 24	M. ch. 54 0	A. B. P. 198,000 0 0	£ s. d. 2,430 0 0	£ s. d. 14,323 0 0
Taranaki	:	:	:	7 62	19 70	7 50	:	:	5 0	0 9	:	65,000 0 0	2,397 0 0	7,328 0 0
Hawke's Bay	:	:	:	54 0	:	:	67	:	:	:	70 0	0 0 000,09	1,278 0 0	2,577 0 0
Wellington*	:	:	:	46 3	43 33	6 37	œ	09 0	4 0	51 51	0 69	279,500 0 0	5,471 0 0	25,045 0 0
Marlborough	:	:	:	:	:	1 49	:	:	:	:	•	14,000 0 0	, 20 0 0	64 0 0
Nelson	:	:	:	11 0	8 11	:	:	12 70	:	178 0	:	17,000 0 0	879 0 0	4,287 0 0
Westland	:	:	:	21 25	:	4 27	:	:	:	101 40	48 0	9,100 0 0	527 0 0	4,201 0 0
Canterbury	:	:	:	8 19	2 57	:	Н	:	:	52 0	•	:	194 0 0	419 0 0
Otago	:	:	:	:	26 54	:	15	17 68	:	:	:	32,600 0 0	11,833 0 0	14,505 0 0
Southland	:	:	:	:	15 33	:	П	0 9	:	:	:	87,550 0 0	3,156 0 0	4,421 0 0
Totals	:	:	:	202 9	151 281	27 3	34	52 78	20 60	851 35	241 0	762,750 0 0	28,185 0 0	77,170 0 0

† Jetty 225ft. long and goods-shed constructed at Waikawa. \* Wanganui River improvements (snagging, &c.), forty miles.

No. 9.—RETURN of FIELD-WORK executed by the STAFF and Contract Surveyors, from 1st July, 1891, to 31st March, 1892.

LAND DISTRICT OF AUCKLAND.

**75** 

	Topogra	phical i	Survey.	Mino	or Triang	gulation.	Top	ographic Selection	al Survey ou under l Act, 1887	for	Rur	al and Su	ourban.		Town S	Section S		ISTRIC			t Survey.	G	old-mii	ning Sur	vey.		oads, Rai and Water-re		Detention by Native Opposition or other Causes.	Other Work	Total Cost of Surveyor and Party	
Surveyor and District.	Acres.	Cost per Acre.	tal Cost.	Acres.	Cost per Acre.	Fotal Cos	t. Acre	Cost per Acre.	Total C	ost. A	cres. o. o.	Cost per Acre.	Total Cost.	Acres.	No. of Allotments.	Cost per Allotment.	Total Cos	t. Acre	No. of Secs. or Divs.	Cost per Acre	Total Cost.	Acres.	No. of Sections.	Acre.	otal Cost.	Miles.	Cost per Mile.	Total Cost.	Cost.	Cost.	from 1st July, 1891, to 31st March, 1892.	
L. Cussen. Hamilton F. Simpson. Whangarei J. Baber, jun. Tauranga G. A. Martin. Kaipara E. H. Hardy. Te Kopuru		d.   4	s. d.	••		£ s.	<b>d.</b>			2	4,539 8	s.  5   1·2 	632 0 364 5	i. 1 0 0 6		8.  	£ s.	d.	::	s.	£ s. d	::		s	£ s. d.	4·0	£   18.8	£ s. d.	£ s. d.	£ s. d 45 0 0 182 9 8 75 15 0	970 16 9 8 558 1 11 9 509 17 0	Bush, open, and swamp land; scattered sections. Mixed bush, and open country. Scattered sections. Open and bush country. Ditto.
G. Stevens. Tangihua J. I. Philips. Onewhero H. D. M. Haszard. Piako W. J. Wheeler. Whangaroa A. H. Vickerman. Tauhoa T. K. Thomson. Rangitaiki J. McKay. Opuawhanga				7,250 2,21:	0'0'6	19 0 17 4	o			2	$egin{array}{c cccc} 2,290 & 1\\ 7,137 & 4\\ 8,795 & 4\\ 4,149 & 6\\ 5,282 & 4\\ 3,603 & 5\\ 4,901 & 4 \end{array}$	6 3·3 5 0·9 7 0·9 8 1·6 7 1·5 6 0·5 7 1·5	386 17 352 14 394 9 326 7 415 11 636 1 364 8	0 7 0·1·0 4 2 8 7	1		4 9	2,	763 4 332 7	1 07	95 16 6 378 0 0				::	5·0 4·5 22·7	16·4 8·5 12·8 10·8 4·0 9·0	82 6 8 38 10 1 294 3 8 13 0 0 36 16 0 18 0 0	15 0 0	0 11 0 0 88 10 10 21 16 8 68 14 0 11 5 0	586 12 0 537 13 7 0 493 17 0 8 542 15 9 0 548 9 8 0 536 1 1 0 461 11 8	Broken bush country. Chiefly swamp and bush. Mostly resurveys in broken bush country. Chiefly dense forest and broken country. All rough bush country. Partly bush and swamp. Schiefly rough broken bush country.
R. S. Galbraith. Opoziki H. D. McKellar. A. G. Allom. Auckland			••			••	::	i			8,949 1 1,844 8		619 13	4 0:	••	••			,	::	••		•• !	••			4.6	 15 17 0	••	8 16 (	469 6 4 62 18 8 0 187 3 0	
Means and totals		<u></u>  -			-:\	36 4	—'	<b>-</b>	·	-	1,814 59	-	5,864 15	-	1	•••	4 9		- <del></del> -	-  <u> </u>	473 16 (								15 0 0	671 17	7,773 3 4	See detailed statement marked A.
A. L. Foster. J. W. Harrison J. Hannah P. Holt S. J. Harding D. H. Lusk H. Mitchell A. B. Morrow R. Neumann I. Stephens C. C. Otway W. C. O'Noill L. Simpson T. G. Sands W. C. C. Spencer H. N. Warner A. Wilson A. Wilson L. Jackson, G. Purchase, an E. F. Adams Mcans and totals		—- <del> </del>					0			2	150  1,485  248 640 200 7,386 40 2,502 300 994 20 1,058 712 1,872 1,736 5,500   55 738	1 2.5 4 1.4 1 2.0 1 1.3 1 2.5 1 1.3 1 2.5 1 1.3 1 2.5 2 1.3 1 7 2.4 3 1.2 2 2.5 3 1.0 3 3 4.1 1 3.2 7 1.5 3 1.3	42 13 25 0 374 15 7 0 141 13 30 0 85 0 6 0 71 13 86 2  116 10 219 0 275 0	3 0 0 0 0 0 0 0				92, 35, 106,	607 18 926 29 157 157 16 157 1	0 0.8	76 10 (612 4 3 500 2 5 500 0 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	819		9.6	392 14 10 392 14 10 392 14 10			573 16		0 671 17	18 15 0 642 11 9 278 10 5 360 14 8 106 7 4 818 10 4 25 0 0 70 0 0 595 0 0 374 15 8 7 0 0 141 13 8 30 0 0 6 6 0 0 71 13 8 86 2 3 33 16 16 0 116 10 0 175 0 0 9 3 8 259 5 8 15 57 0	Broken forest land. Open and forest land. Very broken mountainous country. Forest and open land. Ditto. Ditto. Forest country, rather broken. Broken forest land. Ditto. Ditto. Open and forest land. Forest land. Ditto. Open land. Ditto. Open land. Ditto. Ditto. Open land. Ditto. Open land. Ditto. Open land. Ditto. Open swamp land. Open land. Offorest land.
										<u> </u>	· ·		·	<u> </u>		Τ.Α	ND DIST	BICT (	)F HA	WKE'S	RAV	· · · · · ·			·.	<del></del>	<u> </u>		<del>-</del>	_ `		
E. C. Gold-Smith. Poverty Bay  J. Hay. Wakarara, Makaretu, Ruatan wha, and Woodville  H. G. Price. Mata and Hikurangi  W. Armstrong. Nuhaka N., Turanganu				28,24	0 0.8	96 1	0:		·	1		3,2·5 4 /5·3	423 2	6	1												14 0	221 4 (		 48 13 7 15 1 55 11	6 523 9 1 10 446 15	4 District Surveyor, Land Officer, and Inspector of Roads and Surveys. 10 The cost of sectional work has been increased through sections being scattered and country rough forest. 2 This settlement work cost 7d. last year for skeleton survey. The total cost from first to last has been ls. 2 The road-surveys have been made under warrants, in difficult
and Paritu W. T. Neill. Motu O. Goldsmith. Hangaroa H. M. Smith. Norsewood, &c. T. J. Mountain. Mocangiangi and Wa	 					•••	' 7,5			6 4	4,730	3 /10 4 /7·5 1 1/6·9	ļ	8	; ••     ::					1	  					3 10		30 2 8	 3  !	20 0 21 10 7 10	0 413 4 8 355 14 0 20 17	country.  6 Heavy forest country; formerly cost 4½d. for skeleton survey before selection.  0 42,750 acres in hand.  6 This is in addition to his dutics as Crown Lands Ranger.  11 Not engaged from 1st August to 13th October. 5,000 acres of
karemoana A. D. Newton. Nuhaka North A. C. Turner	ļį			12,63	8 0.9	49 0	0	 <i></i> -			<u>   .</u>	2 /9.9	29 0	0					<b>.</b>		••	··   ··				 131 10		139 8 9			364 0 66 5	settlement-work well forward.  Not engaged from 1st August to 17th September; 17,000 acres in hand. * Skeleton survey previously made cost 42d. an acre.  From 1st July to 31st August.
Means and totals  Contract Surveyors. T. J. Mountain. Tahoraite Hallett and Laing		::		40,87	8 0 85	145 1	0 8,6			<u>;</u>	2,823 3,184	7 /4·6 5 /9·9		0			::		<u> </u>	<del> </del>				::	···			400 12 7	::	161 1	3,441 10 54 0 261 4	9  O Skeleton survey previously made at a cost of 4½d. an acre.  O £261 4s. paid on an incomplete engineering survey of 54 miles  of road.
Chand moons and totals				40,87	6 0.85	145 1	0 8,6		143 1	_	6,007 1 6,551 8	_!	154 0 1,318 13	_!				••			••				••	——	10 8	400 12 7		161 1	315 4 4 3,756 14	0

## No. 9—continued.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st July, 1891, to 31st March, 1892. LAND DISTRICT OF TARANAKI.

														LA	ND D	ISTRICT	OF TAI	RANAK	KI.								
	Minor T	riangulation.	No.	election	l Survey for under Act, 1887."	F	tural and	l Suburbaa		То	wn Sectio	n Survey.	N	Native La	and Cou	rt Survey.	Go	lđ-mini	n <b>g Survey</b>	78.	н	toads, Rai and Water-ra		Detention by Native Opposition or other Causes.	Other Work	Surveyor and Party	
Surveyor and District.	Acres.	Total Cost	t. Acres.	Cost per Acre.	Total Cost.	Acres.	No. of Sections.	Acre. Lots	l Cost.	Vo. ov	E Cost	per Total	Acre	No. of Secs. or Divs.	Cost per Acre.	Total Cost	Acres.	Sections.	Tota	l Cost.	Miles.	Cost per Mile.	Total Cost.	Cost.	Cost.	from lst July, 189 to 31st March, 1802.	
H. M. Skeet. Mimi and Ngaere	. 12,000 1	i. £ s. 70 0	d. 0	d.	£ s. d	4,090			s. d. 16 2	·· .		. d. £ s.		.	d. ••	£ s. c	a.			s. d.		£	£ s. d.	£ s. d	£ s. d 123 17	613 12	11 Forest country. Preparation of block for selection of naval and military settlers. "Other work" includes standard and alignment survey of portion of Town of Stratford, and pegging out sections; also inspection of L.T. surveys.
P. A. Dalziell. Huiroa E. W. Buckeridge. Nyacre and Omona G. H. Bullard. Nyacre and Omona J. F. Frith. Taurakawa Taranaki Office	:  :: :	57 17 0	0		•••	7,226 8,433	3 44 1	799	15 4 3 8	.				:   ::					•••		3·6 1·5 18·65	12 5 14·25 16·44	45 0 0 21 7 6 306 10 10		16 0 0	561 17 512 14	<ul> <li>4 Rough forest country.</li> <li>2 Rough forest country, partly adjoining old surveys.</li> <li>4 Road through broken forest country.</li> <li>Transferred from the Wellington District in February; just started to survey roads in the Rawhitiroa Block.</li> <li>6 Harbour soundings, scattered surveys, and altering sites of Trig. stations.</li> </ul>
Taranaki Office Temporary. W. H. Murcott. Ngatimaru A. C. Turner. Opaku	1 i		"		 ::	::			:		.			.	::	::		.		•••			::		::	1	Rough forest country; settlement surveys in progress.  Very rough broken country; exploration and survey (magnetic) of road up the Whenuakura Valley; 16 miles surveyed—not yet mapped.
Contract. C. Finnerty. Ngatimaru					  	10,683	17 1		 		:   ::	::	235,9	955 6		 725 0	o				9.32	16.14	150 9 0	  	  	368 8 593 6 725 0 284 5	Roads through Pohokura and Mangaotuku Blocks.  Rough broken forest country.  L. P. blocks; rough forest country; partly compiled.  Settlement surveys: Tanner Special Settlement, and subdivision of Universit Reserve. Onsku. In progress.
H. W. Climie. Ngatimaru					••				·· .	·· ; ·	_					··	••	_ _		••	••					2,115 0 1	_
Means and totals	28,876 0	95 122 0	0	1		30,432	77 1	46 2,215	17 5	' .	.	<u> </u>	235,9	955 6	/0.73	725 0	o	<u> l .</u>	.	]	33.07	15.82	523 7 4	l	168 7 2	5,037 10 1	0
													:	LAND	DISTR	ICT OF W	ELLIN	GTON.									
Staff.	l i			<u> </u>	<del></del>	1	<u> </u>	a.					T	1	i		1 1		<u> </u>		j	1		<u>.                                    </u>		1	
L. L. Smith. General  J. D. Climic. Puketoi, &c			11,800	8	 393 10 0	   · ·		. !		218 2	 22 3 4	6 70 18	· · · · · · · · · · · · · · · · · · ·	!	••							4 0 0 2 0 0	134 15 0 138 12 2		384 15 8	588 5	9 Generally on inspection duties and surveys connected therewith. "Other work also includes £168 1s. 9d., back-pegging old surveys in bush country. Hilly back country, difficult of access and expensive. The road-work consiste chiefly of engineering surveys, including specifications.
W. B. D. Murray. Ohinewairua, &c F. A. Thompson. Onoke, &c	::  :				• •			į.					.:			••					1.60 s	0 0 0	15 15 0	! •• ••	3.0 0	692 0 254 10	O Triangulation of the Awarua country; 120,000 acres in hand. 7 Surveying new and old roads, South Wairarapa, generally open; 63 miles in
A. E. Ashcroft. Apiti, &c		.	2,200 6,200	4	133 6 5 103 6 8	11,806 12,640 1,583 1,707	72 1 15 1	$ 7\frac{3}{4}  1,027$	6 10,	10	1 3 14	6 59 18 0 3 14 9·6 49 12	0	:   ::		  		:: :				3 13 4 4 9 7 4 11 2	109 6 5 36 4 0 2 5 7	••	23 17 0 247 10 10 30 9 6 219 12 7	512 5 634 0 665 14 1 556 18	progress.  Hilly bush country. Cadet assisting until 30th September, 1891.  Hilly bush country. Cadet assisting till 9th March, 1892.  Hilly bush country; expensive district, and difficult of access.  Mostly bush country. "Other work" includes £211 1s. 2d. spent in cuttin about 27 miles for back-pegging prior surveys, benefiting an area of 12,500 acres.  Hilly forest country. "Other work" includes £70 10s. 9d. for back-pegging of the surveys of the sur
J. F. Frith. Mangaone, &c						3,750	20 1	/63 292	19 4			;		.				.			2.001	0 0 0	20 0 0		85 10 0		surveys in Mangaone and Kopuaranga, benefiting about 2,500 acres. Return is for eight months.
W. J. Morpeth. Hautapu, &c. C. A. Mountfort. Makotuku, &c. J. R. Annabell. Momahaki, &c. H. J. Lewis. Rarete, &c. T. W. Hughes. Puketoi, &c. A. A. Seaton. Apiti, &c.			5,500	4	90 3 11	3,863 7.846	3 3	61 102 41 514	 3 7  13 3 9 11							••					14.20 19		135 19 4 271 1 3 133 2 8		21 8 0 35 11 4 122 2 8	514 14 515 10 498 7 524 0 1 520 17	<ul> <li>7,500 acres selection survey in hand.</li> <li>12,000 acres sectional survey in hand.</li> <li>All in broken bush country.</li> <li>All broken heavy bush country, very difficult of access, and expensive to work in Hilly bush country.</li> <li>All bush country.</li> <li>All bush country, portions being very mountainous and gorgy. "Other work includes £114 15s. 8d. spent on 8 miles back-pegging of 2,865 acres old survey.</li> </ul>
R. B. Bristead. Omahine, &c						4,529	13	71 143	19 3						••			l l					199 15 8			466 11	9 Hilly broken country. "Other work" includes £395 15s. 11d. expenditure on the rescheming and partly repegging of 19,859 acres Crown and sold lands a Wainuloru.
A. Simpson. Otahoua, &c				::		::						·· ·· !	$\begin{vmatrix} 34,2\\9,7 \end{vmatrix}$	24 2	/2·8 /4	396 18 ( 162 19 (	6   0			•	2.40 10	7 10 9	•• :		4 6 6½ 307 14 1	266 5 477 14	6 Generally open country.  O Boundary survey of reserves in Waimarino Block; hilly forest.  2 Hilly broken bush country. "Other work" includes an expenditure of \$\frac{203}{203}\$ 6s. 8d. for back-pegging Mangaone.
A. J. Mountford. Mt. Cerberus, &c  Means and totals		·· <u> </u>	25.700	6.7	720 7 0			!	9 6	979 19		81 184 2	9 41 0	-	/3	559 17 (	· ·	<del></del>	_	¦	49.70 11			20 13 7	2 054 5 91		7 8,000 acres sectional survey in hand.
Contract Surveyors.		<del>                                     </del>	20,100		120 1 0				4 0	515 12		VF 101 Z		-	1.9			··   ·					.,100 0 11				-
J. King. Puketoi and Hohanga A. O'N. O'Donahoo. Tauakira, &c. J. A. Robertson. Pohangina, &c. J. F. Sicely. Tiriraukawa, &c. N. H. Macdonald. Tiriraukawa, &c. A. P. Mason. Kaiwhata, &c. E. W. Seaton	••   ••					4,450 1,988 2,879 4,128	4 /	1	12 0 4 0				4,8	524 5	/83	175 0 (					2·30 17 1·75 12	2 18 1	40 7 6 25 0 0	,	5 0 0  	204 15 175 0 88 12 95 4 241 17 1 25 0 42 15	O Ahuahu boundary survey; forest country. O Hilly forest country; roads, &c., surveyed by staff previously. O Ditto. O Ditto. O
F. Gillett								•				1	::			••			•   ••			::	::	•••	••	34 0 93 0	D <mark>.</mark>
Means and totals						13,445		0.5 586			-		4,8				- ¦		-		-	3 13 8	86 7 6		5 0 0	1,000 4 821 16	=
Grand means and totals	!	-	95.700	6.7	720 7 0	60.710	986 1	9.64 042	15 6	979 10	0 1 10	91 194 0	0 40 0	105 11	13.61	794 17 4	-			11	56:15:11	1 15 11 1	,842 13 5	90 13 7	9 050 5 01	9 738 13	6 - 1
Orang means and totals		•	25,700	0.7	120 7 0	09,718	200 1/	2 0 3,246	10 6	3/3 12	1 10	01 194 7	Z 48,8	11	19.0	194 17 t	1 ''	· · · ·	.	11	90 1911	. 13 11 1	.,o±2 15 0	20 13 7	,,∪∪υ 0 2 <u>4</u>	3,100 13	•

. No. 9—continued.—Return of Field-work executed by the Staff and Contract Surveyors, from 1st July, 1891, to 31st March, 1892.

LAND DISTRICT OF MARLBOROUGH.

Property of the property of	Surveyor and District.	1	Fopogra Surv	uphical	; 	Mino	or Tria.	ngulatio	on.	und	graphica for Select ler "The Act, 1887	- 1	R	ural and f	Suburb	an.			Section Su	rvey.		<del></del>	and Cour			Gold-mi	ining Su	rveys.	Ros		Ways, a races.	nd Water	Other Work.	Sur	otal Cost of veyor and	
March   Marc		Acres.	Cost per Acre.	Total	Cost.	Acres.	Cost per Acre.	Total	Cost. A	Acres. SeroA	Total	l Cost.	Acres.	Sections. Cost per Acre.	T	otal Cost.	Acres.	No. of Allotments.	Cost per Allotment.	Total Co	ost. Ac	cres.	or Dive. Cost per Acre.	Total Cost.	Acres	No. of	Cost per	Total C	Miles.	Cost Mi	per le.	otal Cost	Cost.	- 1	to st March,	Remarks.
Company   Comp	Wakamarina			l	s. d.		1	1	s. d.	- 1	1	s. d.	3.168	8. 18 1/4	d.				£ s. d.	£ s.	d.	1	s. d.	£ s. d.		P.			. d.	- 1	1		1	<u>a.</u>	£ s. d.	
Control   Cont							1		.		·   ·		i		.   •		!	!			-	.	·   · · !			::			i.			••		o <sup>j</sup> )	(	-
October   Contract					.				.	•• •		.		··	.	••					1	,616		134 0 (	)		1		:					57	$_{72}$ $_{5}$ $_{0}$	Rough hilly bush country.
N. Wilson Control M. Walkerseth   1.00   5.01   1.00   1	Orieri, Gore		1		ļ		0 1	!	I								:		i i				.			j		i						i(		of bush.
1. C. Work plantache, was a control work of the control work of th	A. D. Wilson (authorised). Molesworth			l I				İ	!		!		ļ				į			į	İ	.	.	••				: "	.			••		į)		survevs.
A Photogram (antitude)    1/10	, ,,									;	:		. 1	,	1		<u> </u>		•			.	.	••				·	.	•		••				tion by Land Board.
Section 1.   Sec	•						''		ļ	į	.   .	.	1	3 1,	3.3	53 3 7		••		ļ	Ì	.	.	••				"	.	•		••		i		Land Board.
EATO DISTRICT OF MANUAL AND MANUA	, ,		'		'		<u>-</u>	·			—¦——	··			'			<u> </u>			!_					_			:				-	_		
Column   C	means and totals	<del>:</del> -	1 1	•	• _ !	7,800	<b>U</b> 1 1	32 1	10 0	<u></u> ':	<u>.                                    </u>	<u> !</u>	5,290	28 1/3		329 18 5	<u></u>	1	<u> </u>	!	ì 1,	,616	4 1/7.9	134 0 0	ol	۱	<u> </u>	i	<u> </u>	8 15	17 7 1	138 18 1	7 20 0	0 7	48 15 3	
According to the property of t	·	1					<u> </u>												LAND	DISTRIC	OT OF	NEL	SON.													
Margarous Reference as Marchan  Table Marchan  Tabl	Snodgrass. Ohika, Kawatiri, and Mo-				.	4,450	0 3	55 1	12 6	.	.   .	· i	254	35 6,0	3	82 11 0	 				!	.			396 0	0 1	5 8/6	168 6	0	74 8	0 0	58 0 (	170 12	7	557 3 4	Mountainous bush country. Goldfield. No cadet.
The property of the property	Montgomerie. Reefton and Mawhe-				.				.	! .		.	117	3, 2/1	11	16 15 5	,	9 125	0 14 1	87 18	8	.	.		709 0	0 2	7 9/	317 19	1 :	3 <del>1</del> 9	8 4	34 14 4	195 0	2	i	·
10. Therepares Metaleum and Armenian Mathematical Mathema	T. Sadd. Waitapu, Takaka, and				.				.			. !					l		<u> </u>							ļ	1 '	1		1						
Secure 17 - Charges (Secure 17 - Charges)  Secure 17 - Charges (Secu									:	i		:	İ	!			]					.   .	'	•••	""			"-				••	101 12		120 11	in progress: 1.100 acres partly open: remainder rough his
Seedlest of Markelman Miles and Contact of Markelman Miles and		1			.	••		¦	. 60	0,000	105	10 0			.	••						.							.	.  .		••	244 9	0	327 6 4	2.272 acres. Section survey: field work completed. 700 cores
## Contracted Warman, Wallin, and Contracted Warman, Walling Walling, Walling Walling, Wa	. S. Smith and F. A. Thompson. Tekoa, Skiddaw, and Mandamus	·  ··		•	.	••		ļ ··	.		.   .	.	20,186	8 /6	53	547 10 10						.	.							8 22	8 8	79 9 6	836 15	8	867 9 10	56.820 acres. Midland Railway and revision survey, completed
Gerline Gerlin					.		] !	!	!	į		!	7 917	44: 1/2		400 10 10																				Island. Open country, not in goldfield. Cadet part of time
## Advisory Residence   1.100   1.000	Gordon	ļ <del></del> -					-	:	:-					!	<u>-</u>				<del> </del>	<del></del>	—i—	<u> .</u>			. <del> </del>			-			<del></del> - -		ļ	_		Rough bush country. Not in goldfield. No cadet.
D. Section   1.11   1.12   1				<u>.</u>		7,200		33 1	12 0 0		100		21,114	90 /9			<u></u>	125	0 14 1	87 18		<u> </u>	<u>-    </u>		1135 0	0 4	3  8/8	491 10		0 13 1	13 11 2	84 3 10	01,932 0	4 3,	366 16 0	· ·
2, 300   19   19   19   19   19   19   19	B. Saxon	1			:		[ j	į	.	.	.   .	. ¦	1,112	6 2/5				]				.	.	•						.   .				-	134 11 6	Rough bush country. Not in goldfield. No cadet.
Messes and telatals	B. Sinclair						j :: j	l .									1	::		ſ	i:	::  :		••				;		٠į ·					193 0 0	Ditto.
Mass and totals	Tamia	1	::	:	: [		1 :				- 1		415 1,096							•••	.	.	.   !					,	-	·  ·		• •			89 3 9	Ditto.
Canada masses and totals	Means and totals		1		.	<del></del> -	- <del> </del>	<u> </u>	·  <del>-</del>	!				_			<del></del>			<del></del>	¦		-				-¦	-					·	-		<i>Ditto.</i>
AND DISTRICT OF WASSTLAND.   Surgeyr   1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Grand means and totals	<u> </u>	<u>                                     </u>			4,450	3	55 1	2 6 60		_'	10 0					ļ	125			— —				ļ <del></del>		-	-		!						Less £957 face haid on surveys during hine months
## Suff District Surveyor.  ## Suff District Surveyor.  ## Suff District Surveyor.  ## Surveyor.  ## Suff District Surveyor.  ##							\				-					·			LAND DI			VESTI	AND.		1=== 0	<u> </u>	1	1		•			,,_,,			2000 paid of surveys waring time motions.
4. Marray 1.4. 400,048   43 0 0	Staff District Surveyor.		.						;	<u> </u>			<u> </u>	· ·-	<u>.</u>				<u> </u>	<b>.</b>	·		<u>-</u>					1		1		<del></del>		<del></del> -		1
Assistant Side Surveyor.  Wilson. Three Bay, Gillegick, 5,500 [14 20 2 0 13,000 25 139 17 6 551 12 5 1 157 15 0	G. Murray	21,400	0 /0 48	43	0 0	••			21	1,560 /3•9	08 <sup>!</sup> 358	1 10	774	42 4/	03	157 8 0					.	.	.			¦	ļ			.   .		10 0 0	108 0	0 6	40 13 1	Widely scattered surveys in a broken heavily bushed coun
Carbons, Fotom, and Waino Contract Serveyor. Contra	Assistant Staff Surveyor		;		ĺ						ļ i	1										ĺ	1 :					j			1		:	1		subject to excessive rainfall; expensive goldfields district. I cadet assisting.
Carroin   Carr	Wilson. Bruce Bay, Gillespie's,	3,500	1.4	20	2 0				13	3,000 /2	5 139 1	17 6	551	12 5/	ļ	137 15 0			l İ		١.	.,	.		39 0	0 1	1 7/2.8	14 2	0, 13	3   19 1	0 02	53 10 0	 	6 5	49 11 10	Heavily timbered broken country, section surveys scattered a
Contract Surveyors. Smyth. Totas and Waines  1, Lord. Arnold and Waines  1, Lord. Arno	Caroha, Totara, and Wailio	! i	.						1		i	İ	ļ	İ							-				i I	ļ	'				-		!		!	in small areas; expensive goldfields district; cost of work a
Means and totals 24,000 /0 6 63 2 0 34,500 /3 4 497 19 4 1,340 66 4/7 307 3 0	Contract Surveyors.						;			!	ļ	ļ		ļ	!			;     ;			İ						İ						:			assisting.
Means and totals	J. Lord. Arnold and Waimea	1					::	• •	i				. 5	1 24/		6.0.0		1 1			! .		.		144 0	0 8	3 4/1			- 1	- 1		19 10		29 5 9	Gold-mining dredging claims in river-beds.
Eyeredit: Mining survey, Midland Railway lands, survey, &c., fees   184 18   1,067 1 11   18 18   1,067 1 11		<u></u>	!								i		10	1 12/			• • •	::										1	٠.						6 0 0	Expensive gold-mining district, heavily timbered.
LAND DISTRICT OF CANTERBURY.    Staff Surveyors.	Means and totals	24,900	0.6	63	2 0				34	1,560¦/3·	4 497 1	19 4;	1,340	56 4/	7	307 3 0									213 0	0	4/9.3	50 18	3 18	3 20	5 4 2	63 10 0	138 13	6 1,		
EAND DISTRICT OF CANTERBURY.    Staff Surveyors.																								1	sy creat	t: Min	ung sur	vey, Mio	iana Ka	anway i	ands,	survey, a	zc., iees .			
Staff Surveyors. S. Welch. Ashley												·-																						1,0	067 1 11	
S. Welch. Ashley																		L	AND DIS	TRICT (	OF CA	ANTER	RBURY													
Section   Sect	Staff Surveyors.	-	<u> </u>		·—.	— <sub>1</sub>				· - <u>;</u> —		,	( 8 185 P+	1 //	1.	136 5 11	<u> </u>				. <del> </del>	ļ						1	:		į			<u> </u>		
N. Brodrick. Waimate and Geraldine.  N. Waimate and Geraldine.  N. Brodrick. Waimate and Geraldine.  N. Coutract Surveyors.  N. Brodrick. Waimate and Geraldine.  N. Waimate and Geraldine.  N. Brodrick. Waimate and Geraldine.  N. Brodrick. Waimate and Geraldine.  N. Brodrick. Waimate and Geraldine.  N. McClure. Ashley, Ashlevon.  N. Waimate and Geraldine.  N. Waimate	S. Welch. Ashley				.				ļ		.	.  }	5,053	4 /10	)·5  †	221 1 4	}				١.		. ¦ ¦							.   .			18 18	0	550 8 8	Hilly pastoral country with rough river traverses in deep gorge
H. M. McClure. Ashley, Akaroa, and Selwyn  H. M. McClure. Ashley, Akaroa, and Selwyn  H. M. McClure. Ashley, Akaroa, and Selwyn  H. M. McClure. Ashley, Akaroa, and Selwyn  H. M. McClure. Ashley, Akaroa, and Selwyn  H. M. McClure. Ashley, Akaroa, and Selvin all surveys; rural section and surveys difficult to define; part of abutting on old surveys difficult to define. For the surveys of the sur					İ	1	.					'	( 308	z /ə·	9	7 2 0	)	,	•		!															which block £526 0s. 9d. was charged last year. † Major p
H. M. McClure. Ashley, Akaroa, and Selwyn    146 9 10	N. Brodrick. Waimate and Geraldine.				i	¦			32	2,320 /1-	2 168	4 8	2,268	: 21 1/0·5	2	115 7 0		!					.   .		l	١		į	; 8	8   11	11 4	12 11 (	51 8	0	492 9 2	tion of Midland Block XLV.
Selwyn  Selwyn  Selwyn  Selwyn  O. Mathias. Ashley, Ashburton, and Wainuate  Contract Surveyors.  E. Fooks. Ashburton  E. Fooks. Ashburton  Selwyn  O. Mathias. Ashley, Ashburton  Contract Surveyors.  E. Fooks. Ashburton  Selwyn  O. Mathias. Ashley, Ashburton, and with tarvelling by rail, road, and steemer; part of a butting on old surveys difficult to define. † Part Railway Blocks LXII. and LXVII.  Selwyn  O. Mathias. Ashley, Ashburton, and with tarvelling by rail, road, and steemer; part of a butting on old surveys difficult to define. † Part Railway Blocks LXII. and LXVII.  Settlement and subdivision surveys in the open plains a section;  Contract Surveyors.  E. Fooks. Ashburton  O. Mathias. Ashley, Ashburton  O. Mathias. Ashley, Ashburton, and with tarvelling by rail, road, and steemer; part of a butting on old surveys difficult to define. † Part Railway Blocks LXII. and LXVII.  Settlement and subdivision surveys in the open plains a section;  O. Mathias. Ashley, Ashburton  O. Mathias. Ashley, Ashburton  O. Mathias. Ashley, Ashburton, and with tarvelling by rail, road, and steemer; part of a butting on old surveys difficult to define. † Part Railway Blocks LXII. and LXVII.  Settlement and subdivision surveys in the open plains a settlement and subdivision surveys in the open plains a settlement and subdivision surveys.  O. Mathias. Ashley, Ashburton  O. Mathias. Ashley, Ashburton  O. Mathias. Ashley, Ashburton, and with tarvelling by rail, road, and steemer; part of the part of	H M McClure Achler Al-				i	ı	! ' . !			ĺ	1		9 600	95 <i>I</i> O-9	g	101 17 10					İ													1	I	very coattered
O. Mathias. Ashley, Ashburton, and	Selwyn		'	• •	. !	•• i	i. ••		İ			. ;;	182	7 2/1	4						.		.							$\cdot \mid \cdot$		••	146 9 1	10	445 17 11	Subdivision and sectional surveys, very scattered, necessitate much travelling by rail, road, and steamer; part of the more
Waimate Contract Surveyors.  E. Fooks. Ashburton	0.35.03				:	!	: i			ĺ											! i	ļ					1		l i		į					abutting on old surveys difficult to define. Parts Midla
Contract Surveyors.  E. Fooks. Ashburton	Vaimate	••				••						.   [	8,581 13 53	11 /7·8 2 3/4·8	5						.		.							2 4	0 0	8 0 0	223 0	0	464 18 5	Settlement and subdivision surveys in the open plains and dow
21  1  3  22  7  0  0  1  11  0  0  2  3  10  0  10  0  11  0  0  11  0  0	17 Maales Ashlessats				ļ	ļ	!					į`	ĺ																							
!	••		[	••	!			••				ì	27	1 5/2.2	2	7 0 0	••		••	••	.		.	••	111 0	0 2	3/	16 10	0	٠  .		••			23 10 0	Coal and limestone mining survey; rural section; hilly as scrubby land.
Means and totals	Means and totals		<u> </u>		-	¦		<del></del>	32	,320 /1	2 168	4 8 2	27,286 18	84 /7:8	3	890 19 5	<del></del>		<del></del> -		-	_	<del> </del> -		111 0	0 2	3/	16 10	0 10	2 0	1.1	20 11 0	439 15 1	10 1	977 4 9	

# No. 9—continued.—Return of Field-work executed by the Staff and Contract Surveyors, from 1st July, 1891, to 31st March, 1892. LAND DISTRICT OF OTAGO.

	Topogr	aphic	d Survey	. Min	or Tria	ngulation.	Mir	or Tris	ngulation ography.	for S	raphica election Land A	al Survey a under act, 1887."	Ru	ral and Sul	burban.		Small G	irazing I	Runs.	Nat	ive Lar	nd Court	t Survey.	G	old-mining	g Sur <b>v</b> oys.	Ro	eds, Rail			Other Worl	Total Co	
Surveyor and District.	Acres.	Cost per Acre.	'otal Cos	t. Acres	Cost per Acre.	Total Cos	t. Acres	Cost per Acre.	Total Cos	Acres.	Cost per Acre.	Total Cost.	Acres.	tions.  Cost per Acre.	Total Co	Acres.	No. of Allotment	Cost per Acre.	Total Cost.	Acres.	No. of Sections.	Cost per Acre.	Total Cost	Acres.	No. of Secs. or Divs. Cost per	Tot Con	al set	Cost per	انه	tal Cost.	Cost.	Party fro 1st July, 18 to 31st Marc	n 01, Remarks.
arron. Dunback, Highlay, Wai- no, Budle, Kyeburn, Domet, Kaka-		đ.	£ s.	d	d.	£ s.	d		£ s.	1.		£ s. d	: 	s. d.	£ s.	d. 65,111			£ s. d 694 4 10	 		s. d.	£ s. d	30	1 8/			£ s	1	s. d.	£ s. d 108 13 1		d.  11 Small grazing runs comprises sections ranging from 17 to 13, acres. Open country within a goldfield. No cadet.
, and Marewhenua ngmuir. Fraser, Cairnhill, Hill- , Tautuku, Catlin's, Rimu, Wood- d, and Mokoreta			••				80,0	00 1.72	571 14 1	0		••	114	3 3/11	22 6	0				.,				98	5 9/	71 48	0 .	.   .		••	62(	636 13	8 Rural Surveys—Islands in Clutha River. Triangulation a topography in Tautuku Forest; clearing of hill tops labori and expensive, and was much delayed by wet weath many miles of horse and man tracks to cut to get acce. No cadet.
I. Wilmot. Humboldt, Forbes, 2 koreta, Rimu, Waikawa, and Tau- u Calder. Woodland		.33			0 21					4				 42 1/8‡	261 14									:								ĺ	Topographical survey in open country; other work all in dubush, and heavy clearing for Trig. Stations; every thing have be carried on men's backs; very expensive district. No cac Bush country and very wet, thorefore expensive to survey.
R. McCurdie. Rimu and Tautuku			••			••					i		! !	33 2/4														1	i				cadet. 4 All dense bush, and difficult of access; wet and expensiv
e Mackenzie. Skipper's Creek and						••							10	1 7/9	3 17	6							••	130	2 3/	31 21 1	0.	.   .	.	••	8 17 (	34 4	work. Cadet assisting. 6 Mining surveys; country very rough. No cadet.
Temporary Surveyors. Edie. Woodland, Catlin's, and													3,767	15 2/	376 13	6												) 3 13	6 8	5 0 0	238 18 (	620 11	6 Heavy bush country, and very expensive to work. No cadet.
nomaru Falkiner aitland. Kakanui, Domet, Mare- mua, and Woodland	 52,950	.85	 86 14	ı ::						3,260	1/4 2	217 14 0	2,178 2,600	13 2/7‡ 16 2/7‡	284 10 338 15	0	::	::				::		:: <sub> </sub>	::   ::		- 1	21 16 i	.   7 9 3:	8 0 0	25 0	527 14 648 5	10 All heavy bush, mostly rata, very expensive to work. No cad 9 Topographical survey; open country. Rural dense bush. cadet.
Fee System.  Macgeorge. Lindis, Cromwell, kefield, and Tigerhill			••			••						••	!				۱		••				••	62	4 11/	3 34 1	з О.	$\cdot$	•	••		34 18	0 Mining surveys; open country.
t Hay. Nenthorn			••			• •			••			••			• •	•••			••				••	129	2 5/	71 36	40.	.   .		••	••	36 4	0 Mining surveys.
Barr		··				••			••		_							··		458	9	1/103	42 18 3	<u> </u>			!	<u>.                                    </u>		••	••	42 18	<u>→</u>
Means and totals 7	74 950	.60	16 14	1 90 64	n 91	212 0	0 120 0	00 1.96	982 4	2 3 260	1/4 9	217 14 (	15,321	123 2/2 11	1.703 15	1 65, 111	1 39	21	694 4 10	459	9 8	1/103	42 18 3	449	14 6/	93 152 1	6 O	53 12	4 1 7	1 14 0	920 0 1	1 <sup>l</sup> 5,460 7	10

John Hay. I	Staff. Longwood, &c. porary Survey				••											4,789	18	2/	478 18	0		Cost per Allot.					••			s. ;					35	14 4	675 5 (	All forest country. Cadet assisting.
J. H. Treseder	. Invercargil	ll and Camp	o-		••								700	1/2	42 5 1	0 1,409	59 2	2/:54	178 3	5	·	••									••					. !	233 10 13	All forest country.
belltown H. R. Dun Island)	das. Paters	on (Stewa	rt		••								•				i '	••			•	;	••								••		••			.	7 3 3	3 Only appointed on 25th March, and left for Stewart Island on 30th of same month.
William Dark	у		·¦ ··		••		1	264 1	5 3		•• !		,							١	i İ		••	· ···	·!		••				••	'	• •			.	211 18 1	1 Work commenced in November; all forest country and difficult of access.
James Blaikie	e d Contract S												••		••		;	••	••	•			••							••		1.75	4 13	8 4	0 .	.	76 7	6 Open country.
T. S. Miller Forest Hill	. Invercargi	il, Hokonu	i,	ļ						•• ;			· ••			1,52	15 9	2/·15	160 7	0 9	2 <u>1</u> 10	8 4	4 4	0			••				••	1.46	15 0	21 18	9 .	·• ¦	186 9	9 Includes saw-mill areas and settlement surveys.
H. R. Dunda	is. Mataura, Vinton, Oreti			•••	••				ļ			••	!		••	1,81	18 1	2/-08	189 7	9			••				••		¦		••		••				189 7	9 Includes saw-mill and coal areas.
William Shar James Blaikie Mean	p. Hokonui, . Hokonui a			•	••		::		!	- 1		••	:			43	7 17 6 3 38 6		$\begin{array}{ccc} 29 & 0 \\ 135 & 3 \\ & \ddots \end{array}$	0			••		- 1				\ ··			0.75	8 8 6	0 6 6 i 0	1	; ::	146 5 132 0	O Settlement surveys. O Croydon Village 10-acre settlement.
Total			. !	<u>-</u>		<u> </u>	1	264 1	5 3				700	1/2	42 5 1	0 10,04	165	11,	170 19	2 2	5   10		4 4	0	_'-— 		•••	-	<u> </u>		••	3 96	•••	35 8	9 35	15 4	1,858 8	1

#### SUMMARY.

### No. 9-RETURN of FIELD-WORK executed by the STAFF and Contract Surveyors, from 1st July, 1891, to 31st March, 1892.

Total District		Topographical Survey.			rvey. Mino			Minor Triangulation.		.	To	opogr Se "The	aphic lectio Land	al Su n und l Act	rvey l ler 1887.	or			Rura	 l and	— - Subu	rban.		İ	т	own S	 Section	a Surv	ey.		 N	ative	Land C	ourt S	Survey.		(	Fold-n	nining	Surve	у.		Road	is, Railw Water-ra	ays, and	0	Detention y Native pposition or other Causes.	Other World	C	Total lost of Surveys from	
Land District.	Ā	Acres.	Acre.	l'otal	Cost.	A	eres.	Cost per Acre.	т <sub>о</sub>	tal Co	est.	Acre	ев.	Cost per Acre.	т	otal C	ost.	Ac	es.	Average Size of Sections	Coet non	Acre.	Tot	al Cost	-  - t.   '	Acres.	No. of Al- lotments.	Cost per Allotment.	т	otal Co	ost.	Acres.	No. of Secs.	. o<	;   ,	Fotal Co	st.	Acres.	No. of Secs. or Dive.	Cost per Acre.	Tota	al Cost.	Miles	Co	ost per Mile.	Total Co	ost.   	Cost.	Cost.	. !	Ist July, 1891, to Ist March, 1892.
Auckland Hawke's Bay Taranaki Wellington Marlborough Nelson Westland Canterbury Otago Southland		24,900	d.  .06	£ 63 216 1	2 (	14	9,463 0,878 8,876  7,800 4,450	0.6	1,1	£ 36 05 22 32 1 55 1 94 264 1	4 0 0 0 0 0 0 0 2 6 4 2	25, 50, 34, 32,	690 700		                 	727 105 497 168 217	19 8 7 0 10 0 19 4	36 30 69 69 7 9 38 9 27 9 80	,504 ,551 ,432 ,718 ,290 ,779 ,340 ,286 ,432 ,049	28 28 13 18 18	3 1 8 7 1 6 1 8 1 0 1 6 4	d. /1 /8·7 /5 /2·6 /3 /0·1 /7·8 /7	2,2 4,2 1,7 2,3	8 s. 8 818 13 815 17 846 15 829 18 710 16 807 3 890 19 899 19 170 19	5, 5, 5, 7, 0, 5, 11	373   373   9   	1 120 125 	14/1	1	£ s 4 5 184 2 87 18	2 2 3 8	268,65 235,95 48,82 1,61	55 1 66 53	9 1/10	75	725 0 734 17 134 0	3 5	819  1,135. 213 111 449	34 	8/8 4/9·3 3/ 6/9·6	49 5 1	8 8. 6 92 14 1  91 10 50 18 16 10 52 16	0 52·1 29·6 33·0 156·1 8·7 20·7 3 13 0 10 0 5·9 3·9	111 127 7 18 5 115 5 120 20 20 112 6	2 1 1 2 4 1 7 0 0	573 16 400 19 523 1 1,842 13 138 16 284 3 263 16 20 1 71 1 36	9 7 4 5 5 7 8 10 0 0 L 0 0 L 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1	£ s. d. 15 0 0 20 13 7	619 12 161 1 168 7 2,059 5 1,232 19 138 13 439 15 1 920 0 35 15	4 2 2 2 2 1 0 6 0 1 4	£ s. d. 12,871 13 11 3,756 14 9 5,037 10 10 9,738 13 1 748 15 3 4,070 9 0 1,067 1 11 1,977 4 2 5,460 7 10 1,858 8 1
Means and totals		99,850	)·67	279	16	23	2,107	1.8	1,8	308	5 11	163	230	/2.8	1	902	10 6	432	,381	1,72	9 1	/0:3	22,1	72 8	5	3843	256	21/11	1.1	280 19	10	555,50	)2 11	0 /1.9	9 4	,618 <b>1</b> 3	3 10	2,727	98	8/1.2	1,10	04 9	2 333.2	8 19	2 9 5	4,156 1	3	35 13 7	5,775 10	31	46,586 18 10





