1903.

NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY

(ANNUAL REPORT ON).

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

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(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.

Sir,— Department of Lands and Survey, Wellington, 23rd July, 1903.

I have the honour to submit herewith the annual report on the operations of the Department of Lands and Survey for the twelve months ending the 31st March, 1903.

I have, &c.,

J. W. A. Marchant,

Secretary for Crown Lands and Surveyor-General.

The Hon. T. Y. Duncan, Minister of Lands.

Following the order and arrangement of the last annual report, the first subject calling for remark is,—

Crown Lands opened for Selection.

The difficulty of providing lands suitable for settlement, referred to in the previous report, necessitated a searching examination of areas which had hitherto been considered too remote, inaccessible, and in some districts too unattractive to be surveyed and roaded. It is safe to assume that a very large proportion of the remaining Crown lands comprise mountainous and waste tracts which, though unsuitable for grazing stock, may nevertheless prove rich in minerals, and are certainly immensely valuable owing to the extent and diversity of the magnificent and unique scenery and natural wonders with which New Zealand is endowed.

It having been decided to throw open for selection and settlement all the remaining land which might be considered capable of profitable occupation and development, the Survey staff, as stated in the accompanying Survey Report, was largely supplemented; and, consequently, particulars and provisional sale plans were furnished, upon which the Land Boards and Commissioners of Crown Lands recommended the throwing-open of numerous blocks of land.

As the result of short leases under the pastoral and miscellaneous license systems, and also in consequence of forfeitures and surrenders, and the necessity for reclassification, revaluing, and reopening undisposed-of Crown lands, it follows that a considerable portion of the public estate passes through the hands of the Land Boards, not once only, but in some cases periodically. I have therefore followed the alteration introduced last year and shown in Table A the areas offered for the first time, and those which were reopened during the year for selection or disposal.

The figures for ordinary Crown lands under the two heads respectively are—Opened for first time, 553,915 acres; previously opened, 1,193,401 acres. Those under the Land for Settlements Acts are—Opened for first time, 89,291 acres; previously opened, 4,209 acres.

The special efforts made by the Lands and Survey staff to prepare and submit lands for selection resulted in considerable additions to the aforesaid areas in the quarter following the close of the financial year, when the total figures amounted to 593,707 acres of rural lands opened and 1,124,087 acres of pastoral areas submitted to competition.

TABLE A.—MANNER in which CROWN LANDS were OPENED for SALE and LEASE.

Ordinary Crown Lands.

District.	Optional System.	Cash by Auction.	Lease by Auction and Application.	Village Allotments.	Pastoral Runs.	Small Grazing-runs.	Lease in Perpetuity only.	Native Towns.	Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland—									
Offered for first time ..	219,266	40	606	..	..	30,215	82,468	15	332,610
" previously ..	33,002	215	11	..	..	930	1,050	..	35,208
Hawke's Bay—									
Offered for first time ..	9,466	..	254	..	..	2,691	..	..	12,411
" previously ..	1,180	..	..	..	..	4,807	..	..	5,987
Taranaki—									
Offered for first time ..	46,138	31	..	32	..	2,113	20,427	..	68,741
" previously ..	18,221	86	..	..	..	..	..	..	18,307
Wellington—									
Offered for first time ..	3,187	39	65	1,294	..	..	..	22	4,607
" previously ..	23,219	..	68	222	..	11,775	..	..	35,284
Nelson—									
Offered for first time ..	..	21	..	..	..	11,501	..	..	11,522
" previously ..	..	..	..	..	..	..	..	..	..
Marlborough—									
Offered for first time ..	..	..	..	..	..	4,420	380	..	4,800
" previously ..	..	342	428	..	248,305	35,551	..	..	284,626
Westland—									
Offered for first time ..	..	..	..	..	51,770	..	41,819	..	93,589
" previously ..	..	..	..	..	10,000	..	..	..	10,000
Canterbury—									
Offered for first time ..	166	..	33	..	..	..	..	..	199
" previously ..	89	39	2,493	..	500,512	9,584	..	..	512,717
Otago—									
Offered for first time ..	427	1	..	..	9,190	13,548	..	..	23,166
" previously ..	13,736	338	31	..	134,619	8,748	169	..	157,641
Southland—									
Offered for first time ..	1,132	1	828	15	..	..	294	..	2,270
" previously ..	8,977	40	6,952	136	117,328	..	198	..	133,631
Totals	378,206	1,193	11,769	1,699	1,071,724	135,883	146,805	37	1,747,316

First time	553,915 Acres.
Previously	1,193,401 "
Total	1,747,316 "

Land for Settlements.

Land District.	Lease by Auction and Application.	Pastoral Runs.	Small Grazing-runs.	Lease in Perpetuity only.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland—					
Offered for first time	..	..	..	608	608
" previously	..	..	..	697	697
Hawke's Bay—					
Offered for first time	..	..	..	12,505	12,505
" previously	..	..	..	1,121	1,121
Taranaki—					
Offered for first time	..	..	..	..	..
" previously	..	..	..	593	593
Wellington—					
Offered for first time	..	..	..	550	550
" previously	..	..	..	55	55
Marlborough—					
Offered for first time	2,687	16,139	10,541	4,715	34,082
" previously	..	..	1,569	..	1,569
Westland—					
Offered for first time	..	..	..	1,861	1,861
" previously	..	..	..	87	87
Canterbury—					
Offered for first time	..	..	14,372	18,703	33,075
" previously	..	..	..	67	67
Otago—					
Offered for first time	..	..	..	6,610	6,610
" previously	..	..	..	20	20
Southland—					
Offered for first time	..	..	..	..	..
" previously	..	..	..	..	..
Totals	2,687	16,139	26,482	48,192	93,500

First time	89,291 Acres.
Previously	4,209 "
Total	93,500 "

Combining the figures and systems, it will be seen that 662,593 acres were opened on settlement conditions, exclusive of 1,193 acres offered at auction for cash, 11,769 acres similarly offered for lease, 37 acres of Native-township lands, and 1,071,724 acres put up on the pastoral-license system: 93,500 acres of estates acquired under the provisions of the Land for Settlements Acts are also excluded.

It is important to observe the systems or tenures, and the districts and localities where the principal areas are situated.

The 378,206 acres which were opened on the "optional system" under Part III. of "The Land Act, 1892," were distributed as follows: Over a quarter of a million acres in the Auckland Land District, the larger areas being situated in the Hokianga, Bay of Plenty, Taupo, Waikato, and Kawhia districts; Taranaki provided 64,359 acres, comprising blocks of land in the Upper Waitara, the valleys of the Ohura, Mangaroa, and at the head-waters of the Whenuakura and on the Patea River; the Wellington contribution of 26,406 acres was made up of the Tauakira Block in the Wanganui district, and part of the Waimarino Block north-west of Raetihi; the Hawke's Bay area of 10,646 acres included blocks at Puketitiri, Wakarara, Nuhaka North, and Motu, and scattered sections in other parts of the land district; the whole of the Middle Island only furnished 24,527 acres, inclusive of 14,163 acres in the Catlin's, Glenomaru, Woodlands, Tuapeka, and Maniototo districts in Otago; and 10,109 acres situated in the Takitimo, Waikawa, Slopedown, Longwood, Waiau, and New River districts in Southland.

The 1,699 acres opened on the village-settlement conditions is represented by 1,516 acres in the Villages of Mataroa, near Taihape, Mowhanau, Kai-Iwi, and Horowhenua, in the Wellington Land District; 32 acres in the Mangaehu Village, about twenty miles east of Eltham, in the Taranaki District; and 151 acres in the Villages of Riverton, Waimatuku, Makarewa, Mokotua, and Flint's Bush, in the Southland District.

The 135,883 acres offered on the small-grazing-run system is made up of 31,145 acres in the West Taupo County, in the Auckland Land District; in the Wellington District it includes 11,775 acres opened in the Kaitieke Block; in Marlborough the 39,971 acres is situated in the Arapawa, Cloudy Bay, and Waipapa districts; the 11,501 acres in Nelson comprises runs in the Gordon and Tadmor districts; and in the Otago District 22,296 acres of the Highfield Run. The Middle Island quota is the outcome of attention to the conversion of pastoral-license areas to settlement conditions wherever lands at all adapted to the purpose could be found. The Land for Settlements small grazing-runs comprise a total area of 26,482 acres, of which 12,110 acres are in the Northbank and Waipapa Estates, in the Marlborough District; and 14,372 acres in the Chamberlain and Lyndon No. 2 Settlements, Canterbury District.

An area of 146,805 acres was opened on the lease-in-perpetuity system only, in terms of sections 121 and 138 of "The Land Act, 1892," because the areas in the North Island contain, or it is probable they contain, limestone, coal, or other minerals; and in the Middle Island for the reason that the lands are situated within goldfields districts, and it was necessary to conserve the public interests and provide for the future working and utilisation of valuable natural products. Under this head are 83,518 acres in the Auckland District, of which 75,420 acres were in blocks south and east of Kawhia in the King-country; 3,187 acres were adjacent to Maketu; 2,400 acres close to the Thames; and the balance was represented by scattered sections in various parts of the land district. In Taranaki were 20,427 acres in the Ohura, Mangaroa, and Patea Valleys, where outcrops of coal are reported; and 41,819 acres are comprised in different blocks throughout the Westland goldfields.

Particulars as to the acquired estates which were opened for selection will be found under the heading "Land for Settlements."

The system which usually deals with the greatest proportion of Crown lands is that known as the pastoral license, under Part VI. of the Act. The licenses are for short terms, and therefore periodical classifications, grouping, and valuations of the runs have to be made. This was the case last year to a large extent in four of the Middle Island land districts. The 248,305 acres returned for Marlborough are situated in the Upper Wairau and Dillon districts; the 500,512 acres in Canterbury embrace runs throughout the whole district; the Otago figures, 143,809 acres, include areas situated in the Wakatipu, Vincent, Waitaki, Maniototo, and Tuapeka districts; Southland's 117,328 acres are situated in the Wakatipu district, and between Mossburn and the Waiau River; and Westland contributed 61,770 acres of new country situated in ten runs at intervals on the coastal area.

Compared with the operations of the preceding year, the following comparisons are submitted: The area opened for selection on the optional system in 1902–3 is about twice as great as that of 1901–2; the cash area is only one-fourth, the village-settlement area about twice, the pastoral runs about three times, and the small grazing-runs nearly double the area of the previous year; the area opened on the lease-in-perpetuity system only was thirteen-fold greater; whilst the gross totals are in favour of the year 1902–3 in the ratio of about 5 to 2.

Lands disposed of.

The usual summary, compiled from the Commissioners' returns, shows in a convenient form the nature and volume of transactions under all heads, and also the total receipts from every source, and is appended hereto.

Table B.—Number of New Selectors, and Area taken up, from 1st April, 1902, to 31st March, 1903, and Total Amount of Money received during the Year.

Nature and Tenure of Lands selected.	Number of Purchasers or Selectors.	Area.	Average Holding.	Cash received on Past and Current Transactions.
		A. R. P.	A. R. P.	£ s. d.
Town lands sold for cash	154	168 1 20	1 0 15	12,494 18 0
Suburban lands sold for cash	83	273 2 31	3 1 7	
Rural lands sold for cash	134	16,746 2 6	124 3 36	
Perpetual leases made freehold	..	..	..	27,250 3 2
Occupation with right of purchase made freehold	..	..	..	2,857 12 1
Deferred-payment instalments	..	..	..	6,513 8 2
Perpetual leases	..	..	..	6,869 3 10
Occupation with right of purchase	403	118,556 3 6	294 0 29	34,502 0 4
Lease in perpetuity	285	108,065 1 33	37 3 26	31,763 15 10
Agricultural lease	3	35 3 37	11 3 29	17 6 6
Village settlement, cash	19	9 1 35	0 1 39	143 16 0
" deferred payment	..	..	..	103 2 11
" perpetual lease	..	..	..	418 14 10
" " made freehold	..	..	..	407 6 6
" occupation with right of purchase	..	..	..	11 4 11
" lease in perpetuity	39	598 2 4	15 1 15	566 18 3
Village-homestead special settlement	34	1,511 3 23	44 1 35	3,396 10 5
Special-settlement associations, deferred payment	..	..	..	245 15 3
" perpetual lease	..	..	..	139 2 9
" lease in perpetuity	29	5,761 0 0	198 2 24	6,282 11 6
Improved-farm special settlements (lease in perpetuity)	30	4,031 3 25	134 1 19	4,010 6 1
Occupation leases, Mining D.L.O. Act	52	2,433 2 5	46 3 7	911 10 9
Small grazing-runs	35	93,525 1 14	2,672 0 24	25,788 6 7
Pastoral runs	129	1,050,779 3 18	8,145 2 13	78,700 17 10
Thermal springs, Rotorua	35	304 3 35	8 2 34	1,923 6 9
Miscellaneous leases and licenses	434	106,859 3 35	246 0 35	40,845 12 3
Miscellaneous	..	..	..	34,804 11 5
Cheviot Estate—				
Lease in perpetuity	2	34 1 0	17 0 20	6,222 5 0
Village-homestead special settlement (lease in perpetuity)	..	..	..	915 7 8
Grazing-farms	1	6 2 0	6 2 0	6,956 1 10
Pastoral runs	..	..	..	193 3 8
Miscellaneous leases	2	8 0 4	4 0 2	295 10 8
Miscellaneous	..	..	..	27 0 11
Land for Settlements Acts—				
Cash	3	5 0 32	1 2 37	65 17 6
Lease in perpetuity	286	53,645 3 38	187 2 12	93,735 8 9
" village	1	20 0 0	20 0 0	427 3 10
Special-settlement associations (lease in perpetuity)	..	..	..	182 8 5
Small grazing-runs	9	20,393 2 19	2,265 3 33	10,983 2 0
Pastoral runs	..	..	..	122 2 9
Miscellaneous	45	5,890 2 13	130 3 24	5,116 5 5
Totals	2,247	1,589,667 1 33	707 1 34	£445,205 1 4

Compared with the previous year's figures, it will be seen that the number of selections or transactions (2,247) shows an increase of 88, and the total area dealt with—viz., 1,589,667 acres—is in excess by 495,581 acres; the average area of the holdings (707 acres) is greatly in excess of that of the previous year, which was about 507 acres, but it must be borne in mind that in both instances the averages include extensive areas of pastoral and small grazing runs.

The total revenue collected, £445,205 1s. 4d., exceeds the previous year's by £23,187 6s. 5d. Remarks and comparisons as to the cash receipts are given in the paragraph on "Revenue." (*Vide* page xx.)

Details are given elsewhere as to the Cheviot Estate, including five small transactions of the nature of subdivisions of existing leases, and the letting of a small reserve.

Particulars as to Land for Settlements holdings are also set forth in the tables, showing a total of 344 dealings: the principal items being 286 leases in perpetuity, covering an

area of 53,646 acres of rural land; nine small grazing-runs, totalling 20,394 acres; and forty-five miscellaneous licenses for 5,891 acres. (See also special paragraph on page xvi.)

In the report for the year 1901–2 it was explained that the falling-off in the number of selections and revenue under some of the systems of land tenure was due to the fact that suitable land had become scarce. It will be readily understood that this argument has even greater force as regards the operations of the last financial year, and it will be accepted as a gratifying and reassuring evidence that in the face of the drawbacks of remoteness and inaccessibility of the lands thrown open the people are as eager and determined as ever to acquire holdings for settlement and utilisation.

The result of condensing and grouping the above transactions for the year is shown in the following table, which brings out the principal points for convenient and ready reference :—

TABLE C.—COMPARISON of OPERATIONS during Year, under PRINCIPAL HEADINGS, with those for previous Year.

Tenure.	1901–1902.		1902–1903.	
	Number of Selectors.	Area.	Number of Selectors.	Area.
		Acres.		Acres.
Cash sales*	510	27,300	393	17,203
Deferred payment	1	52	..	...
Perpetual lease	1	10	...	...
Occupation with right of purchase	448	128,894	403	118,557
Lease in perpetuity†	573	118,669	706	173,669
Pastoral and small grazing runs	92	685,952	174	1,164,705
Mining and occupation leases	72	2,535	55	2,469
Miscellaneous leases	462	130,674	516	113,064
New transactions	2,159	1,094,086	2,247	1,589,667
Forfeitures and surrenders	288	145,923	410	293,572
Net increase	1,871	948,163	1,837	1,296,095

* Inclusive of subdivisions of town and suburban lands.
† „ subdivision of land for settlements.

Interest has always been manifested not only as to the areas in which the Crown estate is passing into the hands of selectors, but also as to the particular tenure under which they are taken up, hence the following remarks are submitted.

Following the usual custom, and excluding town and suburban lands, pastoral and grazing runs, and miscellaneous leases, it is found that the average of the areas selected is 230 acres, whilst the figures for the preceding year are 228 acres.

A considerable proportion of the settlement lands are opened under the optional system of the Land Act; the average holding taken up during the year amounts to 315 acres, whilst that for the year 1901–2 was 239 acres.

Another interesting and instructive comparison results from a study of the total transactions during the past twelve years, as set forth in

TABLE D.—SUMMARY of LANDS SELECTED.

Year.	Number of Selectors or Purchasers.	Area taken up during Year.	Territorial Revenue.	Total Revenue collected.	Number of Leasehold Tenants on the Books.
		Acres.	£	£	
1891–92	2,519	1,453,082	320,483	324,470	12,735
1892–93	3,071	1,663,339	274,399	310,523	14,261
1893–94	2,876	1,393,918	282,067	347,343	15,081
1894–95	2,547	1,015,577	338,166	375,879	15,326
1895–96	2,865	2,662,344	291,673	345,331	15,683
1896–97	2,173	1,600,695	272,954	360,993	15,527
1897–98	2,058	2,451,062	263,296	359,086	16,365
1898–99	2,542	1,357,466	273,799	385,145	16,572
1899–1900	2,310	1,573,823	262,228	382,943	17,191
1900–1901	2,312	1,667,744	270,203	431,338	18,050
1901–1902	2,159	1,094,086	249,619	427,138	18,521
1902–1903	2,247	1,589,667	252,278	448,380	19,594

I think it will be admitted that the above figures demonstrate the correctness of my view as to the satisfactory outcome of the past year's transactions, when due weight is given to the altered circumstances as affecting the character and position of the lands available for selection during the several years respectively, the total area dealt with, the amount of revenue, which exceeds that of any of the preceding eleven years, and also that the number of Crown tenants (19,594) has been reached by successive substantial increments.

The practice has prevailed throughout the annual reports of comparing the three main systems of tenure—viz., occupation with right of purchase, lease in perpetuity, and cash purchases, as represented by the respective selections where lands are opened under the optional system (Part III.) of "The Land Act, 1892," which allows selectors to take up land according to their individual wishes. The results since the passing of the Act are furnished in

TABLE E.—LANDS OPENED ON "OPTIONAL" SYSTEM, showing Choice of Tenure.

Year.	Occupation with Right of Purchase.		Lease in Perpetuity.		Cash.	
	Number.	Area.	Number.	Area.	Number.	Area.
		Acres.		Acres.		Acres.
1892–93	161	54,271	126	55,320	325	35,785
1893–94	461	108,133	447	151,324	249	33,200
1894–95	398	75,477	336	87,374	174	33,323
1895–96	431	84,967	415	89,144	169	26,030
1896–97	277	59,647	278	62,229	90	9,835
1897–98	380	81,414	299	76,953	65	6,680
1898–99	458	109,949	362	99,262	114	17,824
1899–1900	395	117,771	348	111,108	95	16,510
1900–1901	673	262,729	295	97,138	127	37,862
1901–1902	447	128,893	241	65,468	237	26,739
1902–1903	403	118,557	285	108,065	79	15,348
Totals	4,484	1,201,808	3,432	1,003,385	1,724	259,136

It will be noticed that the selections under the occupation-with-right-of-purchase tenure are greatly in excess of those on lease in perpetuity, but that the disparity in area is only 10,492 acres. The number of cash selections, 79, totalling 15,348 acres, is no doubt accounted for by reason of the fewer number of people who prefer to pay for land right out, in order that, after effecting improvements within the prescribed seven years, they may secure the fee-simple.

CASH SYSTEM.

It will be observed that the falling-off in the cash sales commented upon in last year's report is also a feature of the transactions in the year 1902–3. The only opportunity afforded the public of directly acquiring the freehold of Crown lands is when town, suburban, and village lands are submitted to competition by auction for sale for cash; or in cases where small areas of rural lands are allowed to be acquired under special circumstances recommended by the Land Board and approved by the Minister under sections 114, 115, and 117 of "The Land Act, 1892"; or where advantage is taken of exercising the right of selection on the cash tenure from amongst areas opened under the optional system (Part III.) of "The Land Act, 1892."

The 17,188½ acres alienated by the Crown is contained in 154 town, 83 suburban, and 134 rural sections, of which 100, comprising more than half the total area, are in the Auckland District. In every one of the land districts, except Hawke's Bay and Westland, town and suburban lands were sold; and, in all, rural lands ranging from 242 acres upwards were disposed of for cash. The practice, which so generally prevailed in the colony, of submitting rural lands at auction is now rarely resorted to, the exception being in cases of lands of special value (section 118). The usual way in which those who prefer the freehold acquire land is under Part III. of the Act (section 136).

The total area of Crown lands which have been converted into freehold by sale since the foundation of the colony is 14,730,635 acres, to which has to be added 9,778,484 acres reserved or specially granted, making a grand total of 24,509,119 acres.

Deferred Payment.

There are still 485 licenses under this tenure, representing 79,644 acres. As "The Land Act, 1892," barred further selections, except under the special circumstances prescribed by section 114, it is clear that as regards the village and ordinary rural lands this tenure must in the main disappear from the tables and reports about 1907, the licenses only running for a maximum of fourteen years; and as regards pastoral-deferred-payment licenses about the year 1913, as the term extends to thirty years from a date prior to November, 1884.

The revenue from this source is less by £1,775 than that of last year.

Perpetual Lease.

There was no additional selection on this tenure, and, of course, none could have been made save under section 114 of "The Land Act, 1892," and then only under exceptional circumstances. This once important and extensive system is still represented by 831 holdings, aggregating 161,578 acres, and an annual rental of £6,236. The receipts from conversions to freeholds continued to fall, and dropped from £40,851 in the previous year to £27,250.

The leases provide for residential and improvement conditions; for personal *bonâ fide* compliance by the tenants; and confer the right for renewal after thirty years based on revaluations of land and improvements separately, and adjustment of rent; but as the right of acquiring the fee-simple exists, the result has been that 2,097 holdings, comprising 705,622 acres, and representing a value of £563,049, have already passed absolutely into the hands of the former lessees.

Occupation with Right of Purchase.

Selections on the occupation-with-right-of-purchase system were 403, and are less by 44 in number, whilst the area of 118,557 acres shows a falling-off of 10,336 acres. Attention is drawn to the fact that the right of purchase conferred by section 156 of "The Land Act, 1892," upon selectors under the occupation-with-right-of-purchase system has been availed of for the first time since the initiation of this system, as the time limit of ten years prior to which the freehold could not be acquired has run out in many instances. It may therefore be expected that the falling-off in the amounts received for the purchase of freeholds under the perpetual-lease and deferred-payment systems will be partially counterbalanced by receipts under this head.

Judging from the number of transactions, this is a popular form of tenure. There are already 3,774 licensees under the Crown in occupation of 1,016,626 acres, returning an annual rental of £36,998. The tenure, as set forth in "The Land Act, 1892," provides for a lease for twenty-five years and payment of 5 per cent. on the capital value of the land, together with conditions as to improvements and residence (six years), *bonâ fide* personal occupation, and utilisation of the land; and also empowers the licensee to claim after ten years the freehold on payment of the capital value, or to convert his license to a lease in perpetuity. The right of purchase has been exercised in eleven cases, with an area of 3,470 acres, for which £2,485, the original capital value, has been paid to the Receivers of Land Revenue.

Lease in Perpetuity.

The largest number of approved selections during the year under any tenure is 706 on the lease-in-perpetuity system. The area taken up amounts to 173,669 acres, showing an increase of 133 in number and 55,000 acres in area. These increases are doubtless due in some measure to the fact that considerable areas were thrown open on this tenure only, and not under the optional system of the Act.

I desire to explain that under this head are included all selections on the system, whether rural, village settlement, special-settlement associations, or improved farms, also those in the Cheviot and Land for Settlements estates.

This tenure is the rival of the foregoing system, and is subject to the same conditions as to improvements and residence (ten years), &c.; but the term of lease is 999 years without periodic valuations or adjustment of rental, which latter is 4 per cent. on the capital value of the land fixed at the date of selection. Additions to the number of leases under this system follow from conversions from the deferred-payment, perpetual-lease, occupation-with-right-of-purchase, small-grazing-run, and pastoral-license tenures. The total number of leases in perpetuity of Crown lands amounts to 3,569, covering 1,052,365 acres, yielding an

annual rental of £33,976. If to these figures are added the leases under the Land for Settlements and Cheviot Estates Acts, the grand totals are as follow: Number of leases, 5,798; area, 1,422,915 acres; annual rental, £144,545 18s. 9d. No diminution can occur under this tenure, except by forfeiture or surrender.

Agricultural Leases.

Holdings under this system still appear in the departmental returns to the number of 17, with an area of 555 acres, and yearly rental of £30 19s. 3d. The tenure was devised and provided for originally in "The Goldfields Act, 1866" (section 35, Part V.), to meet the requirements of miners and others on proclaimed goldfields. Advantage was freely taken of the Act in the Otago District, and, to a much less extent, in the Auckland and Southland goldfields. As the selectors were enabled to acquire the freehold, 1,475 holdings, aggregating 140,896 acres, were purchased at a cost of £138,741.

Occupation Licenses.

These are issued under "The Mining Districts Lands Occupation Act, 1894," and, as the title indicates, provision is made for miners and others to secure land for homestead and other purposes. During the year 52 selections were made in the Auckland, Otago, and Southland Districts, comprising an area of 2,433 acres, with an annual rent of £122. The total area held under the system is 15,945 acres, by 383 licensees, who pay £940 per annum.

Village Settlements.

This system received more attention, and probably aroused greater interest, than any other; and when in former years the Crown was possessed of land adapted by quality and situation for the purpose, villages were established throughout the length and breadth of the colony. They were formed under various systems, such as the cash, deferred-payment, perpetual-lease, and, later, under "The Land Act, 1892," on the lease-in-perpetuity, and, to a small extent, the occupation-with-right-of-purchase tenures; but little Government control was possible under the cash system, and many of the deferred-payment and perpetual-lease holdings have passed from the care and administration of the Department.

Those under the village-homestead, perpetual-lease, and lease-in-perpetuity tenures only are subject to inspection and periodical report.

The transactions for the year comprise 92 selections, with an area of 2,119 acres 3 roods 22 perches.

On the 31st March last the number of holdings was 1,839, with an area of 35,544 acres, and an annual rental of £5,579. As is well known, the Government extended assistance to the villagers, and advanced £15,115 to enable them to erect dwellings and bring their lots into cultivation, which average 19 acres; the total value of improvements effected is £168,041.

Eliminating the inevitable failures due to absence of the necessary conditions to insure success, the system as a whole stands as a monument of industry and thrift, fostered by Government aid and sympathetic and helpful administration.

It is much to be regretted that we no longer possess much land which, by quality and situation, is suitable for settlement under this system.

Reference should be made to the full and complete report by Mr. J. E. March, Superintendent of Village Settlements, containing particulars relating to village settlements (*vide* Appendix III.).

Special-settlement Associations.

Power to establish settlements by this method was provided in the first instance by "The Land Act 1877 Amendment Act, 1879," and the first regulations controlling the same were prescribed by Order in Council of the 28th November, 1884. The original tenure was deferred payment; this was altered to perpetual lease by regulations on the 5th December, 1885, but without the right to acquire the freehold. This concession, however, was subsequently allowed by "The Land Act Amendment Act, 1887." On the passing of "The Land Act, 1892," the lease-in-perpetuity tenure applied to future associations.

The opportunity was eagerly availed of, and associations were formed in centres and towns, especially in the Wellington Land District, and some 85 settlements were established,

embracing 2,620 holdings and an area of 468,389 acres. These have been reduced by surrenders, abandonments of unsuitable areas, and by purchase of the freehold, to 667 selectors on 121,016 acres, the rental whereof is £6,200. The following are the figures relating to the conversion to freehold: 914 holdings, containing 90,620 acres.

Homestead System.

Under this system free grants were made in former times to the extent of 521 selections, and a total area of 80,244 acres, but the tenure is now only represented on the books by 3 lots and 188 acres.

Improved-farm Settlements.

This popular system was initiated by "The Lands Improvement and Native Land Acquisition Act, 1894," and regulations appearing in the *New Zealand Gazette* of the 13th December of the same year. These provide for blocks being set aside under the system, containing sections from 10 to 200 acres, to be allotted amongst deserving men who are out of employment, or who are otherwise unable to obtain land and thus become self-supporting. In pursuance of this policy, the Government assists the selected applicants by advancing money for felling of bush, for the erection of fencing, houses, and effecting other improvements, the tenants paying interest upon the amounts so advanced at the rate of 4 or 5 per cent., according to whether the land is held under the lease-in-perpetuity or occupation-with-right-of-purchase tenures.

Since the commencement of the system no less than 65,859 acres have been set aside in the Auckland, Hawke's Bay, Taranaki, Wellington, and Southland Districts, out of which 48,316 acres were in occupation on the 31st March last, there being 452 lessees holding this area and paying annual rentals therefor to the amount of £3,997 during the past twelve months. The total number of souls resident on the lands is 1,731, and improvements to the amount of £94,515 have been effected by the tenants, on which Government has advanced £53,726.

In the Auckland District there are 7 settlements, comprising 82 sections, of an area of 4,692 acres, on which improvements to the value of £7,337 have been made.

In Hawke's Bay there are only 2 settlements, containing 17 sections, with an area of 1,916 acres. Improvements to the amount of £6,035 have been effected thereon, and the settlers are in a very favourable position.

In Taranaki there are 14 settlements, divided into 255 sections, with a gross area of 14,832 acres. The tenants have effected improvements to the value of £32,128, and the greater part of the lessees are residing and utilising their holdings to good advantage.

In the Wellington District there are no fewer than 15 settlements, aggregating 230 sections, with an area of 18,228 acres. On these holdings improvements to the amount of £41,072 have been made by the selectors, for which the Government has advanced £16,345 only, the balance being in favour of the tenants. The Commissioner reports that they have made steady progress since their initiation, and the greater part of them are well established and prosperous.

The only district in the South Island where they have been established is Southland, where 5,307 acres are held in 44 sections, comprised in 4 settlements. The tenants have made improvements to the value of £7,943 on their lands.

Improved-farm Holdings for Co-operative Workmen.—On the 29th January last, in consequence of the great demand for land among the co-operative workers in the neighbourhood of Taihape, and in the vicinity of the North Island Main Trunk Railway-line, the Government decided that suitable land should be thrown open on improved-farm-settlement conditions, in order to satisfy the requirements of these workmen; those who were married to have the preference at ballot for the sections.

With this object the Chief Surveyors of Wellington, Taranaki, and Auckland were instructed to report what lands were available in their districts for this purpose, and Mr. J. E. March, the Superintendent of Village Settlements, was appointed to make the necessary inquiries, and obtain a list of all suitable men at present working as co-operative labourers upon the main trunk line, or upon road-works opening up the country in the vicinity of the line, in the Wellington, Taranaki, and Auckland Districts who were desirous of settling on the land under improved-farm conditions.

Mr. March left immediately on this mission, and, as a result of his labours and recommendations, it was decided to provide holdings, if practicable, for 253 men. The surveys of several blocks of land were at once put in hand and pushed on with the utmost despatch. Mr. March was also instructed to arrange for specially qualified delegates selected by the men themselves to visit and inspect the land, and satisfy themselves as to the locality and suitability or otherwise of the land available; and he is now actively engaged in assisting the several Commissioners of Crown Lands to allocate the lands amongst the co-operative workers.

Small Grazing-runs.

The selections for the year amounted to 35, comprising an area of 93,525 acres, and showed an advance of 10 in number, but a diminution in area of 3,183 acres, as compared with 1901–2.

Areas under this system are held in all the land districts save Westland, though there is only 1 run in Nelson, 9 in Auckland, 18 in Southland, and 23 in the Taranaki District.

The totals for the colony are 624 runs, comprising 1,274,470 acres, returning £26,070 a year.

The tenure is applicable to country adapted to or capable of being used for pastoral purposes, and areas generally exceeding those prescribed for ordinary rural holdings. The runs are held under conditions as to residential occupation and improvements; and as the term of the lease is twenty-one years with right of renewal, with periodic adjustment of rental, and with the recognition of the lessee's right to his improvements, the interests of landlord and occupier are conserved.

Pastoral Licenses.

The territories set aside and occupied under this system are distributed throughout the colony, with the exception of Taranaki; only about 300,000 acres are in the North Island.

There are in all 821 runs, comprising 11,510,611 acres, and returning to the State £73,449 per annum.

The pastoral runs disposed of in the year 1902–3 comprise 129, with a gross area of 1,050,780 acres, being an increase on 1901–2 of 75 in number and 478,730 acres in area.

Having been in charge of the Canterbury Land District for nearly six years, I had opportunities of studying the working of the runs from the points of view of the tenant and State owner, and was forced to the conclusion that the splendid estate represented by the pastoral lands of the colony has seriously deteriorated as regards its grazing capabilities, and has even been injuriously affected in some localities by causes resulting from misdirected application of fire, overstocking, and the ravages of rabbits.

Miscellaneous Leases and Licenses.

Under this category fall all and sundry leases and licenses of areas of Crown lands and reserves. Their utilisation benefits the tenant; and not only brings revenue to the Crown, but also relieves it of the cost of rabbiting and eradication of noxious weeds.

The sums total run into large figures—viz., 2,484 licenses, comprising 491,132 acres, bringing in £10,914 a year, which, by inclusion of Cheviot and Land for Settlements holdings, are increased to 2,686 licenses, 501,512 acres, the total annual rental being £11,958.

Inspections and Rangers' Reports.

The figures in the following table indicate an increased activity in regard to Rangers' inspections and valuations; the figures as to number and area are a record; the valuations of improvements represent £1,654,845; and it is satisfactory to observe that, notwithstanding the increased scope of the inspections, the number of defaulters as to improvements, residence, &c., is very much less than in the previous year.

It must not be assumed that the Rangers' visits are always distasteful to the settlers. As a rule they are of material advantage to the tenants, as they are enabled to obtain the friendly advice of the Ranger, and, through his representations, the helpful and intelligent consideration of the Land Boards.

TABLE F.—RETURN of NUMBER of INSPECTIONS made by the Rangers for Four Years from the 1st April, 1899.

Year.	Number of Properties visited.	Area.	Value of Improvements.		Number of Defaulters.			
			Required.	Actually made.	For Improvements.	For Non-residence.	For other Reasons.	Total.
		Acres.	£	£				
1899–1900 ...	5,926	1,159,202	369,627	887,998	447	695	54	1,196
1900–1901 ...	6,028	1,173,093	368,474	876,363	363	449	64	876
1901–1902 ...	7,464	1,980,586	623,498	1,147,495	826	910	146	1,882
1902–1903 ...	8,551	2,110,542	742,307	1,654,845	653	629	97	1,379

POSITION AND PROGRESS OF SETTLEMENT.

Auckland Land District.

The inspections of five Crown Lands Rangers in the Auckland District, and of one surveyor who occasionally assisted in the work, comprised visits to 1,739 properties, containing 425,569 acres. On these the statutory value of improvements required to be effected was £111,296, whilst the amount actually carried out was £257,388, showing an excess in the tenants' favour of £146,092. The total number of defaulters from all causes was 521, or nearly 30 per cent. of those reported on. These and other breaches of the Land Act are dealt with by the Land Boards, each case being considered in a judicial and equitable spirit, according to the circumstances affecting each case.

The Rangers' reports, which are printed with the Commissioner's, indicate that north of Auckland the settlers who are so fortunate as to have secured areas of good lands are well established and prosperous. They combine cultivation, grazing, dairying, growing of fruit, and, necessarily, being engaged upon such profitable industries, they thrive and succeed and add largely to the productions of the country. But upon the broken and poorer areas the holdings are scattered, and the settlers concentrate their energies in establishing comfortable homes, orchards, and work small areas of grazing-land. They cultivate fruit, and manage well-bred stock, engage in dairying where good pasture can be produced; and many employ the greater portion of their time in gum-digging and in the great and important timber industry of this land district. The cultivation of the poor and more broken lands has not yet been generally attempted, though it is anticipated that *danthonia* and other suitable grasses will ultimately be cultivated, so as to greatly enlarge the grazing-areas and increase the flocks and herds in that part of the colony. The Rangers report that, wherever opportunities offer, the settlers have established dairy factories and creameries, and that this example is likely to be followed. Whenever this occurs the success of the settlers is generally assured.

Stress is laid upon the fact that in numbers of instances the settlements are cut off from the outside world, the communication by sea is not as satisfactory or as constantly available as it might be, and that long lengths of roads giving access to the settlements are in a very backward unfinished condition.

As regards the districts south of Auckland, it is evident from the Rangers' reports that settlement is increasing rapidly; the demand for Crown lands continues; the evidence afforded by the extension of cultivation and the improvement in the settlers' surroundings are indicative of stability and progress. A great expansion of settlement is anticipated, with a corresponding increase in population, cultivation, and stock carried.

Manukau County.—Excluding the rich areas of volcanic and other lands, extending from Otahuhu to Papakura, and also around Pukekohe and Waiuku, the settlements on Crown lands in this county are described generally as not being in a very flourishing condition. The settlers engage principally in gum-digging, run cattle, grow fruit, and have a splendid market in the great northern city. Notwithstanding, it is reported that there is a brisk demand for holdings, in order to secure a share in the foregoing advantages.

The Crown tenants in *Waikato, Raylan,* and *Waipa* Counties, interspersed with the freehold holdings, are represented as being in a good position, to have extended their improvements, and to have good prospects.

Kawhia County, where large areas of limestone lands of excellent quality have recently been thrown open for selection, is reported to have made great progress, notwithstanding that

heavy bush has to be destroyed before the holdings can be laid down in grass. Extensive improvements have been carried out to this end. The dairy industry has taken firm hold, and is extending. Settlement is described as of a *bonâ fide* and permanent character. There have been large increases in the stock carried, and a prosperous future is predicted for the settlers in this part of the Auckland District.

The Ranger's report for *Tauranga, Piako,* and *Rotorua* Counties indicates that there is a good demand for land in these counties; that the country takes grass readily, and shows every promise of profitable returns.

The Rangers report that there is a great run upon swamp land in the *Whakatane County*. Excellent results have been obtained from this class of land wherever brought into cultivation. The cost of draining, and the time taken in accomplishing this, are necessarily considerable; but the returns amply repay the selector. Special mention is made of the excellent pastures of grass and clover which are produced, and which offer a favourable opportunity for dairying.

It is satisfactory to learn from the reports that the demand for land in the distant *Opotiki* portion of the land district is keen, as there are large areas of hilly bush lands now available for settlement, and it is anticipated that their occupation and conversion into grazing-areas will add materially to the capabilities of that district.

Land for Settlements.—The special reports of the Rangers upon the six Land for Settlements estates in the Auckland District disclose on the whole a satisfactory condition of affairs. The chief pursuits of the farmers comprise dairying and general farming; and, in the case of the Opouriao Settlement, maize is largely grown. The progress in regard to improvements and cultivations and prospects are stated to be good.

Special-settlement Associations.—The six remaining associations are fully reported upon by the Rangers. The latest is that upon the Otanake Block, south-west of Te Kuiti, which was set aside for the returned troopers who took part in the South African war.

Hawke's Bay Land District.

The Commissioner of Crown Lands summarises the progress and condition of the settlers in this district, and brings into prominence the considerable amount of improvements, including fencing, which have been effected. During the year the two Rangers visited 708 properties, with an area of 379,467 acres, on which improvements to the value of £96,995 should have been made. The value of those actually effected was, however, £282,649, nearly three times in excess of the statutory requirements; and the defaulters were only 88 in number, or 12 per cent. of those visited.

In this district sheep and cattle raising, dairying, and agricultural pursuits are carried on generally with great advantage and profit to the settlers. The evidence of the extension of one of the most profitable industries is manifested in the large number of factories and creameries scattered throughout the district, all running at full time for a considerable portion of the year. Prosperity is also indicated by the volume of export in the shape of wool, mutton, and beef. Under such circumstances it is not surprising to learn that the tenants comply so satisfactorily with all the conditions of their leases and licenses, and that arrears of rent are so few and small in amount.

Improved-farm Settlements.—The small number of improved-farm selectors in Hawke's Bay have considerably more improvements than are legally required. Their sound position is displayed in the large number of cattle, sheep, &c., which they possess; and as they also are enabled to take part in dairying it will be understood that they are, if not already well established, in a fair way to become so.

Land for Settlements.—The favourable condition common to all phases of settlement in Hawke's Bay, is set forth in the Commissioner's reports, and is brought out clearly in the satisfactory results which have been achieved by the settlers who have been so fortunate as to secure holdings under this system. It will be noticed that the residential, improvement, and other monetary requirements under the system have been complied with, and even more than complied with in many instances. The great number of people resident, the class of dwellings erected, the varying and profitable methods of cultivation and production, the large number of stock carried, testify to the sound and thriving condition of the settlements.

Taranaki Land District.

The Commissioner of Crown Lands reports that 441 holdings, comprising an area of 156,050 acres, were inspected during the year. The value of improvements effected thereon

is £101,112, being more than double the statutory requirements; whilst the Crown tenants' compliance with the conditions of their leases, such as residence, improvement of holdings, payment of rent, &c., has been very satisfactory. The number of defaulters through non-residence or deficient improvements totalled 91, or 20 per cent. of the selectors inspected.

The tenants under the small-grazing-run and optional systems of the Act are reported as generally prosperous, though the improved-farm homesteads and village settlements have not proved altogether successful. Only one estate, Tokaora, has been acquired under the Land for Settlements Acts, and though but recently disposed of the settlers have already made good progress, and their prospects are considered to be good. The Commissioner has an intimate knowledge of all the settlements, and reports that the tenants are in good heart and contented; that they have made excellent progress, and attained to an assured position, the principal pursuits being cattle-raising, sheep-grazing in places, and, the country being well adapted for the purpose, dairying, the great mainstay of the small settlers, is availed of.

It is anticipated that with improved access there is a great future before the inland districts of Taranaki and Wanganui.

Wellington Land District.

In this district there are four Crown Lands Rangers, who inspected 1,860 properties during the year totalling an area of 338,024 acres. In terms of the leases and licenses, improvements to the value of £173,744 should have been effected at the date of the inspections, whereas the tenants had actually made improvements valued at £346,975, showing a balance in favour of the occupiers of £173,231. The number of defaulters from all causes was 317, more than half being for non-residence, equalling 17 per cent. of those visited.

Dividing the land district into its two main divisions, the *East Coast*, which includes the Forty-mile Bush and the Wairarapa districts, has been carefully inspected by the Rangers, who reported satisfactory progress as to improvements, compliance with the residential conditions, and that this gratifying position is due to the great improvement which has taken place in the roading of the country, and also to the extension of the dairying industry. The Crown tenants suffered from the effects of the late season and the continuous and excessive rainfall, which delayed harvesting where such operations are practicable, but resulted in prolific growth of grass and yields of root and white crops.

The village-settlement system, which is such an important feature of the settlements in the Wellington District, is to be found dotted generally throughout the district at key-points and in positions where the land and other advantages are sufficiently favourable to this class of settlement. In the eastern division of the Wellington District there are 219 village-settlement holdings. The improvements are more extensive, and in larger proportion per acre, than any other system, in consequence of the smallness of the individual areas which have to carry homesteads and other improvements necessary to the comfort and maintenance of families. The excess over legal requirements is given at £26,260. It is pointed out that, notwithstanding this evidence of satisfactory progress, the population of the villages is actually lower, and is decreasing from year to year. One explanation of this, which might be considered a surprising result, is that as the children grow up they seek employment elsewhere, and establish homes of their own, leaving the older members of the family upon the original holdings.

The only estate under the Land for Settlements Act is that of Langdale, near Tenui, which, as regards progress, suitability, and prospects, is characterized as satisfactory.

Another important class of settlement in the Wellington District comes under the farm-homestead system. Of these there are 18 settlements in the northern Wairarapa, comprising 191 holdings and an area of 31,130 acres. Detailed reports as to all these are given, and may be summarised as indicating that they are occupied by an energetic and industrious tenantry who are, generally speaking, complying with the conditions of their leases, and the great majority have already achieved success.

The improved-farm system, which was introduced at later times, but, unfortunately, when it was difficult to allot the very best of land, has also made steady progress, good improvements having been effected upon the holdings, and satisfactory compliance with conditions prevails.

The *West Coast* of the Wellington District, which includes the whole country from Taumaranui and Taupo southwards, and which contains numerous settlements involving responsibilities as to conditions of residence and improvements, &c., was closely and widely

inspected by the two Rangers in charge. They reported upon 753 holdings, comprising an area of 102,181 acres, the required improvements thereon being £100,306, and the value of those actually effected being £182,441, showing a balance of £82,135 in favour of the tenants. It follows, therefore, that as a whole excellent progress has been made, and it has been ascertained that the tenants have complied with requirements, except as to a few localities specified.

The settlers in the villages, which comprise 20 in number, generally speaking have also made good progress with their improvements, and are obtaining satisfactory returns from their holdings, and may be considered to be well established. Indeed, it may be said that in many instances these settlements have been very successful; but where the holdings are too small in area, and situated in out-of-the-way localities, it follows that they merely constitute homes for the tenants, who have to go abroad for employment and means to maintain themselves and families.

The Rangers' reports upon the estates which have been subdivided and occupied under the Land for Settlements Acts will be found pleasant reading. The Epuni, Maungaraki, and Paparangi Settlements, in the vicinity of Wellington, are good examples of prosperous and contented settlements, and the five settlements in the Rangitikei district may be classed as in a satisfactcry condition as regards their occupation, progress, and future.

Some of the best examples of improved-farm settlements exist in this district, where there are altogether 15 settlements, with 176 holdings. The great bulk of them are well established and prosperous. The few which were started at too early a period in the back country have, from the absence of the necessary conditions making for success, struggled under all the attendant drawbacks, and have made slow progress. The extension of roads and railway, and the influx of population, should ultimately lead to the success of these also.

Marlborough Land District.

The two Rangers in this district visited 467 holdings during the past twelve months, comprising an area of 299,365 acres. On these properties improvements to the value of £70,222 were required to be made by the Act, but the amount actually effected was £159,462, the number of defaulters through various causes being only 49, or 10 per cent. of the whole.

All the tenants who hold leases or licenses under the improvement and residential conditions of the Act, except those on the north bank of the Wairau, are reported as having comfortable and well-equipped homesteads, to have made good progress, and to have every expectation of a successful future.

The holdings under the Land for Settlements Acts, which are a considerable feature of the close settlement in this district, are reported to be generally in a satisfactory position.

Nelson Land District.

During the year the two Rangers inspected and reported on 171 properties, with an area of 21,317 acres. It was found that improvements to the value of £10,277 had been effected in place of the £6,285 required by the Act, whilst those tenants in arrears with improvements, &c., amounted to 46, or 26 per cent. of the total.

It will be gathered from the Commissioner's report that the progress and conditions of the 1,313 Crown tenants are on the whole satisfactory. This is indicated by the fact that rents are promptly paid and the arrears are very trifling.

Westland Land District.

Out of the 148 properties inspected, totalling an area of 23,566 acres, it was found that there were only 24 cases of non-compliance, which equals 16 per cent. of the holdings reported on; whilst the value of improvements effected as a whole was £16,702, being an excess over the statutory requirements of £4,864.

This district suffered from the common disadvantages of the past season in regard to the lateness of the spring and the absence of settled fine weather. Nevertheless, the Commissioner reports that good hay and root crops were secured, and that there was a much better yield of butter. The extension of dairying has given a great impetus to cultivation and farming generally, and led to extensive improvements being carried out on the farms in the settled districts. The energy and sustained efforts on the more recent settlements is drawn attention to, and the time is said to be not distant when the West Coast will be independent of importations of cattle and sheep. The outlook is distinctly promising.

Canterbury Land District.

The number of properties visited by the Rangers is 1,613, with an area of 276,681 acres, on which improvements to the value of £153,912 were required to be effected. The reports show that improvements amounting to £322,928 were placed on the land; more than double the statutory requirements. Only 109 tenants were in default, chiefly for non-residence and insufficient improvements, representing 6 per cent. of the total.

The Commissioner's exposition of the condition of Crown tenants in this district is worthy of careful consideration. Full information will be found therein in regard to all the settlements. The general condition is reported to be very satisfactory as to compliance with the conditions of improvement, payment of rent, &c. The prospects are excellent, but it is pointed out that the excessively wet season injuriously affected the settlers on the margin of Lake Ellesmere. The spirit of the tenantry is represented as one of hopefulness and contentment. The interesting history of the settlements in Canterbury is also given.

The Commissioner enlarges upon the condition of the Land for Settlements estates now distributed amongst the Crown tenants, and shows that 42 settlements have been established, with 980 settlers, upon an area of 180,600 acres, who have complied in the most satisfactory manner as to *bonâ fide* residence and occupation, and the percentage of defaulters in any respect is very low. Despite the unseasonable weather, good crops have been taken off the lands, the yields being above the average. The suburban settlements round Christchurch are now in a satisfactory condition, having found more favour in the eyes of artisans and others; this is indicated by the keener demand, in consequence of the object-lessons presented by the comfortable homes, and the advantages accruing from larger areas, in the possession of the fortunate selectors under this system. The pursuits of the tenantry range from mixed farming, including agriculture and dairying, to grazing on the lighter and more distant hilly lands.

Otago Land District.

The three Rangers in Otago inspected 662 holdings during the preceding year, covering an area of 118,813 acres, and reported that the value of improvements actually effected by the occupants amounted to £108,869, in place of the £52,599 required by the Act. There were, however, 102 defaulters among those visited, this representing 15 per cent. of the total.

In reviewing the settlement in this district, the Commissioner reports that the settlers have had a successful and prosperous year, much better than was expected. Owing to the long-continued wet summer and autumn the conditions were unfavourable, but the ultimate result was that in some localities extra good yields have been obtained. One advantage was the abundant growth of pasture.

Settlement conditions have been generally well complied with. More improvements than prescribed have been effected. The comparative failure of the village settlements is poken of with regret, and full details are given as to this and other matters.

In southern Otago the settlers had an especially trying time, owing to the late spring and the wet and broken weather and summer. Not only the crops, but the lambing was affected, though counterbalanced by good prices and the advantage of dairying in some localities. Many of the roads have been improved, to the great convenience and advantage of the settlers.

In central and north Otago the settlers were delayed in getting in their crops, but there was an abundance of feed; the harvest was delayed, but most of the crops were saved, record yields being common. Taken on the whole the year has been satisfactory to the farmers, and also to the tenants under the small-grazing-run, lease-in-perpetuity, and occupation-with-right-of-purchase systems.

The Ranger for the inland district reports satisfactory compliance as to residential conditions, extenuating reasons for the default being advanced. The agricultural returns have been good, whilst the pastoral tenants and runholders have prospered, owing to few losses in stock and the good prices realised.

It will be seen from the reports on the Land for Settlements estates in Otago, and the instructive particulars furnished, that there are 17 properties, carrying 462 tenants and their families, who occupy 299 dwellings, the total population being 1,195. The area leased amounts to 61,458 acres, and an annual rental of £20,195 is paid therefor, the value of improvements being £83,349. The area under cultivation last year in grain and root crops was 14,006 acres. The area still unlet amounts to 4,417 acres.

The reports indicate that the estates, excepting in two or three cases, are either in a flourishing or satisfactory position; that good progress has been made; and the prospects

also are hopeful. In the other districts the tenantry engage in the usual farming operations, grow grain and root crops, and, where facilities are offered, engage in dairying, and on the hills and downs give their attention to sheep.

Southland Land District.

The Rangers' inspections comprise 742 holdings, on an area of 71,687 acres, the value of improvements required being £20,446, as against those actually effected to the amount of £48,481. Only 32 tenants were in default, representing 4 per cent. of those visited, the lowest percentage of any district in the colony.

The condition of the Crown tenants is reported as satisfactory. Their occupations comprise dairying, grazing, timber-cutting, and many of the smaller farmers seek employment for a portion of the year on road and railway works.

In Stewart Island 35 scattered holdings, comprising 3,938 acres, were visited during the year. On these the amount of improvements actually effected was £1,615, being an excess of £374 over that required by law. The difficulty of getting rid of the forest and cultivating the land is very great. The settlers have to supplement their incomes by engaging in fishing, working at the sawmills, and some have to visit the mainland to find work. A few are employed in boatbuilding.

Cheviot Estate.

The statement of accounts, as recorded in the Accountant's office, is given in the same form as in previous years for convenience of comparison. This great estate continues to flourish; all save two of the tenants have complied as to improvements, and all but four as to residence. The value of improvements effected amounts to £69,786.

Dr.	£	s.	d.
Cost of the estate, including roads, surveys, landing-service, &c.	324,908	19	7
Interest to the 31st March, 1903	87,258	4	5
	£412,167	4	0

Cr.	£	s.	d.
Land sold	38,754	18	10
Rents, interest, royalties, and other charges ...	138,634	14	11
Cost of estate at the 31st March, 1903	234,777	10	3
	£412,167	4	0

The revenue for the twelve months ending the 31st March last amounted to £14,606 4s. 11d. received from 314 tenants, whilst the arrears came to £617 12s. 11d., or 4¼ per cent. of the total. The settlement made steady and satisfactory progress during the year, though the central and southern portions were visited in January by a severe hailstorm, and afterwards experienced a heavy frost, which occasioned damage to the crops. The lambing was good, showing a 90 per cent. increase, which means from fifty to sixty thousand lambs added to the flocks of the settlers, at latest returns there being some 100,000 sheep and 2,200 cattle on the estate. The present population is estimated at 738 souls on the Crown leaseholds, exclusive of those residing on freehold properties and in the Mackenzie Township. Counting these, the total population is 1,026.

From the annual report and balance-sheet of the Harbourmaster at Port Robinson (laid on the table of the House as a separate paper) it is seen that, notwithstanding the competition of the overland carriage, there was a considerable quantity of goods, &c., landed, the weight of general merchandise and coals amounting to 1,806 tons, and in addition about 11,000 bricks, 3,200 fencing-posts, and 418,756 superficial feet of timber were also imported. The revenue from handling these goods amounted to £814. The exports were about 3,400 bales of wool and 3,000 sacks of grain and other produce, £248 being derived from this source. The total receipts came to £1,062 18s. 4d., being £67 4s. 9d. in excess of the expenditure.

Land for Settlements.

During the year the Land Purchase Board handed over to the Lands and Survey Department 16 estates, comprising an area of 91,724 acres 2 roods 4 perches, and consisting of 12 estates, 1 homestead site, and portions of the Birch Hill and Awatere freehold properties, the latter having been acquired in exchange for Crown lands. Of these, 8 estates,

1 homestead site, and the Awatere and Birch Hill lands, containing in all an area of 49,162 acres and 14 perches, were opened for selection, together with 10 other estates, comprising an area of 29,639 acres and 15 perches, which had been handed over prior to the 31st March, 1902, but were not ready for settlement on that date. The properties were all surveyed, subdivided, valued, and submitted for lease on carefully considered and designed schemes, and were readily quitted, except the areas noted in the fourth column of the table hereunder.

The five Auckland hamlets were opened as "workmen's homes," and are situated in the vicinity of the City of Auckland. The Kumeroa and Forest Gate Estates were acquired under the compulsory provisions of "The Land for Settlements Consolidation Act, 1900," and, notwithstanding, the result may so far be classed as satisfactory. The small Linton Settlement, near Halcombe, was all selected. The Kokatahi Settlement, in Westland, is in a better position than shown, inasmuch as the balance of 1,246 acres has been taken up since the 31st March last. The five Canterbury properties constitute a large proportion of the whole; and of the Lyndon Estate (Amuri) and the Chamberlain (Opawa) Settlement, near Albury, not an acre has been left on the Land Board's hands. The Windsor Park Estates (Otago) all went off.

Given a continuance of the present favourable conditions affecting farming and grazing, it is to be anticipated that these later acquisitions under the Land for Settlements Act will prove as beneficial and satisfactory to the colony and tenants as the majority of the previous purchases have done.

Reference to Table 33 will afford full information as to all the estates which have been opened for selection and administered by the Lands and Survey Department. Since the initiation of the policy under "The Land for Settlements Act, 1892," it will be seen that, including special purchases to provide homesteads and low country for a few Crown tenants, the number of settlements is 116, comprising 475,223 acres, and the result is that 2,335 tenants (or 7,200 souls in all) have been placed upon 447,334 acres, for which they are liable for an annual rental of £116,979. The area absorbed by roads and reserves is 8,338 acres, and on the 31st March last the total area still in the hands of the Land Boards, inclusive of forfeited and surrendered sections, amounted to 19,543 acres, with an estimated annual rental of £3,401; whilst 278 lessees, holding 61,680 acres, were in arrear £10,489. This amount has been greatly reduced since. The holdings which fall back into the hands of the Crown are reopened as expeditiously as possible, and are as a rule promptly taken up. But difficulty is still experienced in quitting portions of some of the Auckland hamlets; the Waipapa Settlement, Marlborough; the Pomahaka and Barnego Settlements, Otago; and the Beaumont and Glenham Settlements, Southland. The Northbank Estate (Marlborough) was held back for mining.

The following table shows the estates offered for the first time, and how they were disposed of:—

TABLE G.—ESTATES OFFERED for SELECTION during the Year ending the 31st March, 1903, under "The Land for Settlements Consolidation Act, 1900."

Land District and Name of Estate.	Area of Estate.	Number of Selectors	Area unselected, 31st March, 1903.	Annual Rental payable on Lands leased.	Date of Opening.
	A. R. P.		A. R. P.	£ s. d.	
Auckland—					
Cradock Hamlet	33 0 9	3	22 0 25	17 14 0	22 April, 1902.
Hetana "	451 1 34	7	377 1 6	14 5 4	22 April, 1902.
Kitchener "	26 3 35	1	20 3 14	5 12 0	22 April, 1902.
Methuen "	77 3 14	7	45 2 7	33 17 9	22 April, 1902.
Plumer "	74 0 0	3	54 2 12	10 10 2	22 April, 1902.
Hawke's Bay—					
Kumeroa	3,774 2 38	14	726 0 0	1,425 9 10	12 May, 1902.
Forest Gate	8,822 0 13	28	81 2 13	2,587 17 6	19 May, 1902.
Wellington—					
Linton	551 1 36	5	..	309 13 6	17 Sept., 1902.
Westland—					
Kokatahi..	1,894 2 20	3	1,246 1 30	100 17 10	4 Nov., 1902.
Canterbury—					
Lyndon No. 2	15,887 0 0	10	..	2,281 10 2	21 April, 1902.
Maytown	391 3 32	12	..	286 16 2	28 April, 1902.
R.S. 30791 (part)	100 0 0	1	..	17 0 0	23 April, 1902.
Eccleston	1,246 1 5	4	..	569 11 2	12 May, 1902.
R.S. 36226	46 1 26	1	..	5 3 0	16 Oct., 1902.
Mead	5,914 3 17	21	..	975 18 0	21 Jan., 1903.
Chamberlain	10,500 1 9	21	..	2,169 19 10	9 Mar., 1903.
Otago—					
Windsor Park	3,821 2 16	38	..	1,655 8 2	28 May, 1902.
Windsor Park No. 2	2,179 2 17	10	..	875 16 8	28 Oct., 1902.
Duncan	633 2 3	5	210 0 22	181 16 8	29 Dec., 1902.
Totals	56,427 3 4	194	2,784 2 9	13,524 17 9	

Total, 19 estates opened during year.

SUMMARY of SELECTORS, RESIDENCES, and the CONDITION of ESTATES acquired and dealt with at the 31st March, 1903.

Land District and Name of Settlement.	Selectors.	Residences.	Progress during Year.	Pursuits of Settlers.	Present Position.	Prospects.
Auckland—						
Opouriao	64	64	Satisfactory	Dairying and cropping	Good	Good.
Okauia	9	7	Unsatisfactory	Dairying	Not satisfactory	Fair.
Rangiatea	19	17	Good	"	Prosperous	Good.
Karapiro	16	11	"	Dairying and general farming	Good	"
Fencourt	36	34	"	Farming and dairying	Prosperous	"
Whitehall	8	9	Fair	"	Fairly good	"
Cradock Hamlet	3	..	Only recently selected		Not satisfactory.	
Hetana "	7	6	"		Ditto.	
Kitchener Hamlet	1	..	"		"	
Methuen "	7	3	"		"	
Plumer "	3	..	"		"	
Hawke's Bay—						
Raureka	19	18	Good	Dairying, farming, fruit-growing, &c.	Good	Good.
Elsthorpe	46	27	"	Pastoral	"	"
Waimarie	18	16	"	Dairying	"	"
Pouparae	9	9	"	"	"	"
Tomoana	13	12	"	Dairying and fruit-growing	"	"
Mahora	32	25	"	Dairying and farming	"	"
Willows	22	17	"	"	"	"
Hatuma	62	53	Fair	Grazing and mixed farming	"	"
Manga-a-toro	25	18	Good	Grazing	"	"
Kumeroa	14	10	Satisfactory	Dairying and grazing	"	"
Forest Gate	28	18	"	"	"	"
Taranaki—						
Tokaora	15	13	Good	Dairy-farming	"	"
Wellington—						
Paparangi	36	35	"	Dairying, poultry-farming, &c.	"	"
Ohakea	15	15	"	Dairying, cropping, &c.	"	"
Te Matua	13	12	"	Dairying	"	"
Aorangi	37	37	"	Dairying and market-gardening	"	"
Langdale	23	17	"	Mixed farming and pastoral	"	"
Mangawhata	7	7	Satisfactory	Dairying and sheep-farming	"	"
Epuni Hamlet	41	32	Good	Gardening, poultry-farming, &c.	"	"
Maungaraki	20	12	"	Ditto	"	"
Linton	5	4	Satisfactory	Dairying and grazing	"	"
Marlborough—						
Blind River	19	17	Fair	Sheep-farming	"	"
Omaka	13	12	Good	"	Fair	Fair.
Puhipuhi	2	1	Fair	"	"	"
Starborough	109	64	Satisfactory	Sheep-farming and cropping	"	Good.
Richmond Brook	11	9	"	Sheep-farming	"	"
North Bank	10	1	Only selected in March, 1903.			
Waipapa	4	3	Fair	Sheep-farming	Fair	Fair.
Westland—						
Poerua	18	14	Good	Dairying and mixed farming	Very good	Good.
Kokatahi	3	3	"	Ditto	Good	"
Canterbury—						
Pareora	28	28	Satisfactory	Grazing	"	"
Studholme Junction	4	3	"	Mixed farming	"	"
Kapua	11	12	"	Agriculture	Well established	"
Rosebrook	14	13	"	Dairying and cropping	Ditto	"
Otaio	9	9	"	Mixed farming, fruit-growing, &c.	"	"
Patoa	4	2	Poor	Grazing	Fair	Fair.
The Peaks	12	..	"	"	"	"
Roimata	26	26	Good	Gardening and fruit-growing	Very prosperous	Good.
Kereta	4	4	Satisfactory	Mixed farming	Satisfactory	"
Braco	14	14	"	Market-gardening	Well established	"
Epworth	2	1	"	Mixed farming	Satisfactory	"
Ashley Gorge	10	12	"	Dairying	"	"
Omihi Valley	1	..	"	Let temporarily.		
Orakipaoa	27	20	"	Mixed farming	Good	Good.
Highbank	75	57	"	"	"	"
Otarakaro	7	7	"	"	"	"
Wharenui	26	26	"	Small-farming and gardening	"	"

SUMMARY of SELECTORS, RESIDENCES, ETC.—*continued.*

Land District and Name of Settlement.	Selectors.	Residences.	Progress during Year.	Pursuits of Settlers.	Present Position.	Prospects.
Canterbury—*continued.*						
Rakitairi	22	19	Satisfactory	Agriculture	Satisfactory	Good.
Waiapi	15	15	"	"	"	"
Horsley Downs	26	23	"	Grazing	"	"
Albury	79	63	Good	Dairying and cropping	"	"
R.S. 1862	1	1	..	Homestead-site.		
R.S. 2682 (part)	1	..	..	"		
R.S. 36469, Cannington	1	..	..	"		
R.S. 36231	1	1	..	"		
R.S. 36056/7	1	..	..	"		
R.S. 36228	1	1	..	"		
Marawiti	12	12	Good	Agriculture	Satisfactory	Good.
Hekeao	16	13	Satisfactory	Agriculture and dairying	Good	"
Pawaho	26	21	"	Grazing and gardening	"	"
Waikakahi	184	148	Good	Mixed farming and stock-raising	"	"
Tamai Hamlet	39	35	Fair	Residential	Fair	Fair.
Takitu	5	5	Good	Sheep-farming	Good	Good.
Pareora No. 2	33	32	"	Cropping, &c.	"	"
Rautawiri	6	6	Fair	Mixed farming	Satisfactory	"
Papaka	9	9	Good	Agriculture	"	"
Punaroa	17	17	Satisfactory	Dairying and cropping	"	"
Lyndon	9	6	Fair	Grazing and cropping	"	"
Kohika	17	14	Good	Mixed farming	Prosperous	"
Tarawahi	16	14	"	Residential	Good	"
Raincliff	1	1	"	Grazing, &c.	Satisfactory	"
Puhuka	7	5	"	Residential	"	"
Kaimahi	13	8	Unsatisfactory	Agriculture	Fair	Fair.
Kapuatohe	9	7	Satisfactory	Mixed farming	"	"
R.S. 36278	1	..	..	Homestead-site.		
Rapuwai	5	4	Satisfactory	Grazing	Good	Good.
R.S. 30791 (part)	1	..	..	Homestead-site.		
R.S. 36226	1	1	..	"		
Lyndon No. 2	10	6	Fair	Grazing	Fair	Fair.
Maytown	12	10	Satisfactory	Mixed farming	Good	Good.
Eccleston	4	2	Unsatisfactory	"	Fair	Fair.
Mead	21	..	Only recently selected.			
Chamberlain	21	..	"			
Otago—						
Pomahaka Downs	19	13	Unsatisfactory	Mixed farming	Unsatisfactory	Poor.
Teaneraki	22	16	Fair	"	Fair	Fair.
Tahawai	8	8	Good	Dairying	Good	Good.
Maerewhenua	72	58	"	Mixed farming	"	"
Puketapu	11	9	Fair	Dairying and cropping	"	"
Ardgowan	65	29	Good	Dairying, grazing, and mixed farming	"	"
Makareao	31	18	"	Mixed farming	Much improved	"
" Extension	3	3	"	"	Ditto	"
Momona	14	14	"	Dairying	Most satisfactory	"
Tokarahi	79	44	Satisfactory	Dairying and mixed farming	Good	"
Janefield	20	19	Very fair	Mixed farming	"	"
Elderslie	33	20	Very good	Grazing and agriculture	Well-established	"
Barnego	21	17	Satisfactory	Dairying and mixed farming	Fair	"
Earnscleugh	11	8	Good	Fruit-growing, &c.	Good	"
Windsor Park	38	17	"	Agriculture	"	"
" No. 2	10	5	Only recently selected.			
Duncan	5	1	"			
Southland—						
Merrivale	47	39	Fair	Dairying and farming	Good	Good.
Otahu	7	4	"	Grazing	Unsatisfactory	Doubtful.
Beaumont	9	4	"	"	"	"
Ringway	7	8	Good	Mixed farming	Success assured	Good.
Glenham	24	16	"	Dairying and farming	Fair	Fairly good.
Totals	2,335	1,785				

ENDOWMENTS.

The Department acts as agent, and administers several endowments set aside for public purposes, institutions, and local bodies. The following comprise the principal endowments so dealt with :—

Auckland District: Education, University, Girls' High School, Museum, Franklin Agricultural and Pastoral Society, and Whangaroa Harbour reserves. Hawke's Bay: Education reserves (vested in School Commissioners). Taranaki: University reserves. Wellington: University (Victoria College) and Wanganui Harbour Board reserves. Nelson:

Nelson and Westport Harbour Board reserves. Westland: University reserves. Canterbury: University reserves, and Lake Ellesmere. Otago: Education (School Commissioners), Boys' and Girls' High Schools, Hamilton Public Library, Clutha River Board, and Clutha River Trustees, reserves. Southland: Education (School Commissioners) and Bluff Harbour Board.

Native Townships.

By reference to Table 23 it will be seen that two townships—Karewa, in the Auckland Land District, and Hokio, on the sea-shore, near Levin, Wellington Land District—were selected and surveyed during the year.

Since the passing of "The Native Townships Act, 1895," fourteen townships have been laid off on Native lands, and submitted for lease in lots to meet the requirements of business people and to provide residential sites. The names of the townships are Kaimakau, Rotoiti, Parawai, Te Puru, and Karewa (Auckland District), Te Puia, Te Araroa, Tuatini, and Waipiro (Hawke's Bay), and Pipiriki, Tokaanu, Potaka, Parata, and Hokio (Wellington District).

The transactions for the year 1902–3 number 37, the area 55 acres, whilst the totals since the initiation of the system to the 31st March, 1903, for all the townships are 189 sections selected by lessees who hold 584 acres, paying therefor the annual rental of £786. The arrears amounted to £23 13s. 6d., or only 3 per cent.

Revenue.

The report of Mr. Runcie, the Auditor of Land Revenue, appended, gives particulars and comparisons as to the revenue collected by the Department for the year. It will be noticed that the total amount received, £448,379 16s., is £21,241 1s. 5d. in excess of that obtained during the previous year, and £17,041 2s. 9d. more than was collected during 1900–1; this, too, in face of the receipts from Hanmer Plains Sanatorium and Mount Cook Hermitage not being now accounted for by this Department. The territorial revenue is £2,658 13s. 7d. in excess of the amount for 1901–2, and £22,277 15s. 1d. over the estimated revenue for the twelve months.

Some points calling for remark in connection with the revenue are—the substantial increases in the occupation-with-right-of-purchase receipts, amounting to £5,937; lease in perpetuity, £5,041; small grazing-runs, £1,960; pastoral runs, £7,194; miscellaneous leases and licenses, £18,778; miscellaneous receipts, £4,145; improved-farm-settlement leases in perpetuity, £824; and, coming to the Land for Settlements figures, the chief items show a satisfactory advance, the lease in perpetuity being £14,723 in excess; small grazing-runs, £3,710; and miscellaneous receipts, £1,842. The principal decreases, as compared with the previous year's receipts, occur under the heads of deferred payments, £1,732; perpetual leases, £1,307; and village-settlement holdings made freehold, £721.

Rebate of Rent.—The Crown tenants have continued to avail themselves of the reduction of rentals allowed in terms of "The Crown Tenants' Rent Rebate Act, 1900," and "The Land for Settlements Consolidation Act, 1900." Particulars as to the number of tenants and the amounts remitted for the year are as follows:—

	Tenants.	Amount remitted. £ s. d.
Auckland	1,101	679 18 2
Hawke's Bay	27	46 4 5
Taranaki	205	157 4 2
Wellington	1,849	1,951 1 10
Nelson	276	76 3 7
Marlborough	135	364 10 10
Westland	20	6 3 3
Canterbury	1,290	4,424 19 2
Otago	1,106	1,152 3 3
Southland	597	354 8 4
Totals	6,606	£9,212 17 0

By comparison it is seen that the amounts of remission exceed those of last year by £1,158 5s. 6d., and the number of tenants who benefited by the discount granted was 1,233 more than that for the previous year.

"Thirds" and "Fourths."—The following table shows the amounts at credit on the 31st March last in the various Receiver's books payable to local bodies as "thirds" and "fourths" under the provisions of section 126 of "The Land Act, 1892":—

	£	s.	d.
Auckland	7,283	18	8
Hawke's Bay	2,586	0	2
Taranaki	6,071	0	1
Wellington	19,625	12	0
Marlborough	821	8	2
Nelson	592	15	9
Westland	196	11	8
Canterbury	687	10	7
Otago	2,145	17	10
Southland	1,199	18	2
	£41,210	13	1

Compared with the position in the previous year there has been an increase in the Auckland, Taranaki, Marlborough, and Westland items, and a decrease in the others; whilst the total exceeds that in the year 1901–2 by £576 14s. 3d.

Nearly half of the whole amount is lying in the Wellington Receiver's hands. Its application to supplement the grants of public money which have to be expended in giving access to the settlers' holdings would be a welcome and substantial benefit to many. The attention of settlers has been time and again drawn to the opportunity they have of utilising the accrued "thirds" by paying the annual interest and sinking fund upon loans obtained under the Government Loans to Local Bodies Act. This method has already been applied very extensively in the Wellington District, and has resulted in the settlers obtaining improved access, which has enabled them to secure the advantage of joining in the output of butter and cheese many years in advance of the time when they would have secured similar advantages if they had waited until roads were completed by the annual grants of Parliament. Legislation has been suggested with a view to giving the Minister of Lands power to direct the expenditure of accumulation of "thirds" and "fourths" where such seems necessary in the interests of the selectors whose sections furnish the amounts.

Arrears.

In contradistinction to the practice prevailing between private landlords and tenants, rents are payable to the Crown in advance, upon the first day of January and July in each year, excepting under the small-grazing-run and pastoral-license, and some miscellaneous leases, when they become due on the 1st days of March and September respectively.

Reference to Table 31 will afford full information as to the number of selectors, the area, and amount in arrear under each system as at the 31st March, 1903.

For ordinary Crown lands the number of selectors in arrear on that date is 1,045, holding under lease or license 410,668 acres, the amount to which they are indebted to the Crown being £9,193 19s. Comparing these with the figures representing the total number of Crown tenants, the area they hold, and the total amount of annual rental which they pay, it will be noticed that one tenant in every fifteen is indebted to the Crown, that the area on which rent is due is one thirty-ninth of the lands under occupation, while the percentage of rentals in arrears is 4·4.

As regards the Cheviot Estate, the number of tenants in arrear is 22, representing 7,629 acres, the amount of their liability being £617, or 4·2 per cent.

Taking the lands under the Land for Settlements conditions as a whole, there were 279 tenants, leasing 61,780 acres, who were in arrears to the extent of £10,497, which is 8·8 per cent. on the total amount of their rentals.

The arrears under the Thermal Springs (Rotorua) conditions amount to £100 15s. 8d. out of an annual rental of £1,939 6s. 4d., or 5·2 per cent.

The total arrears due by Crown tenants under all systems of tenure are therefore £20,409 8s. 8d. out of a gross rental of £340,339 18s. 8d., representing 5·9 per cent. of the whole.

The foregoing figures do not include the current half-year's instalment which fell due on the 1st January, 1903.

In criticizing the shortcomings of the Crown tenants in the above respect, allowance should be made for several important considerations affecting the position of Crown tenants in New Zealand. Amongst them I would mention—

1. That the lands selected are generally in their native or original condition, covered with dense forest, scrub, or high vegetation, and are almost always situated far distant from centres of population. In the early stages of settlement the holdings are difficult of access, and it takes many years of arduous labour and considerable expenditure of capital before they furnish a commensurate return to the tenants.

2. The Crown lands are thrown open to all. Any person possessing the necessary qualifications who is in a position to deposit half a year's rent and the lease or license fee takes his chance in the ballot, or can compete for the purchase of grazing-leases. It follows, therefore, that in the laudable desire to secure a holding and establish a home, persons of limited means go upon the land; indeed, under some of our systems—for instance, the village-homestead-special-settlement and improved-farm systems—men without means are encouraged and assisted to take up land and establish themselves and their families thereupon. It is manifest, therefore, that in the early stages of settlement it is only with extreme difficulty, by studying thrift and in some instances enduring considerable privation, that some of the tenants find the means to meet their engagements. It has been the policy of the Land Boards of the colony, and the departmental officers intrusted with the duty, to deal with defaulters as to payments with a due consideration of the exceptional circumstances in which many of them are placed, and the great difficulties and drawbacks to which they are sometimes subjected. After the tenants have become established upon their holdings, and are in receipt of returns sufficient to maintain themselves, they are expected to comply more promptly with their obligations. The encouragement afforded by the Crown Tenants' Rent Rebate Act has tended to bring about a more satisfactory state of affairs in regard to the payment of rentals.

The arrears on the prosperous Cheviot Estate are necessarily small.

Those under the Land for Settlements Acts might appear to be unduly heavy, but it must be remembered that, though the tenants are generally intrusted with the control and utilisation of improved properties, a very large expenditure is required before the homestead can be established, and fencing and other necessary works and operations carried out, and a return obtained from the land. Here again, limited means and the necessary preliminary outlay induce the tenant in some instances to postpone compliance with the requisitions of the Land Offices to pay his rental.

Since the termination of the financial year special efforts have been made by the Land Boards and Commissioners to reduce the arrears, especially upon the valuable and highly improved Land for Settlements estates, as it is considered that, though the season had not been altogether favourable, the settlers as a rule had been fortunate in obtaining satisfactory returns from their properties, and that these lands, which have been purchased and made available for settlement by special legislation and financing, should return 5 per cent. upon the outlay. As will be seen elsewhere, this requirement has been generally fulfilled.

Forfeitures and Surrenders.

In Table 21, is given the usual information under this head. The total number of forfeitures under all systems is 283, affecting 130,143 acres, the annual rental thereon being £2,355 13s. 8d., a very considerable increase in number, area, and rental as compared with the preceding year. The great bulk of the forfeitures occurred under occupation with right of purchase, lease in perpetuity, special settlements, and miscellaneous leases and licenses. The principal grounds for forfeiture occur in the earlier stages following upon selection, when selectors who are dissatisfied with their holdings abandon them because they do not come up to their expectations, or the tenants find they are not in a position to effect the necessary improvements and comply with the other conditions of their leases and licenses. In other cases the Land Boards have to forfeit leases by reason of the non-compliance of tenants who have held sections for many years without making a serious attempt to fulfil the conditions. Frequently the tenants themselves apply to be relieved of their responsibilities. As a general rule, recourse to forfeiting the tenant's interest is not resorted to in this colony, because the policy, as indicated elsewhere, is one of helpful and sympathetic consideration and encouragement for those who desire to become successful settlers.

The surrenders, as indicated in the same table, amount to 84, covering an area of 160,250 acres, producing a rental of £1,886 3s. 11d. By comparison with the figures of 1901–2, it may be mentioned that the number has increased by 9, and the area and amounts are also considerably greater.

Tenants are generally beneficially affected by this latter process, though it is unfortunate that the necessity for surrendering holdings arises from causes the very reverse, such as special circumstances affecting the suitability and the unprofitable working of the lands, as explained in last year's report. In such cases the Land Boards, with the sanction of the Minister of Lands, exercise their powers judiciously, and deal with each case upon its merits.

As might be expected, there were no forfeitures of tenants' interests in the Cheviot Estate, though there was one surrender for the purpose of partition.

In Land for Settlements estates there were 27 forfeitures, covering 2,593 acres, the annual rental being £619 8s. 4d. The surrenders on the estates numbered 15, with an area of 574 acres, the annual rental payable thereon being £260 13s.

The Land Boards had to exercise their right of re-entry, and take possession of 11 sections in Native townships, and of one under each of the heads "Thermal Springs" and "Endowments."

Hauraki Goldfields.

The provisions of "The Mining Districts Land Occupation Act, 1894," having proved insufficient to meet the altered circumstances and requirements of the population within the Hauraki Mining District brought about by the lull in mining operations, it was decided to offer greater facilities to enable miners and settlers to secure extended holdings, so as to enable them to obtain sufficient returns from utilising land for farming and grazing to counterbalance the falling-off in their incomes formerly obtained when engaging in mining and its associated employments.

Early in the present year regulations were issued, illustrated by plans, empowering the Auckland Land Board to grant licenses within the goldfield to applicants for grazing-areas up to 1,000 acres, for reasonable rents, for terms of twenty-one years, renewable if approved. Provision has been made for conserving public interests, especially all necessary rights for the prosecution of mining operations (including right of entry and passage through the lands under lease, the taking of roads, the preservation of right to cut timber); whilst the licensees' interests have also been safeguarded with respect to their dwellings and the land immediately around the same.

It is anticipated that the opening of the Crown lands within the goldfield upon the above terms will enable the pastoral and mining industries to go hand in hand; prevent monopoly, without interfering with the all-important mining industry; and materially conduce to the prosperity of the population in this part of the colony, whose attention has heretofore been given almost exclusively to mining.

Reserves.

The Legislature has made provision by various enactments to meet manifold public requirements and interests, thus—"The Land Act, 1892" (section 235) empowers the reservation of land for almost every conceivable purpose or object; "The Education Reserves Act, 1877" (section 20) necessitates the selection and reservation of 5 per cent. of certain Crown lands in the North Island for endowment of primary education, and also allows of endowments for secondary education. Numerous reserves and endowments are also set aside under special enactments.

To meet the foregoing requirements, about 30,311 acres were gazetted during the year as reserves; the areas include forest reserves, reserves for the preservation of scenery, plantation, recreation, and education. The reserves, except those which remain in the charge of the Commissioners of Crown Lands, are subsequently vested in and thus handed over to the control of the local bodies legally entitled thereto. The total area reserved, or "granted under various Acts" free, since the foundation of the colony is 9,778,483 acres (*vide* Table 20).

Forests.

The State and Crown forests comprise the portions of the indigenous forests which have from time to time been proclaimed and brought under the provisions of "The New Zealand State Forests Act, 1885," and are conserved and administered by the Commissioners of Crown Lands under the direction of the Hon. the Minister of Lands, and in accordance

with the regulations framed especially to preserve and guard the forests to enable the timber to be disposed of and utilised to the best advantage. This is accomplished by the granting of sawmill and other licenses, and the sale by appraisement or payment of royalty on quantities of timber cut. The revenue derived by these means during the financial year amounted to £15,916 6s. 10d., and the total amount to the credit of the State Forests Account is £31,000. The areas set aside during the year as forests and plantations or for the preservation of timber amounted to 13,046 acres, and, similarly, the area added to State forests is 4,786 acres, which brings up the totals to 744,058 acres 1 rood 5 perches of Crown forests and reserves for the preservation of timber, and for scenic, climatic, plantation, national parks, flora and fauna purposes, and 1,774,278 acres and 34 perches under "The New Zealand State Forests Act, 1885": total, 2,518,336 acres 1 rood 39 perches.

In last year's report I described the additional steps taken, and the terms of a circular issued to the Commissioners of Crown Lands inviting their co-operation, in completing the conservation of forests on mountains and upper watersheds, and the preservation of bush in gorges alongside rivers, and all places of natural beauty, &c. In compliance with the request, the Commissioners for Taranaki, Wellington, Marlborough, and Westland furnished reports, and made many admirable proposals and suggestions which, subject to reconsideration and amendment as fuller information is obtained, will be submitted for your approval and confirmation. The other six Commissioners have not yet reported, owing to pressure of more urgent duties connected with the opening of land for settlements, but doubtless they are giving the subject due consideration and attention.

The rapid alienation of Crown land now proceeding, especially in the Auckland District, renders it more necessary than ever that the work of forest-conservation shall be carried out on general and comprehensive schemes.

Milling-timber.

With reference to the intimation in last year's report that an exhaustive inquiry was in progress as to the different classes and quantities of milling-timber contained in the forests, public and private, I have to remark that, owing to the great pressure of business connected with the settlement surveys and administration, it has not been possible to complete the explorations, estimates, and reports upon this subject. Much valuable information and particulars have, however, been collected.

Nurseries and Plantations.

The year which closed on the 31st March, 1903, was marked by considerable progress, under the able direction and active supervision of Mr. Matthews, the Chief Forester, both in the raising of trees in the several nurseries and in the planting-out operations. In accordance with the Government's decision, preparations were made for increasing the annual output from two million to five million trees. The total number of trees raised in the nurseries and plantations during the past year has been 3,936,107; the output during the year was 1,454,914 trees; and the total number of trees raised to date is 11,649,423. There are 7,394,205 trees in the nurseries; and the total number planted out, on areas amounting to 1,438 acres, is 2,908,156, besides 105,233 trees and shrubs supplied to the Tourist Department and others. The trees at present in the nurseries are valued at £12,151; and the total value of the nurseries, including stock, land, tools, horses, &c., is £57,513.

The following plantations have been planted with 1,568,880 trees, upon an increased area of 619¾ acres, viz.:—

	Trees.		Acres.
Dusky Hill	806,238	...	296
Naseby	81,125	...	29¾
Hanmer	97,400	...	28¼
Whakarewarewa	207,933	...	88¾
Waiotapu	376,184	...	177
	1,568,880	...	619¾

The expenditure for the past year was £9,329, and the total expenditure upon nurseries and plantations to date has been £37,690.

In addition to the Waiotapu Plantation, immediately under the control of the Chief Forester, good progress has been made in the planting of the Crown land in the Paeroa East Block, adjoining Waiotapu, and on the Galatea Road, by prison labour. The afforesting of the waste areas of Crown lands by labour of this kind is considered to have

passed the experimental stage. Some 293,000 trees have been planted by prison labour at Waiotapu, and steps have been taken to plant at Hanmer Plains in a similar manner.

Two new plantations have been started during the year: One at Ruatangata, not far from Whangarei, where the volcanic soil has induced the Chief Forester to extensively sow acorns of the cork-oak received from America, and also to plant trees raised from locally grown cork-oaks. The experiment is also being tried at this nursery of raising totara and puriri from slips, and trials are being made with seeds of the totara, matai, &c. Some twenty-five species of eucalyptus will also be tried at the same plantation. The other new plantation comprises 1,050 acres at Conical Hills, near Tapanui, where about 245,000 pits have already been dug in preparation for this season's trees.

With the consent of the owners, an area of 900 acres has been secured for forest planting on the Dumgree Run, close to the nursery at the Town of Seddon. The digging of the pits for receiving trees from the Starborough Nursery this season has been commenced.

At Hanmer Springs Plantations pits are being dug for forest trees and preparations are being made for sowing acorns.

On Somes Island, in Wellington Harbour, prison labour has been utilised, with very satisfactory results, in digging pits for planting. About eight to ten thousand pits have already been dug, and tree-planting is to be proceeded with.

The work being done in the various nurseries and plantations may be summarised as follows: Fifteen plantations, comprising 7,951 acres, upon which 167 men, 20 women, and 2 boys are employed during the busy season.

For full detailed information, reference should be made to the interesting and instructive annual report, tables, &c., by Mr. H. J. Matthews, Chief Forester, which appear in Appendix IV.

Assistance towards the Establishment of Medical Men in Outlying Districts.

Particulars as to this will be found in the report of the Accountant, *vide* page xl.

SURVEYS.

The year 1902–3 was an eventful and busy one as regards the Survey branch of the Department. The normal strength of the staff was maintained till October, 1902, when several surveyors were engaged, and a great impetus was given to operations by orders received to increase the staff so as to open for settlement at the earliest possible date all available Crown lands.

Thirty-one additional surveyors were engaged, and the strength of the survey parties was increased, to enable the surveyors to put on extra parties under experienced foremen to overcome the difficulties and delays attending surveys in dense forest country. The surveyors were distributed as follows:—

Number of Surveyors employed during the Year ending the 31st March, 1903.

District.	Staff Surveyors.		Contract Surveyors.	Total.
	Permanent.	Temporary.		
North Island.				
Auckland	9	20	32	
Hawke's Bay	5	3	2	
Taranaki	5	7	1	
Wellington	8	12	1	
	27	42	36	105
South Island.				
Marlborough	3	4	...	
Nelson	6	6	5	
Westland	2	5	4	
Canterbury	2	1	...	
Otago	4	...	...	
Southland	2	2	3	
	19	18	12	49
Totals	46	60	48	154*

* Including two Rangers occasionally employed.

It will be observed that 69 staff surveyors were employed in the North Island, and 37 in the Middle Island. The Auckland Land District alone found work for 29, besides providing scope for 32 of the contract surveyors. The wealthy and important Districts of Canterbury and Otago only furnished work for 7 surveyors, who were principally engaged upon the subdivision of estates acquired under the Land for Settlements Act, a plain indication of the fact that only a small area of Crown lands suitable for close settlement was available in these great divisions of the colony. The total number of staff surveyors exceeds that of the previous year by 37. This increase occurred too late to affect the area of sectional surveys completed by the 31st March last; but this addition to the staff was manifested subsequently in the output of preliminary surveys, by means of which extensive areas of rural land were also made available for notification and selection on the "unsurveyed" system referred to further on. The contract surveyors also materially aided in expediting the completion of surveys of selections on the above system, thus avoiding undue delay in issue of leases and licenses to the new Crown tenants. Their employment had the effect of freeing the staff surveyors for the prosecution of the general surveys of large blocks and tracts of country.

The out-turn of survey-work for the year 1902–3 is given in the following summary:—

SUMMARY OF FIELD-WORK EXECUTED.

	Acres.	Average Cost per Acre.	Total Cost. £	s.	d.
Minor triangulation with topography	457,186	1·31d.	2,506	6	10
Topographical survey only	251,899	2·17d.	2,276	17	1
Rural and suburban section survey (1,188 sections) ...	607,594·65	0·82s.	25,203	7	2½
Town section survey (507 sections), cost per section ...	638·17	19·94s.	505	14	0
Native Land Court surveys (171 divisions)	400,388	3·97d.	6,631	8	10½
Mining surveys (66 sections)	3,801	5·14s.	977	11	0
Road surveys (301·498 miles), per mile	...	£15·29	4,854	15	7
Miscellaneous surveys, inspection, &c.	...	...	13,517	13	1
Total cost of field-work finished during the year			£56,473	13	8

This is less than the cost of the previous year's work by £13,397 3s. 8d.

Though it may not always be a fair or satisfactory test, owing to altered circumstances, it may be well to compare the out-turn and cost of work with those of the previous year. In doing so, allowance should be made for an unusually late and wet season, and also for the greater and increasing difficulties attending survey operations in more distant and inaccessible districts, and the more broken and frequently denser forest, and the consequent difficulties and costs involved.

The triangulation last year, being only one-sixth the area and in detached areas, was necessarily executed at a higher relative cost; the topographical surveys, which were of a more elaborate type, specially undertaken to furnish sale maps, were more limited in extent by 74,759 acres, and cost 1·03d. more per acre; the rural surveys were also 10,766 acres in excess in area, and less costly; the town surveys were only about half the area, but much less in cost. The Native Land Court surveys exceeded those of the previous year by 82,970 acres, and cost 0·85d. per acre more; the mining surveys, 5,672 acres less in area, were effected at practically the same rate. There was a great falling-off in mileage of road surveys, because the staff had no leisure for the usual surveys of existing roads and extensions of standard traverses. The shortage amounted to 130 miles, and the cost increased by £0·88 per mile.

MINOR TRIANGULATION AND TOPOGRAPHICAL.

The area of 457,186 acres returned under this head is only one-sixth of that completed the previous year, for the reason that triangulation was only undertaken in small scattered areas in localities where it was necessary to provide true bearings and co-ordinate values for the settlement surveys. The cost of surveys undertaken in this desultory isolated manner is necessarily greater than when carried out on a comprehensive scale. Auckland is credited with about half the area; Hawke's Bay and Marlborough each one-sixth; the balance of 74,400 acres is divided between Taranaki, Wellington, and Nelson.

In the earlier part of the year 1902, Mr. H. J. Lowe, District Surveyor, completed the field-work of a major triangulation, embracing 2,150,000 acres, in the Wanganui–Rangitikei districts, and attained a considerable degree of exactitude, following the ordinary New Zealand improved methods of observation, and using a 10 in. Everest vernier class of

theodolite. The mean difference in the summation of the angles of twenty-one triangles from 180° amounted to 1·55″, with a range between +4·2″ to −2·6″, a work of high order, and urgently required to control and harmonize several old minor series.

Notwithstanding the great extent of this class of work executed in past years, a considerable area has yet to be undertaken in several of the districts where only major series are available, or revision is required of work executed in the early days of the colony in a fragmentary manner at different times by various surveyors working from numerous independent bases, and at a time when the standard of accuracy now demanded was not prescribed or required.

The necessity for revision triangulation, to establish homogeneity and symmetry in the minor series, is frequently demonstrated by the requirements of the settlement surveyors in the outlying districts, and also in consequence of the greater accuracy of modern traverse surveys effected with the long steel bands. Full reports and information have been furnished by all the Chief Surveyors as to the character of the triangulations in the several land districts.

Owing to the urgent necessity for pushing on with surveys to open land for settlements, nearly all triangulation is in abeyance until your authority is obtained for its resumption. The chief argument in favour of such work is that definiteness, accuracy, and security of title cannot be achieved unless the foundation surveys (that is, the trigonometrical) are complete and reliable.

Topographical Survey.

The 251,899 acres delineated include the preliminary surveys undertaken to furnish plans and particulars as to character and class of land, soil, vegetation, value, &c., to enable areas of Crown lands to be opened on the "unsurveyed" system without awaiting the longer period required to complete the sectional survey usually insisted upon before opening lands for selection and settlement.

The principal areas which make up the total area are 114,745 acres in Hawke's Bay, 86,400 acres in Nelson, and 44,750 acres in Westland.

When executed to perfection such preliminary surveys provide ample information to enable the Land Boards to deal with and control applications by would-be settlers, &c.

The operations are conducted somewhat as follows: The block of land to be dealt with is thoroughly explored, and a topographical map thereof prepared sufficient to enable the surveyor to design a scheme of roads and subdivisions for submission to and approval by the Chief Surveyor. The next step is to locate and survey the road-lines; to decide upon and survey back lines of sections; and, where the country is of a hilly or broken character, to cut out and approximately fix the best fencing-lines to be adopted for the subdivisions. During the course of this survey full information is obtained as to the character of the country, so as to define the flat, undulating, and hilly portions, the geological formation, the quality of the soil, and the forest, scrub, and other vegetation growing thereon. The courses of the rivers and streams are ascertained, the class and value of the lands determined, reservations are made for township and village sites, and for every public purpose prescribed by the Land Act and regulations. A sale map is next prepared, representing the whole of the preceding information as ascertained by explorations and surveys, everything essential in the public interest being clearly represented and excepted from the area to be thrown open for application and settlement. After due notification, applications for the land are dealt with by the Commissioner of Crown Lands and the Land Board, who insist that applications shall conform to a general and comprehensive scheme, each selection of land extending from the road frontage to the back line, with a fair apportionment of flats, water frontages, and other advantages. Selectors have the opportunity of securing the land of their choice, and also the additional advantage that the boundaries of their holdings are upon the best practicable fencing-lines, and that the selection will be convenient to work and utilise.

By the adoption of the foregoing principles and methods, the orders issued last October and December to expedite the survey and opening for selection of Crown lands were promptly given effect to. Thirty-one additional surveyors were engaged early this year, and the whole staff of 106 surveyors are still busily engaged in extending and completing the settlement surveys, with the result that the remaining Crown land most suitable for close settlement, or even for grazing-areas, has been or will soon be defined, classified, and thrown open for selection.

A large proportion of the blocks were notified for selection without all the information which is considered essential to give effect to selection and settlement on the "unsurveyed" system; but the preliminary data and plans were supplemented by additional particulars as the surveys advanced, and the Chief Surveyors endeavoured to place before applicants and the Land Boards all necessary information on the first day applications were receivable, so that the apportionment and disposal of the lands could be dealt with in an intelligent and effective manner. There is published with this report a simple plan, which was transmitted to the Chief Surveyors for their guidance in dealing with Crown lands in their districts.

In this connection, it may be observed that a curtailment of the survey operations is inevitable, as the supply of Crown lands suitable for settlement in the North Island is running out, as it has already in the principal districts of the South Island. The great increase to the staff has enabled the Department to detail surveyors to all and every locality; and they are now scattered throughout the length and breadth of the Crown lands.

Rural and Subdivisional Section Surveys.

This is the most practical and remunerative class of work undertaken by the Department; combined with that under the preceding heading, it provides the means for the settlement of the people upon the Crown lands, conduces to the development of the resources of the colony, and the expansion of the volume of production, wealth, and trade.

The output of 607,594 acres is 10,766 acres in excess of the previous year's return, and the cost per acre is much lower; this latter is due to the larger average area of the sections. The total is made up of 138,089 acres in the Auckland District; 54,469 acres in Hawke's Bay; 60,393 acres of good forest-clad lands in Taranaki; Wellington, once noted for the large areas of excellent land available, only returning 37,610 acres for settlement purposes. The 237,171 acres returned by the Chief Surveyor, Marlborough, comprises principally small grazing-runs and large blocks, which were only partly defined, and can hardly be classed as rural sectional survey; and 15,203 acres in Nelson. Westland only contributed 5,933 acres; Canterbury and Otago returned 27,353 and 22,000 acres respectively, comprising principally subdivisions of estates acquired under the Land for Settlements Act; and 9,373 acres were surveyed and plotted in Southland.

The cost per acre amounted to 0·82s., or, deducting the Marlborough contribution, to 1·16s. per acre.

Town Surveys.

As often previously mentioned, towns have been established throughout the colony almost wherever required; and, as mere villages suffice for the more remote and unattractive lands, surveys of this class are yearly becoming more rare. The total area laid off and mapped amounts to 638 acres, made up of 510 acres in the Auckland District, in the Parawai, Puru (Native), Karewa (Native), and Kawhia Townships; 97 acres in the Mowhanau Township (Wellington); and small areas in existing Townships of Hanmer Springs (Canterbury), Naseby (Otago), Napier and Hatuma (Hawke's Bay), and Kaikoura (Marlborough).

Native Land Court.

As a result of thirty-eight years of the active prosecution of widespread surveys under the Native Land Court Acts, for the purpose of enabling Native owners to prove their claims to blocks or subdivisions of the great Maori territories in the North Island, there is now little scope for surveys of this character. The area defined was 400,388 acres in 171 blocks or subsubdivisions—the bulk of this, comprising 107 divisions and 351,386 acres, is situated in the Auckland District; and nearly all the balance, of 43,416 acres, in Wellington.

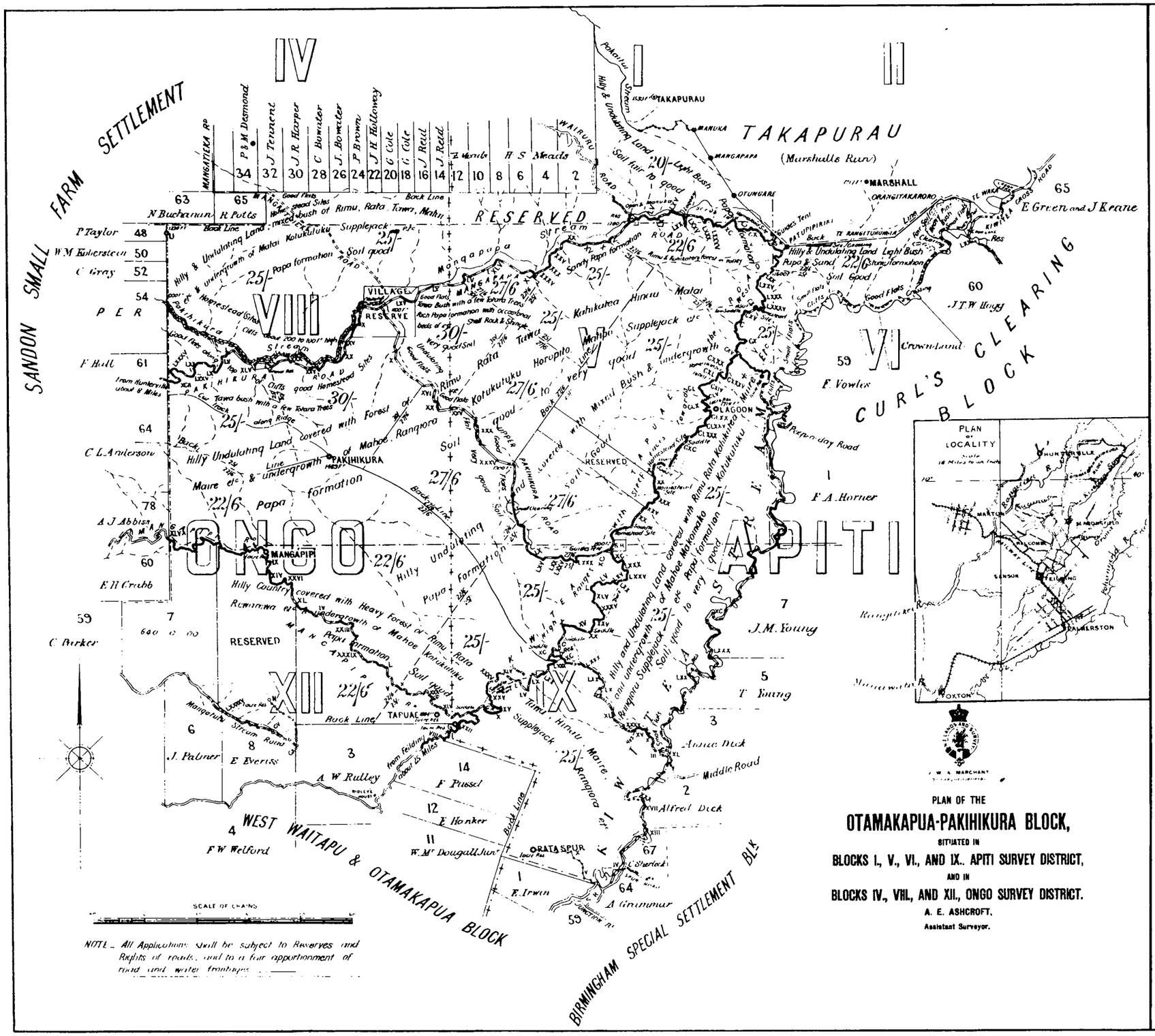
The provisions of "The Maori Lands Administration Act, 1900," have doubtless had the effect of curtailing the extent of surveys formerly undertaken for Native Land Court adjudication; at least, as regards original or "papatupu" lands.

Attention has been drawn to the fact that there are sixty-four orders of the Native Land Court for subdivisions in the Chatham Islands, comprising 30,276 acres, for which titles cannot issue until the necessary surveys and plans have been made. Subject to approval, it is proposed, when opportunity offers, to detail a staff surveyor to undertake these surveys, as it has been found that the private surveyors who have entered upon these surveys in the past have experienced great difficulty in some instances in obtaining payment for their work.

WELLINGTON LAND SALE Nº

REDUCED ONE HALF.

C1.



PLAN OF THE

OTAMAKAPUA-PAKIHIKURA BLOCK,

SITUATED IN

BLOCKS I., V., VI., AND IX., APITI SURVEY DISTRICT,

AND IN

BLOCKS IV., VIII., AND XII., ONGO SURVEY DISTRICT.

A. E. ASHCROFT,

Assistant Surveyor.

RURAL LANDS

OPEN FOR SALE OR SELECTION.

WELLINGTON LAND DISTRICT.

THE undermentioned Crown Land will be open for Sale or Selection, in terms of section 136 of "The Land Act, 1892," either for CASH, for OCCUPATION WITH RIGHT OF PURCHASE, or for LEASE IN PERPETUITY, at the option of the selector, on and after

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If more than one application be received for the land or part of the land on the same day, then the order of selection shall be decided by ballot on , the 1908, at a.m., at the (See instructions below.)

UNSURVEYED FIRST-CLASS LAND.

OROUA COUNTY.—OTAMAKAPUA-PAKIHIKURA BLOCK.

Number on Survey District	Block	Area	Cash Price per Acre	Deferred payments Price per Acre	Perpetual Lease Rent per Acre
Ongo	IV., VIII., XII.				
Apiti	I., V., VI., IX.				1s. to 1/6

All that parcel of land containing about 20,000 acres, called or known by the name of the Otamakapua-Pakihikura Block, situated in Oroua County, and being Blocks I., V., VI., and IX., Apiti Survey District, and Blocks IV., VIII., and XII., Ongo Survey District, and bounded towards the north by the Sandon Special Settlement and the Takapurau Block, towards the east by the Kiwitea Stream, towards the south by the West Waitapu Block, and towards the west by the West Otamakapua and Sandon special settlement blocks.

Description of Land.—This block is situated in the Otamakapua Block, Oroua County, and lies between the West Waitapu Block, Marshall's Takapurau Run, the Kiwitea Stream, the Sandon Special Settlement and the West Otamakapua Blocks, and comprises the valleys of the Kiwitea and the Pakihikura Streams and their tributaries. The northern portion includes partly open and scrub hilly land, with small flats and basins at the head of the Mangapapa and Pakihikura Streams, the middle portion of the block comprises hilly and undulating country, and some flats and narrow valleys, and the southern portion consists of high hills and spurs of a rougher character, intersected by deep gullies. The whole area is generally well watered by the before-named streams, there are three permanent lagoons of good water in the Mangapapa Valley. The formation is papa, merging into sandstone at the north-eastern end, with patches of shingle and shell rock here and there. The soil on the northern part is light, varying from fair to good in quality, that on the remainder of the block is generally good, some of it consisting of a deep rich loam. The forests on the northern part is light, and includes kinau, rewarewa, tawa, mahoe, makomako, rangiora, konikuriku, &c., that on the balance of the block is generally heavy, and comprises rimu, rata, hinau, matai, maire, rewarewa, kahikatea, and scattered totara trees; the undergrowth is mainly mahoe, horopito, makomako, supplejack, koromiko, konikuriku, and toro. Good flats and suitable timber for homestead purposes are generally available. The access from Feilding is by the Makino Road, Sinclair's line past Williamson's, and by the Waituna Valley line to Ridley's, near the south boundary of the block, a distance of about twenty-five miles of dray or horse road, two miles of which are now in hand. The eastern side of the block is within three miles of the Feilding-Rangiwahia Road; the western part is within eight miles of Hunterville Railway station, half the distance being available for dray-traffic use Vinegar Hill. But access by that route is contingent on the construction of the road to the Rangitikei River by the road body. Access on that side, however, can be attained via the Rangitikei Valley Road; the northern part can be reached by the road lines through the Sandon Block and by the Kiwitea cross-road line. The general elevation of the country ranges from 1,000ft. to 1,700ft. The climate is mild, the rainfall plentiful and well distributed throughout the year. These advantages combined with the good quality of the land, the position of the block in the centre of a rapidly progressive district, and the contiguity to markets, render it eminently well adapted for pastoral purposes.

The sale plan represents in full detail the character of country, soil, bush, &c., and the elevation above sea-level.

Selectors will have the privilege of choosing, subject to reasonable restrictions, the precise locality and area of their future holdings, with the additional advantage of securing good fencing boundaries on ridges and spurs where available.

Intending selectors will find guides at Hunterville and at Ridley's, at noon, on Monday at 1 Thursday each week, and at noon on Tuesdays and Fridays at the guide's tent on the boundary of Marshall's run. Horses are procurable at Hunterville.

Selectors can obtain any additional information regarding the land from Mr. A. E. Ashcroft, Government Surveyor, at the camp on the block, or at his home in Hunterville.

A selection may be made for cash, on deferred payments, or on perpetual lease; 640 acres of first-class land. If the selector wishes to acquire land on deferred payments, an additional of one-fourth to the cash price will be made. If the selector wishes to take up land on perpetual lease, the annual rental will be 5 per cent. on the cash price of the land.

Applications to be made to the Commissioner of Crown Lands, Wellington.

Applications for unsurveyed lands must be accompanied with deposits for survey as follows: Not exceeding 50 acres, 10s.; exceeding 50 and up to 50 acres, 2s. 6d. per acre, but not less than £25; exceeding 50 and up to 100 acres, 1s. per acre, but not less than £8 15s.; exceeding 100 and up to 200 acres, 2s. 6d. per acre, but not less than £15; exceeding 200 and up to 300 acres, 2s. per acre, but not less than £25; exceeding 300 and up to 500 acres, 1s. 8d. per acre, but not less than £30; exceeding 500 and up to 1,000 acres, 1s. 4d. per acre, but not less than £41 10s.; exceeding 1,000 and up to 2,000 acres, 1s. per acre, but not less than £66 10s.

Application must conform to a general scheme approved of by the Land Board, and shall extend in every instance to the back lines, unless otherwise approved; and applications shall be subject to reserves for all public purposes and to rights of roads. If personal attendance is not possible, duly-authorised agents should deposit the applications in this office to avoid disappointment, owing to incomplete use of ordinary, causing rejection of the same.

No applications for additional land will be received from selectors who are in arrear with the payments on their present holdings.

INSTRUCTIONS TO APPLICANTS.

Applications must be made on proper forms, to be obtained at the Crown Lands Office, Wellington, and must be accompanied by the statutory declaration required by the system under which the application is made, also by a deposit of, with perpetual-lease applications, a half-year's rent and the lease fee; with deferred payment applications, a half-year's instalment and 21s. income fee; and with cash applications, one-fifth of the total price.

As priority of choice for unsurveyed land is determined by priority of application, applicants should either attend or send a duly authorised agent to represent them at 10 a.m. on the day the land is open for application.

Cheques forwarded as deposits must be marked by the bank on which they are drawn as "Good" for [illegible] days.

The Land Office will be open to applicants from 10 a.m. to 1 p.m. and 2.30 p.m. to 4.30 p.m., except on Saturdays, when the office will close at 1 p.m.

Full particulars, plans, forms, &c., may be obtained on application.

Commissioner of Crown Lands.

By Authority: John Mackay, Government Printer.

3/08.0 '03 610

Surveys under "The Maori Lands Administration Act, 1900."

Application was made to the Department last January to assist the Aotea Maori Land Council (Wanganui) to survey and prepare for sale about sixty thousand acres of land included in the Ohotu Block, situated between the Wanganui and Wangaehu Rivers, and extending from the Waimarino Settlement southwards to the older settlements near the coast.

Four surveyors were at once detailed for the duty, with instructions to make the necessary preliminary surveys, so as to open the block for lease at the earliest possible date. The land in question comprised hilly and undulating country with occasional small flats. The whole area is covered with dense forest, and, though some portions are rather steep and broken, a considerable part is of good quality, when cleared and laid down in grass, being equal to much of the lands already opened for settlement in the Wellington Land District.

Under the provisions of the Act, the lands have to be opened for lease for a term of twenty-one years, renewable. The great drawback, in the first instance, will be the want of roads, without which hilly forest lands are difficult of disposal, and much more difficult for the selectors to successfully clear and bring into cultivation. The operations under the Act are of great interest as representing the inauguration of a new system of dealing with the great Maori estate, so that it may not only prove remunerative to the owners, but that settlements may spread and develop thereon in the same manner as they have already upon the Crown lands of the colony.

Intimation has been received that Maori Land Councils in other districts will require the services of surveyors, and a staff officer has already been placed at the disposal of the Waiariki Council (Rotorua), and others have undertaken the surveys of Te Kuiti and Otorohanga Townships for the Maniapoto-Tuwharetoa Council.

Roads and Railways.

The surveys under this category aggregate 301·49 miles, and cost £15·29 a mile; and include the definition of roads to open up Crown lands, surveys of existing roads in settled districts, the laying-off of roads through Native and private lands, and surveys of new railway-lines to furnish land plans for the Public Works Department.

The mileage is distributed as follows:—

	Miles.
Auckland	107·83
Hawke's Bay	44·60 (Crown lands).
Taranaki	19·71
Wellington	40·85 (roads to open Crown lands).
"	11·50 (railway-line, North Island Main Trunk).
Marlborough	26·25
Nelson	46·50 (existing roads).
Westland	1·75
Otago	2·50
Total	301·49, at a cost of £15·29 per mile.

Other Work.

The services falling under this designation are of a diverse but very utilitarian character, and include explorations, inspections, valuations, estimates, trig.-station repairs, miscellaneous and unfinished surveys, services and reports for the information of the Government and public generally.

Gold-mining Surveys.

Only 3,801 acres were defined under this head, comprised in 66 sections or holdings, executed at a cost of 5·14s. per acre. There were 38 claims, comprising 1,952 acres, in the Auckland District; only 6 sections, with an area of 326 acres, in Nelson; 13 special claims, containing 1,016 acres, in Westland; 3 lots, containing 215 acres, in Otago; and 6 areas, amounting to 292 acres, in Southland. This represents a diminution of 61 sections, and 5,672 acres in area, as compared with last year; the chief falling-off being in Marlborough, Nelson, Westland, and Southland, due no doubt to the abatement of the dredging boom.

Land Transfer Survey Branch.

The plans of surveys for the purpose of dealing with lands under "The Land Transfer Act, 1885," numbered 1,428; the certificates of title, leases, and other instruments amounted

to 8,027, and the plans indorsed on the latter, and copies also, totalled 12,679; 203 tracings and diagrams were prepared and furnished to the Land-tax Department; and the public requirements generally were duly attended to. As far as practicable and the limited staff allowed, compilation and record maps were constructed and kept up; though much is left to be desired in this respect, as the index and general maps of the operations in this branch are a cause of anxiety and inconvenience in several of the offices.

The various offices were kept exceedingly busy, and especially was this the case in the chief centres. It is fortunate that the Department is represented by several experienced and capable officers in the Land Transfer branch of the Survey Department.

The recommendations I had the honour to make last year regarding extending standard surveys have not been found practicable of adoption. In the interests of owners of property, and the Land Transfer Department, the absolute necessity for such surveys is admitted on all sides; the difficulty, common to most undertakings, is want of money. Formerly the Survey Department carried out resurveys and standard surveys of towns and rural lands, to facilitate the bringing of lands under the Land Transfer Act. Without such a basis the Act could not have been put into operation, except at great risk to the Assurance Fund. Of late the pressure of surveys urgently required to open land for settlements has put a stop to standard traverses.

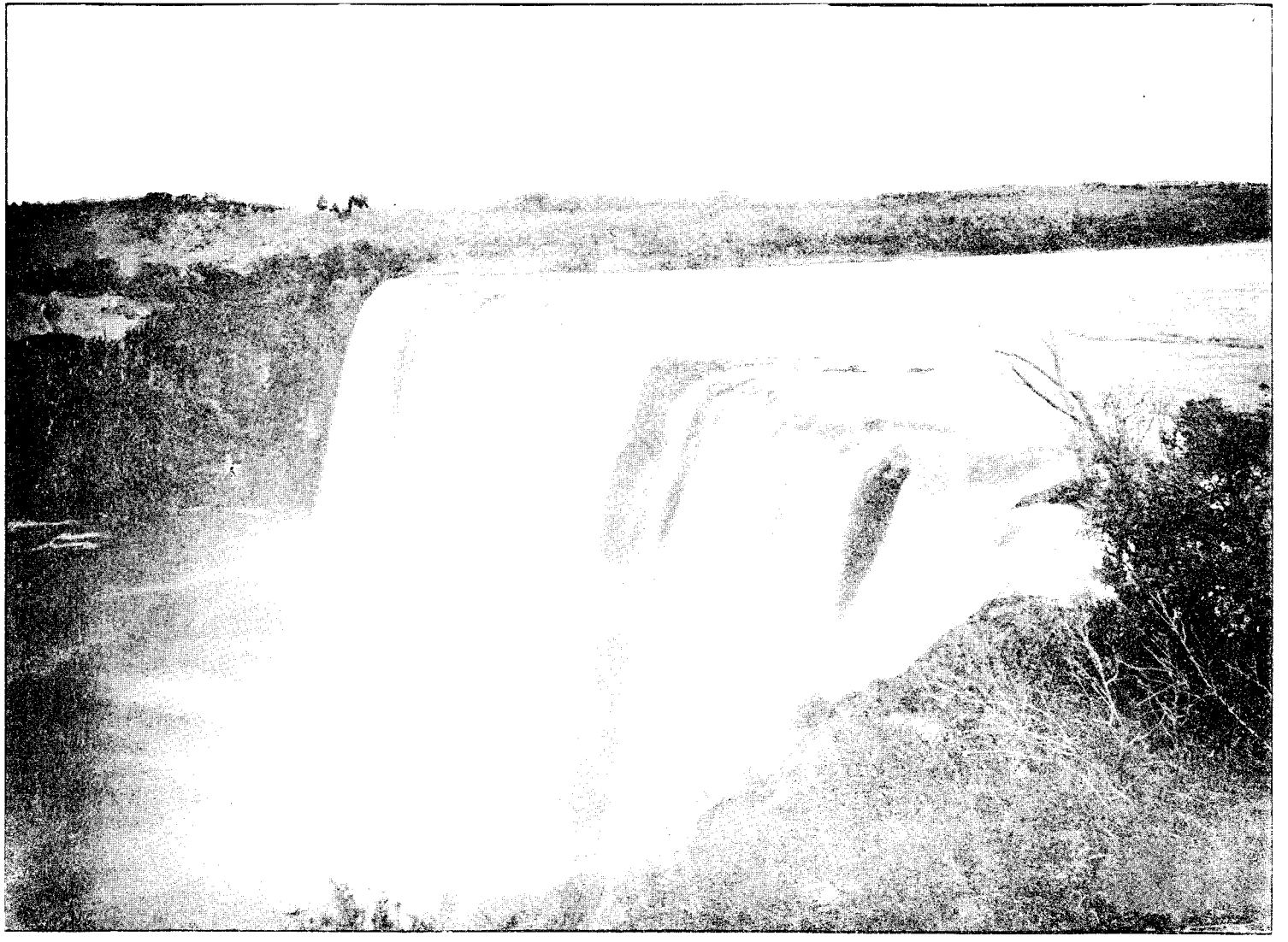
It has been found in some instances—notably in the case of the City of Wellington—that standard work executed with great care, exactitude, and cost to the Survey Department has not been appreciated or preserved with sufficient care; the stations of such surveys have been removed or disturbed, and rendered worthless as points of reference for former or new surveys and titles. This deplorable result has been caused by the breaking-up of the streets in the prosecution of public works such as drainage, putting-down of water and gas mains, &c. Responsibility for such disturbance, and the maintenance of the standard points of reference, is sometimes disputed. It appears very desirable that the Government and local bodies should agree as to their respective responsibilities and obligations. One of the most urgent requirements is that all the standard points in cities and towns should be marked by concrete blocks, and iron or other suitable covers, to indicate their location and facilitate reference.

Extension of Existing Cities and Towns, and New Towns.

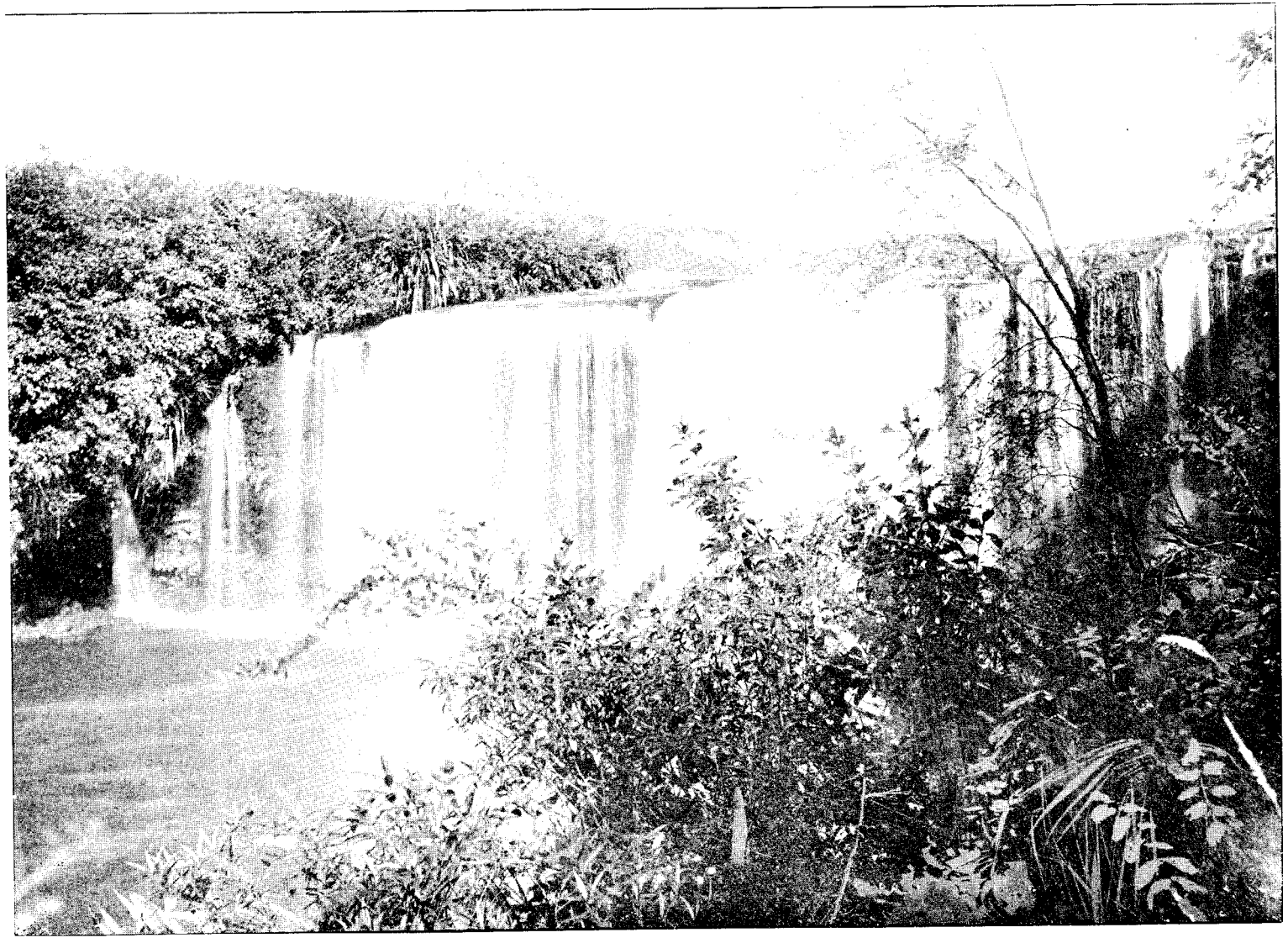
There has been considerable activity in the subdivision of private property, especially in the Auckland, Taranaki, and Wellington Land Districts. When such lands are subdivided for "towns," differences of opinion and difficulties arise as between the owners of the land and the Survey Department, in consequence of the indefiniteness of the law and regulations upon the subject of what constitutes a "town," and how far the Department is justified or authorised in questioning the schemes of streets and allotments, and also in requisitioning for compliance with conditions which appear to be necessary in the public interest. It has been advanced on the part of the private owners that the idea of the Government dictating to the freeholder how he should divide his land is "monstrous, and would not, under the existing law, be tolerated if referred to a Court of law." The Department has been informed that feeling runs high about the "unwarrantable interference with private property," and that "claims for damages against the Government for delay in approving the schemes are likely to be made."

The fact is that the claim is advanced that each private owner is at liberty to subdivide his property just as he pleases, with few or many streets, no matter whether such streets are all necessary, or fall in with the general scheme, or fit in with existing or future highways, and without consideration as to the public interests.

The law governing the subject of surveys of towns or private property comprises "The Land Act, 1892," sections 17 and 18; and references as to surveys, &c., in sections 4, 8, and 13; and "The Regulations for conducting the Survey of Land in New Zealand" issued under section 4 of the said Act. But private properties fall more especially under "The Land Transfer Act, 1885," section 170 thereof being important, as it empowers issue of regulations by the Surveyor-General (with the approval of the Governor in Council) "for insuring the accuracy of plans and surveys required under this Act, and to cancel and alter such regulations when and as necessary." There are also the regulations issued under this Act, which incorporate the Land Act regulations above. Besides, we have the Public Works Acts of 1900 and 1901, which govern the widening of existing streets, &c. It must be admitted that the foregoing state little definitely as to powers to control schemes and



Great Walum Falls, Arkansas River.



Turangarere or Horse-shoe Bend Waterfall, on Hautapu River, Wellington District.

direct same so as to fulfil conditions considered necessary in the public interests. The only way in which subdivisions of private towns come under the notice of the Department is when the plans are submitted for examination and approval in the Land Transfer branch, or when such plan is submitted for the approval of His Excellency the Governor, in terms of section 18 of "The Land Act, 1892." It has frequently occurred that this step has not been taken by the owners until the surveys have been completed and, in some instances, the lands offered for sale and disposed of. The Department has stood for the public interests, and used the limited powers provided by statute to insure reasonable compliance by private owners in this respect. It is not desirable that private persons should claim the right to add house to house and street to street in a haphazard manner, and increase the innumerable examples of the disastrous effects of such a method of extending existing cities and towns. It seems desirable that Government and municipal authorities should have a greater control in the matter.

The following, amongst other considerations, apply to the designing and subdivision of town lands; but, of course, all cannot be applied to private lands. As far as possible it should be insisted upon that the streets are all well arranged and devised so as to fit in with the contiguous and surrounding present and future streets; no jogs or breaks in continuity, and no unnecessary or blind streets to be allowed, or extensive blocks without cross-streets; while the main thoroughfares should be of extra width, to correspond with the requirements of through traffic, including tramways. There are many other requirements which cannot at the present time be applied in the case of freehold lands; and the most essential of all—the choice of a site on account of its situation, geological formation, and suitability from the points of view of salubrity, drainage, lighting, water-supply, facility of communication, public convenience, &c.—hardly enters into the questions applicable to private towns. Nor does it seem possible at the present time to provide reserves for recreation, public buildings, and other purposes, or to leave open spaces about important centres, junctions of the main thoroughfares, or fronting the Government and municipal buildings. If these views meet with approval, it will be necessary to obtain additional legislative power to give effect to them.

Miscellaneous.

Several special surveys were put in hand during the past season—namely, (1.) That of the Piako Swamp, which the surveyors of the Roads and Survey Departments are jointly engaged upon with a view to obtaining full information regarding the character, quality, and capability of the lands, the practicability of fending off floods, and the carrying-out of a systematic system of drainage in order that the land may be ultimately made available for settlement, cultivation, and grazing purposes. (2.) A block of 8,000 acres was selected, surveyed, and allotted amongst troopers who took part in the South African war. (3.) Several blocks of land were set aside, and intrusted to surveyors for subdivision, to provide holdings under the improved-farm system for co-operative labourers engaged upon the North Island Main Trunk Railway and contiguous road-works. (4.) Another special survey comprised Kapiti Island, set aside under "The Kapiti Island Public Reserve Act, 1897," in order to furnish a topographical map and complete information to enable the intention of the Act to be given effect to. (5.) Waterfalls and rivers for the generation of electrical power: In compliance with instructions, all procurable information regarding rapid-running rivers and the waterfalls of the colony was furnished by the field surveyors of this Department and forwarded for the information of the Government. The subject has been referred to the Public Works Department, in order that fuller information may be obtained for submission, it is understood, to electrical experts. In the meantime the Chief Draughtsman is preparing a plan showing the watersheds of the principal rivers, and also the positions of the chief waterfalls.

Inspection of Surveys.

Particular stress was laid upon this important duty in last year's report, and the Chief Surveyors were instructed to insure that it was duly attended to. The Auckland District Inspector (Mr. L. Cussen) reports upon four inspections, involving twenty-eight diagrams, which have reached the Head Office, showing that three surveyors' work was satisfactory, whilst that of the fourth had to be revised.

Fourteen inspections were effected in Hawke's Bay; the reports and details of five have been received, and indicate careful work.

Mr. James MacKenzie (Chief Surveyor for Taranaki) was especially active and attentive in carrying out instructions. He visited all the surveyors, and examined their work, some of them several times; made fourteen technical inspections of their surveys, and forwarded forty-eight sheets of diagrams; and it is pleasing to state that the results, except in four instances, were most satisfactory and creditable to the surveyors. The Wellington District Inspector (Mr. J. D. Climie) made twenty-one inspections, noting the practical work in the field, and his reports, illustrated by sixteen diagrams, show that with few exceptions the surveys were up to requirements. This officer also did excellent service, and materially aided the Department by examining the location of roads and directing and assisting the field officers in their arduous duties. Mr. C. W. Adams (Chief Surveyor) supervised the Marlborough surveys, and made thirteen inspections of staff and licensed surveyors' work, and reports favourably upon the professional and mechanical methods employed. The inspections in the Nelson District are reported to have been confined to surveys in the Nelson suburbs. One technical inspection made in Westland gave evidence of good work. Six satisfactory tests were applied by the Land Transfer draughtsman in Canterbury.

The details of inspections in several of the land districts are not yet to hand. It is anticipated that this important duty will be systematically and thoroughly attended to in the future.

Magnetic Survey.

In Appendix VII. will be found Dr. Farr's very interesting report for the year upon work carried out in the Magnetic Observatory, Hagley Park, Christchurch; and also the report of his assistant, Mr. H. F. Skey, regarding the magnetic observations effected at various stations in the North Island. During Mr. Skey's absence in the field, Dr. Farr had for the time to attend to the numerous and continuous duties connected with the Observatory, and it is very satisfactory to learn that he accomplished this without any interruption or break in the operations according to the scheme agreed to be carried out in all magnetic observatories throughout the world. Dr. Farr gives evidence of the coincidence of magnetic storms and disturbances, with displays of aurora australis, and the disastrous volcanic outbursts at Mount Pelée in the island of Martinique, in the West Indies, on the 8th May, 1902, and draws attention to several matters connected therewith.

It will be noted with satisfaction that the New Zealand Observatory is fulfilling the duty intrusted to it of working in conjunction and accord with the arctic and antarctic expeditions, and especially with the exploring ship "Discovery" now near the South Pole.

The establishment of electric trams in Christchurch will, according to Dr. Farr, necessitate the removal of the Observatory to a more distant site.

Extraordinary and unusual indications by the seismographs, and the determination thereby of localities in different parts of the world where earthquakes occurred, are commented upon. Ingenious experiments are still being conducted at the Observatory, and the work already accomplished is highly commended by the chief scientific societies at Home and abroad, and they also express admiration of the public spirit and appreciation of scientific work manifested by the New Zealand Government, as displayed in the construction, maintenance, and equipment of the Observatory.

The field survey comprised observations for the determination of the magnetic elements—namely, inclination, horizontal force, and declination—at sixty new stations in the North Island; and their redetermination at seven original stations which were established in 1901. The results of the survey so far have been communicated to the Marine Department for notification to mariners. It is anticipated that the field survey of the colony will be completed in July, 1904. Instructive and illustrative diagrams will be found with the report.

Admiralty Charts and Coast-line of Colony.

The Marine Department having applied for charts of portions of the coast as defined by recent official surveys, attention was given to the delineation from such surveys of the whole of the coast-line of the three principal Islands which constitute the colony. The surveys of the Lands and Survey Department are referred to Mount Cook (Te Aro, Wellington) as the initial point; and, as indicated in last year's report, the longitude of this initial station having been altered by fifty-one seconds of arc, it became necessary, in the first instance, to ascertain whether the longitude of the latest Admiralty charts of New Zealand are based upon the old or the new value of longitude recently adopted. It was found

that the latest editions of the Admiralty charts represent the longitudes as originally determined, and meridian lines were therefore drawn upon the Admiralty charts to represent the true position in terms of the more recent value. Upon this basis the latitudes and longitudes of the trigonometrical stations adjacent to the coast-line, from the North Cape to the Bluff, were recomputed and plotted upon the Admiralty charts, and, following upon this, the coast-lines were plotted in relation thereto from the best and most reliable settlement surveys. An inspection of the charts so revised demonstrates that, taken as a whole, the Admiralty charts are very accurate. Sets of the revised charts have been prepared—one for the Marine Department and another for transmission to the Admiralty for their consideration, verification, and adoption if approved.

The Marine Department also requested assistance in fixing the position of minor rocks, reefs, sandbanks, &c., not marked and delineated upon the Admiralty charts. In compliance with the request, instructions were issued to the Chief Surveyors to direct surveyors to take every opportunity to fix and show upon their maps all such objects, in order that the additional information may be transmitted to the proper quarter for record and public notification.

New Zealand Surveyors for Gold Coast.

In May, 1902, a communication was received from the Secretary of State for the Colonies intimating the desire of the Gold Coast authorities to engage the services of three New Zealand licensed surveyors and six subordinate surveyors. Advertisements were at once inserted in the leading newspapers, and in response applications were received from seventeen surveyors and twenty-one other persons, a final selection being made of the following: Licensed surveyors—Thomas Crawford Dennison, of Oamaru; Norman Frederick Johnston Haszard, of Auckland; Leonard Francis Webb, of Masterton. Subordinate surveyors—Fred. Hudson Jordan (licensed surveyor), of Auckland; Percy Edward Webb, of Masterton; James Stevenson, of Christchurch; George Alfred Linnel Joyce, of Invercargill; Arthur Stretton, of Thames; Reginald Allan Webb, of Napier. These gentlemen left by the R.M.S. "Ventura" on the 29th August, 1902, and, travelling *viâ* San Francisco and New York, had a fair passage across the Atlantic, and arrived in London on the 1st October, where they were received by the Agent-General and introduced by him to the Imperial authorities. They were then fully equipped, and proceeded to the Gold Coast, reaching Sekondi on the 30th of the same month.

From communications subsequently received from members of the party, it appears that they have all enjoyed excellent health whilst working in the Gold Coast Colony, and have given entire satisfaction to Major Waterston, R.E., the officer in charge of surveys there, maintaining by their capability and conduct the high standard of professional excellence attained by New Zealand surveyors.

New Zealand Surveyor for Malay States.

In compliance with the request, dated the 15th January of this year, received from the High Commissioner for the Federated Malay States, Mr. Richard Gillett, licensed surveyor, of Auckland, was selected and recommended for employment as first-grade surveyor in the Revenue Survey Department of Perak.

The Surveyors' Board.

This Board was constituted under "The New Zealand Institute of Surveyors and Board of Examiners Act, 1900," and consists of two members nominated by the Hon. the Minister of Lands, two by the Council of the New Zealand Institute of Surveyors, and the Surveyor-General. The nominee members hold office for a year, but are eligible for reappointment. The Board consists of Mr. J. W. A. Marchant, Surveyor-General; Mr. J. Strauchon, Chief Surveyor, Wellington, and Mr. M. Carkeek, District Surveyor, Wellington (nominated by the Hon. the Minister of Lands); Hon. G. F. Richardson and Mr. A. O'N. O'Donahoo (nominated by the Council of the New Zealand Institute of Surveyors); Mr. C. E. Adams, Secretary.

During the year ending the 31st March last the Board held twelve sittings, extending over twenty days, and conducted two examinations. Five candidates passed the examination satisfactorily, and received their licenses from the Board.

In compliance with the arrangements entered into with the Surveyors' Board of the Australian States, uniform and simultaneous examinations were conducted throughout Australia and New Zealand in September, 1902, and March, 1903. The papers for the examinations are set by the various Boards in rotation. For the September, 1902, examina-

tion the questions were prepared by the Queensland Board, and distributed to each of the other Boards; while for the March, 1903, examination the New Zealand Board set the papers, and supplied them to all the other Boards.

As a result of negotiations with South Africa, the Orange River Colony has decided to recognise the licenses issued by the Board; consequently, licenses from the Board are now available in all the Australian States and in the Orange River Colony.

During the year the Board has been engaged in drawing up new regulations for conducting the survey of land. These regulations have occupied a large part of the time of the Board, and after final revision and approval they will be issued to the profession.

House of Representatives Electoral Districts.

Under the provisions of the Representation Acts, and following upon the census of the 31st March, 1901, it was necessary to readjust the electoral districts of the colony. This was effected by the North and Middle Island Representation Commissions between the 12th and 25th June, 1902, and, after giving the prescribed month's interval to allow of suggestions and objections with reference thereto being made, the Commissions resumed their sittings on the 8th August, and completed their duties on the 11th, and furnished the usual report to His Excellency the Governor (*vide* Appendix 1902 of the Journals of the House of Representatives, H.–29, H.–29B., and H.–29c).

To enable the Commissioners to fulfil their functions, the Chief Draughtsman of this Department and his staff undertook the task, involving arduous duties, of completing the various maps and plans upon which were delineated all the counties, ridings, road districts, boroughs, and town districts; and, in addition, allotted the whole population of the colony in the most minute manner. This information, of course, was based upon the results of the labours of the officers of the Census Department. The Commissioners were also furnished with the services of capable officers to assist in the readjustment and re-enumeration of the population.

The whole of the descriptions of the boundaries of the electorates as finally determined, and their delineation, was intrusted to and carried out by the Chief Draughtsman and his assistants; and this duty was done in a thorough and efficient manner, and in a wonderfully short space of time, reflecting the greatest credit upon the officers engaged.

Proposed Field Operations, 1902–3.

The following tabulated summary of survey-work on hand will afford some conception of the class and volume of work to be done:—

Summary of Work on Hand on the 30th April, 1903.

Land District.	No. of Surveyors.	Rural, Crown, and Land for Settlement.	Unsurveyed Settlement	Major Triangulation.	Minor Triangulation.	Native.	Land for Landless Natives.	Reserves.	Unallotted.	Roads and Railways.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Miles
Auckland ..	63	415,307	..	..	..	322,989	..	*238	..	156
Taranaki ..	12	201,478	..	200,000	30,000	130	..	†72½	..	27
Hawke's Bay ..	9	42,515	125,100	..	..	9,483	..	..	..	2
Wellington ..	18	281,653	..	2,150,000	..	74,520	..	259	‡129,826	164
Nelson	12	22,111	141,800	..	..	..	..	..	..	..
Marlborough ..	4	46,900	..	..	..	..	..	..	..	23
Canterbury ..	2	65,409	..	..	..	..	..	1,343	..	..
Westland ..	6	12,584	..	..	..	..	..	*50	..	..
Otago	3	58,969	..	..	70,000	..	..	183	..	..
Southland ..	3	10,200	..	..	..	..	30,000	..	..	..
Totals ..	132	1,157,126	266,900	2,350,000	100,000	407,122	30,000	2,145½	129,826	372

* Township. † Standard. ‡ And roads and railways, 53 miles.

Exclusive of triangulation, which is practically all in abeyance, but including Native Land Court surveys, the field staff have 1,993,119 acres of country to subdivide and prepare for settlement on the lines previously specified, and upon this duty they will be almost exclusively engaged. The surveyor employed upon this duty realises that, though he may not achieve such showy and monumental works as the civil engineer or architect, his work is not less important or arduous, and that, as regards the manner of its conception and execution, the interests of the people are even more vitally involved.

Office.

The round of duties in the Head Office and district offices is clearly defined, and involves the issue of instructions to the field staff to enter upon and undertake the surveys which

are the foundation of the whole of the Department's labours. After the completion of the field-work the surveyor furnishes the plans of lands, roads, and other surveys, with full particulars as to class, description, and value of lands included; when verified, the information serves for the preparation of the sale plans and notifications for all purposes; then follows the issue of leases, licenses, and other titles, and thereupon also is built up the whole of the involved and intricate business between the public, and especially the Crown tenants, and the Department. As the Chief Surveyors' reports afford full information as to the multifarious duties undertaken and attended to, it is needless to recapitulate them here. I may, however, be allowed to state that, as regards the district offices generally, there is a great accumulation of arrears, including the construction of block-sheets; district maps; Land Transfer, road, and title record-maps; the preparation and compilation of sectional, reserves, and other registers, and many other necessary and essential records, which have not been undertaken and completed during several years past, owing to the want of a sufficient staff of draughtsmen, and also because of the great pressure of the every-day urgent work.

Conclusion.

I was enabled during the past year to make a tour of inspection of a very considerable portion of the Auckland Land District, and shorter inspections of all the other districts in the colony, except Hawke's Bay, though the great pressure of an extraordinary increase in the volume of work considerably curtailed such visits. I was, however, able to acquire much information necessary to the proper administration of the Department.

I have great pleasure in acknowledging the able and cordial co-operation of the Under-Secretary for Lands, and the other principal officers and their staffs.

DEPARTMENTAL CHANGES.

The principal alterations in the *personnel* of the Department during the twelve months ending the 31st March, 1903, are as follows:—

Death.

Mr. Thomas Oldfield (temporary assistant surveyor) died on the 20th October, 1902. In the report of the Chief Surveyor for Taranaki will be found a sympathetic and appreciative reference to the personal worth and professional capabilities of Mr. Oldfield.

Retirements.

Mr. Frank Hyde (Head Office), who formerly filled positions in the Public Trust and Treasury Departments from October, 1891, to the 30th June, 1896, when he joined this Department, and worked in the Head Office till December, 1899, at which date he became Private Secretary to the Postmaster-General. He retired from the Service on the 1st August, 1902, to enter into journalistic pursuits as editor and proprietor of the *Winton Record*.

Mr. Thomas Hughan (Crown Lands Ranger, Otago) retired, owing to ill health, on the 31st December, 1902, after thirty-three years' service in the employ of the Government.

Mr. J. H. W. Wardrop (Land Clerk, Wellington) resigned his position on the 31st August, 1902, and is now Secretary to the Wellington School Commissioners.

Messrs. A. G. Muir (assistant surveyor) and E. J. Dorreen (Land Clerk, Hokitika) resigned their positions in the Department in October and March last respectively, for the purpose of proceeding to and settling in South Africa.

Promotion.

Mr. Morgan Carkeek, who was on the temporary staff of surveyors, was promoted to be District Surveyor on the 1st January, 1903, and placed in charge of the survey of Ohotu Block, under the directions of the Chief Surveyor, Wellington.

HEAD OFFICE.

Mr. F. W. Flanagan, Chief Draughtsman, reports,—

During the year the current work of the office, although considerably increased, has been performed with efficiency and despatch, and compares more than favourably with what had been accomplished in previous years. Miscellaneous work, and work of a special and urgent nature, have formed important items amongst the duties of officers.

Chief amongst the special duties may be mentioned the work done for the Representation Commissions in connection with the readjustment of the boundaries of the electoral districts of the colony. Two of the draughtsmen acted in the capacity of clerks to the

Commissions, and for several weeks the majority of the draughtsmen were employed in the preparation and publication of maps of the new districts.

If any special comment be necessary on the work of the Head Office during the year, it may be directed to the improvement which is consequent upon the assigning to certain officers the clerical as well as the technical duties appertaining to their work, and imposing on them the responsibility for their proper performance. There is every advantage in this arrangement, for, while it is conducive to efficiency and promptitude, by enabling a good man to get a thorough grip of his work, it makes the work of supervising less exacting and more thorough.

An observation may be made with respect to the plotting, compiling, and drawing of district maps on a scale of 40 chains to the inch for reduction by photo-lithography to the mile-to-the-inch scale. This work, which has been regarded for several years as a special duty of the Head Office staff, cannot be carried on with profit or satisfaction to the Department, as the progress made is unsatisfactory. The output has been growing less every year for some time past. Two draughtsmen have been assigned hitherto to this work, but their time is so frequently broken, owing to demands for miscellaneous work of an urgent nature, that completion of the maps is unduly delayed. Speaking in this connection, I think I have your concurrence in the opinion that this work should be discontinued at the Head Office. The draughtsmen employed on these maps are first-class map-draughtsmen, and should be employed in publication of maps of national interest relating to forests, land-tenure, density of population, rainfall, industries, &c. The series of preliminary county maps which are under preparation in the District Offices, in accordance with instructions, will prove a cheaper and more expeditious and effective method of publishing, for the information of settlers and local bodies, the mass of original data which has accumulated in the several local offices than that which has hitherto obtained by means of the more elaborately drawn mile-to-the-inch maps.

Forty mile-to-the-inch maps of survey districts have been published—viz., Mahoe, Taurakawa, and Omara, in Taranaki (drawn at the District Office); Mangahao and Akatarawa, Wellington (drawn at the District Office); Takapau, Hawke's Bay (drawn at the District Office); Clifford Bay, Kaitarau, Puhipuhi, and Tennyson, Marlborough (drawn at the District Office); Tadmor, Howard, and Motupiko, Nelson (drawn at the District Office); Pigeon Bay and Opihi, Canterbury (drawn at the Head Office); Kauroo, Blackstone, Gimmerburn, Poolburn, Upper Taieri, Upper Taieriside, Swinburn, Naseby, Idaburn, Kyeburn, St. Abb's, Hedgehope, Loganburn, Manorside, St. Bathan's, Turnagain, Cluden, Lauder, Long Valley, and Serpentine, Otago (drawn at the Head Office); and Waiau, parts of Mararoa and Manapouri, and Mokoreta, Southland (drawn at the District Office).

A new edition of the mile-to-the-inch map of Hohonu District, Westland, has been published.

Mile-to-the-inch maps now on hand are the Survey Districts of Moeraki (Otago), Pareora, Geraldine, and Arowhenua (Canterbury). Maps of the following towns and villages have been printed and published: viz., Ormondville, Livingstone, Hokio, Piriaka, Whetakura, Waipiro, Omau, Kaikoura, Oamaru, Invercargill, Kingston, and Gore.

Several miscellaneous maps have been printed and published, amongst which may be mentioned the following: viz., map showing the boundaries of the Colony of New Zealand and the islands adjacent thereto; a military map of the City of Auckland and environs, on the lines of the Ordnance maps of Great Britain and Ireland; maps showing the names and boundaries of the new electoral districts; and map of parts of Wallace and Fiord Counties, on scales of two miles and four miles to the inch.

The following maps are in hand and well advanced towards completion: viz., military map of Dunedin and environs, and map of the City of Dunedin and surrounding boroughs, the latter in six sheets, on scale of five chains to an inch.

Military maps of Wellington and Christchurch, drawn at the District Offices, and Invercargill, drawn at the Head Office, have been completed, and forwarded to the Government Printer several months ago. The early publication of these maps devolves on the Government Printer, who has assumed control of the Lithographic Department.

Several of the index county maps have become worn and illegible owing to constant use. The renewal of these maps has hitherto been dependent almost wholly upon the publication of the mile-to-the-inch district maps, and the process has been therefore a slow one. It is to be hoped, however, that within the ensuing twelve months the whole of the county maps will have been renewed. In compliance with your instructions issued to Chief

Surveyors, the following county maps have been received and forwarded to the Government Printer to be photo-lithographed: viz., part of Hawke's Bay County, the Counties of Rangitikei, Hutt, Horowhenua, Manawatu, and Patea, and parts of the Counties of Marlborough, Waimate, Geraldine, and Levels. Maps of twenty-five counties have yet to be forwarded to complete the series. These maps will make admirable index county maps. The new county maps of Wanganui, Waitotara, and Waimarino, compiled and drawn at the Head Office, and referred to in last year's report, have been printed and published in three sheets.

Two draughtsmen have been employed uninterruptedly in duties appertaining to the preparation and publication of data and plans relating to land-settlement. Two hundred and ten land-sale poster maps have been published and forwarded to the Commissioners of Crown Lands for distribution. For Auckland there have been published 56 maps, for Hawke's Bay 14 maps, for Taranaki 16 maps, for Wellington 33 maps, for Nelson 2 maps, for Marlborough 12 maps, for Canterbury 24 maps, for Westland 5 maps, for Otago 30 maps, for Southland 18 maps. One hundred and fifteen thousand copies of these maps have been printed, and photographic reductions to the mile scale of the larger areas have been printed and supplied to the District Offices for purposes of compilation of county maps and to illustrate subjects of correspondence. The demand for these mile-to-the-inch reductions is increasing, as is apparent from the constantly recurring requests for them. Twenty thousand six hundred and fifty copies have been printed.

Eighteen pamphlets containing directions to applicants, maps, illustrations, and complete detailed information relating to the following estates purchased under the Land for Settlements Acts have been compiled, printed, and published: viz., Cradock, Plumer, Kitchener, Methuen, Hetana, Kumeroa, Forest Gate, Glenham, Lyndon No. 2, Maytown, Eccleston, Windsor Park, Windsor Park No. 2, Kokatahi, Duncan, Mead, Northbank, and Chamberlain. The numbers of pamphlets printed for each settlement have varied from twelve hundred to fifteen hundred copies, and these have been distributed largely from the Head Office, as well as through the agency of the District Offices.

During the year under report important and responsible duties were undertaken and discharged for the Representation Commissioners by the Head Office staff. These included the preparation of sixty popular descriptions of proposed electorates, enumerating the various local political divisions which together formed a proposed electorate; also sixty detailed descriptions, defining in technical terms the boundaries of the electoral districts as finally determined by the Commissioners; the preparation of 411 large-scale maps—one set for the Clerk of Parliament, one for the Registrar of Electors, and one for the Head Office—and the publication of lithographed maps on the sixteen-mile scale, showing the names and boundaries of the districts for the information of the public. Although these important duties were of a highly technical nature, and performed at a necessarily rapid speed, no errors have been reported.

The following thirty plans of private townships have been examined and reported on and approved by His Excellency the Governor: Waipiti, Linwood North, Franklyn, Ahuroa, Cashmere, Mangamahu, Soleville, Henui, Fitzroy West, Mihi, Auburn, Sockburn, Cashmere Extension, Beckland's, Cliftonville, Ranolf, Fitzroy North, Somerfield, Strandon, Upper Tuakau Extension, Levin Extension, Port Moturoa, Rosebery, Gonville Extension, Scargill, Miramar, Clonburn, Melbaville, Bonithon, and Utuhina.

Fifteen Proclamations under "The Public Works Act, 1894," and "The Public Works Acts Amendment Act, 1900," have been prepared.

Eleven notifications under "The Land for Settlements Consolidation Act, 1900," have been prepared.

Eighteen Proclamations taking lands for roads and closing roads under section 13 of "The Land Act, 1892," have been prepared.

One Order in Council under "The Municipal Corporations Act, 1900," has been prepared.

Two Proclamations under "The Native Townships Act, 1895," have been prepared.

Eight Orders in Council setting apart areas as reserves under "The Kauri-gum Industry Act, 1898," have been prepared.

Two Proclamations under "The State Forests Act, 1885," have been prepared.

Ninety-eight warrants relating to the temporary and permanent reservation of land under "The Land Act, 1892" have been prepared.

Eighteen Proclamations setting apart the following blocks of land for settlement under "The Local Bodies' Loans Act, 1901," have been prepared: viz., Puketarata No. 3, Kiokio,

Otukai Extension, Okokokiriki No. 1E, Tuma-Kaituna, and Motatai Extension, all in Auckland District; Rerekapa-Moanatairi, Vera, Mimi-iti, Waikaka, Waitangata, Patupurenu, Mangaowata, and Taurangi, all in Taranaki District; and Eao, Mangaroa, Tirangi, and Mawhanau, in Wellington District.

Nineteen schedules of local Bills have been examined and certified for the Local Bills Committee of the House of Representatives.

Two hundred and eleven descriptions of boundaries have been written.

Ninety tracings for permanent-record files and to illustrate outwards correspondence have been made.

Number of maps and tracings mounted, 1,108.

Extra departmental work, consisting of map-drawing, tracing, and describing boundaries, has been performed for the following twelve Departments of the service: viz., Police, Marine, Native, Land for Settlements, Justice, Public Health, Registrar-General's, Colonial Secretary's, Education, Defence, Agricultural, Trade and Customs.

An interesting brochure on "Flightless Birds," by R. Henry, Caretaker of the sanctuary for birds at Resolution Island, has been printed, and is now going through the press.

Shortly after the arrival in New Zealand of H.M. surveying ship "Penguin" instructions were issued to the Chief Surveyors to compute the latitudes and longitudes of the coastal trig. stations shown on the departmental plans as derived from the land-surveys in terms of the new determination of Mount Cook, Wellington, and plot these stations on the several Admiralty charts. The whole colony has now been completed in this respect, and carefully executed maps have been prepared, showing by comparison upon the Admiralty charts the coast-line as derived from the land-surveys. Three sets of charts have been prepared—one copy for the Admiralty, one for the Marine Department, and one for the Head Office. This duty involved the computation and checking of the latitude and longitude of 754 stations, also the plotting of each station, and the readjustment of the coast-line on fifty-one charts. A portion of Admiralty Chart No. 2553, Sheet XI., Foveaux Strait, is published in the Annual Report of this Department for this year, for the purpose of illustrating the average difference between the Admiralty and land surveys.

Several publications of this Department have been distributed locally, and throughout the Commonwealth of Australia, and Great Britain and Ireland. Four thousand copies of "Notes on New Zealand," forty copies of Annual Report of Lands and Survey Department, 1901–2, two thousand six hundred copies of "The Settlers' Handbook," and one hundred copies of the new ten-mile map of New Zealand have been forwarded to the Agent-General, London.

The general miscellaneous and routine work of the office relating to the recording of *Gazette* Proclamations and notices, Orders in Council, additions and alterations to county maps, and road district maps, has been discharged with regularity.

Correspondence.

Mr. F. T. O'Neill, Chief Clerk, reports:—

The total number of letters and telegrams received was 17,598, and the outward correspondence amounted to 16,900—a total of 34,498 documents received, recorded, or despatched. This total is slightly greater than last year. The number of new subjects opened amounted to 2,803, and 500 records were received from other Departments for reference or report.

The number of Proclamations, Orders in Council, Warrants, and notices prepared during the year underthe Acts specified was:—

"The Land Act, 1892": 4 Proclamations setting apart land as village settlements, 8 Orders in Council fixing terms and conditions of lease of village-homestead allotments, 1 Proclamation withdrawing lands from lease as village settlements, 1 Order in Council increasing the area that may be held in a village settlement, 45 Warrants notifying lands for sale by public auction, 8 Proclamations setting apart lands for leasing as small grazing-runs, 90 Warrants opening lands for sale or selection, 3 Proclamations setting apart or withdrawing lands from lease as improved-farm settlements, 1 Proclamation setting apart land as a special settlement, and 1 Order in Council making regulations for a special settlement.

"The Cemeteries Act, 1882": 45 Warrants and 3 Orders in Council appointing or removing trustees.

"The Public Domains Act, 1881": 15 Orders in Council bringing lands under Act, and 63 Orders in Council delegating powers.

"The Public Reserves Act, 1881": 31 Orders in Council vesting reserves in local bodies, 7 Warrants changing purposes of reserves.

PORTION OF SHEET XI

FOVEAUX STRAIT

SHEWING IN RED

The alteration of the coast line based on the official surveys of the colony.

Note — *The meridian lines shewn in red upon this chart are in accord with the new determination of the longitude of the Mount Cook Initial Station (City of Wellington) as given in the Nautical Almanac for 1902, page 600.*

TEWAEWAE BAY

FOVEAUX STRAIT

Solander I.

Pride Pt

Green Is

Waiwhero R

Waiwera R

Stand Hill Pt

Mid Bay Reef

Waiau R

Crepuke

Pahia

Pahia Pt

Rushine

Longwood Rge

Oraka Pt

Wakapatu Pt

Fish Reef

Colac B.

Riverton

Howell Road

Howell pt

Pig I.

Centre I

Light, Flash

Escape Reefs

Halfway Rk

Oraka R

Jacobs River

Thornbury

Otautau

Sparrow (Hawks) River

Orepuki or New River

Makarewa R

Waihopai River

Pumi Cr

Invercargill

Lusky Pt

Waimatua Cr

New River Bay

Point I

Sheep Is

Barracuda Bl

Bluff Harbour

Observation Spur

Awarua Bay

Campbelltown

The Bluff

Sandy pt

Dog I.

Light Rev

Waikiwi Bay

Toi Toi Bay

Matura R

Tokanui R

Mataura River

Tuturau

Cave Pt

White Rks

Black Rock Pt

By Authority: John Mackay, Government Printer.

"The Public Works Act, 1894": 1 Proclamation taking land for a gravel-pit, 1 Order in Council consenting to entry of surveyor on to Native lands to take roads, 1 Order in Council declaring roads to be under control of Wellington City Council, 21 Warrants authorising surveyors to take roads through Native lands.

Miscellaneous: Under this heading 2 Orders in Council, 4 Warrants, and a number of various other documents were prepared, and 16 Land Guides were revised and printed.

The summary appended gives the number of Crown grants and other titles issued during the year:—

Land District.	Number of Crown Grants.	Area in Crown Grants.	Number of Warrants.	Area in Warrants.	Number of Certificates.	Area in Grants, Warrants, and Certificates.	Area granted to Natives.	Number of Leases and Licenses.*	Area in Leases and Licenses.	Number Crown Grants corrected.	Number of Duplicate Grants issued.
		Acres.		Acres.		Acres.	Acres.		Acres.		
Auckland ..	5	273	40	46,631	218	46,904	669	83	687	8	2
Hawke's Bay	3	599	5	48,500	80	49,099	73,608	4	116	1	..
Taranaki ..	..	..	13	11,952	68	11,952	281	7	1,367	2	..
Wellington ..	3	163	15	10,238	121	10,401	3,828	24	568	4	..
Nelson ..	..	..	5	11,085	131	11,085	..	3	2	..	..
Marlborough ..	..	..	6	2,187	20	2,187	980	3	74,555	..	..
Canterbury ..	..	..	10	27,710	95	27,710	..	37	1,550	1	..
Westland ..	..	..	..	..	15	..	..	3	2,075	..	..
Otago ..	2	1	23	11,374	151	11,375	..	39	51,989	..	..
Southland ..	1	5	8	6,206	163	6,211	..	3	133	..	..
Totals ..	14	1,041	125	175,883	1,062	176,924	79,366	206	133,042	16	2

* In addition to leases signed by the Governor above mentioned, 1,009 leases signed by Commissioners have been received, recorded, and filed, also 169 deeds of land acquired by the Crown.

Accounts.

Mr. R. A. Paterson, Accountant, reports:—

Number of vouchers authorised for payment	4,282
Imprest vouchers authorised for credit	3,617
Credit vouchers against other Departments	191
Imprest advances	530
Total	8,620

as against 8,055 during the previous financial year.

A detailed statement of the expenditure in respect of each of the appropriations, including a full statement from the commencement of the Land for Settlements Account, has been prepared and issued within the Department. The various accounts have also been balanced with the Treasury books. The following is a summary of the expenditure of the various appropriations and accounts for the year, and which shows also the revenue of the State Forests, Cheviot Estate, and Land for Settlements Accounts:—

Summary of Statement of Expenditure of Lands and Survey Department for the Twelve Months ended the 31st March, 1903.

Name of Vote or Account.	Amount voted.	Expenditure (Gross).	Recoveries.	Expenditure (Net).	Receipts.
	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Lands and Survey	114,252	136,197 12 7	14,211 9 1	121,986 3 6	..
Lands and Survey, Miscellaneous ..	14,744	7,457 0 10	..	7,457 0 10	..
Immigration	300	541 15 5	400 0 0	141 15 5	..
Improved-farm Settlements	5,845	1,567 4 3	..	1,567 4 3	..
Lands, Miscellaneous	5,762	781 5 4	..	781 5 4	..
State Forests	15,195	11,209 3 8	191 4 1	11,017 19 7	3,870 14 10
Land for Settlements Expenses* ..	..	..	..	..	..
Totals	156,098	157,754 2 1	14,802 13 2	142,951 8 11	..
Consolidated Fund: Unauthorised Account	..	352 5 0	..	352 5 0	..
Cheviot Estate Account	..	9,036 12 6	..	9,036 12 6	14,609 9 9
Land for Settlements Account (including Vote No. 113)	..	†467,228 10 0	51 4 1	467,177 5 11	‡121,335 0 5
Permanent Charges	..	4,453 10 2	..	4,453 10 2	..
Special Acts, Deposit Accounts, &c. ..	..	21,380 4 8	..	21,380 4 8	..
Totals	..	502,451 2 4	51 4 1	502,399 18 3	..
Grand totals	156,098	660,205 4 5	14,853 17 3	645,351 7 2	..

* Included in Land for Settlements Account. † Includes purchase-money, £353,462 7s. 2d. ‡ Includes £10,335 1s. 9d. from Investment Account (interest earned).

The amount advanced to imprestees during the year was £50,916.

The following amounts were paid during the year on account of the subsidies granted for resident medical officers in outlying districts :—

District.	Annual Subsidy.	Amount paid, 1902–3.
	£	£ s. d.
Whangaroa : Comprises practically the Whangaroa County (Dr. Scott resident)	25	12 10 0
Kaitaia : Portion of the County of Mongonui, extending as far as Herekino (Dr. Reekie resident). (Also £50 from Justice Department for Maoris)	50	13 12 3
Waimarino : The County of Waimarino, with Raetihi as a centre (Dr. Gardner resident)	75	93 15 0
Tinui : Generally the County of Castlepoint, with Tinui as a centre (Dr. Hunter resident)	50	...
Wanaka : Portions of the Counties of Lake and Vincent, with Pembroke as a centre. The residents have not been able to obtain the services of a doctor	100	...
Catlin's : The southern portion of the County of Clutha, with Owaka as headquarters. The district is very scattered, and it is difficult to get a doctor to reside. Dr. Sale accepted the district and resided for six months, to August, 1901. Neither the residents nor the Commissioner of Crown Lands at Dunedin have been able to secure the services of another. The nearest doctor is at Balclutha, twenty miles distant	150	...
Cromarty : Portion of the Fiord County around Preservation Inlet, with Te Oneroa as a centre (Dr. Fox resident)	50	25 0 0
Total	500	144 17 3

Audit.

Mr. W. G. Runcie, the Auditor of Land Revenue, reports that the gross receipts are ranged under the following heads :—

	£ s. d.
Territorial revenue	252,277 15 1
Land for settlements	110,632 8 8
Cheviot Estate	14,609 9 9
State forests	3,870 14 10
North Island Main Trunk Railway	9,396 14 7
Thermal springs	77 4 9
Rotorua Town Council	1,846 2 0
Lakes Ellesmere and Forsyth	1,631 17 10
Crown-grant fees	804 1 6
Lands and Survey vote	1,713 19 9
Native townships	702 2 10
Mining Districts Land Occupation Act	911 10 9
Miscellaneous	1,550 6 7
Government Loans to Local Bodies Act	28,301 7 4
Endowments	20,053 19 9
Total	£448,379 16 0

The Auditor states,—

The total receipts for the year represent an increase upon last year's of £21,241 1s. 5d., notwithstanding that the Hanmer Plains Sanatorium and Mount Cook Hermitage collections are not accounted for by Receivers of Land Revenue now. Attached to this report I give a comparative table which shows in which items the increases and decreases have occurred. In previous annual reports I have expressed the opinion that, on account of the gradual extinction of deferred-payment holdings and the making freehold of perpetual leases, the territorial revenue would diminish yearly for some time to come.

The balances of deposits, &c., at the credit of the Ordinary Deposit Account of the Receivers of Land Revenue were as follows:—

	£	s.	d.
Auckland	3,858	13	8
New Plymouth	303	2	0
Hawera	32	1	0
Napier	167	2	11
Gisborne	126	0	10
Wellington	671	5	6
Blenheim	529	8	8
Nelson	707	12	2
Reefton	60	1	3
Westport	99	18	4
Hokitika	567	18	1
Ahaura	12	8	0
Christchurch	1,694	7	6
Dunedin	673	3	6
Invercargill	517	12	8
	£10,020	16	1

This is an increase upon last year's total of £1,337 13s. 6d., the offices of Auckland, Blenheim, Nelson, Christchurch, and Invercargill being responsible for the increase.

The total amount passed through the above account for the year was £84,023 1s. 10d., being an increase of £4,979 12s. on the previous year.

In the course of the past year I personally inspected the following District Offices and audited the accounts of the Receivers of Land Revenue: viz., Gisborne, Napier, New Plymouth, Wellington, Blenheim, Nelson, Auckland, Christchurch, Invercargill, Dunedin, Westport, Reefton, and Hokitika. On my return to the Head Office I furnished special reports and balance-sheets of the transactions of each office.

The staff of my office have always plenty of work before them. The work of audit and examination of the various Receivers' cash-books has to be assiduously kept going, each officer having certain cash-books to audit, and cash appearing there to credit on the selectors' cards whenever the books are received from the Treasury. Besides the work of audit, all the cards and Commissioners' returns received are carefully examined, and a check applied whenever it is possible by comparing the details with pamphlets and posters: and in connection therewith 2,118 new cards were received; 1,050 Commissioners' returns; 1,465 queries despatched; 412 memos written; 343 memos received; 66 refund vouchers examined and certified to; and 104 parcels despatched. The errors and omissions disclosed by queries, &c., for the year were 1,206.

Table No. 1. — Comparative Statement of Receipts on Account of Territorial Revenue for the Financial Years 1901–2 and 1902–3.

Land District.	1901–2.			1902–3.			Increase.			Decrease.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Auckland	44,649	6	2	40,802	2	11	...			3,847	3	3
Taranaki	17,194	14	9	14,005	12	5	...			3,189	2	4
Hawke's Bay ...	14,478	1	3	15,788	13	10	1,310	12	7	...		
Wellington	29,757	11	9	34,596	4	11	4,838	13	2	...		
Marlborough ...	8,874	1	9	9,675	7	4	801	5	7	...		
Nelson	8,899	14	9	7,962	13	4	...			937	1	5
Westland	5,614	8	5	4,385	10	8	...			1,228	17	9
Canterbury	53,447	6	7	58,954	11	2	5,507	4	7	...		
Otago	52,567	8	6	54,084	19	1	1,517	10	7	...		
Southland	14,136	7	7	12,021	19	5	...			2,114	8	2
	249,619	1	6	252,277	15	1	13,975	6	6	11,316	12	11
				249,619	1	6	11,316	12	11			
Net increase ...	...			2,658	13	7	2,658	13	7			

	£	s.	d.
Actual receipts	252,277	15	1
Estimated receipts	230,000	0	0
Excess	£22,277	15	1

Table No. 2.—Comparative Statement of Gross Receipts.

Nature of Receipt.	1901–2.	1902–3.	Increase.	Decrease.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Territorial revenue ...	249,619 1 6	252,277 15 1	2,658 13 7	...
Land for settlements ...	90,053 5 6	110,632 8 8	20,579 3 2	...
Cheviot Estate	14,061 0 8	14,609 9 9	548 9 1	...
State forests	17,188 11 5	3,870 14 10	...	13,317 16 7
North Island Main Trunk Railway	6,670 14 5	9,396 14 7	2,726 0 2	...
Thermal springs ...	414 8 6	77 4 9	...	337 3 9
Rotorua Town Council ...	1,094 2 4	1,846 2 0	751 19 8	...
Hanmer Sanatorium ...	1,344 1 2	Nil.	...	1,344 1 2
Lakes Ellesmere and Forsyth	1,615 12 2	1,631 17 10	16 5 8	...
Mount Cook Hermitage ...	190 5 6	Nil.	...	190 5 6
Crown-grant fees ...	914 12 5	804 1 6	...	110 10 11
Lands and Survey vote ...	2,207 16 1	1,713 19 9	...	493 16 4
Native townships ...	310 8 1	702 2 10	391 14 9	...
Mining Districts Land Occupation Act	641 12 4	911 10 9	269 18 5	...
Miscellaneous	1,753 17 3	1,550 6 7	...	203 10 8
Government Loans to Local Bodies Act	21,420 15 7	28,301 7 4	6,880 11 9	...
Endowments	17,638 9 8	20,053 19 9	2,415 10 1	...
	427,138 14 7	448,379 16 0	37,238 6 4	15,997 4 11
		427,138 14 7	15,997 4 11	
Increase ...	...	21,241 1 5	21,241 1 5	

Table No. 3.—Comparative Receipts from Land-tenures.

Tenure.	1901–2.	1902–3.	Increase.	Decrease.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cash land-sales	59,576 0 8	37,445 17 1	...	22,130 3 7
Deferred payments ...	8,434 11 3	6,702 2 2	...	1,732 9 1
Pastoral and miscellaneous rents	76,994 17 3	83,311 3 10	6,316 6 7	...
Perpetual leases, leases in perpetuity, occupation with right of purchase, and small grazing-runs	78,658 2 3	87,437 19 2	8,779 16 11	...
Miscellaneous	25,955 10 1	37,380 12 10	11,425 2 9	...
	249,619 1 6	252,277 15 1	26,521 6 3	23,862 12 8
			23,862 12 8	
Increase in territorial revenue	...	...	2,658 13 7	
Under special Acts—				
Cheviot Estate ...	14,061 0 8	14,609 9 9	548 9 1	...
Land for settlements ...	90,053 5 6	110,632 8 8	20,579 3 2	...
State forests	17,188 11 5	3,870 14 10	...	13,317 16 7
	121,302 17 7	129,112 13 3	21,127 12 3	13,317 16 7
			13,317 16 7	
Increase ...	...	...	7,809 15 8	

APPENDICES.

APPENDIX I.—ADMINISTRATION.

EXTRACTS FROM THE REPORTS OF THE COMMISSIONERS OF CROWN LANDS ON SETTLEMENT OPERATIONS DURING THE TWELVE MONTHS WHICH ENDED ON THE 31ST MARCH, 1903.

AUCKLAND.

Lands opened for Sale and disposed of.—The area placed on the market during the year amounted to 369,123 acres, making, with the Crown lands already opened on the 1st April, 1902, a total of 1,066,622 acres now open. The lands opened this year are principally situated in Hokianga, Opotiki, Tauranga, Rotorua, West Taupo, East Taupo, and Kawhia Counties. The following hamlets (workmen's homes) acquired under Land for Settlements Act were offered on the 22nd April, 1902—viz.: Cradock, Hetana, Kitchener, Methuen, and Plumer, comprising a total area of 599 acres divided into 197 sections. There was only a limited number of applications for these sections. Twenty-one have been taken up. Waari Hamlet, comprising 399 acres divided into 92 sections, was opened for selection on the 20th April, 1903.

SUMMARY OF LAND TRANSACTIONS DURING THE YEAR 1902–3.

Class of Selection.	Transactions during the Year.		Leasehold Area held on 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash—					
Town	38	31 0 34			
Suburban	4	65 0 20			
Rural	58	9,368 0 34			
Total cash	100	9,464 2 8	...	...	3,486 7 3
Deferred payment	...	...	72	8,330 2 17	375 9 3
Deferred payment made freehold	33	3,911 3 12	...	...	258 12 0
Perpetual lease	...	...	314	61,998 3 32	2,025 14 1
Perpetual lease made freehold	66	19,411 1 39	...	...	9,189 13 0
Occupation with right of purchase	226	65,547 1 5	1,814	453,019 3 14	11,517 18 2
Occupation with right of purchase made freehold	7	825 1 7	...	...	359 4 0
Lease in perpetuity ...	169	70,760 2 17	1,088	*251,892 2 25	6,087 17 8
Lease in perpetuity, land for settlements	31	1,061 3 12	177	33,729 1 9	5,111 2 2
Mining Districts Land Occupation Act	18	963 0 0	154	7,214 1 1	330 9 6
Agricultural lease	...	...	1	20 2 0	..
Village homestead	...	...	50	1,859 3 10	251 7 11
Special-settlement associations	29	5,761 0 0	90	15,406 1 38	446 3 1
Improved-farm settlements ...	...	...	49	4,692 1 17	357 0 9
Homestead	...	...	1	30 0 0	...
Small grazing-runs ...	...	...	9	57,711 2 0	467 17 11
Pastoral runs	1	5,030 0 0	26	138,246 0 27	85 14 0
Land for settlements, miscellaneous	6	462 2 27	15	622 1 18	657 3 0
Miscellaneous leases ...	47	14,538 3 26	191	43,945 0 13	895 15 11
Royalties—					
Coal	...	...	...	...	1,490 1 9
Flax	...	...	...	...	436 11 6
Timber, Crown lands ...	...	...	...	...	11,228 12 8
" State forests ...	...	...	...	...	10,820 19 5
Thermal springs	35	304 3 35	282	6,059 3 28	1,923 6 9
Native Townships Act ...	18	5 2 0	18	5 2 0	35 7 6
Other sources, miscellaneous	...	...	...	...	1,999 1 4
Endowments	6	6 1 20	46	24,057 2 11	1,366 1 8
Endowments made freehold	1	76 3 0	...	...	69 6 0
Total	793	198,132 0 8	4,397	1,108,842 3 20	71,272 18 3

* Includes 2,199 acres 2 roods 32 perches being 16 exchanges from other tenures.

From this table it will be seen that there is an increase of 131 selectors and 48,600 acres of Crown land as compared with last year. The total revenue shows an increase of £4,267.

The number of selectors now on the books is 4,397, holding 1,108,842 acres.

Cash Sales.—The total amount received for cash sales is £3,486 7s. 3d., for town, suburban, and rural lands totalling 9,464 acres 2 roods 8 perches.

Deferred Payment.—There are seventy-two selectors holding 8,330 acres. The instalments and interest received during the year amounted to £634. Fourteen selectors, holding 1,663 acres, are in arrears of payment amounting to £45. During the year thirty-three selectors acquired the freehold of 3,911 acres, two holdings of 130 acres were forfeited, and one selection of 213 acres was exchanged to lease in perpetuity.

Perpetual Lease.—There are 314 selectors holding 61,998 acres at an annual rental of £1,662. Sixty-six selectors acquired the freehold of 19,411 acres during the year. Seven lessees exchanged 1,637 acres from this tenure to that of lease in perpetuity, and one holding of 65 acres was surrendered. Thirty-five lessees, holding 6,339 acres, are in arrears amounting to £138.

Occupation with Right of Purchase.—Compared with last year there has been an increase of selectors numbering thirty-four, and in area 4,151 acres. The revenue derived from this form of tenure amounted to £11,517, an increase on last year's figures of £3,767, exclusive of £359 received from seven selectors who acquired freehold of 825 acres. Forty-nine selectors forfeited 15,040 acres, and seven selectors surrendered their holdings of 1,286 acres. The net area now held by 1,814 selectors is 453,019 acres, the annual rent of such area being £12,017. This includes two reinstatements made during the year of 373 acres. 155 selectors, holding 38,196 acres, are £1,086 in arrears.

Lease in Perpetuity.—There is a considerable increase in the number of selectors under this tenure as compared with those of last year. The total new selections during the year was 169, with an area of 70,760 acres, being seventy-eight selectors and an area of 46,789 acres in excess of last year's figures. Three holdings of 1,132 acres were reinstated, whilst sixteen selectors exchanged 2,199 acres from other tenures. 7,968 acres were forfeited by twenty-eight selectors, and thirteen selectors surrendered 6,572 acres. 1,088 selectors now hold 251,892 acres at an annual rental of £6,478. The total revenue received during the year amounts to £6,087. 126 selectors, holding an area of 24,878 acres, are £753 in arrears. The increase of selectors under this tenure is owing to the fact that most of the land in the Kawhia County had to be opened for selection as lease in perpetuity only, under section 121 of the Land Act, on account of the existence of minerals.

Lease in Perpetuity under the Land for Settlements Act.—During the year thirty-one holdings, totalling 1,061 acres, were taken up at an average rental of 4s. 6d. per acre. The revenue received for the year amounted to £5,111. Three selectors forfeited 287 acres, and three holdings of 9 acres were surrendered. Three reinstatements, aggregating 600 acres, were made. The net area held by 177 selectors is 33,729 acres. Fifteen selectors, holding 3,536 acres, are £485 in arrears.

Leases under "The Mining Districts Land Occupation Act, 1894."—Eighteen selectors took up 963 acres at an annual rental of £62. The revenue received during the year amounted to £330. The net area held by 154 selectors is 7,214 acres. Four selectors, holding 93 acres, are £4 in arrears.

Village-homestead Special Settlements.—There is a further decrease in the number of these selectors. Two have forfeited their holdings of a total area of 94 acres, and one has surrendered 48 acres. Eight selectors, holding 349 acres, exchanged to lease in perpetuity, leaving a net area of 1,859 acres held by fifty selectors. The amount received during the year was £251. Twelve selectors, occupying 467 acres, are in arrears to the extent of £104.

Homestead Lands.—There remains only one selector holding 30 acres under this tenure. Since the commencement of the system 463 selectors have acquired the freehold of 76,066 acres.

Special-settlement Associations.—There are now ninety selectors holding 15,406 acres, but only thirty-nine selectors actually reside on 6,777 acres. There were thirty-one forfeitures aggregating 5,824 acres, and one surrender of 200 acres. Three selectors, with 500 acres, are in arrears to the amount of £8 only.

For the purpose of providing returned troopers with land, the Otanake Block, containing an area of 7,253 acres, was opened for selection during the year. Of that area, twenty-nine holdings were selected, absorbing 5,761 acres, leaving seven holdings of a total area of 1,492 acres. These have since been applied for, but the transactions are as yet incomplete.

Small Grazing-runs.—There were no new selectors under this tenure during the year. One holding of 986 acres at an annual rental of £24 was surrendered, leaving a net area held by nine selectors of 57,711 acres at an annual rental of £458. The amount received during the year was £467. Two selectors, with 9,299 acres, are £73 in arrears.

Pastoral Runs.—One holding of 5,030 acres was granted at an annual rental of £12. There are now twenty-six holdings, aggregating an area of 138,246 acres, for which an annual rental of £561 is payable. The sum received as revenue for the year amounted to £85. Six holders of 64,084 acres were £481 in arrears with their rental payments.

Miscellaneous Leases and Licenses.—Forty-seven of these were granted during the year, the total area involved being 14,538 acres at an annual rental of £385. The rent received amounted to £1,029, including the rent on account of reserves. 191 holdings are now shown in the books, this number absorbing an area of 43,945 acres producing an annual rental of £1,166. Twenty-six lessees are £161 in arrears.

Miscellaneous Leases under Land for Settlements Act.—Six selectors took up 462 acres, at an annual rental of £86, under the miscellaneous lease conditions, making a total of fifteen holdings now held under this tenure, the area absorbed being 622 acres at an annual rental of £123. The revenue derived from this source amounted to £657, of which sum £549 represents repayments on account of buildings and cost of insurance thereon.

Royalties were paid on 104,548 tons of coal amounting to £1,280, and on gum taken from forest trees £75. The royalty on 3,515 tons of flax amounted to £436.

The total sum from all miscellaneous sources amounted to £26,871, including the sum received from sales of timber.

Timber.—7,650,915 superficial feet and two trees were disposed of from Crown lands, the sales of such realising £7,040; whilst the sum produced as State forest revenue, as the result of placing on the market 8,986,343 superficial feet, three trees, 300 posts, and five cords of firewood, amounted to the substantial sum of £5,882. Owing to the increased demand for timber and the good prices prevailing, a comparison with last year's figures establishes a conspicuously satisfactory result. Crown Lands Ranger Lusk reports: "During the past year the timber trade in the Auckland Land District has continued very active, though recent legislation in Australia caused a decided check to the exporting of kauri and kahikatea (white-pine). The Home demand, however, has been great, and is increasing, consequently there is no abatement in the desire of sawmillers to acquire Crown timber, and quite a number of new sawmills have been erected. The increasing price of kauri has caused considerably more attention to be paid to other milling timber, particularly rimu, which has hitherto been but little used for building purposes in the Auckland district. It is found that heart of rimu, especially that grown upon high land, is a very excellent building timber, and is especially valuable for decking of wharves and bridges. As much of this heart of rimu is very beautifully marked, there is no doubt that in the future there will also be a greatly increased demand for it by cabinetmakers. As most of the rimu and rimu sawmills are inland, the sale of the timber and the prosperity of the millers depends largely upon the expense of transporting the sawn timber to the centres of population, and sawmillers complain that the heavy railway charges swallow up nearly all the profit. In this connection, I may report that American sawmillers have offered to land good sawn timber from the Pacific Coast at less than it costs to cut and transport rimu from Rotorua to Auckland, the cost of freight across the Pacific Ocean being rather less than the railway freight. In connection with the subject of the northern kauri forests, I have to report that a new industry has been started during the past year, which may be termed 'kauri-gum farming.' I previously reported upon the operations being carried on at Hokianga, and will now only add that the leasing of the more inaccessible kauri forests for the purpose of gum-producing will have an excellent effect in checking or preventing the destruction of the forests by fire, as the lessees will most vigilantly guard against an enemy which would ruin their leaseholds for gum-producing. In this way the existence of some remains of the splendid kauri forests of the north may be much prolonged. In consequence of the past summer having been unusually showery, there has been little damage done this year to Crown forests by bush fires; still there has been some, for which roving gum-diggers are mainly responsible. I would again urge that provision be made for sowing all extensive burns with suitable grass-seeds; the cost would not be great, the return would be rapid and certain, the danger of future fires would be greatly lessened, and settlers would readily lease the grazing."

Kauri-gum Farming (*tapping or bleeding trees for kauri-gum*).—The following is an extract from Crown Lands Ranger Lusk's report: "I have to report that, having examined the kauri-trees in the forest reserve to the north-west of Hokianga Harbour, I found them of good girth but generally short in the barrel, caused by the exposure to the prevailing westerly winds. This forest land being high and near the west coast catches a very frequent rainfall, so that the surface is generally wet, and thus the forest escapes any serious damage from fires. There is no way in which logs or sawn timber could be got to market at a reasonable cost for carriage, so that the value of the kauri, from a sawmiller's point of view, is very low indeed. The comparative immunity from the danger of fire and the low market value of the timber causes this locality to be particularly well suited for the trial of the new branch of the kauri-gum industry lately started. Having ascertained that the required number of good-sized healthy green trees were available within an area of about 120 acres, I laid off the section connecting it with the old survey of a *tapu* maori burial-ground, a corner peg of which an old Native pointed out to me. I had full opportunity while on the ground of observing the lessees' manner of working, and of learning from them what they considered the probable returns in weight and value of gum obtainable by their process from an average-sized kauri-tree. The first and most important point for consideration in regard to this matter is whether the periodical bleeding of kauri-trees will or will not weaken or kill them, and this question I am not prepared to answer with absolute certainty, but I am convinced that if the cuts made in the bark are of moderate size, about 4 in. long by 1½in. wide, cut clean through the bark and a very little way into the outer wood of the tree, the said cuts being kept 4 ft. apart each way—*i.e.*, both in ascending the trunk and going round it—the operation not being repeated oftener than once in two years, then there is little or no risk of the tree being damaged, as nature evidently fills up such cuts and wounds. I have constant proof of this from observing the bark growing over the brands and distinguishing marks made on kauri trees for sale. The method adopted in procuring the gum is as follows: The operator throws a wooden plumb-bob attached to a fishing-line over a strong upper limb of a kauri-tree, and with that pulls up a stout soft rope long enough to reach over the branch to the ground. A loop at one end of the rope has a small seat or spreader in it. The climber puts his legs through the loop and sits on the spreader, holding the other part of the rope which has come over the limb to the ground. He places his feet against the tree, and, giving a spring, pulls sharply on the rope at the same time, and so pulls himself up several feet at each jerk. Whenever he wishes to remain stationary he takes a turn at the loose end of the rope round the end of the seat and his leg, then his hands are free to use a small sharp axe which he carries in his belt. With a swing he takes himself all round the trunk of the tree, and anchors himself at any point by means of a bent and pointed piece of steel attached by a short piece of line to the end of the seat. The operator can thus work with

confidence all over the tree and main branches. The time for making incisions is the end of winter and the spring months, and the crop of stalactites of gum gathered in autumn and early winter. In gathering the crop the same means are used as in making the incisions, the operator chipping off the stalactites of gum into an apron or bag hung round his neck. A very active man will go over four kauri-trees in a day (but not of eight hours). The result of tapping kauri-trees—*i.e.*, the quantity of gum obtained from each tree—varies very greatly. Some good-looking healthy trees scarcely bleed at all, but, to strike a rough average, from good-sized trees I would say over 15 lb. may be expected."

Bushfelling.—A fair amount of bush has been felled during the year, but the season has been unfavourable for burning operations.

Inspection by Rangers.—The total number of inspections made during the past year was 1,739, being an increase of 447 holdings inspected. The total area involved in such inspection was 425,569 acres. The amount of the improvements required according to the various tenures under which the land was held was £111,296 14s. 3d., and improvements to the value of £257,388 7s. have been effected. This shows improvements to the value of £146,091 17s. 9d. done in excess of actual requirements by law. The number of defaulters reported during the year was 521, of whom 348 were reported for non-compliance with improvement conditions, and 173 for non-residence. The defaulters were reported to the Land Board, and each case dealt with upon its merits. Of these inspections, 551 were made by Ranger B. P. Bayly, 522 by Ranger F. C. Ewen, 361 by Ranger J. M. McKay, 277 by Ranger J. Maxwell, twenty-two by Ranger D. H. Lusk, and six by District Surveyor T. K. Thompson. During the past year Rangers Lusk, McKay, and Maxwell have devoted a great deal of time to estimating kauri and other timber for sale.

Dairying.—The export of dairy-produce from the Auckland district for the year ending 31st March, 1903, was 39,030 cwt., which is small for the dairying possibilities of the province. The value of the exported butter was £185,535. Butter and creamery factories have been established in a number of new localities, and the industry is increasing rapidly as the large area of land lately placed in the market gets into cultivation. It is an industry which is bound to increase, owing to the large export trade to England and Australia, while in addition we have now the South African market, direct steamers being subsidised to run there.

Thermal Springs District (Rotorua).—Thirty-five holdings, of an area of 304 acres, were taken up during the year at an annual rental of £287. Thirty-three of these were selectors of 284 acres under "The Rotorua Town Council Act, 1900." The total rents received during the year amounted to £1,923, which includes £1,846 paid on account of the Rotorua Town Council.

Native Townships.—Eighteen holdings, of an area of 5 acres, were taken up, the annual rental of which amounts to £50. The area stated represents the whole of present holdings under "The Native Townships Act, 1895."

Land reserved.—13,495 acres was reserved during the year. Of this, 6,309 acres was for forest reserves and 5,926 acres for education reserves.

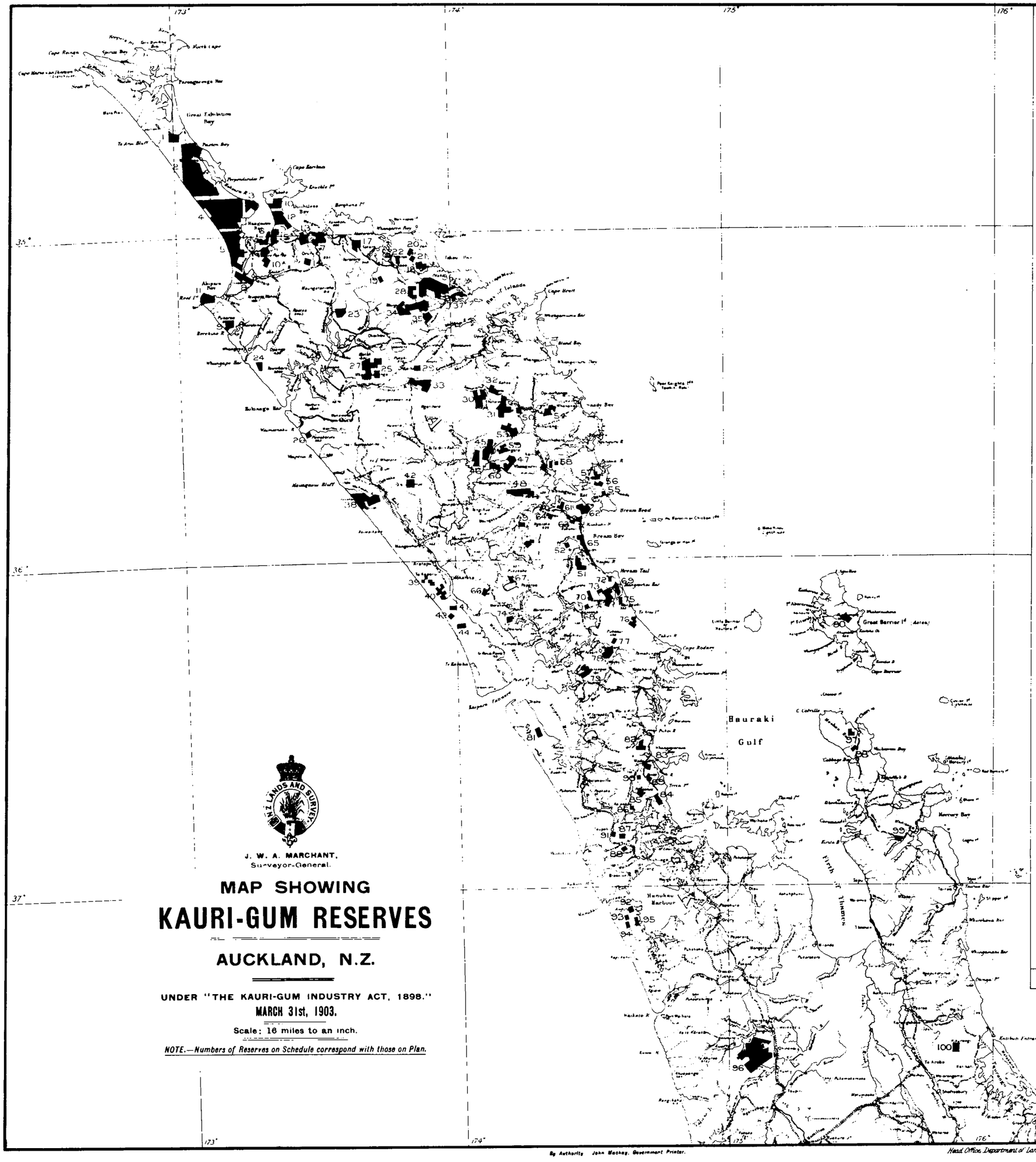
Transfers.—The number of transfers dealt with by the Land Board during the year was 286, of which 276 were granted and ten refused.

The total sum paid to the credit of Government Loans to Local Bodies Account from each class of tenure amounted to £4,716 10s. 3d.

Land under the Land for Settlement Acts.

Opouriao Settlement.—Area, 7,604 acres. Number of selections, 64. Number occupied, 56. Number of selectors, 64 (5 on Taneatua Township). Value of improvements effected by settlers during year, £1,726 5s. 6d., and total value of improvements, £29,926 5s. 6d. Number of population, 295; increase, 7. Number of milch cows, 690. The number of selections occupied are the same as last year. Four fresh sections were taken up on Taneatua Township. Cold and late spring interfered to a certain extent with dairy returns and made crops late, and I fear the maize will not thoroughly mature before autumn frosts set in; a full crop cannot be expected this year. The decrease in dairy cows can be accounted for from the fact that a great many have been discarded as not being up to requirements, and this year only those actually milking for factory are given, and two owners have given up milking this year. Improvements are still being effected. Some of the settlers are taking up Crown lands contiguous to estate, and although there are naturally some drawbacks, yet settlement can be reported as in a sound condition and prospering.

The following extracts from the Ranger's report are given:—Crops: 780 acres is under maize and 212 in oats, both are rather backward owing to late season, but with the late rains and more seasonable weather should yet give full crops, and should the frost hold off again this year an average crop of maize may be looked for. Dairying is still in full swing and is giving satisfactory results; the cold spring and late summer interfered considerably with the quality of milk supplied to factory. This drawback has disappeared with the warm weather. A considerable reduction in the number of cows is shown this year. This is accounted for from the fact that the factory has only been in operation two seasons, and when started cattle were procured indiscriminately to make a beginning. These have since been considerably weeded out, with the result that the same if not better returns are obtained from a less number, together with the fact that this year the number of cows only actually being milked are given. The buildings pertaining to the estate are as a rule fairly well kept, but owing to age and being built of kahikatea are going to decay, weevil or dry rot being very prevalent throughout. One cottage on Section 6, Block XIII., has partially fallen down, and is valueless with the exception of some of the studs and chimney. Several other buildings—such as dwellinghouses, stables, and milking-sheds—have been erected during the year, and others are either in course of erection or about to be built. The fences and hedges are in fair order and condition, some of the latter will require attention in the coming winter. The drains are as a rule in good order. Several settlers have not given this matter the necessary



J. W. A. MARCHANT,
Surveyor-General.

MAP SHOWING
KAURI-GUM RESERVES

AUCKLAND, N.Z.

UNDER "THE KAURI-GUM INDUSTRY ACT, 1898."

MARCH 31st, 1903.

Scale: 16 miles to an inch.

NOTE.—Numbers of Reserves on Schedule correspond with those on Plan.

Name of Reserve.		County.	Area.
			Acres.
Otumaroki	1	Mangonui ..	600
Hohoura	2	" ..	27,650
Otaia	3	" ..	4,270
Opoe	4	" ..	26,150
Rotoroa	5	" ..	16,500
Puketoetoe	6	" ..	2,250
Taipa	7	" ..	1,850
Tongonge	8	" ..	2,096
Epakauri	9	" ..	1,600
Puheke .. }	10	" ..	5,675
Puheke Extension }		" ..	3,510
Awanui	10a	" ..	690
Ahipara	11	" ..	1,200
Ohia	12	" ..	5,600
Parapara	13	" ..	2,200
Peria	14	" ..	153
Pukewhau	15	" ..	1,530
Pairatahi	16	" ..	1,750
Totara	17	Whangaroa ..	2,800
Takou	18	" ..	1,560
Omaunu	19	" ..	600
Mahinepua	20	" ..	518
Taraire	21	" ..	47
Te Huia	22	" ..	245
Omahuta	23	Hokianga ..	1,000
Warawara	24	" ..	800
Mangatoa	25	" ..	1,030
Wairau	26	" ..	460
Punakitere	27	" ..	11,850
Pungaere	28	Bay of Islands ..	2,248
Parahirahi	29	" ..	600
Hukerenui	30	" ..	2,825
Te Mata	31	" ..	4,324
Towai }			
Towai Nos. 1 and 2 } ..	32	" ..	1,252
Ngapipito	33	" ..	4,800
Maungapurerua }	34	" ..	1,650
Maungapurerua Extn. }		" ..	4,640
Puketotara	35	" ..	1,900
Kapiro	36	" ..	14,200
Rangitane	37	" ..	1,245
Kai Iwi	38	Hobson ..	5,650
Te Kopuru Nos. 1–4 ..	39	" ..	1,277
Tatarariki Nos. 1–4, and Tatarariki Extension	40	" ..	2,715
Tikinui Nos. 1 and 2 ..	41	" ..	1,113
Kairara	42	" ..	1,920
Tikinui No. 3 ..	43	" ..	266
Puketapu	44	" ..	437
Purua, Purua Extensions Nos. 1 and 2	45	Whangarei ..	2,806
Mangakahia Nos. 1 & 2	46	" ..	1,700
Kaitara Nos. 1 and 2	47	" ..	1,560
Otaika, Otaika Extensions Nos. 1, 2, and 3	48	" ..	4,321
Ruarangi	49	" ..	500
Jordan	50	" ..	705
Waipu Nos. 1 and 2 ..	51	" ..	2,530
Pohuenui	52	" ..	190
Otakairangi ..	53	" ..	3,150
Opuawhanga ..	54	" ..	1,900
Manaia	55	" ..	192
Waikare Nos. 1–5 ..	56	" ..	1,304
Taiharuru Nos. 1 and 2	57	" ..	248
Parahaki Nos. 1 and 2	58	" ..	470
Ruatangata Nos. 1–4	59	" ..	1,163
Poroti	60	" ..	3,050
Mata	61	" ..	312
Marsden	62	" ..	3,600
Ruakaka Nos. 1, 2, & 3	63	" ..	1,530
Mangapai	64	" ..	168
Uretiti	65	" ..	2,200
Parirau	66	Otamatea ..	225
Matakohe	67	" ..	381
Kaiwaka	68	" ..	188
Molesworth Nos. 1 & 2	69	" ..	1,066
Hakaru Nos. 1–3 ..	70	" ..	998
Mareretu Nos. 1–6 ..	71	" ..	441
Mangawai No. 2 ..	72	" ..	470
" No. 3 }			1,400
" No. 4 } ..	73	" ..	630
" No. 5 }			87
Hukatere	74	" ..	654
Mangawhai ..	75	Rodney ..	725
Pakiri }	76	" ..	700
Pakiri Extension } ..		" ..	880
Arai	77	" ..	740
Wayby	78	" ..	1,960
Tauhoa Nos. 1 and 2 ..	79	" ..	950
Awana	80	Gt. Barrier Isld.	890
Waioneke }	81	Waitemata ..	2,280
Waioneke Extension }			
Orewa	82	" ..	400
Wade	83	" ..	560
Lucas Creek ..	84	" ..	1,071
Pukeatua	85	" ..	324
Riverhead	86	" ..	550
Swanson	87	" ..	1,160
Henderson	88	" ..	420
Okura Nos. 1 and 2 ..	89	" ..	182
Rangitapuni ..	90	" ..	108
Taupaki	91	" ..	100
Awitu No. 1 ..	92	Manukau ..	153
" No. 2 ..	93	" ..	80
" No. 3 ..	94	" ..	131
" No. 4 ..	95	" ..	345
Whangape	96	Raglan ..	17,000
Port Charles ..	97	Coromandel ..	500
Cabbage Bay ..	98	" ..	470
Kaimarama	99	" ..	400
Katikati	100	Tauranga ..	1,900
		Total Area	254,342

By Authority: John Mackay, Government Printer.

Head Office, Department of Lands and Survey, Wellington, N.Z. F.W. Hanapen, Chief Draughtsman.

attention; these I have duly notified to have the necessary work done by the 31st March, otherwise it will be done at their expense. With the watercourses and creeks there is a greater difficulty, owing to the fact that as some of the sections through which the creeks flow have high banks, consequently the lands are not affected by overflowing during flood, nor do such obstructions as growth of grass or caving-in of the banks within these sections do them any damage, whilst at the same time if these are not cleared out the sections up stream with lower banks are flooded, to the loss of both crop and grass. A Drainage and River Board to deal with the drainage as well as river encroachments on estate might be the most satisfactory way of dealing with these questions. River encroachments to a certain extent have been stayed, but I regret to say that during a slight flood on the 15th January the river made a breach in the embankment on Section 10, Block XIII., where lately repaired. The outlook this year is so far satisfactory, and although the season is late, yet, granted seasonable weather for a time and absence of frost, average returns may be anticipated, and the settlers this year should wholly recover the set-back caused by the frost during the first three years of their tenancy.

Okauia Settlement.—Area, 5,920 acres. Number of selections, 9; in occupation, 8. Resident on sections, 5; absentees, 3; deceased, 1. Number of houses, 7. Population, 13; increase, 1. Number of dairy cows, 15. Value of improvements effected by selectors during year, £139; total value of improvements, £1,809.

The Ranger reports: Three of the selectors are absentees, and have never lived on their sections, and, with the exception of one miserable hut, have erected no houses and effected very few improvements since taking up occupation. The felled-bush grass land on the sections has been used for grazing purposes, except 20 acres. No further bush was felled or grassed. Of the other sections I have very little to report. One selector in Block XV. has made and is still making considerable improvements. One selector only milks for factory some fifteen cows.

Rangiatea Settlement.—Area, 4,004 acres. Number of selections, 19; in occupation, 19. Number of selectors resident, 17. Number of houses, 17. Number of population, 100; decrease for year, 1. Number of milch cows, 455; increase, 3. Value of improvements effected during year, £825; total value of improvements, £5,200. Dairying is still the principal industry. Settlement progressing satisfactorily; outlook good.

The Ranger reports: This settlement is in a fairly prosperous condition. Dairying is still the principal industry. It has given good returns for the season, although a cold spring and late summer rather interfered with quality of supply and reduced the general average. Settlers have all complied with conditions of tenure, with some few exceptions on Waihekau Stream. This is becoming blocked and requires attention before winter, and I have called selectors' attention to necessary requirements and expect it will be attended to at once. I may remark that the improvements effected are all substantial and far more than required by conditions. The houses as a whole are really good, while the surroundings indicate that homes are being established. I may add that a good six-roomed house, well built and finished, has replaced the old homestead burnt down during the year. I can report settlement as being in a satisfactory and prosperous condition, with the outlook promising.

Karapiro Settlement.—Area, 2,270 acres 3 roods 9 perches. Number of selections, 16; number occupied, 16. Number of selectors resident, 12; 2 deceased. Number of houses, 11. Value of improvements effected during year by settlers, £741 7s. 6d.; total value of improvements, £3,567 7s. 6d. Population, 43; decrease, 1. Number of milch cows, 257; increase for year, 67. Settlement still in a thriving and prosperous condition. The returns from dairying and other sources good. Improvements effected by settlers extensive and substantial. Settlement so far a success, with outlook encouraging.

The Ranger reports: Settlement in a prosperous condition, and matters on the whole are satisfactory. Dairying still claims settlers' principal attention as the one industry, whilst at the same time other branches of farming are followed with profit. Since settlers took possession of land the value of the improvements effected and annual increase speaks for itself, and the class of homes as a rule indicate that the owners are improving both their properties and position. The settlement is apparently in a sound condition, settlers are doing well, and the outlook is satisfactory.

Fencourt Settlement.—Area, 7,105 acres 3 roods 5 perches. Number of selections, 36; in occupation, 36. Resident on sections, 32. Number of houses, 34. Population, 149; increase for year, 60. Milch cows, 716; increase for year, 325. Value of improvements effected by selectors during year, £2,926; total value of improvements, £6,374. Of the houses twenty-eight have been erected by selectors. Settlement still progressing satisfactorily. Want of drainage is the only drawback. Dairy industry still on the increase. Substantial and extensive improvements still being made. Settlement, now three years in existence, is in sound condition and prospects good.

The Ranger reports: Of the four non-residents, one is the last section taken up. The selector has effected considerable improvements, and informed me that he will shortly be taking his family on the land and making his home on the section. The other absentee is the wife of a selector who has hitherto evaded residence. It is now three years since this settlement was thrown open for selection, and the results so far have been and are very encouraging, as shown by the substantial and extensive improvements and the number of dairy cattle. Two factories receive supplies of milk from selectors; a certain area of white crops is cultivated; while both green crops for winter feeding, together with turnips for grazing purposes, receive attention. Taken

all round the outlook is promising and the returns hitherto encouraging. The greatest drawback to a large area of this settlement exists in the want of a comprehensive drainage system. The formation of a Drainage Board has been freely canvassed, and has been before the settlers for several months, but nothing definite yet determined. I fear that unless matters are vigorously pushed on without delay the winter season will be allowed to come in before work is started, and another season may be lost. The separator-station erected at the homestead during the year has proved a great boon, not only to the Fencourt settlers but to other farmers in the vicinity. Its establishment has assisted to increase the output of milk, as people who prior to its erection were too far from the factory can now utilise this station with profit. The noxious-weed question is a matter requiring careful attention. Canadian thistle, blackberry, briar, and ragwort are to be seen, while, I regret to say, the thistle has taken possession of a considerable area on two selections and requires to be kept from seeding. Taking all surroundings into consideration, the settlement may be considered in a satisfactory condition, the returns for past season good, with the outlook for the future promising.

Whitehall Settlement.—Area, 8,959 acres. Number of selections, 8; number occupied, 7. Population, 23; increase for year, 1. Value of improvements effected during year, £810; total value of improvements, £2,087 8s. Number of milch cows, 40. Only two selectors milk for factory. Grazing is the principal source of revenue. Settlers now clearing and cultivating land for turnips and grass with fair results; land turning up better than anticipated. Better roads and erection of separator-station or factory, and more population required before the resources of settlement can be fully developed.

The Ranger reports: This settlement is progressing, but slowly. When opened for selection there was one section well improved and near factory; this has been subdivided, has now two separate homesteads upon it, and forty-five cows are milked for factory from section. None of the remainder of the estate is either within reach of a factory or sufficiently cultivated to permit dairying being followed, and the fact of the French Pass Road being blocked (the nearer route to Cambridge) is another drawback. It was anticipated last year that possibly a creamery-station might be put up within reach of the settlement. This has not occurred, so that grazing only has to be depended upon for returns, and this source is too slow and uncertain to suit struggling settlers. Some of the selectors are now commencing to break up land for root crops and then grass with fair results, the land giving better results than was anticipated; but closer settlement, more population, the establishment of a factory within reach of settlers, and better access to local market are required before the resources of the settlement can be taken advantage of and the slow progress at present evident altered. The settlers now on the land have so far effected good and substantial improvements with the evident intention of making homes, and although it will take some time yet, I am of opinion that eventually this settlement will come out right.

Workmen's Homes.—During the year five hamlets, comprisiug an area of 599 acres 1 rood 25 perches, divided into 197 sections varying in area from 1 acre to 39 acres, were thrown open for selection, of which twenty-four sections were taken up, but three surrendered during the year. The total value of improvements effected was £1,250. The number of people residing on sections is forty. The Kitchener, Methuen, and Cradock Hamlets are all situated at Avondale, six miles from Auckland, the nearest point to the railway-station being 20 chains and the furthest point 70 chains. Workmen's trains run regularly between Auckland and Avondale, and there is also a daily coach service from Auckland passing 4 chains from the nearest point.

Hetana Hamlet.—Containing an area of 408 acres 2 roods 25 perches divided into 123 sections. Number of selectors, 7; area, 31 acres 1 rood 19 perches. Number of houses, 6; persons resident, 24. Value of improvements, £581. The stock consists of five cows and six horses. The nearest part of the hamlet is 27 chains, and the furthest one mile and three quarters, from New Lynn Railway-station, eight miles from Auckland.

Plumer Hamlet.—Containing an area of 67 acres 1 rood 39 perches divided into nineteen sections, situated a quarter of a mile from Henderson Railway-station, fourteen miles from Auckland. Number of selectors, 3; area, 12 acres 3 roods 27 perches. Value of improvements effected, £10. Workmen's trains run regularly between Auckland and Henderson.

Cradock Hamlet.—Containing an area of 29 acres and 25 perches divided into fourteen sections, situated about a quarter of a mile from Avondale and six miles from Auckland. Number of selectors, 3; area, 7 acres and 10 perches. Total value of improvements effected, £20.

Kitchener Hamlet.—Containing an area of 22 acres 3 roods 14 perches divided into twelve sections, situated half a mile from Avondale Railway-station and six miles from Auckland. Number of selectors, 1; area, 2 acres.

Methuen Hamlet.—Containing an area of 71 acres and 32 perches divided into twenty-nine sections, situated a quarter of a mile from Avondale Railway-station, six miles from Auckland. Number of selectors, 7; area, 25 acres 2 roods 25 perches. Number of houses, 3; persons resident, 16. Total value of improvements, £639.

Special-settlement Associations.

Otanake Settlement.—An area of 5,761 acres, comprising twenty-nine sections, situated at Otanake Survey District, from eight to fifteen miles from Te Kuiti, was allotted during the year to the returned troopers, of which no inspection has yet been made.

Avoca Special Settlement.—Area, 2,303 acres and 22 perches, held by twenty-three selectors, of which fifteen are resident, who, with their families, number sixty-six souls. The stock consists of 416 cattle. Total value of improvements effected, £4,466 4s. The settlers on this settlement are all doing very well. The creamery which is in course of erection will improve matters and tend to give better returns than present surroundings afford.

Auckland Special Settlement.—Only one settler remaining on the land, and he has fully complied with the conditions.

Marlborough Special Settlement.—The settlers remaining on this settlement number twelve, of which eight are resident, who, with their families, number forty-four persons. The area under grass is 494 acres, carrying 150 cattle. The total value of improvements is £2,711 15s. The prospect of this settlement is now more promising, as the main road has been greatly improved, giving settlers better opportunity to get their stock to market.

Papamoa Special Settlement No. 1.—Area, 1,200 acres. Number of selections, 12; occupied, 12. Number of population, 22; number of houses, 6. Value of improvements effected, £2,944.

Papamoa Special Settlement No. 2.—Area, 2,290 acres. Number of selections, 14; number occupied, 10 (4 forfeited). Number of population, 24; number of houses, 9. Value of improvements effected, £2,215.

Land in both settlements fairly good, lower-lying portion of No. 1 is first-class land. Both settlements more than six years in occupation. Improvement conditions complied with on the occupied sections, but settlements have not progressed as originally expected. Dairy factory required to give a proper start. Selections rather broken, only adapted for grazing; arable area limited, but good. Both these settlements should have done better, and will do so in the near future when dairy-farming is initiated and more people on the land.

Improved-farm Settlements.

Te Rau-a-moa.—Acreage, 1,410 acres; divided into ten sections occupied by thirty-nine persons. Number of houses, 10. Value of improvements effected, £2,236 9s. The stock comprises 240 sheep, 35 horses, and 206 cattle. Settlement now over seven years in occupation, and has advanced considerably during the last year, and all conditions of tenure complied with, and improvements fairly extensive. Land is really good heavy bush land, with climate moist; this interferes with grassing, as a second burn is required, yet after this a really good pasture is obtained. Grazing, together with occasional road-work, has hitherto been the principal resource of the place; but now settlers are about to start a dairy factory (contract now let), so the success of this settlement may be considered assured, and the selectors will reap the benefit of their perseverance and industry.

Paemako.—Area, 1,412 acres; divided into thirteen sections, but only eleven are now held. With the exception of one, all are residing; the population is thirty-eight souls. The stock comprises 174 cattle and 37 horses. Total value of improvements effected, £1,175 19s. This settlement now nearly seven years in occupation; progressing, but slowly; quality of land only medium; market distant; timber very scarce. Improvements for six years required. Last season these conditions complied with, one case excepted; but no improvements on settlement are either extensive or very substantial. Selectors on this settlement depend principally on occasional road-work, together with running a few cattle, for means of livelihood. Outlook at present not very promising. Establishment of a creamery within reach of settlers would offer inducement to break up some of the better land. Closer settlement and dairying or other industry wanted to put this country in a satisfactory position.

Tawai.—Seven years in occupation; distant from rail at Kuiti, forty-eight miles; distant from nearest port (Mokau), seven miles. Tawai is about half-way between Kuiti and Waitara (Taranaki). Number of sections, 19. Original selectors, 19; but only 10 now remaining, occupying an area of 142 acres 1 rood 27 perches. Three selectors now resident on land, who, with their families, number ten. Value of improvements effected, £560 16s. Houses on settlement, 8; of these, five are habitable dwellings, the other three only shanties. Improvements as a whole neither extensive nor substantial.

Rangitira.—Number of sections, 10; occupied, 2. Acreage, 1,000 acres. Population, 8. Number of cattle, 19. Area grassed, 52 acres. This settlement still in a stationary condition; very little if any advance made during year. Selectors still but two. The other selectors left settlement as soon as advances for felling, burning, grassing, and houses ceased. The climate here is humid; rains during summer prevalent, rendering bush burns uncertain. Outlook at present unsatisfactory, but with present demand for land and dairy produce the latter may eventually with cattle-raising improve matters in the near future.

Mangatu.—Acreage, 1,100 acres. Number of selections, 10; number occupied, 9. Population, 41; increase for year, 10. Number of cattle, 70. Area grassed, 534 acres. This settlement is in almost the same condition as last year; very little if any alteration. With only medium land and no local market, road-making supplemented by occasional gum-digging being the principal source of revenue, this settlement may be said to be now slightly improving, but its progress will necessarily be slow until a better market for such as the settlers can produce is within their reach, or dairying or some other industry gives local and remunerative employment.

Awatuna.—Area, 1,000 acres; divided into ten sections, of which two are now occupied. Number of people residing, 12. Area under grass, 100 acres; increase of 35 acres. Number of cattle owned by settlers, 27. The total value of improvements amounts to £280.

Katui.—Area, 1,000 acres. Number of selections, 10; number occupied, 5. Number of population, 17; decrease, 2. Number of cattle, 108. Area grassed, 201 acres; increase, 40 acres. The settlement may be reported as being if anything slightly improving, but the land is only medium, and settlers state their inability to make a living off the land alone. This country is stated to improve on cultivation, but the want of local market precludes profitable agriculture. Dairying and cattle-raising must be the outlook here.

General.—The same remarks are applicable with slight modification to any and all of these settlements, where a demand for their labour exists or a market for what they produce. Progress, though perhaps slow at first, is eventually certain.

Reports of Rangers.

Ranger Bayly reports:—

Supervision of the six estates, together with workmen's hamlets, and office duties have caused my inspection of other Crown lands to be this year less numerous than hitherto has been the case, and, with the exception of Rotorua County, part of Tauranga, with Opotiki and Whakatane, have been the only ordinary Crown lands visited by me during the year.

Rotorua County.—The demand for land and area occupied during the year were considerable, the improvements effected were extensive and are still in progress. The bush lands take grass freely, and apparently permanent pasture. The small areas in and near Rotorua Town are in demand and readily taken up, and the township sections at Mamaku, in Rotorua Forest, near railway, found ready sale at good value.

Tauranga County.—Not much to report for year. Selections visited limited in number. Improvements effected by selectors neither numerous nor extensive, but settlement where anything like good land offers still brisk. An area of 4,000 acres in the Kaituna Swamp was readily taken up, and far more applicants than land to supply demand.

Opotiki County.—Land taken up in this county from time to time during the last five years has, although broken, turned out well as grass country; this has directed attention to areas hitherto looked upon as too rough, broken, and out of the way to be remunerative. Land between the Otara and Motu, in Waiawa Survey District, has given very good results. I saw grass land there myself far beyond the average, while in the same district on the Otara equally good results are being obtained. On the Waioeka, too, satisfactory grassing of bush lands has been effected, and I am informed that further back the country is less broken, with land equally good. A large block is now being surveyed, and I am of opinion considerable settlement will take place here during next season.

Whakatane County.—Within the last three years the whole of the available land in this county between the Whakatane and Rangitaiki Rivers (all swamp land) has been taken up; a Drainage Board established for the Rangitaiki District; and very large and expensive works initiated. The results where land is sufficiently dry to grass have been exceedingly good, the clover and grass an object-lesson of what this land can produce, and with thousands of acres equally as good when drained. That these selections will have several set-backs through floods (prior to whole drainage system being completed) goes without saying; but the land is there, and it will stand a large expenditure before its actual value is exceeded.

Ranger Ewen reports:—

Raglan County.—Settlement in this county during past years has only been moderate, the greater part of arable land fit for occupation having already been acquired. On selections visited I can report good improvements effected and still progressing, with matters generally satisfactory. Land as a whole good, settlers apparently prosperous, cultivation of arable land increases annually, and the dairying industry is being extended.

Kawhia County.—During the last three years extensive occupation of Crown lands has occurred in several districts within this county. The value of improvements effected, area of land grassed, and introduction of stock extensive; every indication of *bona fide* and permanent settlement present. The roads, as a rule, are only yet bridle or sledge tracks, almost impassable in winter. With these improved, better houses and further improvements will follow, together with closer population. The land on the whole is good, above the average, rather broken, but eminently fitted for pastoral purposes, being either limestone or papa bush country. Every section offered has been taken up, and demand still unsatisfied. This country before many years have passed will support a considerable population, good roads being the present urgent need.

Waikato County.—Selections in this county still under supervision limited in number. Of those inspected all have been in occupation some time and have complied with conditions. Improve-

ments good, substantial, and extensive; residence conditions satisfactory. This county principally bush land, with considerable area of limestone country; good grazing land. This and dairying the principal industries. Settlers generally doing well, and in prosperous condition.

Waipa County.—Only a few sections in this county requiring inspection. Those in occupation are all on rough, broken bush lands, only adapted for grazing purposes. Conditions of tenure complied with in most cases; improvements effected are up to requirements. Land only medium. Settlement progressing slowly.

Rodney County.—Land in this county of very medium quality and patchy. Very few Crown tenants remaining; most of these now acquire the freehold of lands previously taken up. Residence and other conditions generally complied with, but settlement not increasing or as prosperous as in other localities visited. The want of a local market is a great drawback. Fruit in large quantities and other small produce can be grown, but there is no outlet at a remunerative price. An attempt to introduce dairying extensively is now being made; in fact, two or three creameries and one factory have already started. This should improve matters.

Otamatea County.—Area inspected small, land as a rule poor, settlement increasing slowly, and that for the greater part by local owners extending their present holdings. Large areas of gum and kauri lands have been worked in this county, and have been hitherto its principal resources; and as these disappear arable land, hitherto unnoticed, is coming under the plough, and with cultivation will keep a certain amount of stock, but it is too poor to induce close settlement or support a large population.

Manukau County.—Area of land unoccupied very small, and Crown tenants few in number; those visited were mostly settlers on poor open gum lands, which, being comparatively near Auckland market, can be worked to advantage. Improvements effected are according to conditions of tenure, but not extensive; gum-digging and grazing a few cattle are the settlers' means of livelihood. These settlers being within reach of a market can utilise land that otherwise would not pay to cultivate, and even very inferior lands having a market within reach will all be worked in time, especially while the present demand for land remains unsatisfied.

General.—My experience during the past year is that settlement is on the increase, demand for land as great as ever, that the improvements effected and surroundings indicate both progress and stability of settlement, and I should say that the ensuing twelve months will see fully as much if not a greater area taken up, and the wealth of the districts increased both in population, cultivation, and stock.

Ranger McKay reports:—

During the year I have inspected 487 sections in the Whangarei, Hobson, and Bay of Islands Counties. With the exception of a few sections the required improvements have been effected, whilst a large number of the more recent settlers in the Mangakahia and Purua districts have been especially energetic, and are well in advance with their improvements.

With regard to settlement in the Hukerenui Survey District, in the cases of those who have large holdings satisfactory progress is noticeable, but some of the settlers who originally took up sections under the village-settlement tenure are not so advanced as one would expect considering the time they have been on the land.

The Avoca Special Settlement shows marked progress, and there is every indication that this settlement has a prosperous future before it, particularly now that a creamery has been established.

It is quite safe to predict that, given better means of access, all the districts inspected will thrive steadily.

In consequence of the large demand for timber and the necessity for measuring the same during the past year, I had not the opportunity of inspecting some 250 sections in Hobson and Otamatea Counties, but I have reason to believe that settlement there is steadily advancing, particularly in the Tokatoka district.

The establishment of butter-factories and creameries in the various districts has been so successful that it is confidently expected that their number will be increased next year. At present there are two butter-factories and six creameries in the Whangarei County, one factory and five creameries in the Hobson County, and one factory in Otamatea County.

Generally speaking, the various settlers appear to be hopeful for the future, as, owing to the better prices prevailing for stock and produce, the outlook is most encouraging.

Ranger Maxwell reports:—

Mangonui County.—The leases in Muriwhenua-Hohoura and Opoe Survey Districts are all small holdings, taken up for the reason that they are convenient to the extensive gumfields. The settlers have nearly all fulfilled the conditions of their leases, having built comfortable houses and made gardens, but have not otherwise cultivated their holdings to any extent. Most of them have a few head of cattle, but they entirely depend on the gumfields for a living.

The holdings in Ahipara, Awanui, and Mangatete are mostly poor land, some of them having been taken up for the gum they contained. A number of the lessees have not yet fulfilled the conditions of lease, but I believe will do so if given a little more time. The holdings are few in these districts. Except in one case the improvements are not extensive. The land in these districts is mostly very poor.

Kaiaka–Takahue.—The land in these localities is fairly good grass land. Kaiaka is wholly of a limestone formation, broken, but good grass land. The holdings are not large. With the exception of two or three the settlers are well up with their improvements. Some of the old settlers who have acquired the freehold of their land are making a good living off their holdings. The lessees still under my supervision have to spend a good deal of their time working on the gumfields and the roads to enable them to make a living. They seem to be satisfied with the quality

of the land. In Takahue some of the old settlers have left. Those that remained are making fairly good progress, and are fairly well satisfied. The level land here is rather poor. The hills would grow good grass if the fern could be kept down.

Rangaunu, Taipa, Mangonui, and Mangonui East.—The holdings are very scattered, poor, and unremunerative. In a good many cases the lessees have not fulfilled conditions of improvements, owing, I think, to the inferior quality of the land. *Danthonia* seems to be taking good hold round the coast, about East Mangonui, which is a very poor district. The area of unoccupied Crown land is large but very poor, and can only be let in large areas at a low rental.

Fern Flat, Maungataniwha.—The people have built comfortable houses, making their living partly off the land—viz., working in the bush, on the road, and digging gum. Some of them have good stock.

Whangaroa.—The county is small; the area that can be brought under cultivation limited, and very broken. There are not many Crown leases in this county. With the exception of one or two, all have complied with the conditions of the lease. There is some very good grass land in the Parish of Matawherohia, but the area is small. I would like to call attention to the fact that the land is becoming covered with blackberry. There are hundreds of acres of land becoming quite unmanageable through this pest. In Waipapa, Kaeo, Matawherohia, and Pupuki Valleys there are places inaccessible to man or beast, and it is spreading over the range to Hokianga. It is mostly private and Native land that is infested. It is also on Crown lands. Some of the settlers keep it partly under with goats.

Hokianga County.—By far the most and best land for settlement purposes in my district is in this county.

Herekino Settlement: Of the many original settlers there are a few remaining, and some new settlers have come in. With the exception of four or five the settlers have done very little and barely kept up to the conditions of their leases. There is very little grass in the district considering the time the settlers have been there. Some of them—a small proportion—have made extensive improvements, but the majority have spent most of their time digging gum, and consequently neglected their sections. The place is now taking another start, and settlers taking fresh heart. They are doing more work on their sections, have considerable amount of stock, which do well, except that they lose a beast now and then with tupakihi, which is very plentiful there. The land is capable of producing good grass if fairly well managed. It is mostly broken, some fairly level. Sections are eagerly sought by intending settlers, and when there is a road fit for dray or wheel traffic from the head of tide-water in Awaroa to Herekino, and a boat can be induced to run to Whangape, the place will certainly go ahead. I would like to draw attention to the fact that Whangape is the best inlet to the Herekino lands, being a much safer harbour than Herekino and commanding more of the district.

Whangape and Mangamuka.—All bush. Nearly all good grass land. A good many settlers have from time to time gone to settle in Broadwood or Mangonuiowae, but most of them have left again. Those remaining are doing fairly well grazing cattle and running them in the bush. They have not much grass, but they have comfortable homes and a fair amount of fencing. The grass-seed given to the settlers to sow on Crown lands joining their sections is a failure owing to being nearly all overgrown with fern. A good many sections have recently been taken up. I have no hesitation in saying that the Motukaraka settlers and the few Crown tenants on the Mangamuka River are very favourably situated. They have a good outlet, and are doing well. They have a good deal of grass, and most of them have comfortable homes. They have stock which they take care to improve, and some of them have small vineries and orchards. I have seen finer fruit there than I have seen in any of the Auckland markets, especially grapes and peaches.

Waoku and Hokianga.—These settlements have advanced considerably during the last five years, a good deal of grass having been sown, a considerable amount of fencing having been erected, and a lot of very comfortable homes built. The settlers have a considerable amount of stock, which they mostly depend on for a living, and some of them have small orchards. They certainly have to get a little outside work to help them along, but most of them will be independent in a few years. Some of the settlers in the Waimamaku Valley have a considerable amount of kauri on their sections, which I believe they have agreed to sell to some sawmillers in the district.

Punakitere.—The people in this settlement have not got on as well as they should have done under the favourable circumstances in which they are situated. They have good roads, and are only a short distance from a navigable river. Some of them have good level land, the only fault being the land is wet, but there is a good outlet for drains. Notwithstanding, they have done very little draining, and have very little grass. The settlers own a good deal of stock, which they mostly run on the Native and waste Crown lands. The men spend most of their time on the gum-fields. There are some thrifty settlers in the place with comfortable homes, good fences, and orchards.

Eastern or Upper Part of Waoku Survey District, between Taheke and Head of Waipoua.—This block, which had a good many settlers on it at one time, is now quite abandoned. What bush had been felled is now entirely overgrown and impracticable to man or beast, and there is no grass left. The ground is very wet, the bush heavy, consisting of umu-muro-toro and whawaka. The damp air from the sea keeps the hills wet, and settlers cannot get a burn, though I believe that there are seasons when this bush could be burned.

The Awatuna and Rangatira Blocks.—Much the same as the last-stated. The settlers have got down a good deal of the bush, but they cannot get good burns. Some cannot get a burn at all, and grass will not take well. In many places the land is so heavily timbered that when felled it takes up most of the space, and there is very little left for grass, and it will be some time before the holdings can be made remunerative. Notwithstanding, I do not despair of this land; it has not been properly tried yet.

Mangatu.—There is a considerable area under grass, and where the land has been broken up and cultivated there is a good sward of grass. The land is very easily worked after it is stumped, but it is rather poor, and needs manure to produce crops such as potatoes, mangolds, cabbage, &c. The people are fairly comfortable, having good homes. These settlers have been helped by having timber on their lands, which they sell at a remunerative price.

Katui and South Part of Waipoua Survey District.—There has been a large quantity of bush felled, and a good deal of the land cleared sown in grass, which is doing fairly well. The land is fairly level, and the bush burns readily. There is a creamery in the district, and the settlers will soon be able to make a good living from their sections. Some of the settlers have sold a good deal of timber growing on their sections, which has considerably helped them through. Their stock looks well, of which they have a considerable quantity. Land is eagerly sought after here, and some of the settlers have good offers for their improvements.

Tutamoe Survey District and Mangakahia Valley.—This district is entirely new and undeveloped. The large areas of Crown lands are being cut up for selection, and some of the selections have been taken up, but with the exception of one or two they have not had time to make any improvements yet. The land is all bush: a large proportion of broken country, and some very good farming land, which is eagerly sought after. This is one of the best valleys in the country, and with a good road into Whangarei, which is not a difficult matter, the land will be still more eagerly sought after.

Bay of Islands County.—The large tract of Crown lands in this county is mostly poor open level land, and can only be made remunerative by letting it in large areas for rough runs. In the Kerikeri district there are many thousands of acres of Crown lands overrun with useless Maori horses instead of feeding herds of cattle. In many instances the ake is becoming a nuisance. The small settlers make their living by fishing and digging gum. Most of them have fulfilled the conditions of their leases. Grapes grow well in some of the small fertile patches near the harbour. The experiments that have been made here in growing gorse seem to be a failure.

Omapere Survey District.—There are a good many sections here still under my supervision. The selectors are thrifty and honest people. They have felled a lot of bush, and have considerable area in grass. There is a creamery started in the district, and I believe others are to be built. The settlers have large quantities of well-bred stock in excellent condition, and the people are well satisfied. Nearly all the Crown land suitable for settlement is taken up. The land in the eastern part of the county has not been under my supervision.

Hobson County.—Very little of this county has been under my supervision. The few selections that I have visited in the Kaiwi and Kaihu districts, with the exception of two or three, have complied with the conditions of their leases. The large kauri forests round Tutamoe need closer supervision, in order to guard against destruction by fires.

In conclusion, I would like to state that the large areas of Crown lands under my supervision cannot be expected to bring a high price—that where the soil is good the country is broken, and consequently hard to work and not very remunerative. Nearly all the level land is poor open land, a good deal of it bearing gum. Fern is the principal drawback to settlers holding rough land: it overruns the grass, and the land is too broken to plough.

General Remarks.

Of the 369,123 acres opened during the year, 214,284 acres was opened, after the roads were located, as unsurveyed, the unselected portions of which will be gradually surveyed into sections, and opened as surveyed land, thus allowing selectors to take up the land without the deposit of a survey fee.

In every case where accessible sections were opened for selection there was great competition for them. 379,350 acres was gazetted for opening in April and May, some 7,000 acres will be opened about June, and the plans of about 30,000 acres are nearly completed.

In addition to the above, 260,197 acres in the portions of the Coromandel, Thames, and Ohinemuri Counties within the Hauraki Mining District was opened as pastoral land under special regulations notified in the *Gazette* of 19th March, 1903.

The Government have acquired under the Land for Settlements Act 12,175 acres in the Otamatea County, which will be known as the Bickerstaffe Settlement, and opened for selection about July.

Clerical.

During the year 24,283 letters, 2,218 parcels, and 1,014 telegrams were received, and 31,562 letters, 10,800 parcels, and 875 telegrams despatched, an increase of 3,191 letters received and 6,619 despatched compared with last year. 631 cheques for £6,759 were drawn on imprest account for wages of survey parties, &c., and 245 cheques on the official account. 2,259 vouchers were dealt with, amounting to £29,103.

Gerhard Mueller,
Commissioner of Crown Lands.

HAWKE'S BAY.

The information in the following tabulated statement gives concisely the total land transactions during the year, the number of tenants and the area held under each tenure at the 31st March, 1903, and the total revenue received from all sources during the year. The gross revenue for the year is £33,729 0s. 8d., which exceeds last year's receipts by £5,494 16s. 11d., and is con-

siderably above the estimate for the year. This large increase is chiefly due to the increasing rentals of lands under the Land for Settlements Acts and the purchase-money of areas held under the occupation-with-right-of-purchase system.

SUMMARY OF LAND TRANSACTIONS, 1902–3.

Tenures.	Transactions during Year.		Leasehold Lands held at 31st March, 1903.		Revenue received during Year 1902–3.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash	2	623 2 25	...	...	477 0 0
Perpetual lease made freehold	12	3,219 2 10	...	...	2,802 10 2
Occupation with right of purchase made freehold	1	2,000 0 0	...	...	1,150 0 0
Perpetual lease	...	...	21	9,090 0 36	406 9 3
Deferred payment	...	...	3	2,140 1 13	63 15 6
Occupation with right of purchase	21	10,175 3 35	207	91,141 3 18	4,035 1 6
Lease in perpetuity	3	1,428 1 30	177	100,112 2 21	3,196 17 7
Village settlements—					
Occupation with right of purchase	...	...	8	6 2 8	1 17 6
Lease in perpetuity	8	117 0 14	43	493 2 11	49 16 11
Village-homestead special settlements	1	1 2 17	30	188 0 37	57 7 0
Special-settlement associations, lease in perpetuity	...	...	14	3,111 0 19	70 14 0
Improved farms	...	...	17	1,916 0 0	264 10 11
Small grazing-runs	3	9,790 0 0	71	211,316 1 14	2,157 12 5
Pastoral runs	...	...	17	134,991 2 0	825 2 4
Timber-cutting	...	...	...	...	403 8 9
Miscellaneous leases	11	8,590 1 22	77	52,710 1 10	1,117 3 7
Transfer fees, &c.	...	...	...	...	163 3 0
Crown-grant fees	...	...	...	...	20 9 7
Survey liens	...	...	...	...	24 7 4
Other sources	...	...	...	...	65 9 11
Totals	62	35,946 2 33	685	607,218 2 27	17,352 17 3
Land for settlements (lease in perpetuity)	50	15,187 3 16	256	56,963 3 30	14,584 16 11
Land for settlements (village)	...	...	16	35 1 32	29 11 0
Land for settlements (small grazing-runs)	1	1,177 0 0	10	11,648 2 0	828 1 9
Land for settlements (miscellaneous)	4	157 1 17	6	358 2 27	315 12 8
Land for settlements (cash)	1	3 0 0	...	...	30 0 0
Native townships	6	24 0 1	50	221 0 20	173 2 7
Endowments	2	246 1 14	26	9,804 2 35	414 18 6
Grand totals	126	52,742 1 1	1,049	686,251 0 11	33,729 0 8

Number of Tenants and Arrears of Rent.—The number of tenants on the books at the 31st March, 1902, was 972, holding an area of 655,298 acres and 7 perches, with an annual rent of £29,726 8s. 11d.; and during the year under review seventy-seven tenants, with an area of 30,953 acres and 4 perches, and an annual rental of £5,543 19s. 9d., were added. This gives at the 31st March, 1903, a total of 1,049 tenants on the books, holding an area of 686,251 acres and 11 perches, who pay an annual rent of £35,270 8s. 8d. The arrears of rent are very large for Hawke's Bay at present, but on looking into the circumstances in connection with the arrears it will be seen that a large arrear list was unavoidable. The total arrears at the 31st March last was £3,709 4s., which was owing by sixty-three tenants, who hold an area of 23,333 acres 2 roods 12 perches. Of this amount £3,372 6s. 7d. was due in respect of Hatuma Settlement; therefore the arrears on Crown lands and other land-for-settlement estates are, comparatively speaking, small—viz., £336 17s. 5d. It will be remembered that the Hatuma settlers, on account of the bad season experienced on selecting the land, were allowed three years within which to pay the rent for the year 1902; and on taking into consideration the fact that the annual rental is £7,841 10s. 10d., and the amount of arrears £3,372 6s. 7d., it will be seen that some of the settlers are not taking the full advantage of the concession granted. In fact, some have paid up arrears with a view of obtaining the benefit of the rebate allowed under "The Land for Settlements Consolidation Act, 1900."

Lands to be opened.—During the year 1903–4 the majority of the Crown lands to be opened for selection in this district will be situated in Poverty Bay. I anticipate that an area of

105,365 acres of Crown lands in Urutawa, Moanui, Motu, Hikurangi, Tutamoe, Ngatapa, and Koranga districts will be opened under the unsurveyed system. The lands under the Land for Settlements Acts to be placed in the market are: Argyll (late Milbourne and Te Reinga), containing 34,305 acres, and Wigan Estate (late Takapau), containing 10,492 acres. The former estate is situated near Waipawa, and will shortly be in the market, the survey being completed. The latter estate is situated near Tolago Bay, and is at present under survey. The subdivisions will be ready for selection when the estate is taken over by the Crown in June next.

Lands opened for Selection.—During the year an area of 32,024 acres was offered for selection, and was, with the exception of a few sections, all selected. Out of the area mentioned 13,626 acres was offered under the Land for Settlements Acts on the lease-in-perpetuity system, and comprise the Kumeroa and Forest Gate Settlements. The remainder was offered under the optional systems and the small-grazing-run system. Land in this district of fair to good quality, with anything like reasonable access, is much in demand, and is readily selected when placed in the market.

Forfeitures and Surrenders.—The total number of forfeitures during the year was fourteen, with an area of 7,580 acres 2 roods 12 perches, and an annual rental of £238 19s. 4d. Thirteen leases were forfeited for non-payment of rent, and one was forfeited at the request of the lessee, as he could not see his way to carry out the conditions of the lease.

The total number of surrenders was six, with an area of 3,142 acres 1 rood 10 perches, and an annual rental of £224 15s. 8d. The reasons for the acceptance of surrenders were various, such as "for subdivision and transfer of part of holding," "on account of insufficient road access," "lessee not in a position to carry on," &c. Steps are being taken to reoffer the forfeited and surrendered holdings in cases where not already selected, and I have no doubt all the sections will be taken up in due course. Six forfeited sections and one surrendered section were reselected during the year.

Rangers' Reports.—Ranger H. Martin Smith reports that during the year he has inspected 515 holdings, with a total area of 192,602 acres 1 rood 23 perches. Of the total area inspected, 26,925 acres is felled, and 28,768 acres grassed. The area in crop is 3,365 acres 1 rood, and the cost of labour in preparing the ground to receive the crop is estimated at £2,855 5s. There are 382 dwellinghouses on the sections inspected, valued at £33,252 10s.; and the total improvements, including buildings (exclusive of dwellinghouses), fencing, grassing, clearing, &c., are valued at £144,317 2s. 4d. There are 1,372 persons residing on the sections inspected. The stock comprises 149,876 sheep, 948 horses, 5,692 cattle, and 595 pigs; total, 157,111. The improvements required by the conditions under which the various sections and runs are held are £51,400 18s. 10d., as against £144,317 2s. 4d. effected. The defaulters in respect of improvement conditions numbered fifteen, for non-residence sixty-four, and other reasons four. The information given in connection with Mr. Smith's report refers to lands in the whole of the land district. Up to January last, when Mr. Smith was transferred to Napier, he was stationed in Gisborne, and made periodical inspections of the Hawke's Bay portion of the district. Since his transfer he has been engaged on the annual inspection of the land-for-settlements holdings.

Ranger R. S. McKerrow reports that during the year he has inspected 193 holdings, with a total area of 186,864 acres 3 roods 39 perches. Of the total area inspected, 85,165 acres is in grass, valued at £96,251. The number of buildings erected is 200, valued at £14,782, and other improvements, such as bushfelling, fencing, &c., have been effected to the extent of £27,299 12s. 6d. The improvements required by the conditions under which the various sections and runs are held amount to £45,594 4s. 3d., while improvements to the extent of £138,332 12s. 6d. have been effected. Out of the 193 holdings inspected, 147 tenants are residing, and the remainder, forty-six, are shown as non-resident; but in the majority of the cases the time for the compulsory residence s not yet due. Five of the settlers visited by Mr. McKerrow were reported for being in default in respect of the improvement condition, and, as usual, each case was considered by the Land Board on its merits, and dealt with as the Board deemed best. The total number of stock owned by the 193 tenants visited is 169,378, which is made up as follows: Horses 699, sheep 164,988, cattle 3,639, and 52 pigs. The total number of persons residing on the holdings is 473. Mr. McKerrow is stationed at Gisborne, and the whole of the above information supplied by this officer refers solely to the Poverty Bay portion of the district.

Rebates of Rents.—Up to this year rebates were not granted under "The Crown Tenants' Rent Rebate Act, 1900," or "The Land for Settlements Consolidation Act, 1900." The question of granting rebates came up again for consideration in December last, and it was decided by the Commissioner of Crown Lands and the Receiver of Land Revenue to grant a rebate of 5 per cent. to all land-for-settlements tenants who paid within the prescribed time. The total number of rebates granted was twenty-seven, and the amount £46 4s. 5d. No rebates have been allowed under "The Crown Tenants' Rent Rebate Act, 1900."

Perpetual Leases.—During the year twelve lessees, holding an area of 3,219 acres 2 roods 10 perches, completed purchase; therefore the number of tenants under this system now on the books is twenty-one, holding an area of 9,090 acres and 36 perches, and paying an annual rental of £539 16s. 5d. There are no arrears of rent. The area in grass is 3,916 acres, and there are thirty buildings, valued at £1,610. The improvements required are £3,713 5s., as against £11,259 10s. effected by the lessees.

Occupation with Right of Purchase.—Under this system an area of 10,175 acres 3 roods 35 perches was selected during the year by twenty-one selectors, at an annual rental of £450 13s. The number of forfeitures was two, with an area of 1,448 acres, and an annual rent of £65 18s. 10d.; and two surrenders were accepted. The area of the sections surrendered is 1,139 acres, and the annual rental £62 13s. 6d. One licensee, holding an area of 2,000 acres, completed the purchase, and paid the purchase-money, £1,150. This now leaves the number of occupation-with-

right-of-purchase tenants at 207, with an area of 91,141 acres 3 roods 18 perches, and an annual rent of £3,882 11s. The arrears of rent under this system amount to £133 16s. 3d. The period of ten years which is to elapse before occupation licenses can be purchased is now beginning to fall due, and I anticipate that the holders of licenses will purchase very freely in Hawke's Bay as soon as they can legally do so. These purchases will tend to raise the territorial revenue, which has been somewhat lower than usual during the last few years, due no doubt to the falling-off of the purchases of perpetual leases. The Rangers have inspected 158 holdings, with an area of 65,789 acres and 38 perches, and report that 25,427 acres is in grass. The number of buildings is 116, valued at £6,673 10s. The required improvements are £24,518 15s. 11d., as against £71,488 7s. 6d. effected.

Lease in Perpetuity.—The number of selectors under this system during the year was three, with an area of 1,428 acres 1 rood 30 perches, and an annual rental of £41 3s. 6d. Two leases over an area of 572 acres 1 rood, with an annual rental of £14 11s. 4d., were forfeited; and two leases over an area of 1,428 acres 1 rood 30 perches, at an annual rent of £41 2s. 8d., were surrendered. The number of tenants now under this system is 177, holding an area of 100,112 acres 2 roods 21 perches, and paying an annual rental of £3,158 0s. 7d. The arrears of rent under this tenure amount to £13 17s. 11d. The Rangers have inspected 128 holdings, with an area of 70,821 acres, and report that 33,547 acres is in grass. The number of buildings is 134, valued at £5,239 10s. The required improvements are £31,965 12s. 2d., as against £82,969 5s. 6d. effected.

Small Grazing-runs.—During the year three selections, with an area of 9,790 acres, and an annual rental of £162 18s. 10d., were made. There was one forfeiture of a lease over 2,394 acres, with an annual rental of £43 7s. 10d. This now makes the number of small grazing-run lessees seventy-one, with an area of 211,316 acres 1 rood 14 perches, and an annual rental of £2,169 6s. 4d. There are no arrears of rent under this system. The Rangers have inspected thirty-three holdings, with an area of 118,185 acres, and report that 46,030 acres is in grass. The number of buildings is sixty, valued at £7,258. The required improvements are £9,978 12s., as against £102,385 effected.

Pastoral Runs.—There has been no change in the number of pastoral runs since last year; therefore the figures are the same as in last year's report—viz., seventeen holders, with an area of 134,991 acres 2 roods, and an annual rental of £713 3s. There are no arrears of rent under this system. It has been decided to accept the surrender of one pastoral run in the Wairoa County and subdivide it into small grazing-runs. I have no hesitation in saying that the subdivisions will be readily selected, and the successful applicants for the small grazing-runs will improve and cultivate the land to a greater extent than the pastoral tenant would, because under the former system the improvements are secured, while under the latter system the valuation allowed by the Act is very insignificant.

While on this subject I might mention that of recent date the improvements on three pastoral runs have been valued, and the aggregate value of the improvements is £9,593, as against £380, the total amount recoverable by the tenants at the expiration of their licenses under the provisions of "The Land Act, 1885."

Native Townships.—There are three Native townships in this district—viz., Te Puia, Te Araroa, and Tuatini. The selections in Te Puia were two, with an area of 13 acres 3 roods 14 perches, which now makes the number of tenants fourteen, holding an area of 88 acres 3 roods 29 perches, and paying an annual rental of £46 15s.

In Te Araroa there was only one selection, which brings the total number of tenants to twenty-four, with an area of 106 acres 2 roods 19 perches, and an annual rental of £69 15s. 6d.

In Tuatini three selections, with an area of 4 acres 2 roods 22 perches, were made, which makes a total of twelve tenants, holding an area of 25 acres 2 roods 22 perches, and paying an annual rental of £79 7s. 6d.

Progress and Condition of Settlers.—With a view of showing the progress, &c., of the settlers holding lands under the perpetual-lease, lease-in-perpetuity, occupation-with-right-of-purchase, and small-grazing-run systems, I might say that the approximate length of the fencing erected is 700 miles; and the improvements required to be effected by the tenants is £65,200 approximately, while permanent improvements to the extent of £270,000 approximately have been effected. The areas held by Hawke's Bay Crown tenants are chiefly utilised for the purpose of sheep and cattle raising, but the dairying industry is fast becoming one of much importance. In support of this I might mention that there are twenty-four butter-factories and creameries in the district, all of which appear to be kept fully employed. In the Poverty Bay district the average yield per cow per week for eight months in the year is 7 lb. of butter. The principal productions of the district are wool, mutton, beef, butter, maize, and barley. In many instances where the Rangers show that selectors are not residing they state that this is mainly due to the want of sufficient road access. Many of the settlers in Motu and Ngatapa in the Poverty Bay portion of the district, and portions of the Ngapaeruru Block in the Hawke's Bay portion, are badly in want of road access. I have to say that generally the tenants under the Land Acts comply well with the conditions under which they hold their leases and licenses, and rents are paid regularly without complaint.

Improved-farm Settlements.

There is practically only one improved-farm settlement in this district—viz., Waikopiro. Two sections of Akitio Settlement are situated within the Hawke's Bay Land District, but the greater portion is administered by the Wellington Commissioner.

Waikopiro Improved-farm Settlement.—There has been no change in the number of tenants on this settlement during the year; therefore the number of tenants is the same as in last year's report—viz., fifteen, with an area of 1,771 acres. An area of 1,338 acres has been felled, and

1,383 acres grassed. The amount advanced for houses, bushfelling, &c., is £1,847 19s. 4d. The improvements effected are valued at £6,035, as against £3,060 3s. 1d. required by the regulations. The stock consists of 473 cattle, 20 horses, 543 sheep, and 23 pigs; total, 1,059. There is a creamery at Whetukura Village, to which the settlers on Waikopiro send their supplies, and which is of much assistance, as they will receive ready money monthly for their milk. I understand that at the present time the daily supply of milk to this creamery is 300 gallons. The number of persons residing at Waikopiro is 101, and the settlement is in a prosperous condition.

Land for Settlements.

Raureka Settlement.—This settlement, which was part of Frimley Estate, was placed in the market in May, 1896. The whole of the settlement is let to nineteen settlers, holding an area of 416 acres and 38 perches, and paying a rent of £543 2s. per annum. There are eighteen dwelling-houses, valued at £1,215, on the settlement, and ninety-two persons residing. The total improvements effected are £2,857 10s., as against £1,221 13s. required by the Act. An area of 89 acres 3 roods is under crop, principally barley and potatoes. One selector has an area of 6 acres planted in raspberries and small fruits, which at the ruling local prices return handsome profits. Dairying is one of the chief occupations of the settlers, who supply the Heretaunga Butter-factory and St. George's Creamery, which are both within easy distance of the settlement. The stock consists of 88 cattle, 58 horses, 1,032 sheep, and 61 pigs; total, 1,239. There are no arrears of rent on this settlement.

Elsthorpe Settlement.—The Elsthorpe Settlement is situated in the Oero district, and was opened for selection in June, 1896. The total area acquired was 9,740 acres, and the area now unlet is 1 acre 3 roods 16 perches. An area of 9,593 acres 2 roods 13 perches is held by forty-six tenants, who pay an annual rent of £2,313 19s.; and the remainder of the settlement is taken up by roads, reserves, &c. There are twenty-seven houses on the settlement, valued at £3,000, and 124 persons residing. An area of 192 acres 3 roods is under crop, principally oats, potatoes, and rape. Very little cropping has ever been done by the settlers, and their chief occupations are of a pastoral nature, as may be gathered by a glance at the area under crop and the number of stock owned. The improvements effected by the lessees, exclusive of those on the settlement at the time of selection, are valued at £11,112 18s., as against £5,962 1s. required by the Act. The stock consists of 24,050 sheep, 590 cattle, 108 horses, and 19 pigs; total, 24,767. This settlement still holds the position of being one of the most thriving in the district. There are no arrears of rent.

Waimarie Settlement.—This settlement, which is situated in the Poverty Bay portion of the district, was placed in the market in September, 1896. The area acquired was 430 acres 2 roods 10 perches. An area of 425 acres 3 roods 34 perches is held by eighteen tenants, who pay an annual rent of £463, and the balance of the area is occupied by roads, &c. There are sixteen houses on the settlement, valued at £1,090, and fifty-eight persons are residing. Communication has now been established by rail from Gisborne to Ormond, which should be of great advantage to the settlers. The total improvements effected are valued at £2,201, as against £611 8s. required by the Act. An area of 217 acres is under crop, principally maize, oats, and barley. The dairying industry, which is the chief source of revenue to the settlers, is on the increase. The stock consists of 43 cattle, 45 horses, and 36 pigs; total, 124. One settler, with an area of 21 acres and 31 perches, is in arrear to the extent of £12 11s.

Pouparae Settlement.—This settlement is situated in Poverty Bay, near Gisborne, and was opened for selection in April, 1897. The total area acquired was 337 acres 3 roods 4 perches. An area of 336 acres 1 rood 12 perches is held by nine tenants, who pay an annual rent of £405 8s.; and the balance of 1 acre 1 rood 32 perches is occupied by roads, &c. There are nine buildings on the settlement, valued at £892, and forty-two persons residing, which is an increase of twelve in the population since last year. The improvements effected are valued at £2,212 11s., as against £405 8s. required by the Act. An area of 62 acres 2 roods is under crop, principally potatoes and maize. With one exception (that of market-gardening) the chief occupation of the settlers is dairying. The co-operative butter-factory at Matawhero and the creamery at Waerengahika receive the milk from this settlement. The stock consists of 100 sheep, 166 cattle, 37 horses, and 40 pigs; total, 343. There are no arrears of rent on this settlement.

Tomoana Settlement.—This settlement, which is part of Frimley Estate, near Hastings, was placed in the market in March, 1898. The total area acquired was 111 acres 3 roods 38 perches. An area of 110 acres and 3 perches is held by thirteen tenants, who pay an annual rent of £135 2s.; and the remainder of the estate, 1 acre 3 roods 35 perches, is occupied by roads, &c. There are twelve houses on the settlement, valued at £1,645, and fifty-five persons residing. The improvements effected are valued at £2,385 15s., as against £133 2s. required by the Act. An area of 14 acres is under orchard, garden, and crop, the latter being principally mangolds and potatoes. There are two very fine orchards on the settlement, one settler making nearly the whole of his income from fruit. The stock consists of 56 cattle, 29 horses, and 24 pigs; total, 109. Dairying is the chief industry, and the Heretaunga Co-operative Butter-factory is within easy distance of the settlement. There are no arrears of rent.

Mahora Settlement.—This settlement was also part of Frimley, and is situated near Hastings. It was opened for application in March, 1899. An area of 1,094 acres 3 roods 17 perches is held by thirty-two tenants, who pay an annual rent of £1,606 11s. 2d., and one section, containing 17 acres 2 roods 18 perches, is still unlet. It is proposed to lease this vacant section to the Stock Department, but up to the time of writing final arrangements have not been arrived at. There are twenty-five houses on the settlement, valued at £2,401, and ninety-three persons residing. The improvements effected are valued at £5,390 19s., as against £1,605 1s. 2d. required by the Act. An area of 166 acres 2 roods is under crop, principally barley, mangolds, and potatoes. Yields of 20 tons of potatoes or 100 bushels of barley to the acre are not uncommon in this settlement. The

stock consists of 371 cattle, 97 horses, 780 sheep, and 188 pigs; total, 1,436. One settler, with an area of 71 acres and 24 perches is in arrear to the extent of £49 12s. 11d.

Willows Settlement.—A settlement in Poverty Bay, about four miles from Gisborne. It was purchased from the Bank of New Zealand, and opened for selection in March, 1899. The total area purchased—viz., 775 acres 1 rood 36 perches—is held by twenty-two tenants, who pay an annual rent of £758 10s. 2d. The improvements effected are valued at £3,427 4s., as against £716 16s. 2d. required by the Act. The number of houses on the settlement is seventeen, valued at £1,600; and there are eighty-one persons living on the land, which is an increase of twenty-one in the population since last year. Dairying is the chief industry. The stock consists of 250 cattle, 54 horses, 306 sheep, and 70 pigs; total, 680. An area of 131 acres 2 roods is under crop, principally oats, barley, pumpkins, and potatoes. Two sections on this settlement were forfeited, reopened, and reselected during the year. One selector, with an area of 35 acres and 2 perches, is in arrear to the extent of £12 11s. 4d.

Hatuma Settlement.—This settlement, which is situated near Waipukurau, was placed in the market in April, 1901, and all selected. The total area acquired is 26,522 acres 3 roods 20 perches. An area of 649 acres 1 rood 2 perches is occupied by roads and reserves unlet, and the balance, 25,873 acres 2 roods 18 perches, is held by sixty-two tenants, at an annual rental of £7,841 10s. 10d. There are fifty-three buildings on the settlement, valued at £6,727, and 172 persons are residing. An area of 1,124 acres is under crop, principally rape, turnips, oats, and kohl rabi, a species of turnip largely grown in the South Island, which appears to do remarkably well where it has been tried on the settlement. There are fifty-nine tenants who should reside on the land, and of this number forty-seven have effected residence. The stock consists of 41,121 sheep, 903 cattle, 188 horses, and 66 pigs; total, 42,278. The improvements effected are valued at £18,103 18s., as against £8,564 5s. 8d. required by the Act. Besides the acreage shown as being in crop a considerable area is ploughed with the intention of laying down in permanent pasture. Forty-two tenants, holding an area of 18,976 acres 2 roods, are in arrear to the extent of £3,372 6s. 7d., and reference has already been made to the Hatuma arrear-list in the early part of the report under the heading "Number of Tenants and Arrears of Rent."

Manga-a-toro Settlement.—This settlement, which is situated near Dannevirke, was purchased from the Assets Realisation Board, and opened for selection in January, 1902. During the year four selections, with an area of 3,573 acres, and an annual rental of £641 8s. 8d., were made. This now makes a total of twenty-five tenants, holding an area of 18,647 acres, and paying an annual rental of £4,563 2s. 6d. An area of 775 acres is unlet, but has been applied for since the close of the financial year; therefore the whole of the estate is disposed of with the exception of an area of 159 acres 3 roods 12 perches, which is occupied by roads, reserves, &c. There are eighteen houses on the settlement, valued at £1,950, and fifty-seven persons residing. An area of 290 acres 1 rood is under crop, principally oats. The improvements effected are valued at £6,450 1s. 9d., as against £3,018 1s. 8d. required by the Act. The stock consists of 27,969 sheep, 283 cattle, and 48 horses; total, 28,300. The occupations of the settlers are of a pastoral nature. There are no arrears of rent.

Kumeroa Settlement.—This settlement, which contains 3,774 acres 2 roods 38 perches, was acquired under the compulsory provisions of the Land for Settlements Acts from Mr. Thomas Crosse, and placed in the market in May, 1902. It is situated about six miles from Woodville, and is accessible by a good metalled road. During the year an area of 3,019 acres was selected by fourteen tenants, at an annual rent of £1,425 9s. 10d. An area of 3 acres has been sold for cash under section 64 of "The Land for Settlements Consolidation Act, 1900," for a site for a dairy factory, and the purchase-money (£30) paid. An area of 726 acres is unlet, and the balance of the settlement (26 acres 2 roods 38 perches) is occupied by roads, reserves, &c. Although the time for effecting certain improvements has not expired, I have had an inspection made for the purpose of this report, and I am pleased to be able to state that very satisfactory progress has been made. Ten houses have been erected at a value of £1,155, and there are forty-eight persons residing. The improvements effected are valued at £2,118 9s. 6d., as against £696 1s. 6d. required by the Act when the leases have been twelve months in existence. Ten settlers have already effected residence, and the other four are making arrangements to comply with the residence condition. Little or no cropping has been done, and dairying is the chief industry. There are two creameries within easy distance, one on the settlement, and the other on land adjacent thereto, both of which appear to be well supplied. The stock consists of 4,210 sheep, 414 cattle, 24 horses, and 63 pigs; total, 4,711. There are no arrears of rent.

Forest Gate Settlement.—This settlement, which is situated close to Ongaonga, was acquired under the compulsory provisions of the Land for Settlements Acts from the trustees of the late Colonel Herrick's estate. It contains 8,822 acres and 13 perches, and was opened for application on the 19th May, 1902. During the year an area of 8,756 acres 3 roods 38 perches was selected by twenty-nine selectors, at an annual rental of £2,602 10s. 8d. One surrender was accepted; therefore the area unselected is 81 acres 2 roods 13 perches, and the number of tenants twenty-eight, holding an area of 8,714 acres 1 rood 38 perches, who pay an annual rental of £2,587 17s. 6d. The remainder of the settlement, 26 acres and 2 perches, is occupied by roads, reserves, &c. This settlement is on the same footing as Kumeroa, in so far as it has not been held for twelve months; but I have had an inspection made, and very good progress has been reported. An area of 962 acres is under crop, principally oats and turnips. There are eighteen houses on the land, valued at £1,435, and sixty-one persons are residing. The total improvements effected are valued at £4,164 1s. 7d., as against £1,237 10s. 11d. required by the Act before the end of May, 1903. The stock consists of 10,480 sheep, 281 cattle, 96 horses, and 17 pigs; total, 10,874. One of the most up-to-date butter-factories in the North Island has recently been erected at Ongaonga, and it is anticipated that the dairying industry will greatly increase in this settlement. A proposed

scheme for the construction of a water-race from the Tuki Tuki River to irrigate the flat land is receiving a great measure of support, and, if carried out in the summer months, will greatly benefit the settlers who go in for dairying. There are no arrears of rent.

General Review.—The number of settlements in this district is eleven, on which there are 288 tenants, holding an area of 69,006 acres 2 roods 9 perches, and paying an annual rent of £22,643 13s. The total receipts during the year amounted to £15,788 2s. 4d., which now makes a total from inception to the 31st March, 1903, of £49,044 8s. 7d. The number of buildings on the settlements is 223, valued at £23,210, and the total number of souls resident is 883. The total value of the improvements effected is £60,424 7s. 10d., as against £24,173 9s. 1d. required by the provisions under which the leases are held. The total area under crop is 3,250 acres 1 rood. The stock owned by the settlers is as follows: Horses, 784; cattle, 3,445; sheep, 110,048; pigs, 584: total, 114,861. With the exception of a few cases where the settlers have turned their attention to fruit-growing and market-gardening, the occupations of the land-for-settlement tenants in this district may be described in two classes—viz., dairying and pastoral pursuits. The first-named industry must be of great assistance to many of the smaller settlers, as they get cash monthly for their milk. Taken as a whole, the settlers are complying well with the requirements of their leases, and are generally in a very prosperous condition.

Office-work.

The number of letters and telegrams received and despatched during the year was 9,549, which is somewhat less than last year. This is accounted for by the fact that in last year's figures a number of the letters were in connection with roadwork, which is now under the control of the Roads Department.

Leases, which were very much in arrear when writing last report, have been brought up to date, and this, together with current work—viz., applications for land, reports to Government Advances, audit cards, local bodies' proposals, warrants, returns, &c.—have kept the staff fully employed during the year.

ERIC C. GOLD SMITH,
Commissioner of Crown Lands.

TARANAKI.

The land transactions for the year ending the 31st March, 1903, are shown in the subjoined summary:—

Class of Selection.	Transactions during the Year.		Held at 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash	25	942 1 0	...	...	1,110 19 0
Deferred payment ...	...	...	17	2,516 0 0	203 8 5
Deferred payment made freehold	14	1,728 3 0	...	...	781 7 0
Perpetual lease	...	...	27	7,621 1 6	675 5 5
Perpetual lease made freehold	16	4,259 0 0	...	...	5,196 18 7
Occupation with right of purchase	32	17,314 3 20	325	129,294 3 23	5,507 2 6
Lease in perpetuity ...	50	17,216 1 14	304	91,061 0 26	3,566 9 4
Lease in perpetuity, land for settlements	9	842 1 30	15	1,495 3 25	1,041 6 4
Village settlements—					
Occupation with right of purchase	...	...	16	13 0 0	4 0 3
Lease in perpetuity ...	4	32 0 6	12	97 0 19	8 5 9
Special settlements, lease in perpetuity	...	...	73	16,414 2 0	915 0 3
Improved-farm settlements...	20	3,004 3 0	146	14,831 2 13	1,067 8 7
Small grazing-runs ...	...	...	23	25,310 0 0	377 4 3
Miscellaneous leases ...	8	54 3 11	86	1,151 1 2	313 18 4
Transfer and other fees ...	...	...	...	...	171 11 0
Miscellaneous receipts ...	...	...	...	...	131 7 11
Miscellaneous receipts, land for settlements	...	...	...	...	145 6 7
Crown-grant fees	...	...	...	...	62 2 6
Endowments	4	1,350 2 4	14	7,938 3 4	401 11 9
Totals	182	46,745 3 5	1,058	297,745 1 38	21,680 13 9

Lands offered and disposed of during Year.—The returns disclose a substantial increase in the lands disposed of as against last year's transactions, there being fifty-nine more selections, and an increased area of 9,129 acres after deducting the figures for the conversion to freehold of the deferred payment and perpetual lease. A very large area, however, was placed in the market, no less than 87,641 acres being opened for selection as against 23,322 acres last year, consequent upon a large and comprehensive scheme of roading being provided for, and if sufficient funds are provided it should enable every settler to reach his holding at least by a horse-road. This made with lands already opened a total of 143,865 acres available. Nearly half of the area opened, 34,969 acres, comprised a large tract of mixed pastoral country embracing the valleys of the head-waters of the Waitara River, which will be to a great extent served by the Moki Road, when opened, and the Ohura Road at present opened for dray traffic though not metalled. The smaller and more accessible of the sections were selected on the day of opening, and inquiries have since been made for some of the remaining lots.

Another block, 20,427 acres, which was opened lies in the valleys of the Ohura, Mangaroa, and branch rivers, forty-five lots being opened under the lease-in-perpetuity tenure, owing to the prevalence of coal outcrops in the locality. The block is seventy-six miles from Stratford, and eighteen miles and a half from Ongarue, and comprises first- and second-class pastoral country. There was a great demand for the smaller lots, and all the sections offered, with the exception of ten, were selected on the day of opening. At the present date only seven remain unselected. (In addition to this, in the same locality 3,004 acres were opened and taken up on the improved-farm conditions.)

A block of 20,192 acres in the Opaku and Omona Survey Districts, comprising seventeen lots of second-class pastoral country, situated at the head-waters of the Whenuakura River and on the Patea River, was also put in the market, but only four selections have been made, probably owing to the difficulty of access. The land, however, is adapted to pastoral pursuits, cattle-raising, &c., and when cleared should carry an average quantity of sheep and cattle.

The balance of the lands opened comprised scattered areas in different parts of the district.

Revenue.—The revenue received was £2,968 less than last year, being, however, £645 more than the estimated receipts; but it is satisfactory to note that the receipts from rents of lands held under the lease-in-perpetuity and occupation-with-right-of-purchase tenures are steadily increasing, and a few years will, in all probability, see the revenue a gradually increasing one. It must be borne in mind, however, that some of the selectors under the license with right of purchase whose ten-year limit will expire during the year will most likely in the course of a year or two take advantage of the option, and of course the receipts from this source will materially add to the annual revenue. The principal disbursements from revenue are as follows: "Thirds" and "fourths" to local bodies, £3,481 5s. 2d.; Government loans to local bodies, £5,180 13s. 6d.; North Island Main Trunk Railway Account, £847 13s. 6d.; land for settlements, £1,190 0s. 5d.: total, £10,699 12s. 7d. It will also be observed that the number of selectors on the books has increased by seventy-six, and the area held by 19,317 acres.

There are now only forty-four selectors holding under the deferred-payment and perpetual-lease systems, and if they convert to freehold at the ordinary rate of past years there will be none left on the books in a few years.

Cash Sales.—Only two rural allotments were sold under Part III. of the Act, and these were the results of ballots. Other sales comprised sections in the Township of Waitara, the Villages of Mangaehu, Puniwhakau, Pukearuhe, and Rehu, and the remaining sections in Purangi, Stratford, and Ohawe; three allotments under section 117 of the Act, two sites for dairy factories, and one site for store and post-office.

Forfeitures, Surrenders, &c.—There were twelve forfeitures and two surrenders—nine of lands held under occupation with right of purchase, four under lease in perpetuity, and one small grazing-run—the total area being 13,026 acres, against nineteen selectors and 6,261 acres last year. The forfeitures were in consequence of breaches of the provisions of the Land Acts having been committed, and the surrenders were voluntary. I think a great number of the forfeitures arose through the selection of lands by persons without first satisfying themselves that the lands were suitable for their requirements; also at the time they were selected there was a very keen demand for land of all classes in this district, and it is probable that the selections were made by persons who found later on that they had not the means to comply with the conditions. In several cases it was made apparent to the Land Board that speculation was at the bottom of these transactions, and in these cases the lands were at once forfeited as a matter of principle.

Arrears of Rent.—Notwithstanding the increased number of selectors the amount due by selectors is only £788, as compared with £931 last year, and there are 110 selectors in arrear, being four more than in the previous year.

Of course, a good deal of judgment has to be exercised in pressing for payments of rent. A great deal of the arrears can be accounted for by the initiatory struggles the poorer settlers often have to make, even for a bare existence, before any actual returns come in as a result of their labours. These are not pressed unnecessarily, although at the same time their indebtedness is kept prominently before them.

Reservations.—During the year an area of 3,273 acres 2 roods 22 perches has been reserved under the provisions of the Land Acts for the purposes of public schools and halls, primary education, sites of public and municipal buildings, scenery preservation, cemeteries, quarries, &c., and a further area of 6,765 acres 2 roods 5 perches has been surveyed, and will be forwarded for gazetting shortly for various purposes; of this area, 5,881 acres is for forest preservation. Special attention, as directed by your circulars, is being given to forest and scenery preservation, and although no extensive reservations have been gazetted this year they are being kept well in view.

The Crown Tenants' Rent Rebate Acts.—Under these Acts 205 rebates of rents were allowed to selectors, amounting to £157 4s. 2d. I am still continuing the method initiated by my predecessor—viz., basing the rebate on the merits of each case chiefly considering the question of access; but I feel that it would be better to have a fixed rebate for each class of tenure.

Crown Land Ranger's Inspections, &c.—The reports of the Crown Lands Ranger (Mr. John Barron) show that he visited 441 holdings in various parts of the district, comprising an area of 156,050 acres. The value of the improvements required to be effected was £44,967, and it was found that in nearly every instance considerably more than the required improvements had been effected, which in the aggregate were valued at £101,112, or more than double what was required to be done. Forty-four had not made sufficient improvements, and out of a total of 182 selectors required to reside forty-seven had failed to comply with the conditions. Steps have been taken in all cases to enforce the conditions of the Land Act, and it has been found necessary, in the interests of settlement and in justice to those who had complied with the Act, to declare the interest of some of these defaulters to be forfeited. The Land Board, however, only took extreme measures when it was evident that *bonâ fide* settlement was not intended by the selector. Settlers who for any reason through want of means or other circumstances beyond their control were unable to comply within the specified time have in all cases been allowed an extension; in fact, the Land Board's policy throughout has invariably been never to resort to forfeiture until all other measures have been exhausted.

On the general conditions of our tenants the Crown Lands Ranger reports as follows:—

The improvement conditions have been well carried out; in most cases double the area required has been felled and grassed. In the few that are behind the cause is principally want of access, especially in the back settlements. Residence conditions have also been fairly well complied with, and in the few cases where land speculation comes in they have been dealt with by the Land Board. In these latter conditions the Board have been more alive lately to their enforcement.

The progress of the settlers since the dairying industry commenced has been very marked. Speaking generally, settlers are in a prosperous condition; dairy factories and creameries are being established wherever there is a chance of making them pay.

The principal requirements of the settlers, especially in the back and newly settled districts, are roads to give access to their sections and to get their produce to the markets.

The principal work of the settler is bushfelling, fencing, and attending stock, supplemented by employment on the public works in the district. The dairying industry absorbs a very large number in the season; indeed, labour has been hard to find for this industry. This year labour of all kinds has been scarce; in many cases work has been at a standstill for want of men.

The different classes of tenures are summarised thus:—

Small Grazing-runs: Chiefly devoted to sheep and cattle raising; generally prosperous, although severely affected by the fall in wool.

Improved-farm Settlements and Farm-homestead Settlements: Where settlers are of the right class they are generally in comfortable circumstances. Their means of subsistence are stock-raising and dairying, supplemented by bushfelling contracts and work on the roads in the winter season.

Village Settlements: There are only two small settlements of this class in this district, and these as settlements have not been very successful; the holdings have become merged into larger areas, for the reason chiefly that the class for whom they are intended is not very numerous in Taranaki, and work in the neighbourhood to keep settlers going is not very plentiful, or at any rate sufficiently regular.

Land taken up under the ordinary conditions held under Part III. of the Act: Settlers, after struggling in many cases through adverse circumstances, are yet holding their own and making progress, the great bulk, especially those engaged in dairying, being exceedingly prosperous.

The prospects of the settlers look bright, and, should the price of butter hold good, the bulk of them will in a few years be in an independent position as regards outside employment.

Improved-farm Settlements.

Poti.—108 acres in eight sections, all felled and grassed; occupied by eight settlers, one being non-resident, but another person is in occupation; there are twenty-seven persons on the land. Live-stock consists of 74 cattle and 7 horses. Value of improvements effected at selectors' own cost, £753 10s.

Ngaire.—170 acres in sixteen sections, all felled and grassed; occupied by fifteen settlers, two being non-resident; nine families on the land, comprising forty-one persons. Live-stock, 117 cattle and 10 horses. Improvements at selectors' own cost, £670.

Maata.—30 acres in three sections, all felled and grassed, and occupied by one family of two persons. Live-stock, 30 cattle and 1 horse. Improvements at selectors' own cost, £84.

These three settlements are close to the Borough of Eltham, in a thriving dairying district, and from the number of cattle it will be seen that the farms are well stocked, the settlers devoting their energies to dairying. These settlers have all good roads to their holdings, but of course it is not to be expected from the smallness of the areas that a living can be got from the holdings themselves; still, such as they are, some of them do well, whilst others who make a little from their holdings (which always provides a good home and many of the necessaries of life) supplement their earnings by employment at sawmills, factories, roads, &c., and seem comfortable and contented. They have also school, store, smithy, and post-office conveniences within easy reach.

Tongaporutu.—2,500 acres in sixteen sections, but only five are held by four families under the original tenure, the remainder having been forfeited or surrendered and taken up under the ordinary conditions of the Act. The area felled and grassed is 529 acres; there are twenty-nine persons on the

land. Live-stock, 108 cattle and 11 horses. Improvements at selectors' own cost, £504. This settlement is situated in the lower valley of the Tongaporutu, the Main North Road passing through it. Unfortunately a good deal of the land is of poor quality and useless for improved-farm holdings, which has necessitated an amalgamation of holdings, and it is suggested to relieve some of the settlers of the broken land and include it in a forest reserve. The settlers remaining on the land are all doing fairly well, their principal means of livelihood being dairying, the raising of stock, employment on the roads, and working for the larger holders in bushfelling, &c. There is a school, post-office, and store in the settlement.

Derwent.—1,369 acres in thirteen sections, seven of them being held by five persons, the remaining sections except one having been taken up under the ordinary conditions. The original selectors have felled and grassed 459 acres. There are twenty-five persons on the land, and live-stock consists of 200 cattle, 150 sheep, and 15 horses. Improvements at selectors' own cost are valued at £885. Like the Tongaporutu Settlement, which it adjoins on the north, some of this land is of an indifferent quality and has necessitated an amalgamation of holdings. Those remaining on the land are making headway and making a living chiefly by dairying, cattle-raising, and road-works. They are within reach of a school and post-office. The access to the bulk of the settlement is a bridle road only for about three miles to the Main North Road.

Okau.—1,889 acres 2 roods in nineteen sections, situate about nine miles from the mouth of the Tongaporutu River. Four settlers hold a section each, the others having been merged into larger holdings and taken up under ordinary conditions. The original settlers have felled and grassed about 240 acres. Value of improvements at their own cost, £230. Twenty persons on the land. Live-stock, 75 cattle, 2 sheep, and 7 horses. A good deal of this settlement is of a very broken nature, which has necessitated forfeitures. The settlers remaining on the land, however, are doing fairly well; they are engaged in stock-raising, dairying, and employment on the roads, as well as occasional bushfelling and fencing contracts for the larger holders.

Greenlands.—603 acres in six sections, situate about seventeen miles from the mouth of the Tongaporutu River and at the end of a horse-track. When, however, the Moki Road is formed, the settlement will be within four miles of it. Two sections are held by original settlers, the others having been taken up under the ordinary conditions. There are six persons on the land, and the live-stock comprises 60 cattle and 5 horses. Improvements at selectors' own cost, £77 5s. The area felled and grassed is 236 acres. Notwithstanding the isolation of this settlement the people there are in good heart, with comfortable homes, packing out their butter over a very broken road. The soil is of good quality. A livelihood is made out of dairying, stock-raising, supplemented by road and bushfelling contracts.

Uruti.—Situated on the Main North Road, about thirty-three miles from New Plymouth; 697 acres in seven sections, five being held by three families who have taken up the remainder under the ordinary conditions. The area felled and grassed by the selectors is 494 acres, and there are twenty-eight persons on the land. Live-stock, 255 cattle, 24 horses, and 100 pigs. Improvements at selectors' own cost, £740. The settlers on the land are all doing well, with comfortable homes and outbuildings. There is a school, public hall, creamery, two stores, post and telegraph office in the settlement, and religious services are held regularly. This settlement has got over its early struggles; and the people, who, of course, live by dairying and stock-raising, are apparently independent of outside help except occasionally taking road-works if they are slack.

Mangapoua.—Situated on the Kaipikari Road, about four miles from Urenui; 702 acres in seven sections, of which two are held by two persons; one family of seven persons resident. The other selector has been granted leave of absence for a short period. Area felled and grassed is 108 acres. Improvements at selectors' own cost, £170. Live-stock, 80 cattle and 3 horses. The settlers left on the land are well-established and doing well, and earn a livelihood by dairying, cattle-raising, &c.

Huiroa.—Situated on the Douglas and Makuri Roads, about eighteen miles from Stratford; 668 acres 1 rood 21 perches in nine sections; there being thirty persons on the land. Seven sections are held by seven persons. The area felled and grassed is 522 acres. Improvements at selectors' own cost, £1,074. This settlement is in a good district, accessible by dray-roads, and the people have comfortable homesteads and surroundings, and a dairy factory is within easy distance, their main source of income being dairying and stock-raising, which is perhaps supplemented at times by employment from the larger landholders; and taken altogether the difficulties of early settlement have been overcome.

Mangaere.—Situated about twenty-one miles from Stratford, on the Ohura Road; 482 acres 2 roods 13 perches in thirteen sections, of which eleven are held by ten persons, eight being original settlers. There are forty-four persons on the land, and they have felled and grassed 460 acres. Improvements at selectors' own cost, £1,225. Live-stock, 210 cattle and 25 horses. This settlement is tapped by good roads, and there is a dairy factory, school, post-office, stores, &c., in the settlement. The settlers have good houses and are apparently doing well, and are contented, their means of livelihood being dairying and stock-raising, supplemented, when they have time for it, by road and other contracts. There is no fear for the settlers here, who seem thrifty and industrious, and have got a good start.

Whangamomona.—10,543 acres in 111 sections, eighty-one of them being held by fifty-six persons, there being 190 persons on the land. The area felled and grassed is 5,205 acres. The improvements at selectors' own cost being valued at £8,579 5s. The live-stock consists of 1,489 cattle, 1,160 sheep, and 113 horses. One settler was assisted during the year towards the erection of his house to the extent of £30; and there are only two persons who have not as yet received their leases, but these will be issued during the coming year. The settlement extends along the Ohura Road, at forty miles from Stratford, for a distance of about eleven miles, and is very prosperous, most of the settlers having turned their attention to the dairying industry. There

are two dairy factories in the district, together with schools, public halls, stores, post and telegraph offices, &c. In the early days of the settlement the people had a hard struggle, but they are now well established with good homes; and, like many other selectors in Taranaki, their positions are strengthened by amalgamation of holdings. Their means of living is dairying and cattle-raising.

Taumatatahi.—Situated on the Waitotara Valley Road, about thirty miles from Waitotara; 430 acres 2 roods in four sections, each occupied. The area felled and grassed is 288 acres, and there are thirty-four persons on the land. Live-stock, 135 cattle and 9 horses. Improvements at selectors' own cost valued at £820. This settlement is in a somewhat isolated position, surrounded by broken country; but good homes are established, and the settlers are prosperous. They have the advantages of school, post-office, and store; and the main Waitotara Valley Road, formed for dray traffic, passes through the settlement. Dairying, road-work, and cattle-raising form their chief occupations.

Nihoniho.—3,190 acres in twenty-three sections, of which three are in working-order, with sixteen persons resident. Twenty sections were balloted for last November, but up to the present only one person has made a start with the occupation of his holding. Live-stock, 130 cattle and 17 horses. Area felled and grassed, 173 acres; and improvements at selectors' own cost valued at £304. This settlement is situated about twenty-three miles from Ongarue Railway-station, near the Ohura Road. Most of the persons who obtained sections recently are employed on the public works at present near Ongarue. This is a settlement that ought to do well; the land is of good quality, and there will be a large amount of road-work going on which will give the settlers a good start.

During the year I have visited all these settlements and interviewed many of the settlers, and discussed with them their past struggles and future prospects. With the exception of the Tongaporutu, Derwent, and the Okau Settlements, all are making good headway, and the people on the land are generally comfortable and contented. It must, however, be kept in mind that the amalgamation of holdings is largely accountable for this result, and that the families now left are probably the best of their class—in other words, it is a survival of the fittest.

Land for Settlements.

Tokaora.—Situated on the Main South Road, about four miles from Hawera. This settlement comprises 1,505 acres 2 roods 8 perches, and during the year the remainder of the sections have been taken up. Two of the original sections were divided, so that there are sixteen sections but only fifteen selectors, twelve of whom have built residences and are living on the land, the number of persons on the land being sixty-nine. The value of improvements effected by the settlers is £2,384 16s.—comprising residences and outbuildings, £1,760; fencing, &c., £624 16s. This settlement comprises some first-class dairying land, and the settlers are making all the use they can of their holdings in following the dairying industry. All the sections are either fronting metalled or formed roads, and are within easy distance of a factory. In one or two cases the selectors say that they have not done so well as they anticipated. This may be accounted for partly by the cold wet season throughout, and the fall in cattle values; on the other hand, the high price obtained for milk has helped to counterbalance this.

During the year negotiations were commenced for the acquisition of land near New Plymouth for workmen's homes, in consequence of representations being made to the Government that there was a demand for this class of settlement, and the result was the acquisition of a block of 301 acres, about two miles and a half from the town and about half a mile from the breakwater at Moturoa. This has been divided into sixty-one allotments, varying from 31 perches to 5 acres, for workmen's homes, and eight allotments, varying from 8½ acres to 33¾ acres, as small dairy-farms. These will be opened for selection during the coming year.

Farm-homestead Associations.

Milsom.—Situated on the Junction and Matau Roads, about thirty-three miles from Inglewood, and comprises 2,095 acres, in eleven sections, held by ten persons, all of whom are resident, and who have effected more than sufficient improvements to comply with the Act, the value at the date of last inspection being £1,599 2s. Most of them are engaged in dairying, and the settlement is now in a prosperous position, nearly all of the settlers making a living from their holdings alone. They have good roads; a post-office, school, and store are within easy distance,

Oxford.—Situated on the south of the Waitara River and adjoining the Milsom Settlement. Only one selector remains and is resident out of about twenty, the balance of the holdings being now occupied under the ordinary conditions. His holding is 200 acres and is considerably improved, the value of the improvements being £370. He depends chiefly upon cattle-raising for a means of living, and has now the benefit of good roads.

Lepperton.—Situated on the Main North Road, near Uruti, twenty-three miles from the port of Waitara, and comprises 2,167 acres 3 roods, in eleven sections, which are held by seven settlers, all of whom are resident on their holdings and have effected improvements to the value of £2,507 5s. They engage in dairying, and one of them owns the factory. They have a good road, metalled to within two miles of the settlement; all doing well. They are within a short distance of post and telephone office, store, &c.

Gation.—Situated on the Mangaehu and Tututawa Roads, about fifteen miles from Stratford, and comprises 1,600 acres, divided into eight holdings, all of which are occupied by resident selectors. They have effected very extensive improvements, valued at £2,646 5s. They are generally engaged in dairying and stock-raising. A dairy factory is close to the settlement and is supplied by the settlers. They have good roads and are in comfortable circumstances, with a school and post-office within easy distance.

Eltham.—Situated on the Brewer and Taihore Roads, adjoins Strathmore Township, and comprises 800 acres, in five sections, occupied by four settlers, all of whom are resident. They are engaged, generally speaking, in dairying and stock-raising, and are in comfortable circumstances, with good roads of access. The improvements effected are extensive, and are valued at £1,162. A factory, school, store, and post and telephone office are within easy distance.

Ross.—Situated on the Main Ohura Road, about thirty-three miles from Stratford, comprises 1,557 acres 2 roods 28 perches, divided into nine sections, which are held by seven settlers, all of whom are resident except one, and he has been allowed an extension of time. They devote their energies to stock-raising, and are in good circumstances. There is a school, store, and post and telephone office in the settlement. The farms are all highly improved, the improvements being valued at £3,155.

Terrace End.—Situated principally on the Taihore Road, with branch roads on Mangaehu and Makahu Rivers, and close to Strathmore Township. It comprises 4,818 acres 2 roods, divided into twenty-four allotments, which are occupied by twenty-two selectors, all of whom are resident and have effected improvements beyond the requirements of the Act, being valued at £6,682 10s. The settlers are principally engaged in the raising of cattle, but a few are dairying. They are a good class, and are doing well. Most of them have the benefit of good roads, and where this is the case they have become very successful. The enforcement of the conditions of personal residence has resulted in more progress being made in the settlement. A dairy factory is about to be erected, and a school has recently been provided for.

Mangaehu.—This adjoins the Terrace End Settlement on the east, and comprises 2,578 acres, divided into thirteen sections, occupied by eleven settlers, of whom nine are resident. The improvements in this settlement are not so great as in others, as the land is rougher and is more difficult of access; they are valued at £1,582 15s. Here the land is devoted entirely to stock-raising, and its progress has been retarded for want of a road; but last year, however, a dray-road was made to give access to the main portion of the settlement in the Puniwhakau Valley. The settlers are a good class and are doing their best to progress.

Whenuakura.—Situated on the Rawhitiroa and Tahuri Road, about twenty-four miles from Eltham, and is in a very rough district. It comprises 597 acres 2 roods 12 perches, and is divided into three sections, each being occupied. Two of the selectors reside, and one is residing with parents, having been exempted in terms of the Act. The improvements are valued at £547 10s., and the settlers are engaged entirely in stock-raising. Now that roads are being pushed into the block the settlers are beginning to make some use of the land.

Appended is a summary of the position of these associations as to residence—the number of settlers required to reside, those actually residing, and the area:—

	Number required to reside.	Number actually residing.	Area. A.	R.	P.
Milsom	10	10	2,095	0	0
Oxford	1	1	200	0	0
Lepperton	7	7	2,167	3	0
Gatton	8	8	1,600	0	0
Eltham	4	4	800	0	0
Ross	7	6	1,557	2	28
Terrace End	22	22	4,818	2	0
Mangaehu	11	9	2,578	0	0
Whenuakura	2	2	597	2	12
	72	69	16,414	2	0

During the past year I visited these settlements. Their identity as settlements, however, has now practically passed away, on account of the surrenders and forfeitures that have taken place and on account of the bulk of the lands having since been taken up under ordinary conditions. The lands, therefore, are now so interspersed with those of other ordinary tenures that they may be regarded as independent holdings.

The gross area of the original settlements was 75,000 acres, and has been reduced as above to 16,414 acres.

Remarks and Conclusions on Present and Future Settlement.

In reviewing the progress of settlement and the conditions as they now exist, I may precede my remarks by saying that during the past year I have visited nearly every holding in the Taranaki district as held under our settlement tenures, meeting all the settlers I could find on my visits in their everyday life, and taking notes as I went along, which I had attached to every settler's papers in the office after each visit, as I felt that without a knowledge of their wants and surroundings I was very much hampered, not only in matters coming before the Land Board, but also in my general administration. In this way I have been able to get a grasp of the back portion of the district that I could not otherwise have done, and at the same time one is more able to recognise and appreciate the persistent struggle with the wilderness that permeates the lives of the noble band of men and women who are carving out homes in the forest for themselves and their families, often under conditions that would dampen the ardour of the most buoyant and make the stoutest heart quail. Notwithstanding many hardships and drawbacks, I found the settlers, taken as a whole, in good heart and pleased with their prospects, particularly those who have been established for a few years and have got over early trials and isolation. One very good sign is that many of them are indifferent as to outside help, and find that in working for themselves they can do better than on road-works, and consequently feel more independent.

In Taranaki, largely on account of climatic reasons, cattle-raising, sometimes with a few sheep, and eventually, wherever the country is suitable, dairying, combined with pig-farming for the bacon-factories, &c., is the class of farming looked upon with most favour by our settlers. For some reason or other, except in the southern portion of the district, sheep-farming is not resorted to. For this reason the fall in the price of wool has not seriously affected the prosperity of Taranaki. Speaking, therefore, in the broadest sense, the farming community generally are in a prosperous and sound condition. It is essentially a country of small holdings; those in the older settled districts having creameries and factories close at hand, whilst the settler farther back has to put up with the separator, and still farther back has to content himself with the raising of stock, but in a more or less degree the wave of prosperity, so to speak, reaches all.

I now come to the question of road access, and this, or rather the want of it, is the burning question of all our pioneer settlers who have to earn their bread from the soil. Very few grumble at the rents they have to pay, but they do make themselves heard in the matter of roads; and the majority of them would willingly pay double their rents if from the first they had access to their holdings by a dray-road, for the simple reason that the land at once becomes productive, and simultaneously the factory, school, &c., and the other necessaries of life come within reasonable reach and gladden the settler's heart. As to how road access is to be obtained is the absorbing question. I feel sure, as suggested by Mr. Barron, Crown Lands Ranger, a judicious capitalising of "thirds" and the raising of loans under the Loans to Local Bodies Act, paying interest out of "thirds" for the first fifteen years of the loan when the settlers really need help, would, together with the Government loading, afford a very large measure of relief. This was largely done in the Wellington District, and if I remember rightly the Salisbury and Deleware Blocks in the Upper Pohangina are cases in point. In addition to this I feel that a very large number of settlers would be willing to help themselves if the means of doing so were placed before them. Numbers that I have spoken to recognise that a rate for a loan would often pay them ten fold in the extension of their milking season alone, which would be practically doubled. What I mean is that a settler now often through bad roads cannot take his milk to a factory before December, and ceases doing so in February or March, whilst with a good road he could start in August and end in May.

Whilst on the road question, I have earnestly to place before you the great advantage to settlement that would be achieved by the completion of the Moki and Stratford–Ohura Roads: in the former only ten miles and a half to make it open for bridle traffic are required, and on the latter eight miles. It seems a pity that for two great arterial roads like these recourse should have to be made to anything but dray-roads, but even a horse-road is preferable to none, and at any rate it opens up the wilderness. It gives those looking for land a chance of seeing what the country is made of, and to present and future settlers it at once brings the markets of the outer world within payable reach of them, making their burdens and lives easier, turning so to speak a current of civilisation into their midst, and welding together wider communities of interest.

Regarding new lands to be opened during the coming year, these will probably be as follows: Ohura and King-country, about 110,000 acres; Upper Tongaporutu, about 19,000 acres; Whangamomona, about 36,000 acres; Upper Whenuakura, about 12,000 acres; miscellaneous sections, about 12,000 acres; or a total of 189,000 acres, which with lands now open, 99,648 acres, will make a grand total available during the year of 288,648 acres. The most important of these I think will be the Ohura country lands, on which I have specially reported on more than one occasion, and which I need hardly refer to here beyond remarking that I think there is a great future for this part of the country, and that the Wanganui River will form an important factor in its future development. With a steamer landing-place about the mouth of the Ohura, and a through road to Ongarue (half of which is now made), it will create an entirely new community, and bring into profitable use a quarter of a million acres of Crown and Native land of a low elevation, at present practically a *terra incognita*, on which only herds of wild horses and cattle now roam. In any case roads to open up our own Crown lands will have to be taken from Ongarue to within a few miles of the mouth of the Ohura, and in the combined interests of settlement and the tourist traffic it would appear that the through connection is essential, particularly as the road-construction will be comparatively easy.

Personally I feel that a larger Wanganui district will eventually be opened on the northern side of the Wanganui River than at present exists on the southern side, and that the utility of the river as a highway to the back country has not as yet emerged from its primary stages.

Office-work.

The clerical staff has been fully employed during the year. The subjoined list gives an indication of the work for the year: Correspondence—inward and outward letters, circulars, &c., 13,145; applications for land, 475; reports to Advances to Settlers Office, 67; cheques drawn for wages of survey parties, &c., 570; vouchers dealt with, 585; transfers recorded, 146; receipts for rent and refunds, 4,215; provisional titles prepared, 87; cards furnished to Auditor, 114; local bodies' proposals dealt with (covering an expenditure of £1,087 11s. 11d.), 19: total, 19,423, an increase of 3,100 over last year's work.

JAMES MACKENZIE,
Commissioner of Crown Lands.

WELLINGTON.

Lands opened for Sale and disposed of.—The Crown lands offered for sale or selection during the year amounted to 40,496 acres, to which has to be added the area 28,176 acres already open

on the 1st April, 1902, making a grand total of 68,672 acres open for disposal. The 40,496 acres of new lands thrown open comprised 26,406 acres offered under the optional system (including the Tauakira Block on the Wanganui River, 13,303 acres, and forfeited sections in Hunterville No. 1, Marton Nos. 1, 2, 3, and other blocks), an area of 11,755 acres in the Kaitieke Block in the Waimarino thrown open on small-grazing-run system, the balance being made up of odd sections, township lands, &c. Sections in the following townships were offered for cash by public auction as follows: Mataroa, near Taihape, 30 lots; Levin, 4 lots; Carnarvon, 7 lots; Makuri, 1 lot (purchased for creamery-site); Mowhanau Village, near Wanganui, 32 lots. Twelve lots, Mataroa Village Settlement, of an area of 43 acres 1 rood 12 perches, and 4 lots, Mowhanau Village Settlement, area 380 acres, were offered on lease in perpetuity, also 13 lots in the Horowhenua East Village Settlement near Levin, area 870 acres. The demand for land in the vicinity of Levin is shown by the fact that there were about 780 applicants for the lots offered in the latter settlement, considerably over 300 applications being received for several of the sections, and as many as 396 for one of them.

The Linton Settlement, situated near Halcombe, and acquired under the Land for Settlements Act, area 550 acres, subdivided into five lots, was offered on the 17th September, 1902. There were only about nine applicants; but all the sections, with the exception of one, which was selected during the following month, were disposed of on date of offering.

Leases of fifty-nine lots in the Hokio Native Township, area 19 acres 2 roods 25 perches, situated on the sea-coast west of Levin, were offered on the 11th March last. The demand for them has not been very keen, only twelve of the sections having yet been selected.

An area of 406 acres of rural Native land in the Wairoa district was offered and disposed of for cash by public auction, under the provisions of section 131 of Part III. of "The Native Land Court Act, 1894."

SUMMARY OF LAND TRANSACTIONS, AND REVENUE COLLECTED, DURING THE YEAR ENDED 31ST MARCH, 1903.

System.	Transactions during the Year.		Area under Lease at 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash—					
Rural	4	1,244 0 0			
Suburban	1	3 1 20			
Town	30	8 2 39			
	35	1,256 0 19	...	...	2,125 15 5
Deferred payment ...	...	...	11	1,956 0 34	190 10 7
Deferred payment made freehold	3	395 2 34	...	...	...
Perpetual lease	...	...	52	8,266 3 5	806 12 11
Perpetual lease made freehold	14	6,255 2 34	...	...	5,673 17 1
Occupation with right of purchase	23	6,391 2 0	618	182,898 0 15	9,662 12 2
Occupation with right of purchase made freehold	2	570 0 0	...	...	1,235 18 1
Lease in perpetuity ...	7	1,493 2 0	459	132,666 3 12	5,163 18 7
Lease in perpetuity conversions	2	2,426 0 0	...	...	...
Lease in perpetuity, land for settlements	20	695 0 34	194	14,395 1 0	6,952 2 10
Village settlement—					
Cash	19	9 1 35	...	...	143 16 0
Perpetual lease ...	...	...	1	12 1 11	...
Village homestead—					
Lease in perpetuity ...	33	1,510 1 6	486	9,558 1 14	1,540 17 4
Lease in perpetuity conversions	8	108 0 10	...	...	...
Perpetual lease ...	...	...	86	961 3 13	212 10 5
Special settlement—					
Deferred payment ...	...	...	7	726 1 20	245 15 3
Deferred payment (freehold)	9	949 3 30	...	...	...
Lease in perpetuity ...	...	...	439	80,053 2 25	4,702 17 3
Improved farms... ...	6	855 0 0*	168	17,460 1 30	2,059 9 9
Small grazing-runs ...	3	1,057 0 0	75	68,721 1 4	2,155 17 7
Small grazing-runs, land for settlements	...	...	1	1,030 0 0	171 13 4
Pastoral runs	...	...	22	26,911 0 0	189 15 8
Miscellaneous leases and licenses	33	170 2 7	199	79,743 3 13	2,548 0 2
Carried forward ...	217	24,144 0 9	2,818	625,362 0 36	45,782 0 5

SUMMARY OF LAND TRANSACTIONS, AND REVENUE COLLECTED, DURING THE YEAR ENDED 31ST MARCH, 1903—*continued.*

System.	Transactions during the Year.		Area under Lease at 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Brought forward ...	217	24,144 0 9	2,818	625,362 0 36	45,782 0 5
Miscellaneous leases, land for settlements	...	...	2	44 0 0	8 6 3
Native townships	13	25 3 8	121	357 0 17	493 12 7
Endowment lands—					
Deferred payment ...	...	...	...	...	1,067 8 3
Small grazing-runs ...	1	1,780 0 0	1	1,780 0 0	...
Miscellaneous leases ...	1	1 3 28	5	18 2 20	8 7 0
State forests	...	...	...	...	1,556 7 0
Other sources	...	...	...	...	2,276 11 4
Total	232	25,951 3 5	2,947	627,561 3 33	51,192 12 10

NOTE.—Excluding freeholds under deferred payment, perpetual lease, and occupation with right of purchase, and conversions of tenure, the new selections for the year are reduced to 194 selectors with an area of 15,246 acres 1 rood 17 perches, the annual rent payable thereon being £1,641 4s. 4d.

* This does not include twenty-eight holdings aggregating 4,108 acres and 16 perches which have been balloted for but not registered on the books.

An analysis of this table shows that the operations of the year were less by 114 in number and 44,653 acres in area than those of last year. The total area held under lease and license also shows a decrease of 10,872 acres, but the number of selectors on the books has increased by forty, and the revenue received also shows an increase of £2,579. The falling-off in number of operations was principally caused by a shrinkage in dealings under the following systems: Cash, perpetual lease made freehold, lease in perpetuity, land-for-settlements lease in perpetuity, village-homestead lease in perpetuity, conversions, and Native townships; the other systems being practically the same as the previous year. The decrease in area dealt with is mostly comprised in the headings perpetual lease made freehold, lease in perpetuity, pastoral licenses, and miscellaneous leases (the latter item being over three-fourths of the whole deficiency); whilst in the other lands increases occurred under the cash, occupation-with-right-of-purchase, special-settlements-made freehold, village-homestead-lease-in-perpetuity, and small-grazing-runs systems.

An examination of the revenue return discloses that large decreases took place in the perpetual leases made freehold, but these were more than counterbalanced by the, in some cases, substantial increases which took place in nearly all the other systems. For the first time it will be noticed the item "occupation with right of purchase made freehold" appears in the returns, a number of selections having been held over the ten years' limit fixed by the Act, during which no freehold titles under this system can issue. It is anticipated that these titles will gradually take the place of the perpetual-lease system under "The Land Act, 1885," which will shortly be altogether extinguished, and will for some years produce an increasing revenue.

Cash Sales.—Thirty-five persons purchased eight town acres, one suburban, four rural, and nineteen village-settlement sections, of a total area of 1,266 acres; fourteen perpetual-lease holdings, aggregating 6,255 acres; and two occupation-with-right-of-purchase licensees, holding 570 acres, obtained their freehold titles; making, with the sections purchased outright for cash, a total of 8,091 acres, producing £9,179.

Area selected during the Year.—This comprised 15,246 acres under all systems.

Forfeitures and Surrenders.—The interests of sixty-six selectors in 12,677 acres were forfeited, and six surrenders of 4,004 acres took place during the year.

Arrears.—There were 200 selectors, representing an area of 40,296 acres, in arrear with two or more payments, aggregating £2,425 on the 31st March last. This shows a substantial decrease on last year's figures, which showed 269 selectors in arrear with £3,108, a difference of sixty-nine selectors and £683 respectively.

Reservations.—The area of lands reserved and alienated in terms of the provisions of the Land Act and other special Acts amounted to 1,001 acres, principally for primary education reserves, timber-preservation, reformatory, &c.

Rebate.—Under "The Crown Tenants' Rent Rebate Act, 1900," 1,849 selectors obtained discounts amounting to £1,951 on their payments.

The Crown Lands Rangers for the East Coast report as follows:—

From detailed reports on the various systems forwarded herewith it will be seen the progress of settlement in this portion of the land district has been satisfactory, as out of 586 ordinary inspections there were only thirty-six defaulters as to improvements. The number (seventy-one)

of non-residents appears large, but of these fifty are expected to fully comply shortly. In some of the farm-homestead associations, now established seven or eight years, there are still a few absentees; these have again been dealt with by the Land Board recently, and it is now recognised in the farm-homestead settlements that any further concessions to defaulters will be made at the expense of and to the detriment of resident selectors.

The steady diminution of persons on the land is noticeable in connection with village settlements, and calls for attention. Some of the probable causes are noted in the village-homestead settlement report of this year.

Roads.—During the year a good number of horse-tracks or by-roads has been converted into summer dray-roads, whilst metal has been laid in several places on the main roads, but a great deal of road making and metalling is still required to enable settlers to approach suitable markets and thereby reap the benefit of their labours.

Dairying Industry.—Since last report the Makuri Dairy Company have erected at Makuri a large butter-factory, fitted up with the latest improvements, also branch creameries at Coonoor and Mangatiti, and contemplate the erection of others in suitable places. From various causes they commenced operations late in the season, but shareholders and suppliers look forward to a prosperous season this coming year. A butter-factory has also been erected by private enterprise at Pongaroa, and has been in active operation for some time, much to the satisfaction of settlers in the locality. The industry has also extended considerably in the older settled portions of the district. A central factory, capable of dealing with large supplies, and now turning out about 3 tons per day, has been erected at Eketahuna, and branch establishments have been enlarged.

The season has been remarkable for lateness and almost constant rain, consequently very little summer weather has been experienced. Crops and harvesting have been delayed, but the yields, especially in the southern portion of the district, have been prolific.

Bush-burning from same cause has been delayed, but good burns have been obtained in the eastern portion of the district.

Village Settlements.

Tutaekara, Mangaramarama, Paa Creek, Mangaone, and Makuri Village Settlements were inspected during the year, and the following visited: Hastwell, Pahiatua, Mangatainoka, Pongaroa, and Rakaunui.

Of 219 selectors, 186 are residing, twenty-six are not required to reside, and nine are defaulters as to residence. Full reports have been furnished regarding the latter, and the majority are expected to comply shortly.

The desire to increase areas mentioned in previous reports still exists. In some instances selectors have disposed of their village sections to acquire larger areas elsewhere.

The improvements effected on village holdings are largely in excess of lands held under other systems. The reason probably is owing to limited areas enabling selectors to improve the whole, whilst necessary fencing and buildings tend to increase the total values. The latter cannot be expected to increase, as most of the sections are fully improved; whilst the number of souls on the land shows a steady decrease, owing principally to the following causes: Not required to reside after the ten years, grown-up members of families working for themselves, grouping of sections also tends to lessen the number. There are now 774 souls on the land as against 876 last year and 93 the previous year, showing a reduction of 102 and fifty-six respectively.

Improvements required, £6,140; effected, £32,600; surplus, £26,260. From the surplus improvements it will be seen the progress made is satisfactory.

Land for Settlements.

Langdale Settlement.—Situated in the Whareama district, distant about twenty-five miles from Masterton by coach-road, and opened for selection on the 19th March, 1901. The altitude varies from 70 ft. to 1,200 ft. Excluding the township and suburban sections the total area available for settlement is 9,197 acres, divided into twenty-three holdings, ranging from 34½ acres to 1,030 acres, averaging about 400 acres. Of nineteen required to reside, seventeen are residing, two have dwellings in course of erection and will comply shortly. Of the resident selectors, seven are residing in buildings originally erected on the estate, and ten have erected dwellings. There are ten married men, with their wives and fifteen children, and seven single men residing, and two married men, with their wives and families, living temporarily on adjacent land. Improvements required, £903 5s. 4d.; effected, £3,114 16s. 6d.; surplus, £2,211 11s. 4d. Selectors steady, industrious, mostly experienced, and all striving to better their circumstances. Most of the selectors have a few acres cropped for home-consumption; the remainder of the land is utilised for grazing purposes, and is stocked with 67 horses, 30 cows, 221 other cattle, and 11,010 sheep. As all required to reside are residing, and seeing that improvements have been effected to the value of £2,211 11s. 4d. in excess of requirements, the progress made must be looked upon as satisfactory. The Mangapakeha school has been reopened, and is now well attended. Postal facilities are within easy reach of selectors. Access, coach and dray roads mostly metalled.

Farm-homestead Associations.

Following is a summary of the position of these associations—the number of selectors required to reside there, actually residing, and the area :—

	Number required to reside.	Number actually residing.	Area. A.	R.	P.
McKenzie	12	12	1,252	0	0
Waiwera	10	6	1,200	0	0
Kakariki	17	17	3,400	0	0
Coonoor	2	2	350	0	0
Pioneer	12	7	1,517	0	0
Masterton Reform	13	12	2,150	0	0
Stirling	17	17	3,381	0	0
Pahiatua No. 1	28	23	4,343	0	0
„ No. 2	14	13	2,116	0	0
„ No. 3	11	9	1,880	0	0
„ No. 4	5	3	399	2	20
Christchurch	7	7	1,400	0	0
Hall	15	11	2,116	0	0
Woodville No. 2	7	7	1,330	0	0
Dannevirke	1	1	196	0	0
Mecalickstone	9	9	1,899	3	21
Kaikoura	2	2	400	0	0
Rising Sun	9	9	1,800	0	0
	191	167	31,130	2	1

McKenzie.—Area, 1,252 acres, divided into twelve sections, ranging from 70 to 125 acres, averaging about 104 acres. All have complied with improvement and residential requirements. With the exception of a few acres reserved for shelter, the land is grassed, fenced, and well stocked with dairy cows, other cattle, horses, and a few sheep. The selectors are steady, industrious, and prosperous, and are mostly engaged in dairying pursuits. The settlement is well placed in proximity to Mangamaire and Konini Railway-stations, surrounded with close settlement, metalled roads, and within easy distance of Konini Butter-factory; consequently the land is valuable, and the settlement is, without doubt, the most successful in this portion of the land district.

Waiwera.—Area, 2,000 acres, divided into ten holdings of 200 acres each. Out of ten selectors required to reside, six are residing. Four single and two married men are residing, also two women and eight children. Of four non-residents, two are defaulters as to improvements; the latter reside in locality, and with the former are expected to comply shortly. Improvements required, £2,366 17s. 6d.; effected, £3,384; surplus, £1,017 2s. 6d. There is 933 acres grassed, partly fenced, and stocked with 12 horses, 61 cows, 77 other cattle, 450 sheep, and 12 pigs. The settlers are mostly struggling working-men employed on their holdings, on Government roads, sawmills, and about the district. Progress of settlement is rather slow, owing to selectors not fulfilling residential requirements. Access is somewhat difficult, owing to the Mangahao River intervening; with this exception metalled roads are within one mile; Hukanui and Mangamaire Railway-stations are distant about four miles.

Kakariki.—Area, 3,400 acres, divided into seventeen holdings of 200 acres each. All are complying with residential requirements; eleven women and fifty-two children are also residing. There are two defaulters as to improvements aggregating £182; the deficiency is being made up, and full compliance is expected shortly. Improvements required, £4,356; effected, £6,975; surplus, £2,619. There is 1,335 acres grassed, mostly fenced, and stocked with 28 horses, 208 cows, 235 other cattle, 470 sheep, and 73 pigs. The selectors are hard-working struggling men working on their holdings, Government roads, some few at sawmill or their callings in locality, and others supply local creamery. The settlement is situated about three miles from Hukanui Railway-station. There is a creamery established within easy distance, also school and post-office in a central position. Access, metalled roads.

Pioneer.—Area, 2,322 acres, divided into twelve sections, ranging from 100 to 238 acres, averaging about 194 acres each. Of twelve required to reside, seven are residing. The Land Board has recently called upon the remainder to comply with residential requirements. Improvements required, £2,732 10s. 9d.; effected, £7,449; surplus, £4,716 9s. 3d. There is 2,176 acres grassed, fenced, and well stocked with sheep and cattle. Selectors are industrious struggling settlers working on their holdings, roads, and about district; some few supply local creamery. Settlement is well situated, and the improvements effected are largely in excess of requirements, but the continued absence of some few selectors is unsatisfactory. Stock: 11 horses, 58 cows, 90 other cattle, and 3,000 sheep. Access, dray-roads metalled in places.

Masterton Reform.—Area, 2,350 acres, held by thirteen selectors, averaging 180 acres each. Of thirteen selectors required to reside, twelve are residing, and all have complied with improvement conditions. The grassed portion of the land is fenced, and well stocked with cattle, sheep, and horses. Selectors are steady industrious men; they work on their holdings, Government roads, and about the district; some few work exclusively on their sections. The settlement is in a fairly good position, and is making steady and satisfactory progress. Access is from Makuri or Pongaroa by dray-road partly metalled. The remainder, to Section 25, Block V., is summer dray-road, two temporary bridges intervening. Post-office established in settlement.

Stirling.—Area, 3,381 acres, divided into seventeen holdings, averaging about 199 acres each. In addition to three single and fourteen married men, fourteen women and forty-three children are

residing. All have fully complied with sixth years' requirements. Improvements required, £3,896; effected, £8,835; surplus, £4,939. There is 1,986 acres grassed, fenced, and stocked with 28 horses, 88 cows, 224 other cattle, and 1,375 sheep. The selectors are industrious working-men, some few working exclusively on their holdings, the remainder working on their selections, sawmills, roads, trades, carting, shearing, &c., about district, besides being engaged more or less in the dairying industry. Settlement well situated. Selectors favourably situated dispose of their milling-timber to local sawmills. Of the latter, two are in active operation in the settlement, and thus the settlers secure payment whilst the land is being partly cleared; besides, in providing the timber they often obtain employment near home. Creamery, school, and telephone are distant about three miles; whilst there is a post-office in the settlement and others within easy reach. Since last report a substantial bridge has been erected over the Mangatainoka River, thus insuring access at all times. The roads are metalled.

Pahiatua No. 2.—Area, 2,415 acres, divided into fourteen sections, averaging 172 acres each. Of fourteen required to reside, twelve are residing, one is exempt temporarily and resides in locality. There are four single and eight married men residing, also seven women and twenty children. One of the resident and one of the non-resident selectors are defaulters as to improvements, the former to the extent of £60, and the latter £144; both have been called upon to comply. Improvements required, £3,098 6s. 8d.; effected, £4,330; surplus, £1,231 13s. 4d. There is 1,051 acres grassed, partly fenced, and stocked with 24 horses, 40 cows, 132 other cattle, and 2,478 sheep. Selectors, who are steady industrious working-men, are engaged on their holdings, Government roads, and about district; some few supply local butter-factory. Settlement is making steady progress; all land in the locality is occupied, and application for a school in centre of block has been made and favourably entertained. Post-office and butter-factory within easy distance. Access partly by dray-road, remainder horse-tracks.

Pahiatua No. 4.—Area, 958 acres, divided into five sections, ranging from 99 to 280 acres, averaging about 191 acres each. Of five required to reside, one single and two married men are residing, with their wives and eleven children. Of two non-resident, one is expected to comply shortly, one is doubtful, and both are defaulters as to improvements. Improvements required, £1,288 19s. 11d.; effected, £974; deficiency, £314 19s. 11d. The grassed portion is partly fenced, and stocked with horses, cattle, and sheep. The selectors are struggling working-men with limited means, who work on their holdings, on Government roads, and about district. Stock: 4 horses, 10 cows, 48 sheep. Access, dray-roads mostly metalled.

Hall.—Area, 2,794 acres, divided into fifteen sections, held by eighteen selectors, averaging about 186 acres to each holding. Of fifteen required to reside, four married men, with their wives and eight children, and three single men are residing, two are deceased, whilst five married men are not residing. Of these, two are defaulters as to improvements, one was granted leave of absence, one transfer pending, two are living in locality. Improvements required, £4,124 8s. 3d.; effected, £6,302; surplus, £2,177 11s. 9d. The Land Board has recently dealt with defaulters, and all are expected to comply shortly. There is 1,682 acres grassed, most of which is fenced and stocked with sheep, cattle, and horses, &c. Of the residents, three are large suppliers to local creamery and five utilise the land for grazing purposes. Of the non-residents, one is or was engaged in business, the remainder are struggling working-men who work mostly in the locality and also effect improvements in their holdings. Settlement is situated between Ballance and Woodville; most of the land is hilly. With two exceptions the required improvements have been effected, but there can be no doubt absentees tend to retard progress. Stock: 34 horses, 86 cows, 259 other cattle, 1,475 sheep. Access, southern portion by metalled roads, the remainder by bridle-tracks now being widened in places. Manawatu Bridge, now in course of construction, will facilitate access to settlement, also to and from Woodville and Ballance.

Woodville No. 2.—Area, 1,330 acres, divided into seven sections, ranging from 100 to 230 acres, averaging 190 acres to each selector. All have complied with improvement and residential conditions. Improvements required, £1,782 12s. 6d.; effected, £2,292; surplus, £509 7s. 6d. There is 659 acres grassed, mostly fenced, and stocked with 17 horses, 9 cows, 173 other cattle, and 950 sheep. Selectors are industrious and struggling; they work on sections, roads, and about the district. Settlement has made fair progress. School and post-office within easy distance. Access: dray-road, part of which is metalled.

Mecalickstone.—Area, 1,900 acres, divided into ten sections, held by nine selectors, and ranging from 97 to 300 acres, averaging about 211 acres each. Residence and improvement conditions complied with. Seven married men with their wives and seventeen children, also two single men, are residing. Improvements required, £1,545; effected, £3,647; surplus, £2,102. There is 1,158 acres grassed, partly fenced, and stocked with 21 horses, 51 cows, 91 other cattle, and 1,614 sheep. Selectors are steady industrious working-men, who work on their holdings, Government roads, and about the district. Settlement is making steady and satisfactory progress. School and post-office in proximity. Access, summer dray-roads and bridle-tracks.

Kaikoura.—Area, 400 acres, divided into two sections. Residence and improvement conditions complied with. Improvements required, £550; effected, £733; surplus, £183. There is 195 acres grassed, part fenced, and stocked with 11 horses, 8 cows, 12 other cattle, and 220 sheep. Selectors are steady industrious working-men. Settlement situated on Alfredton–Weber Road, within easy distance of school and post-office. Access: dray-road, part of which is metalled.

Rising Sun.—Area, 1,800 acres, divided into nine sections of 200 acres each. Of nine required to reside, six married men with their wives and twenty-six children, one widow, and two single men are residing. Improvements required, £2,140; effected, £3,799; surplus, £1,659. All have complied with sixth year's requirements. There is 980 acres grassed, most of which is fenced, and stocked with sheep, cattle, horses, and utilised for grazing purposes. The selectors are hard-working struggling men, who work on their holdings, Government roads, and about the district.

Settlement in fairly good position, and making steady and satisfactory progress; school and post-office established in settlement. Stock: 28 horses, 22 cows, 232 other cattle, and 1,405 sheep. Access: Towai metalled road to within two miles of settlement, remainder bridle-tracks good in summer only.

Improved Farms.

Mangatiti and Akitio Improved-farm Settlements have made steady progress. The selectors during the year have effected improvements at their own cost to the value of £1,239 1s. 7d.

Since last report a creamery has been erected at Mangatiti, also a butter-factory near Pongaroa, whilst the erection of branch establishments in suitable localities are under consideration.

The present drawback is the need of capital to provide sufficient stock and plant to enable selectors to take full advantage of their pasture and improvements.

In most instances bridle-tracks have been widened into dray-roads suitable for summer traffic, whilst schools and post-offices are within easy reach of the majority.

Summary: Of sixty-eight required to reside, fifty-seven are residing, as are also thirty-two women and 105 children. The non-residents, eight single and three married men, appear in settlement report attached.

The improvements are as follows: At Government cost—3,459 acres of bush felled, £4,877 8s. 3d.; 2,665 acres grassed, £1,376 13s. 4d.; buildings, &c., £729 15s.: totals—for 1903, £6,983 16s. 7d.; for 1902, £6,539 5s. 5d.; showing an increase for 1903 of £444 11s. 2d. At settlers' cost—1,004½ acres of bush felled, £1,473 8s.; 1,653½ acres grassed, £978 11s. 10d.; houses (fifty-six), £964; outbuildings, gardens, &c., £449 13s.; fencing (2,460 chains), £2,016 5s. 3d.: totals—for 1903, £5,881 18s. 1d.; for 1902, £4,642 16s. 6d.; showing an increase for 1903 of £1,239, 1s. 7d. The total improvements for the year amount to £1,683 12s. 9d. over that of last year (1902).

Stock: 1903—76 horses, 278 cows, 658 other cattle, 3,226 sheep, and 63 pigs. 1902—72 horses, 184 cows, 417 other cattle, 2,598 sheep, and 59 pigs. Increase—4 horses, 94 cows, 241 other cattle, 628 sheep, and 4 pigs.

From the above will be seen the cost of Government improvements and the nature, extent, and value of improvements effected at selectors' cost, with the number and kind of stock, also the increase as compared with previous years.

Mangatiti.—Situated in Makuri, Puketoi, Aohanga, and Mount Cerberus districts. Area, 4,548 acres, divided into thirty holdings, held by thirty-one selectors, ranging from 65 to 200 acres, averaging about 150 acres each. Of thirty-one required to reside, fifteen married men, with their wives and thirty-six children, and eleven single men are residing. Of the five non-resident, two are married and three are single; of the former, one resides occasionally, and one is supposed to be visiting his family in the South Island. The remainder are expected to comply shortly, as one is working at local saw-mill and two are recent selectors. Cost of Government improvements—1903, £3,083 11s. 11d.; 1902, £2,872 2s. 1d.: increase, £211 9s. 10d. Value of selectors' improvements—1903, £2,196 19s. 7d.; 1902, £1,405 6s. 3d.: increase, £791 13s. 4d. Stock—1903, 33 horses, 150 cows, 348 other cattle, 158 sheep, and 25 pigs; 1902, 32 horses, 64 cows, 271 other cattle, 222 sheep, and 13 pigs. In 1903 there were thirteen women and thirty-six children residing, and in 1902 there were eleven women and thirty-three children. The improvements effected by selectors are as follows: 284 acres of bush felled, £410 18s. 6d.; 563 acres grassed, £320 19s. 4d.; twenty-three buildings, £563; 924½ chains fencing, £741 13s. 4d.; 17 acres garden and cultivation, &c., £160 8s.: total, £2,196 17s. 7d. The selectors are mostly struggling industrious labouring-men; some few, with the assistance of a little work at their callings, obtain a living on their holdings, but the majority rely upon Government road-work. During the year the resident and especially the married selectors have effected improvements at their own cost to the value of £791 13s. 4d., whilst seven have no fencing and ten have no stock, being a reduction since last report of three and five respectively, whilst three are new and promising settlers; so better results may be expected this coming year. Access mostly by summer dray-roads.

Akitio.—Situated in Mount Cerberus and Weber districts, but mostly in parts of Pahiatua Nos. 1, 2, and 3 Farm-homestead Blocks. Area, 4,324 acres, divided into thirty-seven holdings, ranging from 60 to 200 acres, averaging about 117 acres each. Of thirty-seven required to reside, eleven single and twenty married men are residing, also nineteen women and sixty-nine children; one married and five single men are not residing. Of the six non-resident, one married (transfer pending) and one single man are working in adjoining district, the remaining five are young and single men who participate in Government road-work and reside mostly in the locality with their relatives. Cost of Government improvements—1903, £3,900 4s. 8d.; 1902, £3,666 17s. 4d.: increase, £233 7s. 4d. Value of settlers' improvements—1903, £3,684 18s. 6d.; 1902, £3,237 10s. 3d.: increase, £447 8s. 3d. Stock—1903, 43 horses, 128 cows, 315 other cattle, 3,060 sheep, and 38 pigs; 1902, 40 horses, 120 cows, 146 other cattle, 2,376 sheep, and 41 pigs. In 1903 there were nineteen women and sixty-nine children residing, and in 1902 there were eighteen women and forty-eight children. Improvements effected by selectors are as follows: 760½ acres of bush felled, £1,062 9s. 6d.; 1,070 acres grassed, £657 12s. 6d.; thirty-three houses, £401; 1,535½ chains fencing, £1,275 11s. 6d.; outbuildings, yards, &c., £289 5s.: total, £3,685 18s. 6d. The selectors are mostly struggling industrious labouring-men; some few work almost exclusively on their sections, but the major portion works on sections, roads, and about the district, whilst a few rely chiefly on Government road-work. Good progress has been made during the year, the resident and especially the married selectors having effected improvements at their own cost to the value of £477 8s. 3d. The non-resident, mostly single men, have not made any noticeable improvement. Of six single men who have no stock, three are resident and three are non-resident; and of five who have no fencing, four are resident and one non-resident. Access mostly summer dray-roads.

The Crown Lands Rangers for the West Coast report as follows:—

The total number of sections inspected is 753, with a total area of 102,181 acres. Improvements to the value of £100,306 should have been made, and the value of improvements effected is £182,441, thus showing a surplus of £82,135 over and above the requirements of the Land Act. There were 193 defaulters, of whom seventy-nine are in default as to improvements and 114 as to residence. The cause of default as regards improvements is no doubt due to the somewhat heavy requirements of the Act at the end of the sixth year, and, as regards non-residence, to the fact that the selectors hold small areas of land in settled districts where they have comfortable homes and facilities for sending their children to schools, or because they are in good situations or employment which they are loth to leave. The want of road access and schools is no doubt also the cause of non-residence in many cases. The action of the Land Board in calling on defaulters to reside has had the result of bringing a good many on to their sections, and others again have sold out, good settlers having generally taken their places. We may here mention that we frequently experience great difficulty in deciding whether settlers are residing or not; they have built houses, and spent part of their time on the land and part of it away. Very often they happen to be absent when we call.

The settlers in the Waimarino district are fairly prosperous, though the severe winters in this locality retard their progress to a great extent. The dairying industry still flourishes here, and the settlers are about to take over the Waimarino Dairy Factory and Ohakune Creamery from the company that has been working them up to the present, and are going to work them on the co-operative principle, and they propose to establish additional creameries as inducement offers. There is still a good demand for land in this locality, and any sections offered for selection are readily taken up. In the Pohonui-a-tane (Hunterville Nos. 1, 2, and 3 Farm-homestead Associations) and Te Kapua (Palmerston North Knights of Labour and Sommerville Farm-homestead Associations) Blocks the settlers are making satisfactory progress. A dairy factory is now being built on the Turakina River, to be supplied by the Hunterville Nos. 1, 2, and 3 Farm-homestead Blocks. As there are few dray-roads in these blocks, each settler is to be provided with a hand separator, and the cream will be collected and packed to the factory until each section is given dray-road access. In the Palmerston Knights of Labour Block no dairying is done as yet, owing to the want of dray-roads. The settlers have, however, raised loans and formed all the branch roads into dray-roads, but the main road (Murray's Track) is still for the most part a bridle-track through the block. Some of the settlers in the Sommerville Farm-homestead Block are dairying in conjunction with the Taihape creamery, but the industry is far from being thoroughly established as yet.

In the Awarua Block the settlers seem to be doing well, and are improving their holdings in a satisfactory manner. Progress is, however, somewhat retarded by the want of dray-roads. They are raising loans for widening and metalling existing bridle-tracks, but comparatively slow progress has yet been made. The railway is now open as far as Mangaweka, which is a great boon to every one. The main road from Mangaweka to Taihape is now in good order, although almost impassable last winter. The settlement between Hautapu and Moawhango Rivers has been exceptionally successful, all the sections being resided upon, highly improved, and fully stocked. This is perhaps partly accounted for by the fact that dray-road access was given within two years of selection, which is a great inducement to successful settlement.

The Pohangina, Umutoi, Salisbury, Deleware, and Marton Nos. 1 and 2 Farm-homestead Blocks, which are situated between the Rangitikei and Pohangina Rivers, are now making good progress. Dairying is the chief industry, most of the holdings being too small for ordinary farming purposes. During the year two creameries have been established in central positions in the Salisbury and Umutoi Blocks; two more schools have also been erected. Altogether there is a marked increase in the general prosperity of these blocks, which is accounted for by the fact that most of the settlers have now got their holdings in good working-order, and also on account of the high prices they have received for their surplus stock during the year. Dray-road access is still badly wanted to some of the sections, especially on the east end of the Kawhatau Valley, Pourangaki, and Aputa Roads.

In the Malton and Palmerston Forest-reserve Farm-homestead Blocks there are still a number of non-residents, but the improvement conditions have been well complied with. In the Malton Block the holdings are only 100 acres each, which, on account of the high and exposed position of the settlement, is altogether too small an area to make a fair living from. They are now being allowed to increase their holdings by buying one another out, which is a step in the right direction. In the Palmerston Forest-reserve Block the default in residence is accounted for by the fact that most of the non-residents have small places nearer to the towns, but as the Land Board is now insisting on the settlers residing, or transferring to some one who will do so, it is only a matter of a few months until all the sections will be resided upon. The sections are of fair size, and when creameries have been established the settlers should do well. Nine settlers on the Ridge Road have at present only got horse-track access, and the widening of this road is urgently required.

Village Settlements.

The settlers in village settlements in our district are on the whole making good progress, and appear to do well and be contented.

In Raetihi satisfactory improvements have been made, and several substantial houses have been built. The sections are held by people engaged in business in the township, and used as homes, and also by persons working about in the district.

In Taihape satisfactory progress has also been made. Most of the settlers are working on the co-operative railway-works, and have taken up the sections for the purpose of making homes on them.

No inspection is as yet due on the Mataroa Village Settlement, but we have no doubt the settlement will be a success, as employment will be plentiful on the railway and, when that is finished, from other settlers with larger areas in the district.

The Mangaweka, Rakau-toru, and Makohine Settlements are now well established, and comfortable homes are to be seen in each. Slow progress has been made in the Mangamahu Village Settlement, although a traffic bridge has now been built across the Wangaehu River. There are still several settlers who do not reside, and whose sections, we fear, will have to be forfeited before long. The areas of sections here are rather small, and should be allowed to be increased wherever possible.

The Ngamatea Village Settlement is also making but slow progress, and two sections have been forfeited during the year. The areas are too small, employment is scarce, and there is no market for produce, and these are no doubt the main reasons for the non-success of this settlement.

No inspection is due on the Mowhanau Village Settlement, but the settlers are busy fencing their sections. The formation of a few chains of a road is much needed here. We feel sure that this settlement will be a success, as the land and position are good and the areas fairly large.

In the Rewa, Hawaenga, Pakihikura, and Karewarewa Settlements the settlers go in chiefly for dairying, but as the sections are rather small they have to look for some outside work to keep them going.

In Marshall and West Waitapu Settlements the settlers have to rely almost entirely on outside employment for a living, using the sections as homes. They are too small and too far from a market to make a living off, still they seem to be doing fairly well.

The Oraukura Settlement, situated on the Main Trunk Railway line, to the north of Taihape, is at present very successful, all the sections (except one lately forfeited) being highly improved. The sections are chiefly used for grain-growing, for which the country is well suited. Considering the country and high altitude the sections are on the small side, with the result that though highly improved and fully used the settlers have to depend on some outside work in the winter, which at present can be easily obtained on the co-operative works.

Horowhenua and Levin, old-established settlements, continue to prosper, and this is no doubt due to their splendid position. Most of the sections are held by people in business and working about Levin, although on a few of the larger sections good livings are made by dairying and market-gardening.

Korokoro Settlement, which is situated on the hills near Petone, contains an area of about 65 acres, divided into twenty-two sections of an average size of about 3 acres. Nineteen of the sections are now occupied, and eighteen settlers are residing, the total population being sixty-five souls, and the value of improvements £2,141. The sections are occupied by artisans and labourers working in Petone and Wellington, who have now succeeded in making comfortable homes, and are well satisfied with their holdings.

Horowhenua East Village Settlement.—No inspections are yet due on this settlement, and we have not made any special inspection, but from casual observation can see that all the settlers are improving their holdings, and, as the sections are of a fair size and situated in a good locality, there is little doubt of the future success of this settlement.

Land for Settlements.

Epuni Hamlet.—This settlement, which was thrown open for selection on the 25th June, 1901, contains an area of about 94 acres, subdivided into forty-three sections, varying in size from ½ an acre to 4½ acres. It is situated on the eastern boundary of the Lower Hutt Borough, and is about two miles and a half distant from the Lower Hutt Railway-station. Three sections were forfeited during the year, but one was reselected, and there are now forty-one sections occupied. Thirty-three settlers have built houses and are residing, the total population at present being 116. Improvements to the value of £4,058 have been effected by the settlers. The stock comprises 6 head of cattle, 10 sheep, 12 pigs, and 17 horses. The settlement was intended for workmen's homes, and there is no doubt that for this purpose it has been highly successful. The settlers, although mostly working in towns, have all the advantages of a country life, many of them on the larger sections keeping a cow and a horse, and they all have good gardens. The majority simply use their sections as homes, but a few go in for market-gardening and poultry-farming and make a living from them. All classes of artisans are represented in the settlement—builders, butchers, carpenters, bootmaker, and painter, &c., with a few labourers. There is a general appearance of prosperity throughout, and the settlers are well satisfied with their holdings and conditions generally.

Maungaraki Settlement.—This settlement is situated on the hills to the north of Petone and the Korokoro Village Settlement, and contains an area of about 267 acres, subdivided into twenty sections, varying in size from 3 acres to 39 acres. It was intended to provide labourers and fruit-growers with small holdings, and was thrown open for selection on the 20th December, 1901, but only two sections were selected. Since then, as it became known, the sections have been eagerly sought after, and they are now all occupied. Nine houses have been erected, and eight settlers are residing, the total population being twenty-eight. Improvements to the value of £770 have been effected by the settlers, which is very satisfactory considering that most of them have only held their sections for eight months. We feel sure of the success of the settlement, and expect great improvements to be effected during the coming year. The roads are now all formed for dray traffic, but not yet metalled.

Paparangi Settlement, which contains an area of 320 acres, subdivided into 39 sections, varying in size from 1 acre to 55 acres, is situated on the northern boundary of the Johnsonville Town District, fronting on to the Porirua Road and the Manawatu Railway-line. It was thrown open for selection on the 28th February, 1898, and is now permanently settled, all the sections

being resided upon and highly improved. The total population of the settlement is 140, and the improvements effected by the settlers are valued at £4,435. The stock comprises 62 cattle (39 of which are dairy cows), 70 pigs, and 30 horses. The smaller sections are used simply as homes, but on the larger areas several settlers are milking cows and sending their milk to Wellington; others are going in for poultry-farming. The settlers comprise artisans of various kinds and labourers, most of whom find employment in Wellington and Petone. On account of the exposed position the settlement is not suitable for fruit-growing or gardening, although most of the settlers have gardens for their own use.

Mangawhata Settlement is situated near Oroua bridge. The area is 1,226 acres, held in seven sections, all of which are occupied by a good class of settlers; with the exception of one who runs sheep they are all engaged in dairying, and there are two creameries near the settlement. The total number of dairy cows is 208, and the number of other stock is as follows: 201 head of cattle, 1,119 sheep, 41 horses, and 122 pigs. About forty acres has been cropped, but floods have spoilt some of the crops. All the settlers are residing, and the total population of the settlement is thirty-five souls. The total value of improvements is £2,722 8s. Out of this the sum of £834 has been expended by the settlers themselves, the balance representing value of improvements on the land at time of selection. The settlers seem to be doing well, though some of them have suffered from floods. Full reports on damage by floods have already been made. The new road through the settlement requires metalling, and complaints were made by several settlers who have to cart their milk over this road of its bad state in the winter. We trust something can be done to this road, as it cuts up badly in wet weather.

Te Matua Settlement contains 702 acres, held in thirteen sections, all of which are occupied. It is situated near Awahuri, on the main road from Palmerston North to Wanganui and Taranaki. All the settlers are dairying, and there is a butter-factory and creamery near to the settlement. The total number of dairy cows is 203, and the other stock in the settlement is 94 head of cattle, 186 sheep, 39 horses, and 89 pigs. About 46 acres has been ploughed, chiefly to provide winter feed for the dairy cows and cattle. All the settlers are residing, and the total population is forty-three souls. The total value of improvements is £2,703. Out of this the sum of £2,041 has been expended by the settlers themselves since the land was taken up. The settlers are all good men, and have improved their position since taking up land in this settlement; they all seem content, and no complaints were made.

Aorangi Settlement is situated near Feilding, on the right bank of the Oroua River. The area is 1,753 acres, held in thirty-seven sections, all of which are now occupied by a very good class of settlers. The chief industry of the settlement is dairying, and twenty-eight of the settlers are engaged in this pursuit. The other settlers, either engaged in business or trade in Feilding, have taken up the land for the purpose of making homes thereon, or engaged in market-gardening, or doing work for other settlers in the district. The total number of cows milked for the factory is 494. The other stock is as follows: 542 head of cattle, 102 horses, 897 sheep, and 283 pigs. About 150 acres has been cultivated. There are thirty-seven houses, some of which are of a superior character. All the settlers are residing, the total population numbering 152 souls. The value of improvements is £9,000, including £7,753 expended by the settlers themselves since the land was taken up. The Oroua River is encroaching on some of the sections that back on to it, and the question of systematic protection-works is one that will have to be faced before long. Some of the settlers are taking steps in this direction, and others should do so, otherwise it may lead to most serious consequences. The success of this settlement is undoubted, and the settlers are all doing well.

Linton Settlement is situated about three miles from Halcombe. The area is 550 acres, held in five sections, all of which have been taken up. As this settlement was only taken up in September last no statutory inspection is due, but an inspection has been made, and it was found that three of the settlers are residing and the total population is nineteen souls. Owing to the fact that there are as yet no creameries near the settlement the dairying industry has not started. Two of the settlers are however dairying, milking in all twenty-three cows. The other settlers are using their sections for grazing purposes, and the stock is as follows: 83 head of cattle, 5 horses, 744 sheep, and 3 pigs. One new house has been built, and 35 acres has been ploughed. The total value of improvements is £2,012 3s., which includes the improvements on the land at time of selection. Improvements to the value of £169 6s. have been made at the settlers' own cost. We have no doubt this settlement will prove a success, as the land is good, well situated, and the settlers seem to be good men.

Ohakea Settlement is situated on the left bank of the Rangitikei River (on the opposite side from the Township of Bulls). It contains 1,732 acres, held in fifteen sections, all except one being occupied. There are fifteen houses in the settlement, and fourteen settlers are residing; the population is sixty souls. Ten settlers are engaged in dairying, milking 221 cows. There is a creamery adjoining the settlement. The number of stock is as follows: 372 head of cattle, 56 horses, 2,080 sheep, and 162 pigs. All the settlers have done more or less cropping. The total area ploughed is 667 acres, and the yield from thirty to fifty-eight bushels per acre. The total value of improvements is £5,645 14s. 6d., out of which sum £3,772 represents the value of improvements done at selectors' own cost. The new bridge over the Rangitikei River has now been opened for traffic, and this is a great boon to the settlers. All the settlers seem to do well, and are quite satisfied, their only complaint being in regard to the regulations as to the number of crops they are allowed to take off the land. They seem to think that they should be allowed to take more than two grain-crops in succession, and one or two of them have done so in contravention of the regulations.

Improved-farm Settlements.

Hautapu.—No changes have occurred in the occupation of the eleven sections in this settlement. Six settlers go in for dairying, but only one is making a living from his section; the other

five, with the remainder of the settlers, are working on the co-operative works near Taihape. The total value of improvements effected at the settlers' own cost is £1,211 6s. 4d., and the total amount of Government advances during the year is £45 for 25 acres of bushfelling. The population is fifty-three souls, and the stock consists of 440 head of mixed sorts.

Oraukura is situated about a mile north of Taihape Township, on the Main Trunk Road. It contains ten sections, ranging in size from 147 to 207 acres. Nine settlers are residing, but selector of Section 52 has not yet taken up his residence. Advances to the amount of £497 7s. 2d. have been made on six sections, out of which £119 2s. was made during the present year. The total value of improvements now on the land is £1,704 3s. 2d. The population is fifty-four souls, and the stock consists of 174 head of mixed sorts. This settlement, on account of its situation and the sections being of a fair size, promises to be very successful. Only two settlers are dairying at present, but most of them intend going in for it during the coming year.

Otuarei.—This settlement contains nine allotments, of an average size of about 200 acres. During the year one section was transferred, and one forfeited for failing to comply with the conditions. The progress of this settlement is still very slow, partly accounted for by the want of dray-road access. The widening of the bridle-track is now in hand, and as soon as it is completed and a creamery built there should be a marked increase of the progress of the settlement. The total value of improvements is £900 2s. 10d., of which those effected at the settlers' own expense amounts to £515 14s. 7d. The amount advanced during the year is £39 5s. The total population is twenty-nine souls, and the stock consists of 89 head of cattle, 22 horses, 1,172 sheep, and 27 pigs.

Ohutu Settlement contains an area of 2,200 acres, divided into twenty-eight sections. The population is 122 souls. They have effected improvements to the value of £6,549 15s. 4d., out of which the sum of £1,702 3s. 8d. has been advanced by the Crown for bushfelling, houses, &c. The total amount advanced during the year is £84 10s. This settlement continues to make good progress. With two or three exceptions, the settlers all go in for dairying in the summer, and do some outside work during the winter months, although a few of the sections are now self-supporting. The stock consists of 830 head of cattle of all kinds.

Ohutu Extension is situated to the south of and adjoining the Ohutu Improved-farm Settlement, and was selected in March, 1900. It contains an area of 695 acres, divided into six sections. Only one settler has taken up his residence, but the others will probably do so during the coming year. Improvements to the value of £377 7s. 3d. have been made, out of which £153 7s. 3d. has been advanced by the Crown for bushfelling and grassing. Dray-roads are now formed to the settlement, but not into it.

Otaihape, comprising 204 acres, adjoining Taihape Township, is divided into ten holdings. The population is fifty-three souls. The total value of improvements is £1,475 3s. 3d. No advances have been made during the year. The settlers are engaged in business, or work about Taihape, and go in for dairying in a small way, and make their sections their homes.

Taihape Extension is situated south of and adjoining Taihape Township. The area is 567 acres, held in six sections, and was balloted for in December, 1901. Three of the settlers are residing, and the population is eight souls. The total value of improvements is £377 4s., of which £60 has been advanced by the Crown for bushfelling. We feel sure this settlement will be a success, as the areas are fairly large and the soil good. The settlers are employed on the co-operative works in the locality.

Horopito is situated near Raetihi, in the Waimarino district. There are only two settlers, and the population is four souls. One of the settlers is dairying, and the other, who is a single man, grazes stock. The value of improvements is £576. The area felled and grassed is 103 acres, and the number of stock 87. There is now a formed dray-road to this settlement.

Masterton-Tenui.—There are twelve settlers in this settlement, holding an area of 1,163 acres. As the land here is rough, two of the settlers have been allowed to enlarge their holdings by buying their neighbours out. The total population is forty-seven souls. The settlers are mostly employed on the co-operative works, but put their spare time on the land, and when the co-operative work ceases they will no doubt be able to make a living on their sections. The total value of improvements is £3,281 6s. 4d.

Pemberton Settlement.—The population of this settlement numbers sixty-eight. Dairying is their principal occupation. The total value of improvements effected is £4,392 15s., of which £2,055 10s. 1d. has been advanced by the Government. No advances were made during the year. All except three of the settlers have stated that they do not want any further assistance from the Government, and have obtained ordinary occupation-with-right-of-purchase and lease-in-perpetuity licenses and leases.

Kawhatau.—In this settlement an area of 916 acres is held by eleven settlers, the total population numbering seventy-six. The value of improvements effected is £3,761 10s., out of which the Government has advanced the sum of £1,189 14s. 6d. for bushfelling, houses, &c. No advances were made during the year, and all the selectors except two have notified that they do not want any further assistance from the Government, and ordinary lease-in-perpetuity and occupation-with-right-of-purchase leases and licenses have been issued to them. The number of stock on the settlement is 1,204.

Sommerville is situated on Murray's Track in the Sommerville Farm-homestead Block. There are eight sections, and all the settlers are residing. The population is thirty-nine souls. The total value of improvements is £1,169 10s. 3d., and of this £88 10s. has been advanced for bushfelling, &c., during the year. The total number of stock of all kinds is 250. A few of the settlers go in for dairying, and as soon as the roads are more advanced this will no doubt be the main industry here.

Rongoiti is adjoining the Mataroa Township and the main trunk line, and comprises eight sections, all of which are well improved and resided upon. The total population is twenty-three souls. The total value of improvements is £1,362 2s. 3d.; out of this £27 has been advanced by the Crown for bushfelling, &c., during the year. The areas of three of the holdings have been increased by 100 acres each, thus making them large enough to enable the settlers to eventually make a living off without the aid of outside employment. Better road access is much wanted to several of the sections.

During the year I have visited a considerable portion of the district, on three special occasions being accompanied by certain members of the Land Board, and am pleased to be able to confirm by personal observation the reports from the various Crown Lands Rangers on the substantial progress of *bonâ fide* settlement throughout the district.

Clerical Branch.

During the year the correspondence has increased in all its branches, the grand total being 64,000 letters, &c., received and despatched, as against 55,000 last year, or an average of about 213 per working-day. The largest increase is in the number of lithos and "Land Guides" distributed, which account for about 6,000, the balance being made up of increases in the letters received and sent out. The cheques drawn on imprest account numbered 458, for £3,790, for wages of survey parties, &c., and 1,293 vouchers, representing £32,385, were passed through the books.

JOHN STRAUCHON,
Commissioner of Crown Lands.

NELSON.

The following table shows in concise form the land transactions of the past year:—

System.	Transactions during the Year.		Area under Lease at 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash	42	2,506 0 34	...	...	1,730 17 1
Deferred payment	...	...	255	26,370 1 16	1,861 0 4
Deferred payment made freehold	51	6,613 2 39	...	...	...
Perpetual leases	...	...	24	4,958 2 27	86 8 7
Perpetual leases made freehold	3	1,310 0 0	...	...	395 14 0
Occupation with right of purchase	6	2,203 2 1	197	39,962 2 11	656 18 7
Lease in perpetuity ...	10	6,527 2 11	176	54,043 3 21	782 19 0
Mining districts land occupation	...	...	8	342 0 11	9 12 10
Small grazing-runs ...	...	...	1	1,088 0 0	7 0 0
Pastoral runs	4	3,100 0 0	77	317,060 0 0	640 13 6
Miscellaneous leases and licenses	52	4,748 0 8	285	28,586 1 3	670 12 11
Other sources	...	...	...	...	936 6 6
Totals ...	168	27,009 0 13	1,023	472,411 3 9	7,778 3 4
Endowments.					
Deferred payments ...	...	...	2	106 1 23	9 8 5
Village-homestead special settlement	...	...	20	100 3 7	17 5 3
Mining districts land occupation	6	51 2 36	58	1,171 2 14	65 11 0
Miscellaneous leases ...	...	...	210	5,457 1 19	2,214 13 9
Royalty on coal and timber ...	...	...	...	...	11,700 8 11
Totals ...	6	51 2 36	290	6,836 0 23	14,007 7 4
Grand totals ...	174	27,060 3 9	1,313	479,247 3 32	21,785 10 8

Miscellaneous Leases and Licenses.—Fifty-two licenses were issued during the year—twenty-three under section 116 of the Land Act, twenty-two timber licenses, and seven for flax-cutting. There are now 495 of these holdings, 210 being Westport Harbour Board Endowment lands, comprising leases of the principal part of the Town of Westport. The revenue of these holdings, including royalty on coal, amounted to £14,585 15s. 7d. for the past year.

Village Settlements.—There is only one village settlement in this district, on the Westport Harbour Board's endowment. The settlement is situated near the State coal-mine, at Seddonville, most of the settlers working in the mine. The settlement was formed in 1892, and the area originally taken up was 105 acres, of which 100 acres is now occupied by fifteen residents, numbering in all eighty souls. About 80 acres of bush has been felled, and is now in grass, used for grazing cows and rearing stock. Improvements effected: Value of cultivation, £305; houses and buildings, £776: total, £1,081. £70 has been advanced for erection of houses, of which £30 has been repaid.

Coal-mines.—The output of coal from the Westport Coal Company's mines at Coalbrookdale and Millerton is rapidly increasing year by year, the total output for the past year amounting to 511,086 tons, on which royalties amounting to £11,419 were collected by this office. The company anticipates a much larger output during the current year, as large shipments to Hongkong and other places outside the colony are expected.

Milling-timber.—An approximate estimate of rimu and white-pine timber remaining in this district suitable for milling purposes is as follows: Rimu, 1,420,000,000 superficial feet; white-pine, 845,000,000 superficial feet.

Progress and Condition of Settlers.—During the year 171 holdings, comprising 21,317 acres, were inspected. The value of improvements required by the Act was £6,285, and improvements to the value of £10,277 have been effected. The number of defaulters reported was forty-six—twenty for non-compliance with improvement conditions, and twenty-six for non-residence. These cases have been dealt with at the discretion of the Board. It might be mentioned that there are no improvement conditions attached to the 257 deferred-payment leases now held under Nelson leasing Acts, so no inspections were required for these holdings.

The area at present held by Crown tenants in this district is principally hilly country, and used for the purpose of sheep and cattle raising, the small flats and lower slopes being cultivated to some extent to provide winter feed for stock. It may be fairly assumed that a considerable area of the best of the flat bush land to be shortly thrown open for settlement in the Central Buller, Tadmor, and Reefton districts will be found suitable for dairy-farming as soon as the bush is cleared.

The progress and condition of the 1,313 Crown tenants throughout the district is on the whole distinctly satisfactory, the rents being paid promptly and without complaint, and the arrears of rent are trifling.

Revenue.—The total revenue for the year from all sources, including endowments and coal and timber royalties, amounted to £21,785 10s. 8d., an increase of £681 13s. 8d. on the previous year.

Arrears.—The arrears amount to only £162 18s. 5d., and of this amount £139 7s. 3d. is due on Westport Harbour Board leases, the total amount of arrears on settlement holdings being only £23 11s. 2d., a very small sum indeed considering there are over 1,300 Crown tenants in this district, and showing a very much better result in this respect than obtained in any previous year.

Land for Future Settlement.—About 157,000 acres of bush land in this district is now under survey, and will be thrown open for selection very shortly. Of this area, about 86,400 acres is situated on the west coast, between Karamea and Brighton; 14,000 acres near the Inangahua Junction; 25,000 acres on the Buller, Matiri, and Owen Rivers, between Murchison and Hope Junction; and also some 10,000 acres in the valleys of the Tadmor and Rainy Rivers. A considerable amount of this area comprises very fair undulating bush country with small extent of flats on river-sides, and it has a frontage of over twenty miles on the main (West Coast) coach-road in the Central Buller and Reefton districts, and should be well adapted for dairy-farming. A good proportion of land in other blocks, especially in the Tadmor Valley and the Karamea and Brighton districts, is of very fair quality, and well suited for sheep and cattle raising. There is now a keen demand for land for settlement in this district, and I assume that a considerable area of the land above referred to will be selected during the current year.

W. G. Murray,
Commissioner of Crown Lands.

MARLBOROUGH.

Table showing land transactions in the Land District of Marlborough for the year ending 31st March, 1903:—

System.	Transactions during the Year.				Area under Lease at 31st March, 1903.				Revenue received during the Year.		
	Number.	Area.			Number.	Area.					
		A.	R.	P.		A.	R.	P.	£	s.	d.
Cash	14	484	0	7	...	...			*451	14	10
Deferred payment	...	...			6	342	2	26	33	10	8
Perpetual lease	...	...			10	1,747	0	7	54	2	4
Occupation with right of purchase	1	205	0	0	40	11,681	3	9	516	11	3
Lease in perpetuity	2	549	0	0	206	102,861	0	23	2,445	14	3
Occupation lease under Mining Districts Land Occupation Act	...	...			19	1,161	0	0	31	10	10
Village settlement—											
Deferred payment	...	...			2	20	2	20	2	11	6
Perpetual lease	...	...			1	10	0	0	1	17	6
Lease in perpetuity ...	...	...			8	152	2	35	21	19	4
Village-homestead special settlement	...	...			13	184	0	24	23	1	0
Small grazing-runs	11	47,132	2	0	111	195,106	0	16	2,388	11	2
Pastoral runs	4	136,000	0	0	77	825,485	0	0	4,175	5	0
Miscellaneous leases... ...	12	25,420	0	24	89	35,472	1	30	1,424	3	6
Miscellaneous fees, &c. ...	...	...			...	...			148	6	3
Land for settlements—											
Lease in perpetuity ...	4	4,715	0	0	142	40,396	0	34	7,062	11	6
Small grazing-runs ...	2	3,595	2	0	†11	19,742	2	0	1,273	4	8
Miscellaneous	6	3,116	0	0	15	3,041	1	0	539	10	2
Totals	56	221,217	0	31	746	1,237,404	2	24	20,594	5	9

* Includes £50 for one perpetual lease made freehold.
† Four of these are included in the 111 ordinary small-grazing-run holders.

Village Settlements.—There are now twenty-four selectors, holding 367 acres; eighteen of these selectors reside on their holdings; 274 acres are laid down in pasture or cultivated. The value of improvements is £2,510.

Pastoral Runs.—There were four new runs taken up, with an area of 136,000 acres. Five runs expired, twelve were exchanged to lease in perpetuity, and three were surrendered, leaving a total area of 825,485 acres now in the occupation of seventy-seven holders.

Arrears.—Seventy selectors are in arrears with their rent to the extent of £2,532 16s. 1d. Of these, only seventeen, owing £190 2s. 8d., reside on ordinary Crown lands; the remainder are tenants on the various estates acquired under the Land for Settlements Act. The above amounts are much larger than they should be, as the season has been generally favourable throughout the district, with the exception of the neighbourhood of the Omaka Estate, which has suffered from the drought. (Since the 30th March the arrears on the land-for-settlement sections have been reduced from £2,342 to £1,920.)

Land for Future Settlement.—There is not much land now remaining for future settlement in this district. The principal areas to be opened during the ensuing year are two pastoral runs (114,424 acres) on the Birch Hill Block, one small grazing-run of 16,020 acres in Patriarch district, the Kaiuma Block of 2,392 acres, 2,466 acres near Waikakaho, 985 acres near Cullensville, and one small grazing-run of 3,385 acres on the North Bank Estate.

Land under Land for Settlements Acts.

Mr. Buckhurst, Crown Lands Ranger, reports as follows:—

Blind River Settlement.—Area, 5,507 acres; opened for selection in 1895. This estate is distributed amongst nineteen tenants, with holdings varying from 100 to 935 acres, all of whom have complied with the improvement conditions, the estimated value of the work effected being £5,771. The number of dwellinghouses has been reduced by two, through the grouping of some of the sections last year. There are sixty-nine souls residing in the seventeen houses. The stock on the estate consists of 6,500 sheep, 50 head of cattle, 33 horses, and a few pigs. Last lambing season gave only moderate results, the cold snaps of south-east weather were severe on the young lambs; still 75 per cent. cannot be termed a bad average. Cropping was not done to any large extent: 186 acres was in grain, and 150 acres in roots, including onions—for which the land is especially adapted. Lucerne was successfully grown on 40 acres, and will become more general in future. The dams made for the conservation of water proved of considerable value during the dry season, and more are being constructed. This settlement feels the benefit of the Picton–Seddon Railway: fat sheep and lambs can be sent to Picton and arrive in prime condition the same day. The settlers

continue to pay most attention to the raising and fattening of sheep, cropping being only a secondary consideration. This estate—the success of which for some time was doubtful—may now be considered to have crossed the border-line, and has a prospect of being declared and classed as a successful venture.

Omaka Settlement.—Area, 3,898 acres; opened for selection in 1896. There are thirteen tenants on this estate, holding areas varying from 157 to 640 acres. The value of improvements effected by the occupiers is estimated at £4,792. Four lessees were defaulters, having failed to come up to the required amount for the sixth year of occupation; but these will probably comply during the current year. All are fulfilling the residential conditions. The crops this year were light, but good market prices for what was harvested compensated a little. Wheat was grown on 276 acres (an average result of 13 bushels per acre), oats on 263 acres, barley on 129 acres, rye on 27 acres, and roots on 131 acres; carrots and onions were grown in small quantities of good quality. The stock consists of 3,100 sheep, 30 head of cattle, 37 horses, and a few pigs. The lambing resulted in about 90 per cent. With one exception all the settlers appear to be doing moderately well. The population now consists of forty-seven souls, living in twelve dwellinghouses. There is a school, which is well attended; good roads to every section, also to the market-town, where every product grown finds ready sale.

Richmond Brook Settlement, consisting of 5,669 acres, was opened for selection in 1899. It is occupied by eleven selectors, nine of whom reside, who, with their families, make up a population of twenty-eight souls. The improvements effected at the time of inspection were valued at £4,036, being £2,636 in excess of the amount demanded by law. Nine dwellinghouses have been erected of a substantial character; also stables, sheds, and the usual buildings which are necessary to make up a homestead in working-order. The stock owned by the tenants consists of 6,000 sheep, 40 horses, and 30 head of cattle. Grain was successfully grown on 140 acres, and roots on 150 acres, and 300 acres was laid down in grass. The satisfactory average of 90 per cent. of lambs was obtained, most of which found their way to the Picton Freezing-works. This settlement also feels the benefit of the railway to Seddon, and the stock can be sent away in one day in lieu of four in the past. The roads are all in good order, and, providing present prices are maintained, the settlers should be soon in a healthy prosperous condition.

Starborough Settlement, opened for selection in 1899, comprises fifty-seven holdings, of an aggregate area of 34,770 acres, and the Township of Seddon. The past year has been, in spite of unseasonable weather experienced in the spring and early summer, a fairly prosperous one for the farmers. The primitive dwellings on the estate have given place to houses of a permanent and imposing character, and the homesteads are assuming a cosy and prosperous appearance, with the embellishment of pretty gardens and plantations, giving the settlement the look of maturity. The estimated value of improvements effected, including the Township of Seddon, is £27,710—far beyond the requirements of the Act. There is not one defaulter in this respect, and only two for residential conditions. The settlers' stock consists of 36,000 sheep, 226 head of cattle, 200 horses, and about 100 pigs. From this and the neighbouring estates, Blind River and Richmond Brook, 26,000 fat sheep and lambs have been sent away, nearly all to Picton. There was not a large area in crop: 270 acres was in wheat, which would average a little over 20 bushels per acre; 759 acres in barley, which will return about 25 bushels per acre—this crop was light, but mostly a good bright sample which will find its way to the malt-houses north and south; 790 acres was in oats, grown chiefly for chaff; and 1,671 acres in roots—rape, mangolds, turnips, and potatoes; a few onions were grown, and also carrots for home consumption. One settler showed me his returns for wool, it averaged 8½d. per pound in London; the rest will be quite as good in quality, and should come near a similar return. The population on the estate is now 253 souls, occupying sixty-four dwellings. The opening of the railway has given quite a bustling appearance to the township, as the trains have been taxed to their utmost carrying away stock, grain, chaff, and flax. The local sheep sales are well attended, and really good prices—equal to those obtained in larger centres—are given by buyers, who come from considerable distances to attend. The flocks have very much improved in quality and value. During the earlier days the settlers, for financial reasons, stocked up with old sheep, and now the breeding-stock will compare favourably with any of the much older sheep districts, both in the class of wool produced and the quality of mutton, which one of the largest buyers informed me was excellent. The present position of the settlement may be gauged by the fact that in every transaction involving a transfer a respectable sum of money by way of premium is paid by the incoming lessee.

Waipapa Settlement.—Opened for selection in 1901. Purchased to secure homestead-sites and low country to work the extensive areas of high land belonging to the Crown at the back; and now divided into five small grazing-runs, all of which are occupied. Two were taken up in 1901, one in 1902, and the remaining two this year. No new dwellings have been built, tenants renovating and making use of the old buildings erected by previous owners. Improvements to the value of £854 were required to comply with conditions on three of the runs; the value of the work effected is estimated at £1,687. One was a defaulter for a very small amount, who will comply in a month or two. Eighteen souls are residing. On the river flats very fine crops of turnips and oats were grown on land which two years ago grew nothing but rushes. Approximately 7,000 sheep are grazing on this estate, and a few cattle and horses. I regret to say that the rabbits were numerous.

Puhipuhi Settlement.—Open for selection in 1897; consists of 320 acres in two separate sections. Secured to complete two larger holdings of ordinary Crown lands. Improvements to the value of £210 have been effected thereon, and the occupiers in each case are in a fair way to make a success of their holdings.

North Bank Settlement.—This estate was only opened for selection on the 1st March, 1903. It comprises 12,813 acres, divided into four holdings under lease in perpetuity, two small grazing-

runs (one only occupied), and two temporary grazing licenses. Selectors have not yet had time to effect improvements. Any report now would probably mislead.

Settlement on Crown Lands under "The Land Act, 1892," and Amendments.

Lease in Perpetuity and Occupation with Right of Purchase.—There are 254 holdings. In the northern portion, including the Sounds, and in South Marlborough the Crown tenants under these tenures are progressing every year. In the Sounds the introduction of oil-launches and the advent of telephone communication have improved the state of living and afford a considerable deal of comfort not before enjoyed, whilst in the south portion road facilities have gradually clinched the settlers to their land. Comfortable homesteads now are found where not long since one would have been considered a dreamer if he had foretold of their presence in a few years. There have been a considerable number of transfers, but I think in each case the Crown has secured quite as good if not a better tenant. In moving about amongst the settlers I could not but notice an air of contentment and a desire on the part of the lessees to make the most of their sections, clearing and fencing as far as their present means would allow. I regret to say that these remarks do not apply to the north bank of the Wairau; most of these tenants were away (their families on the sections) working as carters, shepherds, &c., and progress there is not so apparent. The estimated value of improvements effected during the past year is £9,395, nearly all having complied with the improvement conditions. There have not been any forfeitures or surrenders from this class of selectors this year (1902–03). The settlers depend mainly on sheep-rearing and wool, with a little dairying and cropping.

Small Grazing-runs.—Both in North and South Marlborough the tenants under this form of land-tenure have had a successful year, owing to the sustained values for mutton and wool. For the reason that much of the back country of Marlborough is broken, and area is required for the profitable working of the land, this form of holding is both suitable and popular. In the Hundalee and Puhipuhi districts considerable areas of land have been cleared and grassed. Most of the land is on limestone formation, and exotic grasses, especially cocksfoot, have taken well. We have 111 tenants under this tenure. The estimated value of improvements put on the land during 1902–3 amounts to £7,765. This work has been done mostly on recently acquired holdings, the older and larger number having in previous years effected sufficient both to comply with their conditions of lease and for the economical working of the runs.

Village-homestead Special Settlement.—The thirteen holdings under this system in Marlborough require little comment. The purpose for which they were set aside has been accomplished —namely, handy and suitable homes for people of small means. All have complied, and are occupied by the class of people for whom they were intended.

Timber Industry.—There are twelve sawmills in operation in the land district, employing on an average 150 men, and cutting approximately 600,000 superficial feet of timber per month, a considerable portion of which is exported from Marlborough to Nelson and North Canterbury. The timber which is chiefly used consists of rimu, matai, kahikatea, totara, and black, red, and brown birch for railway-sleepers. I am glad to be able to report that forest fires have not been prevalent this summer.

Mr. J. Rutland, Crown Lands Ranger, reports on the eleven sawmills in his portion of the district as follows:—

Including the County of Sounds, there are at present eleven sawmills in this portion of the land district, eight of which are at work, two closed, and one just completed but not yet started. In 1900 Messrs. Harvey Bros.' sawmill, Clova Bay, was the only mill at work within the County of Sounds. This mill is now closed, preparatory to its removal to a new site. Three of the eight mills at work are in the sounds.

Mr. Tugoald Bratli's mill, Crail Bay, is chiefly employed cutting railway-sleepers. The total number of sleepers produced last year was 9,106, of which 7,056 were taken by the Government, the remainder being sold as posts. In addition to these, Mr. Bratli turned out 20,200 ft. of mixed timber—rimu, white-pine, and birch. The mill employs nine men, including the proprietor.

Mr. E. Pulman's mill, Resolution Inlet, only started within the last twelve months, was also employed cutting railway-sleepers. The average output when I visited Resolution Bay in February last was 150 sleepers per week. The mill employs five men, including the proprietor.

Messrs. Pugh Bros.' mill, Nydia Bay, cuts mixed timber for the Picton market, where the firm has a timber-yard. The total output for the year ending the 1st March was 160,000 ft. The average number of men employed during the year was six, but the firm has at present nine men working at the mill.

The mill about to be opened, above referred to, is on Messrs. Beech Bros.' land, at the head of Kenepuru. This, with Messrs. Harvey Bros.' mill, will bring the total number up to five.

This revival of the timber industry shows what has been lost through the destruction of the timber along the shores of the Sounds.

Mr. Cates, Long Valley, Kaituna; Messrs. Smart Bros., Wakamarina; and Messrs. Nees and McLean, Rai Valley, are still steadily cutting for the Wairau market. Mr. Cates's mill employs ten hands, including the proprietor, the average output being about 10,000 superficial feet per week.

Messrs. Smarts' mill employs nine hands, including the proprietors; the total output for the year ending the 1st March was 387,933 ft. This timber is taken to Blenheim by a traction-engine, which seems to work well, and so far has not been the source of any trouble on the roads.

Messrs. Nees and McLean's mill employs eight men, and cuts on an average 15,000 ft. per week. Three wagons are employed taking the timber to Blenheim.

During the last twelve months another mill has been started in the Rai Valley by Mr. Robertson, timber-merchant, of Nelson. The mill employs ten men, and cuts 100,000 ft. of timber per month, all of which is taken overland to Nelson.

Messrs. Brownlee and Co.'s large mill is still mainly cutting for the southern market, the bulk of the timber going to Canterbury. The total output of the mill for the twelve months ending the 28th February last was 3,142,947 superficial feet. The total number of men employed in the bush, in laying and repairing tramways, and in the mill is fifty-eight. Owing to a serious accident to the machinery the mill was stopped for about two months, bringing the year's output proportionately down. Messrs. Brownlee and Co. informed me that the average price of timber at present on their wharf is 7s. per 100 superficial feet. This is an advance of 1s. on the price in 1900.

Clerical Work.

Besides the ordinary official correspondence, issuing of rent notices, and Land Board work, details of which it is not necessary to particularise, I may state that leases of all lands taken up have been promptly issued. The land revenue for the year amounted to £20,594 5s. 9d., being an increase of £1,921 8s. 2d. on last year's total. This, however, does not represent the total amount passing through the Receiver's hands, as there is a considerable sum of money deposited with applications for surveys banked, and afterwards refunded to unsuccessful applicants; there is also a collection of transfer and registration fees. Seventy-two transfers were effected and registered, and reports made upon thirty-four applications for loans from the Government Advances to Settlers Department.

C. W. ADAMS,
Commissioner of Crown Lands.

WESTLAND.

The subjoined table shows the land transactions for the year ended 31st March, 1903. Compared with the returns of last year, the figures show a shrinkage in cash lands and occupation with right of purchase, but in all other classes there is a marked advance.

SUMMARY OF LAND TRANSACTIONS DURING THE YEAR 1902–3.

Class of Selection.	Transactions during the Year.		Leasehold Area held on 31st March, 1903.		Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash lands	2	342 0 0	...	...	296 10 0
Deferred payment	1	40 0 19	1	137 2 23	110 6 2
Deferred payment made freehold	3	235 0 24	...	...	...
Perpetual lease	...	...	7	580 1 8	51 16 0
Occupation with right of purchase	3	933 2 39	96	16,845 0 21	470 11 1
Lease in perpetuity ...	6	817 3 23	62	11,200 1 17	262 17 0
Lease in perpetuity, land for settlements	8	2,018 3 4	21	3,656 3 14	437 8 8
Pastoral runs	67	76,461 2 0	126	612,835 2 0	709 13 9
Miscellaneous leases ...	25	4,134 0 27	158	17,889 0 6	239 5 2
Timber royalties	...	...	...	...	2,040 14 10
Flax licenses and royalties .	18	11,567 0 0	18	11,567 0 0	38 15 0
Crown-grant and license fees, &c.	...	...	...	...	139 14 10
Miscellaneous	...	...	...	...	50 16 11
Endowments	...	...	...	...	22 10 0
Totals	133	96,550 1 16	489	674,711 3 9	4,870 19 5

Crown Lands open for Selection.—During the year the following lands were thrown open for selection under lease in perpetuity only: 41,819 acres of unsurveyed lands in the central portion of the district, and 1,948 acres of surveyed lands in the Kokatahi Estate under the Land for Settlements Act. There were also ten runs, comprising 61,770 acres, offered under the pastoral system; these runs being distributed all along the coast. The total areas now open for selection under the optional system are 101,791 acres (nearly all unsurveyed), and thirty-four runs, aggregating 319,270 acres, under the pastoral tenure.

Cash Sales.—There is a substantial shrinkage in the receipts for this year, there being only two transactions as against forty-two in the previous season. This is partly due to the fact that the whole of this district is a goldfield, and it has been lately deemed advisable to conserve any possibly auriferous country by limiting the selection of any lands to lease in perpetuity, under which tenure the leaseholds can be readily resumed if the areas are required for mining purposes.

Deferred Payment.—Under this tenure three settlers in the Grey and Teremakau Valleys have made their final payments. There is only one selector on the books, and it is expected that he will acquire his freehold during the coming year.

Occupation with Right of Purchase.—Three selections of 934 acres were made under this system in the Waiho District. This class of selection is now practically barred in nearly all parts of this goldfield. The total area now leased is 16,845 acres, by ninety-six holders.

Lease in Perpetuity.—There are eighty-three selectors, occupying 14,857 acres, under this system on the books, and fourteen of these took up their holdings during the year. The main total includes twenty-one farmers who occupy 3,657 acres on the Poerua and Kokatahi Estates under the Land for Settlements Act.

Pastoral Runs.—There are 126 lessees occupying 612,835 acres, as against 577,638 acres held by eighty-one tenants last year; of these, sixty-six lease small areas under the 219th section of the Act, which, being in the immediate vicinity of gold-workings, are at present not obtainable under the optional system.

Miscellaneous Leases.—These comprise for the most part leases of reserves all over the district, and small areas of Crown lands adjoining gold-workings; they are issued under the 116th section of "The Land Act, 1892," for a renewable yearly term, and may be resumed at short notice if mining interests demand. The area amounts to 29,456 acres, divided amongst 176 lessees.

Crown Lands Forests.—The timber industry is steadily progressing, as shown by the following summary of the Crown Lands Ranger's reports: The number of sawmills on Crown lands is twenty, and on freeholds fourteen, or thirty-four in all; the timber cut on Crown lands amounts to 6,432,098 ft., and on mining and education reserves is 2,535,630 ft.; of silver-pine sleepers, 133,693 were "passed"; there are now fully five hundred hands employed either at the sawmills or as sleeper and firewood cutters.

Flax Licenses.—All available flax in this district has been lately taken up. Already there are three mills in full swing, employing over ninety hands; and, as fifteen other leases have been recently granted by the Land Board on condition that mills are erected within a reasonable time, a very large expansion may be expected at an early date.

Payments to Local Bodies.—Four proposals by the Westland and Grey County Councils for the expenditure of "thirds" were submitted to and approved by the Land Board, representing a disbursement of £167 7s. 9d.

Condition and Prospects of Settlements.

Variable weather has been experienced during the year. The winter was remarkably mild and open, and stock did very well, but the spring was exceedingly cold and wet, and there was virtually no growth until November, while the summer and autumn have been very moist and chilly. Still, although root-crops have been backward and uneven, yet a larger quantity than usual of hay has been safely stacked, and there has been a better yield of butter. The establishment of butter-factories has largely augmented the incomes of the settlers, and this is evident in the material improvement of their holdings, stock, and equipment, while it has given a great impetus to the reclamation and prosperous settlement of the adjoining forest and swamp lands, which heretofore were looked upon as unprofitable country. In the older settled districts great improvements in the manner of farming are evident. These will soon conduce to more prosperity, and form valuable models for the younger farmers. In the more recent settlements it is most pleasing to witness the energetic efforts to convert this tangled wilderness into pasture. Better and more thorough methods are now adopted, and all over the coast considerable areas are being rapidly laid down in grass, substantially fenced, and good homesteads erected.

The lands in the river straths when cleared of bush grow abundance of root-crops, especially turnips, which are much used for fattening purposes. The even and moist temperature encourages the almost uninterrupted growth of grass and clover, which are very luxuriant and favour stock-raising. Oats are also grown abundantly for local consumption, and for the most part are cut into chaff. All over the coastal lands, along the slopes of the lower hills and in the bottoms of the valleys, large herds of cattle are raised and fattened on the dense undergrowth of the forest. An increasing number of horses are also bred, and find ready sale. Year by year the imports of potatoes, fruits, butter, and fat stock are decreasing, owing to increased local production. Large drafts of store cattle and sheep are still procured from Nelson and Canterbury, but in a few years all the stock required will be raised locally.

The gold- and coal-miners, as well as the sawmill and flax-mill hands, who are located in various places, constitute valuable local consumers for the neighbouring farmers; and, as the markets here are the best in the colony, there is every indication of a prosperous future for the settlers in this district.

To meet the increasing demand, schedules have been sent forward of eight blocks of unsurveyed rural land for selection under lease in perpetuity amounting to 17,210 acres, and distributed mainly over the central districts. Lists and plans of twenty-nine runs, aggregating 539,640 acres, have also been prepared, virtually covering the whole of the lands which can possibly be set apart for pastoral purposes. These two classes of Crown lands will be open for application—the settlement blocks on the 26th May, and the runs on the 14th May next. Notices have also been given to runholders of intention to resume numerous other lands for settlement purposes, and various blocks are being subdivided in Teremakau, Kokatahi, Waitaha, and Wanganui Valleys, which will be placed on the market at an early date. Other farming country will afterwards be cut up and offered as speedily as possible. In the northern and central districts there are numbers of reserves for townships, &c., which were set apart in early days for special and, in those times, important purposes. The conditions under which these reserves were gazetted are altogether altered now, and it is proposed to consider the question of lifting the reservation.

Some years ago a number of mining reserves were very wisely located, covering large areas of lands, in the vicinity of the different gold-workings. The miners were thus carefully safeguarded

against any encroachments by settlers and speculators on lands which were reputably auriferous. While still recognising the necessity for the maintenance of these reserves for the preservation of the gold-miners (who are the mainstay of our farmers), I am of opinion that the time has now arrived, in view of our now more precise knowledge, for a careful revision of the circumstances under which these reserves were set apart, and to that end I hope to furnish an early report. If certain small portions of these reserves can be safely uplifted, or the Mining Districts Land Occupation Act be amended so as to be suitable to the requirements of this district, then we can locate a fair number of settlers who would combine the industries of gold-mining and farming.

Land under the Land for Settlements Act.

Poerua Settlement.—The extent now occupied in this settlement amounts to 3,041 acres, and is held by eighteen selectors. One holding of 87 acres was forfeited during the year, and it is expected to be relet at an early date. With this exception the whole of the area is taken up. The rental received for this year equals £303 10s. 5d., making a total of £1,368 18s. 1d. paid during the last six years. The arrears have materially decreased this season, and arrangements have been made for their complete extinction during the coming year. Despite a very wet and inclement season much progress has taken place. There are now fourteen houses on the estate, with a resident population of forty-nine, and an increasing attendance at the centrally situated school. A marked improvement is shown over the whole estate in the quantity of bush felled; the new areas laid down in grass, all well fenced; the length of drains cut, with consequent reclamation of swampy land, and the improvement of farm-buildings has also gone on apace: the result being that the estate holds twice as much stock as in last year. The bush clearings are hardly fit as yet for ploughing, nevertheless large quantities of root-crops have been secured, while a considerable amount of butter has been made, and a fair number of horses and fat cattle raised. A few head of fat bullocks are sent to the Greymouth market, but the bulk of the produce meets with a ready local consumption. A flax-mill has been erected on the estate, and finds employment for thirty hands. This has proved a great help to the settlers. The construction of a direct road to the adjoining railway is proceeding, and it is expected to be completed within six months. This will provide immediate access, and avoid the present circuitous route. As soon as this work is finished the settlers propose to erect a creamery, and forward the cream to a factory in the Grey Valley. The following summary shows the present position, but it must also be noted that several of the sections have only been tenanted for a short period:—Requirements of Act: Cultivated area, 821 acres; value of improvements, £821. How far complied with: Area cultivated, 894 acres; value of improvements, £1,151. Other improvements, £2,699 7s. 6d.

Kokatahi Settlement.—This is divided into two groups of 1,055 and 806 acres. These are about six miles apart, the Kokatahi River intervening. The estate was thrown open in November last, and all the sections were at once taken up; but in February the Land Board had to forfeit four holdings for non-compliance with the residence regulation. These will be open again for application on the 26th May, and will readily relet. This estate was originally covered with light bush, and afterwards nearly all cleared and laid down in grass. The pasture was, however, eaten very bare, and considerable areas were occupied by a second growth of scrub, still enough feed remained to enable the selectors to make a good start. The three settlers now in occupation have done excellent work during the few months of their tenancy, have erected small houses, and have timber cut ready for extension and for other buildings. They have also completed the fencing of their several boundaries, and have a fair number of stock on the land. The roading of this estate is almost finished, and as the bridge over the Kokatahi River will be completed within the year both groups will be kept in direct communication by dray-road with Hokitika, where produce of all descriptions finds a good market, and, with the Kokatahi Dairy Factory also close at hand, there can be no doubt of the success of the settlement. With the exception of wheat and barley, these lands are well suited for all other crops, and large areas of virgin soil are now ready for the plough. I confidently look forward to a most substantial advance during next year.

Clerical.

Correspondence inwards and outwards, 6,385; rent notices, 1,206; receipts, 980; Auditor's cards, 130; leases prepared, 106; and other various items. The number of land applications received was 412, and 118 of these were inspected by the Ranger for the Board. The Land Board met fifteen times, and the applications considered, exclusive of much miscellaneous business, at each meeting averaged fifty.

G. J. Roberts,
Commissioner of Crown Lands.

CANTERBURY.

In submitting herewith the report on land-administration for the year ended 31st March, 1903, it is satisfactory to record that the past year has been one of almost unexampled prosperity and success. The Crown tenants throughout the district have, almost without exception, obtained excellent returns from their holdings, the harvest having been heavy, though late, and feed very plentiful, while prices for stock and produce have been such as to yield good profits. Under the circumstances it is not surprising that the revenue, even making allowance for exceptional receipts, has exceeded that of any previous year, and the last by about £9,250, while the rents in arrear at the close of the period show the smallest amount and percentage of the past three years.

Transactions during the Year.—The following tabulated statement shows the transactions of all classes during the year, the areas held at the close of the period, and the total revenue received on account of the same :—

TRANSACTIONS DURING YEAR ENDING 31ST MARCH, 1903.

Tenure.	Transactions during Year.				Area held at 31st March, 1903.				Revenue received during the Year.		
	Number.	Area.			Number.	Area.					
		A.	R.	P.		A.	R.	P.	£	s.	d.
Cash lands—											
Town	26	21	2	9	...	...			538	12	6
Rural	16	242	0	29	...	...			512	17	1
Deferred payments—											
Rural and pastoral	...	...			13	11,251	2	29	734	15	9
Village	...	...			8	87	0	39	17	6	1
Made freehold	1	22	0	0	...	...			...		
Perpetual lease—											
Ordinary	...	...			41	3,632	2	18	308	6	0
Village	..	...			37	646	0	7	173	12	1
Made freehold	16	1,994	3	19	.	...			2,649	1	2
Occupation with right of purchase—											
Ordinary	1	10	0	0	14	1,451	3	2	99	16	4
Village	...	...			7	2	1	0	3	4	2
Made freehold	1	75	0	0	...	...			112	10	0
Lease in perpetuity—											
Ordinary, Crown	3	1,155	3	0	225	74,065	3	26	4,065	14	11
Village, „	1	0	1	0	18	8	2	0	6	1	10
Lake Ellesmere	2	62	0	30	69	14,006	0	29	1,270	12	1
Conversions to lease in perpetuity—											
Ordinary	1	58	0	0	...	...			...		
Village homestead	22	701	1	14	...	...			...		
Farm homestead	2	149	0	0	...	...			...		
Village-homestead special settlement—											
Perpetual lease	...	...			108	2,778	3	34	534	18	5
Lease in perpetuity, Crown lands	...	...			150	5,761	2	20	449	2	7
Lease in perpetuity, Lake Ellesmere	...	...			57	1,419	1	3	252	10	9
Farm homestead—											
Perpetual lease	...	...			23	1,932	3	31	139	2	9
Lease in perpetuity, Crown lands	...	...			7	606	0	26	26	14	11
Small grazing-runs, Crown lands ...	2	9,584	0	0	50	119,585	1	25	5,335	19	2
Pastoral licenses—											
Crown lands	19	389,347	3	37	146	3,518,702	3	34	38,152	8	0
State forests	...	...			1	746	0	0	6	0	0
Miscellaneous occupation licenses—											
Crown lands	71	4,151	3	9	474	78,071	3	9	2,711	4	0
Lake Ellesmere	3	23	0	0	24	1,366	0	38	125	0	6
University endowment ...	1	1,480	2	8	1	1,480	2	8	162	5	6
State forests	1	206	3	0	11	6,406	3	0	158	19	4
Timber licenses	20	3,665	2	0	18	3,595	2	0	238	0	8
Mineral licenses	...	...			5	1,171	1	22	55	3	4
Other sources	...	...			...	...			924	1	11
Cheviot Estate—											
Lease in perpetuity	2	34	1	0	119	24,403	1	9	6,222	5	0
Village homestead	...	...			92	2,480	1	0	915	7	8
Grazing-farms	1	6	2	0	48	45,977	2	9	6,956	1	10
Pastoral licenses	...	...			1	1,642	0	0	193	3	8
Miscellaneous occupation licenses	2	8	0	4	74	1,525	0	11	295	10	8
Other sources	...	...			...	...			23	16	1
Land for settlements—											
Lease in perpetuity	100	19,874	0	3	842	117,253	3	23	37,568	0	6
Farm homestead	...	...			11	2,114	1	9	182	8	5
Small grazing-runs	5	14,471	0	19	32	52,851	0	26	8,276	3	10
Miscellaneous occupation licenses	20	379	1	37	32	947	3	17	284	18	1
Other sources	...	...			...	...			886	18	7
Cash sales	2	2	0	32	...	...			35	17	6
Totals	341	447,727	1	10	2,758	4,097,973	0	24	121,604	13	8

The following comparison of the past five years shows how the area, occupation, and revenue have steadily increased year by year, the business of the past year exceeding that of any previous one:—

Year.	Transactions.		Total.	
	Number.	Area.	Area.	Revenue.
		Acres.	Acres.	£ s. d.
1899	359	188,097	3,596,391	93,200 0 0
1900	313	288,911	3,938,976	93,668 6 11
1901	181	255,431	4,056,237	105,511 6 11
1902	199	42,840	4,070,398	109,271 7 7
1903	341	447,727	4,097,973	121,604 13 8

Lands opened for Selection. — The lands which have been offered for selection during the year (exclusive of the acquired estates, which are treated under a separate heading) may be summarised as follows: Offered for sale by public auction—seventy sections in the Township of Darfield, seventy-two in the Township of Rakaia, and eleven (the last remaining ones) in the Township of Ashburton. The whole of the Darfield sections were sold satisfactorily, there being at present a considerable demand for sections in the township, which was locked up for a long time by the operation of the Midland Railway contract. The sections offered at South Rakaia consisted of inferior remnants, and very few were sold. All the Ashburton sections were quitted satisfactorily.

Offered for Optional Selection under Part III. of "The Land Act, 1892."—Three sections, totalling 254 acres 3 roods 2 perches, situated near Amberley, Westerfield, and Fairlie. Two sections were taken up, both on lease in perpetuity, and one section of 89 acres near Westerfield still remains.

Miscellaneous Occupation Licenses.—The leases for various terms of a number of blocks of Crown land or reserves were offered with a good measure of success, most of the areas being taken up readily. These comprised twenty-six lots, consisting of 105 acres 3 roods 37 perches, in the Hanmer Springs Town and Village, offered for forty-two years' lease; one reserve of 785¾ acres near Yaldhurst, fourteen years' lease; eleven lots, comprising 13 acres 2 roods 38 perches, being the unsold lands in the South Rakaia Township, for seven years' lease; nine lots, covering 20 acres 2 roods 29 perches, being the unsold lands in the Chertsey Township, for five years' lease; two lots, including 1,480 acres 2 roods 8 perches, being an endowment reserve near Hinds, for fourteen years' lease; and four lots, totalling 119 acres 2 roods 36 perches, near Rangitata, and in Geraldine and Arowhenua Townships, for seven and fourteen years' leases.

Small Grazing-runs.—Under this tenure an area of 9,584 acres of Crown land, situated near Albury, South Canterbury, was offered in two runs, in conjunction with the adjoining acquired Chamberlain Settlement (Opawa Estate), which furnished the necessary areas of low-lying land for the convenient and profitable working of the Crown land, the latter consisting exclusively of high pastoral country.

Pastoral Runs.—The existing leases of a number of pastoral runs will expire on the 28th February, 1904, and in terms of the Land Act had to be reoffered at auction at least a year before that date. Preliminary to this it was necessary to classify them, for which purpose Messrs. D. McMillan, A. C. Pringle, and myself were appointed Classification Commissioners. During a period of three weeks steady and almost incessant travelling, the Commissioners visited and inspected the whole of the runs to be offered, with one or two exceptions, concerning which the Commissioners had sufficient personal knowledge or other valuable information. A large amount of information was collated from reports of District Surveyors, Crown Lands Rangers, and officers of the Stock Department; and to the owners and managers of the different runs visited the Commissioners are indebted for much courteous treatment and information and assistance readily supplied. The sales of leases of the runs were held at Timaru on the 24th February, and Christchurch on the 27th February. The total number of Crown runs offered was twenty-five, comprising an aggregate area of 500,512 acres, scattered over different parts of the district, from the Hurunui to the Waitaki Rivers. The Department also offered, as agents for the Boards of Governors of Canterbury College and the Canterbury Agricultural College, the leases of six runs, comprising 129,228 acres, being portions of the endowment reserves belonging to those institutions.

Of the Crown runs, seventeen were sold at the auctions, in nearly all cases at the upset rents, and eight, comprising 111,420 acres, remained unsold. Of the endowment runs, four offered on behalf of the Canterbury College were all sold at the upsets, and two on behalf of the Canterbury Agricultural College were passed in. Some of the unsold runs have since been opened for lease on application, and one of them taken up. Proposals for dealing with the remainder are now under consideration.

Transactions during the Year, and Areas held at the Close of the Year.—The cash sales effected during the year by auction consist of a number of sections in the Townships of Darfield, South Rakaia, and Ashburton. Under section 117 of "The Land Act, 1892," fourteen small sections, totalling 144 acres 3 roods 16 perches, have been disposed of to the adjoining owners without competition; and two sections, comprising 78 acres 1 rood 13 perches, were sold by application under Part III. of "The Land Act, 1892," the purchasers being required to effect improvements before obtaining their titles.

The remainder of the area shown in the table as sold consists of excess area found on survey to exist in previously purchased lands.

Under the deferred-payment system the only alteration is the conversion of one holding of 22 acres into freehold.

The gradually diminishing number of holders under the perpetual-lease system has been still further decreased this year by the conversion of sixteen holdings, comprising 1,994 acres, into freehold, and one holding, comprising 58 acres, to the lease-in-perpetuity tenure. The area held under this system, which in 1893, ten years ago, was 80,219 acres, is now reduced to 4,278 acres.

Under the occupation-with-right-of-purchase system one section of 10 acres has been selected, and one of 75 acres has been converted into freehold, the licensee having selected to exercise his right immediately the law allowed him to do so.

The lease-in-perpetuity holdings (exclusive of land for settlements) have been increased by six selections, comprising 1,218 acres, and by the exchanges from the perpetual-lease class. The bulk of the selections under this tenure is of lands in the acquired estates.

Under the village-homestead and farm-homestead classes there is practically no change in the areas held, the principal difference being caused by exchanges from the perpetual-lease to the lease-in-perpetuity subdivisions.

The small grazing-run leases have been increased by the 9,584 acres of Crown lands offered in two runs with portions of the acquired Chamberlain Settlement, which provided the necessary homestead-sites and low-lying lands for the working of the higher country.

The number of pastoral licenses taken up during the year was nineteen, comprising 389,348 acres; but as these represented fresh leases, commencing on the 1st March, 1904, of runs at present held under license they do not alter the area held at the end of the year.

A number of miscellaneous leases of reserves, river-beds, and small areas of Crown lands were disposed of, but these were in a good many cases the redisposal of areas whereof the former leases had expired, so that the total area is not proportionately increased thereby.

Collection of Revenue.—The total revenue collected for the year, amounting to £121,604 13s. 8d., exceeds the receipts for any previous years, and represents an advance of £12,333 on the revenue of the preceding period. Against this it must be noted that £3,082 was received on account of pastoral-run leases sold during the year, as rents in advance for the half-year from the 1st March, 1904, leaving an actual increase of £9,251 on the previous year.

The total number of tenants in arrear with payments of rent on the 31st March, 1903, was 164, owing a sum of £2,823 0s. 1d., which is £1,009 9s. 10d. less than the previous year, out of a total number of 2,758 tenants paying an annual rental of £113,716 19s. 8d. The arrears thus represent $2\frac{1}{2}$ per cent. of the annual rents of the district, as against $3\frac{3}{5}$ per cent. on the 31st March, 1902, and 3 per cent. on the 31st March, 1901. Eighty-five per cent. of the tenants had paid all rents due in advance for the current period.

The amount of rebate granted during the year under the provisions of "The Crown Tenants' Rent Rebate Act, 1900," and "The Land for Settlements Consolidation Act, 1900," was £4,424 19s. 2d., granted to 1,290 tenants, the proportions under the different tenures being as follows: Deferred payment, seven tenants, £6 5s. 11d.; perpetual lease, thirty-nine tenants, £24 14s. 2d.; occupation with right of purchase, eleven tenants, £8 2s. 6d.; lease in perpetuity, 265 tenants, £488 12s. 2d.; special settlements, three tenants, £1 1s. 4d.; village settlements, 185 tenants, £58 5s. 10d.; land for settlements, 584 tenants, £3,214 4s. 2d.; Cheviot Estate, 196 tenants, £623 13s. 1d.: total, 1,290 tenants, £4,424 19s. 2d. The practice of previous years has been continued of allowing rebates on a uniform scale of 10 per cent. to all tenants who (not being in arrear) paid their rents within one month from due date.

Transfers and Exchanges.—The total number of leases held under settlement conditions which have been transferred during the year was 105, comprising an area of 35,598 acres 2 roods 2 perches, made up as follows: Lease in perpetuity (all classes), seventy-five leases, comprising 14,651 acres 3 roods 24 perches; village homestead (all classes), eighteen leases, comprising 292 acres and 28 perches; perpetual and farm-homestead leases, three leases, comprising 114 acres 2 roods; small grazing-runs (all classes), seven leases, comprising 16,132 acres 3 roods 30 perches; grazing-farms, 2 leases, comprising 4,407 acres: total, 105 leases, comprising 35,598 acres 2 roods 2 perches. The total number of leases exchanged from perpetual lease to lease in perpetuity was twenty-three, comprising an area of 759 acres 1 rood 14 perches.

Forfeitures and Surrenders.—The forfeitures in all classes during the year numbered sixteen, covering an area of 236 acres 1 rood 31 perches. The reasons for forfeiture may be grouped as follows: Non-compliance with building or residential conditions, ten, comprising 52 acres and 13 perches; non-compliance with other conditions, two, comprising 52 acres; non-payment of rent, four, comprising 132 acres 1 rood 18 perches. Eight out of the ten holdings forfeited for non-compliance with building conditions were situated at the Hanmer Township, where an attempt was apparently being made to hold lands for speculative purposes without fulfilling improvement conditions.

Surrenders were accepted of fifteen holdings, comprising 9,969 acres and 28 perches, which may be grouped as follows: On the application of the lessee by reason of inability to fulfil conditions of residence and occupation, eight holdings, comprising 17 acres 1 rood 12 perches; on application of lessee for other reasons, four holdings, comprising 36 acres 2 roods; for purposes of subdivision, fresh leases being immediately issued, two holdings, comprising 215 acres 1 rood 16 perches; for purpose of being dealt with in conjunction with adjoining acquired land, one run, comprising 9,700 acres.

Reserves.—The area of land set apart during the year as reserves for various purposes was 569 acres and 25 perches, under the following heads: Recreation reserves at Otarama, Leithfield, and Wakanui, 106 acres 1 rood; show-ground at Cheviot, 5 acres; library-site at Morven (Waika-

kahi), 1 rood; school-sites in Lyndon, Hekeao, Kohika, and Kapua Settlements, 22 acres; gravel-reserves, various localities, 21 acres 1 rood 11 perches; forest-preservation at Raincliff and Kohika, 220 acres 1 rood 14 perches; river improvement and protection (in the Pareora River, for the protection and preservation of the Borough of Timaru water-supply), 194 acres: total, 569 acres and 25 perches.

Crown Lands Rangers' Reports.—The general condition of settlement throughout the district, as disclosed by reports received from the Crown Land Rangers, continues to be very satisfactory. The holdings under Land for Settlements Acts and the village settlements are specially dealt with elsewhere, and as regards the other classes of tenure it may be said that the conditions of leases are well fulfilled. The improvements, especially on the older holdings and hilly lands, do not now increase much, but are well maintained. In the hilly area of South Canterbury there is still a demand for low-lying lands to work with the pastoral country, in order to enable the latter to be successfully worked to the best advantage. On the plains in the Ashburton County the once numerous Crown leaseholds have been considerably reduced by conversion to freehold, but the remaining ones are in good order and satisfactorily occupied, and the season has been especially favourable for these light lands. In the north the numerous holdings around the shores of Lake Ellesmere have suffered considerably from flooding, despite which the lessees generally fulfil the requirements of their leases in a very satisfactory manner, the exceptions consisting principally of deficient value of improvements, which cannot remuneratively be effected up to the amount required by law. The small grazing-runs in North Canterbury are well worked, the improvements are valuable and kept in good order.

As in previous years, a very large amount of extra work has devolved upon the Rangers, including inspection of properties offered for closer settlement, of areas of waste land, river-beds, &c., applied for, besides a variety of matters which cannot be classified. In the south, where cropping is extensively practised, a great deal of time is taken up with inspecting and noting the conditions of cultivation and areas in crop on holdings under the Land for Settlements Act, so as to see whether the regulations as to rotation of crops, &c., are observed. In the north, where cropping is much less resorted to, the Ranger's duties in this respect are light, but, on the other hand, he has the inspection of timber-cutting areas near Oxford, and has also inspected several pastoral runs to obtain information required by the Run Classification Commissioners.

With these multifarious duties the Rangers' time is very fully occupied, and it is difficult for them to keep pace therewith. Another Ranger is needed to keep properly abreast of the work. During the year we have had the benefit of assistance for a few months, during which time valuable aid was rendered.

The total number of holdings inspected by the Rangers during the year, in respect of which residence and improvements were required, was 1,613, covering an area of 276,681 acres. The total value of improvements effected was £322,928, against £153,912 required, and the number of defaulters for all causes was 109.

Crown Lands for Disposal, 1903–4.—I append a statement, compiled from the "Crown Lands Guide," showing the areas of Crown lands in the district which were lying open for selection at the 31st March, 1903:—

CROWN LANDS OPEN FOR SELECTION ON THE 31ST MARCH, 1903.

Tenure under which Land is open.	Area.			Counties in which situated.
	A.	R.	P.	
Village allotments	0	1	0	Geraldine.
Village-homestead allotments ...	112	3	35	Ashburton and Geraldine.
Optional selection, under Part III. of "The Land Act, 1892"—				
First-class surveyed	179	0	11	Ashburton and Geraldine.
Second-class "	435	2	11	"
First-class unsurveyed	481	0	0	Selwyn and Ashburton.
Second-class "	370	0	0	Ashburton.
Small grazing-runs	2,331	0	0	Waimate.
Hanmer Springs leases	6	1	9	Amuri.
Land for Settlements Acts ...	41	3	37	Selwyn, Ashburton, Geraldine, Waimate
Total	3,958	0	23	

The lands to be offered for disposal during the year will comprise 8,174 acres on the north side of the Waimakariri River, in the vicinity of Oxford and View Hill. These consist of light lands, and will be offered in areas ranging from 5½ to 521 acres for optional selection under Part III. of "The Land Act, 1892."

Under the pastoral-run system there will be offered the eight runs, aggregating 111,420 acres, which were not disposed of at the February sales. Some of these will be opened for lease on application, and in other cases, where variations of the original terms appear desirable, they will be reoffered for lease by public auction. The existing pastoral licenses of a few runs in the Amuri district will expire on the 1st March, 1905, and these will have to be reoffered before the 1st March, 1904.

A number of sections in the Darfield Township will be offered for cash sale by public auction and a few reserves, whereof the existing leases will shortly expire, will be reoffered for lease by auction.

The Highfield Estate (32,726 acres), near Waiau, in the Amuri district, and Levels Estate, (38,247 acres), near Timaru, which are being acquired for close settlement, will be offered during the year under the Land for Settlements Acts.

In this connection, I may note that the existing leases of five small grazing-runs situated in North Canterbury, between the Waipara and Hurunui Rivers, will expire on the 31st August, 1904, and the arrangements for reletting the same will be taken in hand this year. The present lessees are, however, entitled to a renewal of their leases for a further term of twenty-one years at the valuations fixed by the Land Board, and, unless they decline to accept the same, these lands will not come into the market for public disposal.

Departmental.—During the year thirty-seven ordinary and special meetings of the Land Board were held, including special meetings at Culverden, Rakaia, Timaru, and Waimate in connection with the disposal of acquired estates in those localities. The work of the Board in dealing with these acquired lands, and the enforcement of conditions relating thereto, is becoming so arduous and responsible that, whilst recognising and appreciating very fully the wise experience and sound judgment of Messrs. Pringle and Sealy in dealing with these cases, yet I am glad to have the further co-operation of Messrs. John Allan and James Stevenson, who have been recently appointed.

The total number of statutory applications lodged during the year was 570, of which 134 were granted. These now form, however, but a very small proportion of the work of the Board, as, with the steadily augmenting number of tenants, the applications for transfer, for special consideration in regard to fulfilment of conditions, payment of rent, &c., are an ever-increasing quantity.

The recorded inward and outward correspondence, returns, rent notices, &c., during the year numbered 16,290, and the number of sale plans, pamphlets, &c., distributed total about 6,000. In the Receiver of Land Revenue's office, besides the revenue for the year, amounting to £121,604 13s. 8d. (for which 4,960 receipts were issued), a sum of £31,673 4s. 1d. was passed through the Deposit Account, on which 1,290 receipts, cheques, and refund vouchers were drawn; and in the Local Bodies' Deposit Account a sum of £3,192 17s. 9d. was paid in, and £3,386 14s. 10d. paid out to local bodies. In the Accountant's office 344 vouchers, for a sum of £2,472 10s. 2d. were drawn on the imprest account, and 372 vouchers, representing a total sum of £72,056 0s. 3d., were passed through for pre-audit and payment.

It will be evident from the several reports now submitted that the business this year has been exceptionally heavy, and, as it has been carried on with a lessened staff, great praise is due to the officers for their strenuous and unremitting efforts to try and keep pace with it.

In my report last year mention was made of my intention, by visiting, to make myself personally acquainted with the numerous settlements and the district generally. In this I have been so far successful as to visit every holding in twenty-five settlements, and partially treat fourteen others in the same manner. I have been much struck with the general prosperity of the settlers, their hopefulness and satisfaction with their circumstances, complaints of any kind being very rare indeed. Personal interviews appear to be much appreciated, and many difficulties and misapprehensions that settlers were labouring under were removed, while my advice and explanation on various matters connected with the land laws and the settlers' tenancies seemed very acceptable. Opportunities of acquiring a general knowledge of the district have been afforded me through having, as one of the Run Classification Commissioners, inspected twenty-eight runs spread over the country from the Bealey to the Waitaki; and also the inspection of nineteen properties in various parts of the district offered to the Government for settlement purposes. In connection with these I attended four meetings of the Land Purchase Board, two of which were held in Wellington. Several weeks of my time were also taken up attending the sittings in Wellington of the Representation Commission, which, with the journeys previously mentioned, involved a large amount of travelling.

Village Settlements.

It will be of interest to trace the rise, development and success of this system of land-settlement in Canterbury from its institution in 1880 by the late Hon. W. Rolleston, the then Minister of Lands.

The deferred-payment system was the form of tenure then introduced, and its application produced a very large amount of *bonâ fide* settlement, and enabled many workmen and farm-labourers to make comfortable homes. The two largest settlements were established adjacent to the Township of South Rakaia, where the areas ranged from 1 to 6 acres, and the Township of Temuka, where the sections where quarter- and half-acres. That the operation of this system was extended over a wide area may be shown from the fact that settlements were established at Medbury (areas from 40 to 50 acres), Springfield (areas 1 to 2 acres), Horndon (Darfield, 3 to 20 acres), Arundel (1 to 5 acres), Orari (two settlements, a suburban one in which holdings averaged 1 acre, and a rural one where they ranged from 5 to 18 acres), Fairlie Creek (1 to 5 acres), Adair (near Timaru, 5 to 24 acres), Waimate (1 to 15 acres), besides other smaller places. Practically the whole of these have long since been converted into freeholds, but the fact that approximately some 510 holdings were selected under this system shows what a wide sphere of usefulness it filled in its time.

In 1886 it was superseded by the village-homestead special-settlement perpetual-lease system, introduced by the late Hon. John Ballance. Hampered as this was by the fact that the free-selection system originally in vogue in this district had left the Crown nothing but lands of generally inferior character, it nevertheless attained an enormous measure of success, settling a number of people on the land, though, perhaps, in a humble manner, yet to their manifest advantage, at the same time assisting to relieve the congestion in the towns: for during the years 1886 and 1887 twenty-three settlements were thrown open for application, the areas varying, according to position and quality of the land, from 1 to 10 acres in the case of suburban holdings,

and 20 to 50 acres in the case of rural settlements, all of which were readily taken up. The distinguishing feature between this system and that under the previous legislation was that the freehold could not be acquired; the result being that whereas those that were settled prior to 1886 have, with few exceptions, become freehold, and in a large measure lost their distinguishing feature, the later ones are practically in all cases still in existence. A very large number of those who originally selected under the perpetual-lease tenure have availed themselves of the advantages obtained by exchange to the lease-in-perpetuity system.

Subsequent to 1887, owing to the fact that the bulk of the available lands had already been taken up, there was for several years very little selection under this tenure. In 1892, however, two blocks of land near Waimate and Studholme Junction were acquired from the School Commissioners in exchange for a large block of pastoral country, and were very successfully settled in areas ranging from 10 to 40 acres. In 1893–94 also village settlements were established at several points round Lake Ellesmere on endowment land, the areas ranging from 10 to 50 acres; and on the Cheviot Estate villages were laid out adjacent to the Mackenzie Township, Port Robinson, and other points where it appeared that small holdings of from 5 to 50 acres might be advantageously utilised.

In 1894, the supply of available Crown lands in the district in suitable localities being practically exhausted, the system, introduced by the late Hon. Sir John McKenzie, of purchasing private estates for close settlement on a more extensive scale came into operation under "The Land for Settlements Act, 1892." This practically superseded the older systems, which had, within their possibilities, done such excellent work. The only new village settlements of any size established since then were inaugurated in 1895 at Ruapuna and Westerfield, on the plains between the Ashburton and Rangitata Rivers. The areas averaged about 100 acres; but, as the land was of very light quality, their success has been somewhat limited.

In many cases time has proved that in order to assure the position of the village settlers and enable them to obtain a sufficient subsistence it was necessary to extend their holdings, either by granting additional areas in the vicinity if such could be secured, or by permitting, by means of transfer, a judicious amalgamation of holdings within the settlements. Thus, in the settlements at Cheviot holders were allowed to acquire, by selection or transfer, an additional adjacent allotment; and in other settlements the Land Board has used its discretion within the scope of the law in permitting such amalgamation as was calculated to serve the best interests of the settlers.

To deal in detail with the present position, occupation, &c., of the settlers in the larger number of these settlements would burden this report, which is already lengthy. Generally speaking, it may be said that all the settlements are now firmly established, and in a healthy and prosperous condition. The lessees generally find employment in the surrounding district at such rural avocations as more particularly obtain there, either as general farm-labourers, contractors, railway-hands, ploughmen, or shepherds, or they obtain intermittent employment in mustering, shearing, harvesting, &c. Their holdings are as a rule neatly kept, in good order, and well cultivated. On the smaller suburban holdings the grazing of a few cows, the growing of a small quantity of garden-produce, or occasionally fruit-growing represent the uses to which the land is generally applied. In the larger rural holdings, such cropping as the district and circumstances favour, and the grazing of a small number of stock, are practised. The settlements have ample road access, and the prevailing tendency to exchange into the lease-in-perpetuity tenure has placed at the disposal of the local bodies sums of money, as "thirds" from rents, which have been applied to the improvement of the means of access, or, where necessary on the plains lands, to the provision of additional water-supply by means of water-races.

The number of village settlements in existence is forty-seven, comprising 13,184 acres, held by 477 selectors, averaging about 28 acres. The total number of residents is 1,260, and the improvements on the land are valued at £44,508.

Cheviot Estate.

There has been practically no change in the areas held on the Cheviot Estate. One lease in perpetuity of 41¼ acres was surrendered by arrangement with the lessee, and was regranted in two leases in perpetuity totalling 34¼ acres, and one grazing-farm of 6½ acres, the balance of the area being absorbed by a road. These leases were granted to adjoining holders without competition, as the lands were necessary to them for the convenient and advantageous working of their holdings. Two miscellaneous occupation licenses, comprising 8 acres and 4 perches, were granted. Seven leases in perpetuity, comprising 1,547 acres and 29 perches, eight village-homestead leases, covering 126 acres 2 roods; and two grazing-farm leases, representing 4,407 acres, were transferred during the year.

The total revenue collected from the estate for the year was £14,606 4s. 11d. The arrears of rents due at the close of the year amounted to £617 12s. 11d., owing by twenty-two tenants, out of a total annual rent-roll of £14,434 13s. 5d., payable by 334 tenants. The arrears thus represent just over 4¼ per cent. of the whole.

The Crown Lands Ranger reports that the settlement has made steady and satisfactory progress during the year. Many new houses and enlargements of houses have been built, and everything is now recovering from the effects of the earthquake.

In January last the central and southern portions of the estate were visited by a disastrous hail-storm, followed by frost, which did a large amount of damage to the crops.

In general, the holdings continue to be used for grazing in preference to cropping, and only about 2,200 acres of cereal crops have been grown during the year, as against about 5,000 acres of rape- and root-crops. The lambing-returns have been good, yielding an average of about 90 per cent., and the output of fat lambs for the year will probably total from 50,000 to 60,000. Inclusive of stock on the freehold portions, about 100,000 sheep and 2,200 head of cattle and horses are now wintered on the estate.

The dairying and bacon-curing industries are now rather neglected in favour of sheep-farming, and the number of cows at present supplying milk to the dairy factory is under 300.

It is probably owing to the tendencies above referred to that a certain number of the settlers are dissatisfied with the size of their holdings, and are selling out in order to obtain larger properties elsewhere.

Freehold sections in the Township of Mackenzie appear to be changing hands at considerable profit, and there is evident confidence in the future of the settlement. A demand is arising for more town sections at Mackenzie, which will probably have to be met by the offering of some fresh allotments at auction.

As regards the compliance with conditions of leases, the Ranger reports that all but two have now effected improvements to the full value required. With respect to residence, omitting those whom the Board has, for sufficient reasons, permitted to reside on their adjacent holdings, all excepting four holders are complying, and the settlement generally is in a satisfactory condition. The total value of improvements effected is £69,786, as against £47,371 required; and the number of souls resident on the Crown leaseholds is 738, not counting those on freehold properties and in the Mackenzie Township.

Land for Settlements.

The scheme for the acquisition and subdivision of private properties for closer settlement under the Land for Settlements Acts being now in its tenth year of operation, it is of interest to review the scope and magnitude of its working in this district, whereby up to the present forty-one distinct properties have been purchased, subdivided, and offered for disposal, on which there are now 882 tenants, with a population of 3,024, occupying a total area of 172,218 acres. The extent of country thus occupied by *bonâ fide* residential settlers, the population spread over areas which previously supported only a few individuals, the enormous increase in value of improvements placed upon the lands, the enlarged output of stock and produce, and the impetus that has been given to the trade of adjacent centres of population are all evidence of the great success that has attended this system of land-settlement.

The following table shows the number of settlements opened for disposal, and the total area selected on permanent tenure, during each year since the inception of the system :—

	Settlements opened.	Total Selections.	
		Number.	Area.
			A. R. P.
Year ended 31st March, 1894	3	44	1,251 1 16
" 1895	...	1	37 1 29
" 1896	8	99	6,966 3 36
" 1897	6	156	18,554 0 17
" 1898	4	157	27,755 3 23
" 1899	2	175	42,215 3 2
" 1900	3	100	25,791 3 31
" 1901	4	68	14,194 0 12
" 1902	7	75	9,487 1 23
" 1903	5	105	34,345 0 22
Totals	42	980	180,600 0 11

From this total number must be deducted the selections which have been forfeited or surrendered, leaving, as already stated, 882 holdings, comprising an area of 172,218 acres. The whole of the holdings forfeited and surrendered during the past ten years have, with the exception of three, been reselected, and are now held under permanent tenure. The three exceptions are temporarily occupied, and will very shortly be thrown open for selection.

At the present time every rural allotment in the various settlements is occupied and producing the allotted rental; and of the twelve village and suburban settlements (including the workmen's homes)—nine of which are in the environs of Christchurch, the others at Highbank, Morven, and one near Timaru—out of the total number of allotments (viz., 262) 203 are occupied on permanent tenure, forty-seven on yearly tenancies, and twelve are vacant. In other words, 250 out of the 262 are in occupation and contributing revenue.

General Condition of Settlements, &c.—A general survey of the established settlements discloses a very satisfactory amount of *bonâ fide* residence and occupation. The number of instances of actual non-residence is a very small percentage, while in nearly all cases the improvements effected are of a good and substantial character, amounting in value to £203,223 17s. 4d. (including improvements on the land at the time of purchase), or £126,489 16s. 6d. in excess of the statutory requirements. The least satisfactory occupation is usually noticeable where single men are the holders of small sections which are insufficient for their maintenance, the result being that they are generally away at work. A somewhat similar condition obtains where married men with families are located on small rural holdings, as the breadwinner has to be much away, although the presence of a family on the holding always produces a more satisfactory state of affairs than in the case of the single man.

In the northern portion of the district the rural holdings are used principally for grazing, cropping being attended with risks on account of the frequency and severity of the nor'-westers

near the line of the foothills. In South Canterbury grain-crops are grown to a large extent, a considerable portion of the tenants availing themselves to the utmost of the cropping rights under their leases, while in a few cases there has been a tendency to exceed the proper limits, and this is receiving the close attention of the Land Board and Rangers. The extension of the dairy industry, especially recently in South Canterbury, is proving of considerable benefit to tenants, and is directing their attention to the profits and advantages of the system, which yields regular returns with comparative freedom from risks. There are now two creameries on the Waikakahi Settlement, and a third immediately adjacent; one has recently been established on the Albury Settlement; and in some other cases there are creameries sufficiently near to the settlements to enable settlers to avail themselves of the advantages of the dairy industry. Generally speaking, the crops during the past season have been very good, and the yields reported from some of the settlements are much above the average. The harvest, especially in the southern part of the district, has been late, so that settlers have been delayed in realising.

As regards the suburban settlements round Christchurch, most of these are now in a satisfactory condition. The occupiers are in general artisans, general labourers, gardeners, or workers at various trades or industries in the surrounding district; a majority of them have made valuable improvements, and find useful employment on their holdings in their spare time. These settlements are generally slower in being taken up than the rural settlements, but there is usually a fairly steady inquiry, especially after the first-comers have settled down and proved the advantages of such holdings.

Lands offered during the Year.—The lands offered during the year included—

The *Lyndon No. 2 Settlement*, comprising 15,845 acres of agricultural and pastoral land, in the Amuri district, about five miles westward from Waiau, was acquired from Messrs. D. and A. Macfarlane, and opened for application on the 21st April, 1902, in six lease-in-perpetuity allotments, varying in size from 467 to 833 acres, at rentals from 2s. 9d. to 5s. per acre, and three small grazing-runs of 3,590, 3,684, and 4,520 acres, at rentals from 1s. 10½d. to 2s. 7½d. per acre per annum. Thirty-two persons lodged applications, and all but one of the runs were disposed of at the first ballot; the remaining one was selected shortly afterwards.

The *Maytown Settlement*, comprising 387 acres 2 roods 13 perches of undulating agricultural land, about one mile from the Township of Waimate, was purchased from Messrs. McGoverin and Hardy, and opened for application on the 28th April, 1902, in eleven lease-in-perpetuity allotments, varying in size from 10 to 60 acres, at rentals from 13s. 6d. to 16s. per annum. Applications were received from twenty-two persons, and the whole of the sections were taken up at the first ballot.

The *Eccleston Settlement*, comprising 1,245 acres 1 rood 26 perches of agricultural downs land, situated about five miles and a quarter westward from the Otaio Railway-station and twenty miles south from Timaru, was purchased from E. P. Chapman, Esq., and opened for application on the 12th May, 1902, in four lease-in-perpetuity allotments of from 215 to 444 acres, at rentals from 7s. to 8s. 6d. per acre per annum. Forty-nine persons lodged applications, and the whole of the settlement was disposed of at the first ballot.

Twelve small allotments, situated in the *Waikakahi Settlement*, near Morven, comprising a total area of 178 acres 3 roods 26 perches, were opened for application on the 28th October, 1902, under lease-in-perpetuity system. This land formed part of the original Waikakahi purchase from Allan McLean, Esq., and had been withheld from permanent disposal at the first ballot in case a demand should arise for small holdings in that locality. With the increase of settlement such a demand had arisen, and the land was therefore offered in small allotments, ranging in size from 10 to 27 acres, at rentals from 9s. 9d. to 17s. 6d. per acre per annum. Applications were lodged by forty-five persons, and all the sections were allotted at the first ballot.

The Mead Settlement, comprising 5,906 acres 2 roods 16 perches of fair quality level agricultural land, situated on the north bank of the Rakaia River, west of the main line of railway, was acquired from S. Bealey, Esq., and opened for application on the 21st January, 1903, in twenty-one lease-in-perpetuity allotments, varying in size from 11½ to 793 acres, at rentals from 1s. to 6s. 9d. per acre per annum. Ninety-one persons applied, and the whole of the settlement was taken up at the first ballot.

The Chamberlain Settlement, comprising 10,429 acres of agricultural downs and pastoral hills, generally of excellent quality, situated about six miles from Albury and about thirty-six miles inland from Timaru, was purchased from J. S. Rutherford, Esq., and a small supplementary block of 37 acres from A. L. Haylock, Esq. With these was conjoined a block of 9,523 acres of purely pastoral Crown land, which had been occupied by Mr. Rutherford on lease in conjunction with his estate. The homestead, with 640 acres surrounding it, was selected by Mr. Rutherford as vendor in exercise of his rights under the Land for Settlements Act, and a section of 200 acres was granted as low-lying land to the holder of a lease in perpetuity of adjacent pastoral Crown land. Included in the property is a coal-pit yielding lignite of good quality, which has been worked under lease from Mr. Rutherford for a number of years past, and which supplies the bulk of the coal used in the surrounding district. Under the special provisions of the Land for Settlements Consolidation Act for dealing with such cases, this pit, with a section of 125 acres surrounding it, is being leased to the resident tenant who was holding from Mr. Rutherford at the time of acquisition of the estate. The term of lease is fixed at twenty-one years, subject to the necessary conditions for insuring the proper working of the mine. The remaining 19,112 acres was opened for application on the 9th March, 1903—6,950 acres of agricultural land in seventeen lease-in-perpetuity allotments, varying in size from 106 to 919 acres, at rentals from 2s. to 7s. 3d. per acre per annum; and 12,162 acres in three small grazing-runs of 1,818, 4,644, and 5,700 acres, at rentals averaging 2s. 4d., 10½d., and 10d. per acre per annum. There was very keen demand for land in this settlement, and no less than 248 applications were received for the twenty subdivisions, the whole of which were successfully disposed of at the first ballot.

The miscellaneous allotments offered during the year include the following: In the Tarawahi Hamlet, close to Christchurch, two forfeited lots, 1 acre and 35 perches, reopened; also ten lots, totalling 10 acres and 23 perches, being the unselected allotments, grouped into larger areas. In the Tamai Hamlet, Woolston, two allotments, each half an acre. In the Kaimahi Settlement, Papanui, one allotment, 5 acres. In the Puhuka Hamlet, near Timaru, one allotment, 5 acres. In the Maytown Settlement, near Waimate, one allotment, 43 acres 1 rood 2 perches.

Land for Future Disposal.—At the end of the year negotiations had been concluded for the acquisition from Messrs. Wharton and Co. of about 32,726 acres of the Highfield Estate, situated close to Waiau, in the Amuri district. This area is to be hereafter known as the Annan Settlement. The survey of the property has been commenced, is being pushed on with all possible expedition, and it is hoped that the land will be opened for selection in the latter end of September or October next.

Negotiations were also proceeding for the acquisition from the New Zealand and Australian Land Company (Limited) of the Levels Estate, comprising about 38,247 acres, near Timaru. These have since been brought to a successful issue, and arrangements made to take over the property at the 31st March, 1904, about which time the land will be offered for selection.

Payment of Rents.—The total amount of revenue collected during the year on land-for-settlements estates under all tenures was £47,234 6s. 11d. The total amount of arrears of rent due at the 31st March, 1903, was £1,682 4s. 1d., owing by eighty-three tenants, out of a total annual rental of £48,150 6s. 2d., payable by 917 tenants. The arrears therefore represent 3½ per cent. of the annual rental, and are £1,013 15s. 10d. less than the arrears at the same date in 1902, an evidence of the general prosperity of the settlements. The deficit belongs principally to the Highbank and South Canterbury settlements. In a few cases the lessees have not yet been able to overtake the arrears caused by losses experienced in the floods of 1902, and in general the lateness of the harvest has delayed them in realising on their crops.

Transfers, Forfeitures, and Surrenders.—The total number of transfers of land-for-settlements holdings completed during the year was fifty-eight, representing an area of 13,531 acres and 2 perches, made up as follows: Lease in perpetuity, fifty-four transfers, comprising 6,913 acres 3 roods 12 perches; small grazing-run, four transfers, comprising 6,617 acres 1 rood 30 perches. The forfeitures and surrenders during the year numbered thirteen, comprising a total area of 237 acres 3 roods 30 perches. Two leases, covering an area of 45 acres and 2 perches, were forfeited for non-compliance with residence and occupation conditions; and in the case of a third holder of one acre, non-payment of rent was an additional reason. Surrenders of eight leases, comprising 17 acres 1 rood 12 perches, were accepted at the request of the lessees, who found themselves unable to fulfil the conditions of residence and improvements. One lease of 2 roods was surrendered, owing to the lessee's removal from the district; and one of 174 acres and 16 perches for the purpose of subdivision, fresh leases being immediately issued without loss of rent.

Pareora No. 1 Settlement (near St. Andrew's).—Established January, 1894. Twenty-eight holders, of whom twenty-four reside on their own holdings, and three on sections held by relatives in the settlement. The number of souls is eighty-nine. Value of improvements effected, £2,376 14s. 6d., against £1,109 0s. 7d. required. There is not much alteration in this settlement, the improvements being already in excess of requirements, and the holdings not large enough to encourage further expenditure. With the exception of two cases of rather unsatisfactory residence, the holders are residing and complying satisfactorily.

Studholme Junction Settlement.—Established January, 1894. Four holders, three of whom reside on their own sections, and one, by permission, on his wife's adjoining section. The number of souls is thirteen. Value of improvements effected, £444 8s., against £214 7s. 10d. required. The holdings are well kept, and the lessees are residing and complying satisfactorily.

Kapua Settlement (near Waimate).—Established March, 1894. Eleven holders, representing a population of thirty-eight souls. The value of improvements effected is £1,590 5s., against £977 8s. 9d. required. This being one of the oldest settlements, there is little change, but all the lessees have fully complied with requirements as to residence and improvements, and are keeping their holdings in good order, although there is still a tendency to indulge in the risky practice of cropping the low-lying portions of the settlement, which are liable to be flooded.

Rosebrook Settlement (near Timaru).—Established June, 1895. Fourteen holders, of whom thirteen reside on their own sections, and one on his wife's holding in the settlement. There is a population of sixty-six souls on the settlement. The value of improvements effected is £2,172 13s. 6d., against £988 15s. 3d. required. The improvements and residence are very satisfactory. Crops have been good, and some of the tenants are commencing dairying.

Otaio Settlement (near St. Andrew's).—Established June, 1895. There are nine holders, with a population of forty souls. The value of improvements effected is £1,390 5s. 6d., against £692 6s. 1d. required. With the exception of the cases of two sections held by single men, where the value of improvements is deficient, all the settlers are complying satisfactorily, and have good comfortable homesteads and improvements. Some of the lessees are turning their attention to fruit-growing.

The Peaks and Patoa Settlements (near the Hurunui River, North Canterbury).—Established 1895. Sixteen holders, one of whom, with a family of ten souls, resides upon his holding. Two other holders in the Patoa Settlement reside upon small adjacent freeholds, and the other thirteen holders reside on their original village-homestead selections in the vicinity, and, owing to this and the inferior quality of the land, are unable to expend the required amount in improvements on their leaseholds, which are used almost exclusively for grazing. The total value of improvements effected is £2,672, against £2,979 17s. 9d. required.

Roimata Settlement (close to Christchurch).—Established August, 1895. Twenty-six holders, all of whom, representing a population of 119 souls, reside in the settlement. The value of

improvements effected is £4,825, against £883 12s. 8d. required. This is now a very prosperous and well-established settlement, the holdings being used for gardening and fruit-growing. The drainage of the block continues unsatisfactory, and nothing is done to remedy it, owing to want of combination amongst the settlers and the inaction of the local body.

Braco Settlement (also near Christchurch).—Established November, 1895. Fourteen holders, of whom thirteen, with a population of fifty-one souls, reside on their holdings. The value of improvements effected is £1,847, against £461 18s. 8d. required. One lessee is non-resident and neglectful of the holding, but all the others reside and comply satisfactorily, are keeping their properties in good order, and using the small holdings to advantage for market-gardening, &c.

Kereta Settlement (near Timaru).—Established December, 1895. Four holders, three of whom reside, while one resides on a small property close by. The number of souls is twenty-four. The value of improvements is £684 17s. 6d., against £193 13s. 3d. required. This settlement is low-lying and subject to floods, and the holdings are small, but the land is good; satisfactory improvements have been effected, and the sections are in good order.

Epworth Settlement (near Temuka).—Established November, 1895. Two holders, husband and wife, who reside on one of the lots. The improvements are good, and the holdings kept in satisfactory condition. The number of souls is six, and the value of improvements effected £158 16s., against £13 11s. 2d. required.

Ashley Gorge Settlement (near East Oxford).—Established December, 1895. There are ten lease-in-perpetuity holders; and two sections form the homestead-sites for adjacent small grazing-runs, comprising principally Crown land. Including these two homestead-sites, the number of souls on the settlement is fifty-four; and the value of improvements £4,083, against £1,859 1s. 6d. required. All the lessees are residing and complying. Very little cropping is done, but most of the lessees do fairly well by supplying milk to the creamery at East Oxford. The holders of the 40-acre sections have to obtain outside employment.

Orakipaoa Settlement (near Temuka).—Established June, 1896. Twenty-seven holders, twenty of whom, with a population of ninety-four souls, reside on their holdings. The value of improvements effected is £2,000 19s., against £1,468 13s. 9d. required. The other seven holders are exempt under special regulation, by reason of residence in the neighbouring Arowhenua Village Settlement. On these holdings not much improvements are made. The others are complying satisfactorily. The settlement has recovered considerably from the effects of the flood in March, 1902, and most of the damaged improvements have been repaired. The settlement as a whole is successful, and is providing good homes, and the settlers can get employment in the district.

Highbank Settlement (near Methven).—Established June, 1896. Seventy-five holders, of whom fifty-seven reside on their own holdings, and three others with relatives on adjoining holdings. The number of souls is 261; and the value of improvements £17,788 17s. 6d., against £13,975 6s. 6d. required. The settlement is reported as looking exceedingly well, the crops very good, and feed abundant. The plantations made by the lessees are making good growth, and in a few years will give excellent shelter from the north-west winds. The sixth year's report disclosed a few cases of deficiency in value of improvements, but in most cases they are well up to requirements. The small holdings continue to be the least satisfactory part of the settlement.

Waiapi and Rakitairi Settlements (near Temuka).—Established March, 1897. On Waiapi there are fifteen holders, all of whom are in residence, with a population of sixty-eight souls; and a value of improvements effected of £3,088 13s. 1d., against £464 8s. required. On Rakitairi there are twenty-two holders, nineteen of whom reside, while two live on other small properties adjoining. The number of souls is seventy-seven, and the value of improvements effected £4,247 1s. 6d., against £1,048 14s. 8d. required. Both settlements are reported as making good progress, with the exception of the 10-acre lots in Waiapi, where the lessees have to be much away at work, and the holdings are consequently at a standstill. Crops have been good, and feed plentiful, and the holdings are generally in very good order.

Otarakaro Settlement (near Christchurch).—Established March, 1897. Seven holders, all of whom are residing and complying satisfactorily. The number of souls is twenty-eight; and the value of improvements effected £1,325, against £231 16s. 4d. required. Most of the lessees are doing good work on the land, and getting it into clean and profitable condition.

Wharenui Hamlet (at Riccarton, close to Christchurch). — Established March, 1897. Twenty-six holders, all of whom have built and are residing, with a population of ninety-four souls. The value of improvements effected is £4,274, against £810 1s. required. All the settlers are residing and complying very satisfactorily. The holdings are generally well worked and in good order, and used for small farming and gardening.

Albury Settlement (at Albury, South Canterbury).—Established April, 1897. Seventy-nine holders, of whom sixty-two reside on their own holdings, and eight others on relatives' holdings in the settlement, while in one case the lessee is away in the North Island, but his family reside on the section. The number of souls is 301; and the value of improvements £19,649 19s. 6d., against £3,750 2s. 8d. required. The settlement has made considerable progress during the year. Many of the tenants are adding to the value of their improvements, and are doing well. Crops have been good; and the new creamery on the settlement will be a great help, as most of the tenants are preparing to be suppliers. The number of souls has decreased, owing to two large families having left and other young people going away to work.

Marawiti Settlement (near Rakaia).—Established May, 1897. Twelve holders. Number of souls, sixty-seven. Value of improvements, £3,751 9s. 6d., against £3,068 10s. 7d. required. Two single men on the small holdings do not comply very satisfactorily, but with these exceptions the holders are complying satisfactorily, and have improvements in excess of the value required for the sixth year. The crops have been very good, and the holdings are, with the two exceptions

mentioned, well kept. One holding in this settlement has been forfeited during the year, by reason of persistent overcropping on the part of the lessee in defiance of oft-repeated warnings.

Horsley Down Settlement (near Waikari, North Canterbury).—Established May, 1897. Twenty-six holders, twenty-three of whom reside on their own holdings, two others on adjacent leaseholds, and the third leasehold is occupied as a church-site. The number of souls on the settlement is eighty-four. The value of improvements effected is £10,872, against £5,220 10s. 1d. required. Satisfactory compliance is being effected in all cases. The holdings are used principally for grazing, the amount of cropping being limited owing to the prevalence of north-west winds.

Hekeao Settlement (near Mount Somers).—Established March, 1898. Sixteen holders, one of whom has recently died, and one is continually away from his holding; but, with these exceptions, all are residing and complying satisfactorily. The number of souls is fifty-two; and the value of improvements effected is £3,451 12s. 6d., against £626 0s. 2d. required. The holdings are very well improved and kept in good order. Crops have been very good, and a movement has been started to secure the erection of a creamery in the settlement.

Pawaho Hamlet (at Heathcote Valley, between Christchurch and Lyttelton).—Established April, 1898. Twenty-six holders, of whom twenty-one are in residence and complying satisfactorily. The number of souls is seventy-four; and the value of improvements effected £2,897, against £690 required. Most of the sections are residentially occupied in a satisfactory manner, are well worked, and kept in good order, being used for grazing or small gardening. The exceptions are the steeper hillside sections, upon which it appears impossible to secure satisfactory occupation.

Tamai Hamlet (at Woolston, close to Christchurch).—Established June, 1899. Thirty-nine holders, thirty-five of whom are residing, and four have not yet complied. The population of the hamlet is 132 souls; and the value of improvements effected £3,633, against £1,140 required. Residence and value of improvements effected are generally satisfactory; but in a few cases residence is only partial, and value of improvements not up to requirements, and the holdings are not worked as well as they should be. The settlement is low-lying, and in heavy rains the flood-water gets away slowly.

Waikakahi Settlement (between the Waihao and Waitaki Rivers, South Canterbury).—Established March, 1899. In the rural portion of the settlement, disposed of in 1899, there are 139 holders, of whom 132 are in residence upon their own holdings, and seven are exempt by reason of residence upon adjacent village-homestead selections. The population of this portion of the settlement is 566 souls. The value of improvements required £19,310 1s. 8d., and the value effected £51,982 6s. 11d. The settlement has made good progress during the year. The holdings are, in nearly every case, kept in good order, and the compliance with residence and improvement conditions is very satisfactory. The yield of crops has been exceedingly good, feed is plentiful, and the output of fat stock has increased very largely since the establishment of the settlement.

In the Morven Township there are twenty-one holders. Residence and improvements are not compulsory under the terms of the leases, but improvements to the value of £3,674 16s. have been effected. These include two large stores, one having a seed-cleaning plant, butcher's shop, and bakery. There is also a creamery, and several private houses and workshops, and a considerable amount of business is done. The population of the township is twenty-six souls.

On the small lots near Morven, which were disposed of during the year, four holders have built and entered into residence, with seven souls, and the value of improvements effected is £495 8s. On the other holdings practically nothing has been done except to crop the ground, and the Board is taking action to enforce compliance.

Pareora No. 2 Settlement (near St. Andrew's).—Established March, 1900. There are thirty-three holders, and a population of 171 souls. The value of improvements effected is £11,095 17s. 3d., against £3,622 11s. 4d. required. In one case residence is not yet of a thoroughly permanent character; but in other cases very satisfactory compliance is being effected, and the year has seen a considerable general improvement in the settlement. Crops, with the exception of turnips, have been good, and feed is plentiful.

Punaroa Settlement (near Fairlie).—Established April, 1900. Seventeen holders, fifteen of whom have fully complied, but the other two have only partially fulfilled requirements. The population of the settlement is sixty-six; and the value of improvements £5,973 11s. 1d., against £1,804 9s. 6d. required. The majority of the tenants are progressing satisfactorily; but the smaller holders complain of being unable to get work near at hand, so that they have to go away from home, and the holdings are not so well attended to. A creamery has recently been started at Fairlie, and this should help the settlers to better their position. The crops have been good, and the holdings are well kept.

Rautawiri Settlement (near Winchester).—Established April, 1900. Six holders, all of whom are residing and complying satisfactorily. The number of souls is twenty-four. The value of improvements effected is £649 10s., against £132 17s. 8d. required. The settlement has made fair progress. The lessees are cleaning the land, but have not as yet obtained much return. The settlement is, however, conveniently situated for obtaining outside employment when required.

Papaka Settlement (near Pleasant Point).—Established April, 1900. Nine holders, eight of whom, with thirty souls, are residing in the settlement. The value of improvements effected is £2,887 18s., against £900 10s. required. With one exception the lessees are residing and complying satisfactorily, and maintaining their holdings in good order. They have had a good harvest, feed is plentiful, and the holdings are with two exceptions of sufficient size and quality to maintain the lessees, and keep them employed.

Takitu Settlement (between Glenavy and Hakataramea, near the Waitaki River).—Established March, 1900. Number of holders, five; population, twenty-one; value of improvements effected £4,048 8s. 3d., against £2,425 3s. 8d. required. This settlement is making good progress. The lessees are all residing and complying, are adding considerably to the value of their improvements

and keeping their holdings in good order. There is very little cropping, the land being occupied and used as small grazing-runs.

Lyndon No. 1 Settlement (near Waiau, North Canterbury).—Established March, 1901. Nine holders, six of whom have built and are residing and complying satisfactorily; one is residing in a temporary structure; and one is non-resident, and will be dealt with by the Land Board. The number of souls is thirty-three; and the value of improvements effected £4,272, against £842 17s. 8d. required. The holdings are generally well farmed, and used principally for grazing purposes; the small area put into grain-crop has, however, yielded fair results.

Kohika Settlement (near Otaio, South Canterbury).—Established May, 1901. Seventeen holders, fourteen of whom, with forty-nine souls, are in residence and complying satisfactorily. The remaining lessee has commenced building, but is very dilatory. The value of improvements effected is £3,929 19s., against £1,446 18s. 6d. required. Most of the improvements effected are very substantial, and as the holdings are of good size and quality and have easy access to a railway the settlement appears likely to prove a very prosperous and successful one.

Raincliff Settlement (near Fairlie).—Established June, 1901. One holder, who is residing and complying, keeping the holding in good order and making very substantial improvements. Number of souls, four. Value of improvements effected £440 11s. 1d., against £42 11s. 11d. required.

Tarawahi Hamlet (close to Christchurch).—Established June, 1901. Sixteen holders, twelve of whom are residing and complying. There are fifty-one souls on the settlement; and the improvements effected amount to £2,075, against £450 required. This settlement has progressed satisfactorily during the year, and the unselected sections are being taken up more rapidly. The resident settlers are making good homes, and as the hamlet is well situated in a progressing locality there is every prospect of its being a success, though the rents are at present considered high.

Puhuka Hamlet (close to Timaru).—Established July, 1901. Seven holders, all of whom are residing and complying. The number of souls is seventeen; and the value of improvements effected £1,032 18s. 9d., against £150 required. The improvements are substantial, and the holders appear to be doing well. The smaller lots are not sought after, and may have to be grouped.

Kaimahi Settlement (at Papanui, near Christchurch).—Established October, 1901. Thirteen holders, of whom nine have built and are residing and complying, one is living in a tent, one section is held as a gravel-pit by the local body, and the remaining two lessees have not yet built nor entered into residence. The number of souls is twenty-four; and the value of improvements effected £1,371, against £120 12s. 9d. required. Most of the holders are working their land well, but it will take a good deal of effort to clean it of weeds, including Californian thistle. The holders' returns so far have not been satisfactory.

Kapuatohe Hamlet (at Belfast, near Christchurch).—Established October, 1901. Nine lessees, seven of whom are residing and complying, and in the remaining case the section is held by the local body as a gravel-pit. The number of souls is twenty-one, and the value of improvements effected £725, against £41 12s. 1d. required. The holdings, though comprising light land, have this year given satisfactory results. There is no demand for the half-acre sections which were laid off fronting the main road, which will probably have to be grouped.

Rapuwai Settlement (eight miles from Pleasant Point).—Established December, 1901. Five holders, all single men, so that the population is only six souls. The value of improvements effected is £1,274 11s. 7d., against £236 2s. 6d. required. With one exception the residence and improvements are satisfactory. Very little cropping has been done, but there has been plenty of feed.

Lyndon No. 2 Settlement (near Waiau, North Canterbury).—Established April, 1902. Ten holders, six of whom are residing on their own sections and one on a relative's holding, while two have not yet built nor entered into residence. The number of souls is thirteen; and the value of improvements effected £3,703, against £1,833 11s. 5d. required. Very little crop has been grown, the lands being used principally for grazing. The small-grazing-run holders have lost considerably, owing in a great measure to injudicious burning soon after selection, followed by a late spring.

Maytown Settlement (close to Waimate).—Established April, 1902. Twelve holders, eight of whom were actually in residence, while the other two had only recently completed their houses, and were to move into them shortly. The number of souls is thirty-seven; and the value of improvements effected £1,190 18s. 2d., against £126 2s. 8d. required. The improvements are generally very good, and a satisfactory amount of progress has been made considering that the first year of occupation had barely expired.

Eccleston Settlement (near Otaio, South Canterbury).—Established May, 1902. Four holders. One lessee has built a good new house and made an excellent start, and one resides in the original homestead buildings. The other two lessees have not built, have made practically no improvements, and only reside temporarily. The total value of new improvements is only £302 4s., nearly all contributed by one settler. The holdings are of ample size, and there is no excuse for non-compliance. Number of souls, seven. Total value of improvements on the land, £1,937 10s. 8d., against £248 2s. 5d. required.

Small Areas acquired for Low-lying Lands or Homestead-sites for High Pastoral Crown Lands.—There are nine of these blocks, three of which are homestead-sites, and are residentially occupied by nine souls. The total value of improvements required is £131 17s., while the value effected is £1,239.

The total population on land-for-settlements holdings is 3,024 souls. The total value of improvements required is £76,734 0s. 10d., and the total value of improvements effected £203,223 17s. 4d., including those on the land at the date of purchase.

THOMAS HUMPHRIES,
Commissioner of Crown Lands.

OTAGO.

I have the honour to forward herewith returns of all land transactions in the Otago Land District during the year ended 31st March last. These returns have been carefully prepared, and explanatory notes have been added where deemed necessary. On a perusal of the several tables it will, I think, be recognised that the operations of the year have been in a general way progressive and satisfactory. There have been bountiful crops over the greater part of the district, more especially in North Otago, while in the south, though the crops generally gave promise of good yields, the unusual lateness of the season and broken weather at harvest-time have prevented many of the settlers from benefiting to the extent they otherwise would have done. Taken altogether it may safely be said that the year's operations have been attended with more than average success; and, as there is every prospect of a favourable market and fair prices, the position of all whose maintenance is directly dependent on the products of the soil should be much improved by the financial results of their year's labours.

Revenue.—The receipts for the year in respect of both ordinary Crown lands and land under the Land for Settlements Act have again exceeded the estimates framed at the beginning of the financial period, the gross amount being £76,592 16s. 7d. as against the estimate of £71,825. The excess was thus £4,767 16s. 7d. The sum of £1,038 3s. 6d. was also collected by Receivers of Gold Revenue on account of occupation licenses and coal leases, accounted for direct to the Treasury. The gross receipts from ordinary Crown lands were £55,912 11s. 4d., an excess over estimate of £2,416 13s. 2d. From endowment lands administered by the Land Board the receipts were £1,062 18s. 9d.; while those under the Land for Settlements Act amounted to £19,617 6s. 6d., an excess of £2,693 14s. 8d. over estimate. This result cannot be viewed otherwise than with satisfaction. In connection with land-for-settlements receipts, it should be mentioned here that the proceeds from the sale of lime on the Makareao Estate is not now accounted for at this office, so that any such receipts will have to be added to the amount given in the tables attached to this report. The gross annual rental of all classes of tenure at 31st March, 1902, including land for settlements, was £69,961 16s. 1d.; while the actual aggregate amount of rent received during the year was £74,423 0s. 6d., showing that a considerable sum of outstanding rents must have been collected. The gross estimate for the current year is £74,969 10s., the proportion for ordinary Crown lands being £53,989 6s. 4d.; land for settlements, £19,946 10s.; and endowments, £1,033 13s. 8d.

Rebates.—The granting of rebates of rent continues to work satisfactorily and to have a marked effect in inducing tenants to pay more promptly than heretofore. Many small-grazing-run lessees still consider that they are as deserving of the concession as other classes of settlers. In the various statements of arrears it will be observed that under the small-grazing-run system the amount of outstanding rents is greater than under any other tenure. I venture to assert that this would not be the case if these tenants were allowed the rebate. The several amounts granted in this district during the year under the different tenures were as follows: Deferred payments, 7 selectors, £2 4s.; perpetual leases, 210 selectors, £126 0s. 5d.; occupation with right of purchase, 148 selectors, £62 6s. 10d.; lease in perpetuity (ordinary Crown lands), 514 selectors, £321 12s. 6d.; special-settlement associations, 14 selectors, £8 11s 5d.; land for settlements, 213 selectors, £631 8s. 1d.: total, £1,152 3s. 3d. to 1,106 selectors, being a little over £100 more than the previous year.

Summary of Transactions.—The following is the summary of transactions during the year, in the usual form:—

SUMMARY OF LAND TRANSACTIONS, 1902–3.

Tenure, &c.	Transactions during Year.				Areas held under Lease at 31st March, 1903.				Gross Revenue received during the Year.		
	Number.	Area.			Number.	Area.					
		A.	R.	P.		A.	R.	P.	£	s.	d.
Cash	87	995	3	34	...	...			1,179	2	9
Deferred payments	...	...			45	12,948	3	32	1,180	6	7
Deferred payments made freehold	7	2,484	3	35	...	...			...		
Perpetual leases	...	...			251	48,594	2	15	1,831	11	0
Perpetual leases made freehold	9	1,293	2	2	...	...			878	10	0
Occupation with right of purchase	62	9,258	3	16	224	39,952	0	16	922	18	0
Lease in perpetuity (new)	22	6,030	1	36	638	165,181	3	8	4,361	7	1
Lease in perpetuity, exchange from other tenures	4	1,201	3	19	...	...			...		
Agricultural leases	3	35	3	37	16	534	3	37	17	6	6
Occupation leases (Mining Districts Land Occupation Act)	26	1,033	2	26	158	5,612	0	5	335	8	1
Village settlements—											
Deferred payments	...	...			3	130	0	4	10	10	5
Perpetual leases	...	...			17	364	1	23	33	14	5
Perpetual leases made freehold	3	51	0	10	...	...			103	0	0
Occupation with right of purchase	...	...			5	4	1	12	0	12	0
Lease in perpetuity	9	135	3	10	119	1,733	0	15	143	3	5
Carried forward	232	22,522	0	25	1,476	275,056	1	7	10,997	10	3

SUMMARY OF LAND TRANSACTIONS, 1902-3—*continued.*

Tenure, &c.	Transactions during Year.			Areas held under Lease at 31st March, 1903.			Gross Revenue received during the Year.
	Number.	Area.		Number.	Area.		
		A. R. P.			A. R. P.		£ s. d.
Brought forward ...	232	22,522 0 25		1,476	275,056 1 7		10,997 10 3
Village-homestead special settlement	...	...		77	1,214 3 15		*105 12 0 †55 6 5
Special - settlement association (lease in perpetuity)	...	...		14	2,765 1 12		121 2 0
Homestead lands	...	...		2	158 0 37		...
Small grazing-runs	16	25,961 3 14		266	534,338 1 35		12,188 12 8
Pastoral runs	16	140,937 1 21		237	4,519,101 1 16		30,246 17 8
Coal and mineral leases ...	...	...					
Timber-cutting	18	310 3 8		564	88,535 3 21		1,352 6 9
Miscellaneous licenses and leases	78	21,488 3 37					
Other miscellaneous revenue ...	...	...		...	...		845 3 7
Totals ordinary Crown lands	360	211,221 0 25		2,636	5,421,170 1 23		55,912 11 4
Land for settlements—							
Lease in perpetuity ...	53	6,703 2 11		379	55,661 2 30		18,563 0 5
Lease in perpetuity, village ...	1	20 0 0		30	413 0 4		397 12 10
Small grazing-runs ...	...	...		3	3,667 1 30		405 3 5
Pastoral runs	...	...		2	953 2 38		122 2 9
Miscellaneous	3	83 2 27		48	762 1 11		129 7 1
Totals land for settlements	57	6,807 0 38		462	61,458 0 33		19,617 6 6
Endowments ...	1	861 3 6		44	44,578 2 34		1,062 18 9
Grand totals ...	418	218,890 0 29		3,142	5,527,207 1 10		76,592 16 7

* Rent. † Interest.

This summary shows in the aggregate an increase of 143 in number as compared with the previous year, although the area dealt with is considerably less, while the increases in the number of holdings and area held as at 31st March were ninety-four and 33,865 acres respectively.

Arrears.—It will be seen that the total amount of arrears at 31st March was £2,673 19s. 11d., owing by 137 selectors occupying an area of 87,338 acres, a decrease as compared with the previous year of £617 17s. and of forty-one selectors in arrear. The proportion of these arrears under the Land for Settlements Act is £1,654 16s. 11d., owing by fifty-one selectors occupying 10,349 acres, the higher value of the lands leased accounting for the larger amount than in respect of ordinary Crown lands. It is noticeable that of the total sum outstanding on account of ordinary Crown lands—viz., £993 10s., by eighty-three selectors occupying 75,132 acres—the greater proportion relates to small-grazing-run lessees, thirty-six of whom, occupying 65,230 acres, owe £834 5s., leaving only £159 5s. owing by forty-seven holders of 9,902 acres under all other tenures, thus emphasizing the statement previously made that so large an amount of arrears in respect of small grazing-runs would not exist if rebates were extended to this class of tenure. The following comparative table of arrears for the last four years shows, I think conclusively, that the granting of rebates has had the effect of considerably reducing the aggregate amount of outstanding rents, more particularly in regard to land for settlements. The gross annual rental is given for the purpose of showing that, even while the amount of annual rental has increased, the amount outstanding has decreased :—

COMPARATIVE STATEMENT OF ARREARS, 1900 TO 1903.

Year.	Number of Tenants in Arrear.	Area held by Tenants in Arrear.	Amount of Arrears.	Total Number of Tenants on Books.	Gross Annual Rent.
		Ordinary Crown Lands.			
		Acres.	£ s. d.		£ s. d.
1900	159	50,834	988 0 5	2,490	51,015 9 2
1901	153	75,160	1,043 17 5	2,582	51,283 11 3
1902	120	67,398	922 9 3	2,598	51,409 7 1
1903	83	75,132	993 10 0	2,636	51,605 16 3
		Land for Settlements.			
1900	98	15,187	4,077 1 3	368	14,976 13 4
1901	104	16,972	4,076 19 10	389	17,145 9 6
1902	57	9,584	2,358 17 8	407	17,460 3 6
1903	51	10,349	1,654 16 11	462	20,194 16 8

Transfers.—There were in all 156 transfers of holdings during the year, covering a gross area of 277,565 acres, the number and areas of the several tenures being as follow: Perpetual leases, twenty-three, comprising 3,538 acres 2 roods 18 perches; occupation with right of purchase, seven, comprising 1,173 acres 1 rood 5 perches; lease in perpetuity (ordinary Crown lands), thirty-five, comprising 7,538 acres 2 roods 37 perches; land for settlements, thirty-seven, comprising 3,400 acres and 32 perches; occupation leases (Mining Districts Land Occupation Act), six, comprising 143 acres 2 roods 7 perches; small grazing-runs, twenty-two, comprising 39,743 acres 2 roods 38 perches; pastoral runs, twelve, comprising 220,832 acres 2 roods 18 perches; miscellaneous, fourteen, comprising 1,194 acres 1 rood 20 perches: totals, 156 transfers, comprising an area of 277,565 acres and 17 perches. The totals for the previous year were 138 transfers, comprising an area of 112,788 acres.

Forfeitures and Surrenders.—The total number of forfeitures and surrenders during the year, as shown in the table, was fifty-two, with an area of 74,401 acres, at an annual rental of £667 5s. 11d., as against a total for the previous year of forty-five holdings, and an area of 26,406 acres, at an annual rental of £331 2s. 2d.; an increase of seven in number, 47,996 acres in area, and £336 3s. 9d. annual rent. This increase is chiefly in small grazing and pastoral runs, which accounts for the much greater acreage. The number, however, is much smaller than the average for some years past.

Land opened for Selection.—The total area of land opened for selection during the year under the several classes of tenure amounted to 187,437 acres, as against 204,408 acres during the previous year. The greater proportion of this area was composed of pastoral lands under the small-grazing-run and ordinary pastoral-run tenures, the area comprised in estates opened under the Land for Settlements Act being 6,630 acres, as shown in the table. An area of 239 acres was also disposed of under sections 114, 115, and 117 of "The Land Act, 1892," and section 13 of "The Land Act Amendment Act, 1895." Ten subdivisions of the Highfield Runs Nos. 225B and 225C were opened as small grazing-runs on the 24th February, and the fact that applications for same were received from no less than 437 persons appears to indicate a very eager demand for comparatively small areas of land suitable for sheep-farming. For one of these small runs, containing 2,081 acres, there were 204 applicants; for another of similar area, 151; for another, 146; while for the remainder the numbers ranged from twelve to seventy-nine, the total aggregate number for the ballot being 996. That there is now so little of such country available in Otago may also account for the eagerness manifested by so many local residents in applying for additional areas. Another factor in the case is the very natural and laudable desire of many settlers to procure sufficient land to enable their increasing families to settle in the vicinity of their present homes, the large proportion of the applications above referred to being from or on behalf of the sons and daughters of farmers already settled in the district. It might in passing be suggested that in cases such as that just mentioned, in which the demand is so keen, it would tend to more prosperous and satisfactory settlement if the Land Board were empowered to examine applicants and discriminate, as is done under the Land for Settlements Act, before allowing them to go to ballot, the desideratum being to secure the fittest and most likely to become successful settlers.

Lands open and to be opened for Selection.—The land now open for selection in this district comprises scattered sections mostly of inferior quality. A large number of sections in the Martin's Bay district are open, but owing to distance, want of communication, and inaccessibility they remain year after year unselected. In the southern bush districts there is a large area open, most of which has been taken up at one time or another and has passed back into the hands of the Crown. In a great many cases improvements have been effected, and it is perhaps owing to the fact that valuations have to be paid that the land is not readily applied for. The progress of settlement in these districts is dependent, I feel sure, in a large measure, on the proposed extension of the Catlin's Railway. In Tautuku district all the unselected sections have been withdrawn in the meantime, on account of the valuable sawmilling timber known to exist thereon, which will be utilised as the railway and roads open up the country. Part of Patearoa Runs Nos. 248 and 248A, in Maniototo County, is now being subdivided into smaller areas for disposal as small grazing and small pastoral runs, and smaller areas to meet the wants of miners and other residents in that locality, and Run 226, St. Bathan's, is also being cut up for smaller settlement and pastoral areas. The present licenses, however, continue in force up to the 1st March next, but it is expected that the disposal of the greater part of the proposed subdivisions will take place within the financial year, so that the new tenures may begin immediately on the expiry of the existing licenses. Some 12,000 acres of Moutere Run, Leaning Rock district, have also been reserved for subdivision into small grazing-runs. A portion of Matakanui Run, containing nearly 2,000 acres, will also be surveyed and offered principally under the Mining Districts Land Occupation Act; and in the vicinity of Tapanui about 1,000 acres will be offered for close settlement in areas varying from 15 to 150 acres.

With regard to land for settlements, the only land at present in view for disposal, apart from areas unlet in the estates already open for selection, is that of St. Helens, lately known as "Kenton Farm," containing about 538 acres, adjoining Elderslie, to be offered in three allotments. Other lands to be dealt with during the year include pastoral lands the licenses of which expire in 1905; a total area of 144,897 acres at present held under seventeen pastoral licenses, chiefly in the Tuapeka County; pastoral lands at present open for application, comprising an area of 42,287 acres, in Lake, Tuapeka, and Maniototo Counties; also the lands indicated in the "Land Guide," aggregating approximately 54,500 acres.

Selections during the Year and Tables of Transactions.

In glancing at the year's transactions, as set out in the various tables, the following remarks may not be considered devoid of interest:—

Cash.—The transactions recorded in the tables, including perpetual leases made freehold, show an increase in number over the previous year, being ninety-six as against fifty-three. The area sold and revenue received were, however, somewhat less, being 2,289 acres and £2,057 12s. 9d., while for the previous year the figures were 3,458 acres and £2,652 5s. 10d. respectively. It will be seen that the greatest number of sales took place under the head "Suburban"—viz., sixty-two. Under the optional system there were only five selections, covering an area of 786 acres, the average price being a little over 8s. per acre. There was, however, comparatively speaking, but a small area opened for optional selection.

Deferred Payments.—The area now held on deferred payments is less than at the 31st March, 1902, by 2,485 acres; and the number of selectors fewer by seven, completions of purchase accounting for the difference.

Perpetual Leases.—By exchanges, forfeitures, and surrenders, and areas made freehold during the year the holdings under this system have been further reduced to 251 in number and 48,595 acres in area, the amount of rent received being nearly equal to the amount of annual rent payable.

Occupation with Right of Purchase.—The selections under this tenure numbered sixty-two, covering an area of 9,259 acres, as against twenty-three in number and 4,991 acres during the previous year. It should be mentioned, however, that the year's selections include some 6,456 acres, by forty-four selectors, originally taken up under the improved-farm-settlements scheme.

Lease in Perpetuity.—The ordinary lease-in-perpetuity selections number twenty-two, covering an area of 6,030 acres, as compared with thirteen with an area of 3,848 acres in the previous year. The total area now held is 165,182 acres, by 638 selectors, at a total annual rental of £4,900 1s. 10d. The year's selections include 640 acres, by four selectors, originally taken up under the improved-farm-settlement system. The selections, therefore, under this and the occupation-with-right-of-purchase tenures include an aggregate area of 7,096 acres, by forty-eight selectors, formerly returned under the head of "Improved-farm Settlements," the balance under the two systems—namely, 8,193 acres, by forty selectors—representing the actually new selections, as against thirty-six selections, with an area of 8,840 acres of new selections, during the previous year. This is a falling-off as compared with past years, which is, as before pointed out, consequent upon the limited area of suitable Crown lands now available in this district for notification under the optional system.

Mining Districts Land Occupation Act.—The transactions under this Act have been a trifle greater than during the previous year, an area of 1,034 acres by twenty-six selectors having been taken up, as compared with 528 acres by twenty-three selectors; the total now held being 5,612 acres, by 158 selectors, at an annual rental of £215 17s. Efforts have been made during the year to insure compliance with the residence condition, and the forfeiture of more than one lease has been declared for non-compliance. In respect of lands likely at some not far distant date to be required for mining or be affected by mining interests, the system appears to afford a satisfactory method of securing the occupation for useful purposes of Crown lands that would otherwise remain waste, and at the same time of affording to miners and others residing within mining districts beneficial conveniences or privileges in the shape of grazing for milch cows and horses and for gardening.

Village Settlements.—For reasons given in former reports there is still a gradual diminution of village-settlement holdings in this district, there now being in respect of ordinary Crown lands 221 holdings with an aggregate area of 3,447 acres at an annual rental of £345 3s., as against 232 holdings with an aggregate area of 3,734 acres at an annual rental of £371 3s. 10d. on the 31st March, 1902. Under land for settlements there are thirty holders, 413 acres, at a rental of £317 3s. 10d. per annum. The decrease for the year has thus been ten selectors, 268 acres, and £7 17s. 6d. in annual rental. The value of improvements effected on the lands in occupation at 31st March was as follows: Ordinary Crown lands, £11,271; land for settlements, £2,910: total, £14,181; Crown lands showing a small increase of £10, and land for settlements £838, as compared with last year's returns.

Small Grazing-runs.—The area leased under this system during the year was much greater than in 1901–2—viz., sixteen selectors, 25,962 acres, rental £615 1s. 4d., as contrasted with five selectors, 11,801 acres, and £207 17s. 2d. annual rental. Included in the year's transactions are four renewals of expired leases over an area of 8,004 acres. The new country proclaimed as small grazing-runs, comprising ten subdivisions of two of the Highfield runs, referred to under the head "Lands opened during the Year," was all disposed of after keen competition. The following are the respective areas now held under this class of tenure: Ordinary Crown lands, 266 selectors, 534,338 acres, £12,461 7s. 4d. rental; endowment lands, ten selectors, 14,728 acres, £328 9s. 10d. rental; land for settlements, three selectors, 3,667 acres, £401 18s. 10d. rental: total, 279 selectors, 552,734 acres, and £13,191 16s. annual rental. The present average rentals per acre per annum of the three divisions of small-grazing-run leases are as follows: Ordinary Crown lands, 5·5d.; endowment lands, 5·3d.; land for settlements, 2s. 2·3d. The receipts for the year were: Ordinary Crown lands, £12,188 12s. 8d.; endowments, £309 3s.; land for settlements, £405 3s. 5d.: total, £12,902 19s. 1d.; the total increase over the previous year being £705 8s. It must be noticed that the arrears of rent under this tenure are much greater in proportion than under any other of ordinary Crown lands. As stated in my remarks with regard to rebates, I am of opinion that they would have been considerably less if the operation of the Crown Tenants' Rent Rebate Act had been extended to this class of tenants.

Pastoral Runs.—Sixteen runs were let during the year over an area of 140,937 acres, at an annual rental of £1,781 19s. 6d., the number being less by three, the area less by 233,304 acres, but the annual rental greater by £876 18s. than during the previous years. After deduction

of forfeitures, expiries, and surrenders, there are now current 239, the same number as before; area 4,520,055 acres, an increase of 10,779 acres; annual rental £28,953 17s. 2d., a decrease of £481 4s. These figures include an area of 954 acres held under two pastoral licenses under the Land for Settlements Act, at £121 13s. per annum. There are in addition two pastoral-endowment runs over an area of 25,590 acres, at £460 10s. per annum. The average annual rentals per acre of the three divisions of these runs are as follows: Ordinary Crown lands, 1·53d.; land for settlements, 2s. 6·6d.; endowments, 4·3d. The receipts for the year were: Ordinary Crown lands, £30,246 17s. 8d.; land for settlements, £122 2s. 9d.; endowments, £460 10s.: total, £30,829 10s. 5d., a total increase over the previous year of £1,497 12s. 8d.

Miscellaneous Licenses.—The greater proportion of these licenses are now held under the 116th section of "The Land Act, 1892," the provisions of which continue to work satisfactorily in securing the occupation of considerable areas of the Crown that would otherwise entail expense to the State for keeping down rabbits, noxious weeds, &c. As many of these holdings are likely to be kept on by the licensees for a number of years, I think it would be advisable to so far modify the conditions under which they are held as to permit cultivation to some extent where desired, in which event in many cases a larger rental could possibly be obtained. There are now 612 licenses over an area of 89,298 acres at an annual rental of £1,245 12s., as against 589 with an area of 77,789 acres at an annual rental of £1,112 3s. 11d. at 31st March, 1902. The gross receipts for the year for ordinary Crown lands and land for settlements, £1,595 5s. 2d.; endowments, £33 17s. 6d.: total, £1,629 2s. 8d.

Special-settlement Associations.

The only settlement block coming under this heading is the Swinburn Farm-homestead Block, no longer, however, worked as an association or under the association rules, but held practically as ordinary Crown lands under the lease-in-perpetuity tenure. It remains in much the same condition as last year, being occupied by fourteen selectors, with a total area of 2,765 acres, at an annual rental of £121 2s. 4d. The Ranger's report states that very few of the original holders now remain on the block. The land being of dry nature cannot be profitably worked without a good rainfall. The late season has in this respect been unusually favourable, and good yields have resulted. Mixed farming is carried on, and the various holdings are well stocked and cultivated; and so long as the seasons are favourable the areas are sufficiently large to maintain the settlers and their families. There are twelve houses on the block, with thirty-eight persons resident, the value of the improvements being £1,876.

General as to Settlement Conditions, Settlers' Progress, &c.

With the exception of the southern portion of this district, it may be said that the settlers generally throughout Otago have had a successful and prosperous year; and, even in the south, there is a probability, I think, of things not turning out so badly as at one time feared. The spring of the year was unfavourable, and crops were late in starting, but the latter part of the season has been much more hopeful; and, as will be seen from the Rangers' reports, there have been instances of extra good yields. Turnip-crops are fair and grass abundant, promising good feed for stock during the winter. The settlement conditions are upon the whole well complied with, and in many cases much more than the actual requirements in the way of improvements have been effected. There are, however, in this district a number of cases in which, owing to the character of the land, it is not possible for the settlers to profitably expend the full amount required by the regulations, and consequently the discretion of the Land Board in dealing with such cases has to be called into exercise. From the Rangers' inspections it is seen that the required value of improvements in a total number of 662 cases, covering an area of 118,814 acres, was £52,599, and that the value of those actually made was £108,869, being more than double the actual requirements.

The meagre success, or, perhaps, more correctly speaking, the comparative failure, of most of the village settlements, both ordinary and special, as stated by the Rangers, is matter for regret, but the fact is nevertheless evident to those who have been in the districts affected and watched their progress. The following is the joint report of the Rangers under this head:—

"In the southern parts of Otago the settlers are having a very anxious time, on account of the wet and broken season. The spring of this year was unfavourable to farming operations, thus making the harvest also very much later than usual. Grain-crops, generally speaking, are very fair, and the turnip-crops very good. Owing to the lateness of the spring many lambs were lost, and the percentage of lambs this year must therefore be smaller than in preceding years. Good prices still continue, however, and the prospects of the mixed farmer are fairly bright. Numerous dairy factories have been erected during the past year, and the dairying industry is making rapid strides. In the bush districts very little progress has been made during the past year. A few more factories have been erected, however, and the prospects of the settlers adjacent considerably brightened. Many of the worst roads have been improved, and the prices of cattle well maintained. The conditions of the various leases have been well complied with.

"The past season, though so late generally, has given fair treatment to Central and North Otago. The settlers were late in getting in their various crops, and the early part of the season was dry. About the first week in December, however, the drought broke up and splendid rains fell, giving the crops invaluable assistance and abundance of feed for stock. During the summer months, and, in fact, during the ordinary harvest months, heavy rains continued, and this, with the persistent absence of any steady period of dry weather, caused farmers to fear that all would be lost. Harvesting operations in the past generally began in North Otago about the middle of January, and were usually over about the end of February. This year, however, harvesting was very late, but, notwithstanding the somewhat erratic nature of the season, most of the grain-crops

in the north were saved. Record grain-yields have been the rule, and, as good prices are obtainable, settlers have done very well. In pastoral pursuits the nature of the season was also a serious drawback. Early lambing was unsuccessful, owing to the cold weather and the scarcity of early feed. There was a heavier death-rate than usual, but the prices for lambs and for both store and fat stock were well maintained.

"Generally speaking, the past year has been a good one for the farming community in North and Central Otago. The foregoing remarks apply to settlers under the small-grazing-run, lease-in-perpetuity, and occupation-with-right-of-purchase systems. With regard to the village homesteads and special settlements, the conditions of those in South Otago and those in North Otago being somewhat different, it might be advisable to divide the report so as to treat each part of the land district separately.

"Taking South Otago first, the small settlements have not been a success. Some seven or eight of these settlements were made in the bush country, but, with one or two exceptions, these have been practically deserted. While Government money was being spent in road-making, &c., small settlement was fairly prosperous, and some improvements were effected on the various holdings; but as soon as that expenditure ceased the lessees found their holdings too small and too poor to make a living on them alone, hence they were obliged to leave them. One of the bush settlements—that in Block VIII., Glenomaru—has been very successful, chiefly owing to the fact that it is both near Owaka, where work is obtainable, and near the Catlin's Estuary, where some of the settlers make a living by fishing. In the Tapanui district fair progress has been made. The settlers on the small settlements are well satisfied, and outside work is fairly plentiful.

"In Central and North Otago, with one exception—that of Sutton—the small settlements have not been successful. This is, to some extent at least, owing to the smallness of the areas and the poor quality of the soil. The Sutton Settlement has been very successful. Here the land is good, and a dairy factory has been erected within easy distance.

"Speaking generally, these settlements in Otago, except in isolated instances, have not made much progress. Where the land is very good and where outside employment is plentiful the position is satisfactory, but otherwise the position is reversed. The occupations of the settlers are varied according to the district. In bush settlements they are mostly employed in fishing and sawmilling, while a little attention is also given to dairying. In the others the dairy industry gives the principal occupation, and labour with the surrounding larger landowners is often obtainable. Cultivation, except for gardening or for growing winter feed, is not largely carried on—most of the holdings have been laid down in permanent grasses. In the cases of lands having been surveyed for village homesteads and not now occupied, it might be advisable to open the sections under the optional system, especially where there is no reasonable expectation of selection under the village-homestead system.

"In Otago there is only one settlement under the special-settlement regulations—that in Block VII., Swinburn—and it has not been a great success in the past, owing to dry seasons. All the sections are occupied, but of the original selectors very few are now remaining. The land is of a dry nature, and without a good rainfall is not capable of producing many crops. This year, however, has been favourable, and heavy crops are the result. The settlers are chiefly mixed farmers, each keeping a number of sheep and cattle, and also cultivating part of his holding each year. This settlement is at present in a satisfactory condition, and, given a sufficient rainfall, should be quite successful in the future. The various holdings are well stocked and well cultivated, and as each holding contains sufficient area the various lessees are enabled to live on their farms."

The Ranger at Queenstown reports as follows:—

"As a whole the conditions are being fairly well complied with. The number of non-residents are much fewer this year, several having built on their land. A considerable number have a large area of rough mountain land in their holdings that can scarcely be improved, and four or five have swampy land which is unsuitable for building on, or even doing much with in the way of improvements. Some reside on adjoining sections or work the land from their homesteads. In the Hawea and Tarras districts generally the crops have been very poor, through want of rain in the early part of the season, many of the fields being scarcely worth reaping. As a whole, however, throughout this district, from an agricultural point of view, things are fairly bright, and the pastoral tenants or runholders are in a prosperous condition, through having few losses in stock and good prices for wool."

Preservation of Bush, Scenery, &c.—This is a matter that has been brought into perhaps more than usual prominence of late, and every effort is being made to conserve as much as possible useful timber for sawmilling and other purposes, and also the many beauty-spots which are to be found in various parts of this district, and which afford special attractiveness to tourists and others. I subjoin extracts from reports on this subject by Rangers Mackenzie of Queenstown, and McDougall of Pembroke. The former states with regard to his district as follows: "With reference to this district generally, I may state that every care is taken to preserve the beauty of the scenery. What I have most to contend against is fires, sometimes from the runs adjoining the bush reserves when firing the fern. I think if a man was put on in spring to burn the fern round the edges of the bush it would to a certain extent prevent bush-burning. Fires also originate at times in the centre of the bush, which are difficult of detection. Although reserves have been made including all bush on the margin of the lake and all places of interest in this district, I still feel inclined to recommend the reserving of the bush on Mount Alfred situated south of Trig. K, as there is always a danger when bushmen are allowed to cut in it. Respecting Queenstown, the improvement now going on in the park, and the road made to the top of Queenstown Hill, will be a source of attraction to tourists, while the road now being constructed up the lake-side to Moke Lake will be

an additional pleasure-drive. With the exception of the special cheap trips from Saturday to Wednesday (which were well patronised), the number of *bonâ fide* tourists has not been quite so great as formerly. The Coronation is said to be accountable for this. The opinion of the tourists is that this place has not been overrated. Many have said they had no idea such beautiful scenery existed. A great want has been felt in the shape of a local guide-book, which, in my opinion, is absolutely necessary."

Ranger Andrew McDougall, who was appointed to exercise a local inspection of the bushes chiefly in the Hawea, Wanaka, and Makarora districts, with the view of preventing the spoliation and wanton destruction of timber and the preservation of picturesque and scenic spots in those localities, more especially round the shores of the lakes, has done good service during the year in the direction indicated, as well as in the ordinary work of reporting upon applications for timber rights and privileges, and checking output for royalty and revenue purposes and other local inspections. He reports for the year as follows: "During the year I have sent about thirty reports to the Commissioner of Crown Lands, Dunedin, relating to applications for sections, runs, bush, and flax. During the same period I have sent out about forty communications relating to matters of a local nature. On the 23rd July last I made an extended inspection of the Hawea Lake and bush. During the year I, as Ranger, visited Hawea eight times, Forks Settlement twice, Makarora Bush six times, and head of Lake Wanaka and the islands fifty-two times. I have worked with the Islands Domain Board in suppressing any interference with the bush on the different islands. The only act of vandalism I discovered was the cutting-down of a wattle-tree on Ruby Island, and, although a reward of £5 was offered, the offender was not detected. The very close scrutiny which has been maintained on the islands and shores of Lake Wanaka has been very beneficial in allowing the bush to once again assume a green and healthy appearance. The illegal cutting of bush, so common in Makarora Bush some two years ago, has been stopped, by the offenders being compelled to resort to other occupations. Regarding Hawea Bush, I am sorry to say it is not so satisfactory as one could wish. On account of the deer and trout, so numerous here, this lake must before long become a very popular resort for sportsmen, and any further diminution of the bush, already so meagre, must necessarily lessen its attractiveness. I respectfully suggest that in the granting of licenses or permits in this bush a serious regard to limitation in grants be entertained. I would suggest that in addition to the islands, Minaret Bush (growing up again) be conserved for some years to come. It is the only bush of any extent on the lake borders. A piece of very nice bush, which acts as a splendid foreground in a view of Mount Aspiring, situated on Run 334c (Barker Bros.), should be preserved; also a small piece of bush on Section 8, Block XVIII., Lower Wanaka District (Alexander McDougall), should also be preserved. These are only small pieces of bush, but if removed would very much detract from the beauty of Glendhu Bay."

With reference to Ranger McDougall's suggestions as to the limitation of timber privileges at Hawea Bush, I may state that this is a matter that has already been attended to, and will not be lost sight of in the granting of any further rights at the place referred to.

Land for Settlements Acts.

Pomahaka Downs.—The condition of this estate continues unsatisfactory, the area still unlet being 3,180 acres 3 roods 18 perches, only 369 acres 1 rood having been taken up during the year. The value of the unlet area is £502 7s. 8d. per annum. The number of settlers at present in occupation is nineteen, the area occupied 4,074 acres 2 roods 25 perches, and the annual rental £690 15s. 8d., including three temporary licenses at £7 10s. per annum over 92 acres. The receipts for the year were £710 9s. 3d., making the total from commencement £6,600 16s. 6d. Amount of rebate granted to three selectors, £9 16s. 11d.; number of houses, 13; persons resident, 40; value of improvements effected, £4,328. Ranger O'Neill reports on this estate as follows: "During the past year only one new selection was made, so that there are still a number of unoccupied sections on this estate. A very great improvement, however, has been made in the Clinton–Pomahaka Road, which is now metalled as far as the southern end of the estate. Formerly the road cut up very badly during the grain-carting season, and this was a serious handicap to the settlers. Now that the principal road has been so much improved much heavier loads may be carted, and the expense of getting away the grain much lessened. The crops of oats and turnips on Pomahaka are very fair this year; in fact, on northern slopes the crops might be described as good. The early season, however, was very broken, and farm-work was much hindered by broken weather. This had the effect of making a very late harvest, and it is very doubtful if the grain-crops in the south will be saved. The grass has been backward this year also, owing to the lateness of the season, but as some recompense for this loss the turnip-crops are generally good. The condition of the settlers on Pomahaka is much the same as in previous years; they have not made much progress, and their prospects, owing chiefly to the lateness of the season, are not at all bright. The holdings being fairly large each settler is wholly employed on his farm. Mixed farming—that is, sheep-grazing and grain and turnip growing—is followed, and a steady rotation of crops kept up. Grass does not seem to stand more than two to three years, so that a rotation of grass and crop must be adhered to. From the nature of the soil and from the climate it would appear that Pomahaka Downs would be very much improved by artificial drainage and lime. Unfortunately the distance from the nearest railway-station—Clinton—is too great to allow the settlers to try lime to any great extent."

Teanaraki.—This settlement is now fully occupied by twenty-two settlers, the area being 344 acres 1 rood 30 perches, and the annual rental £281 9s. 6d. The year's receipts amounted to £362 14s. 3d., and the total to date £2,239 5s. 6d. Rebate granted to seven tenants, £6 12s. 9d.; number of houses, 16; persons resident, 67; value of improvements, £1,829 12s. Ranger Atkinson reports: "This settlement continues in much the same condition as last year. The

crops of all kinds have been good. Some of the settlers formerly found employment outside the settlement, but since they have begun to supply milk to the local creamery a few of them work at home, while others leave the dairy-work to their family and they themselves go and find labouring-work in the district. Complaints have been made with regard to some very bad patches of Canadian thistle on Sections 13, 14, 15, 16, and 17. Otherwise the settlers seem to be getting on fairly well."

Tahawai.—This small settlement remains occupied by eight selectors; area, 68 acres 2 roods 14 perches; annual rent, £35 14s. 4d.; receipts for year, £35 8s. 7d.; total receipts from beginning, £263 1s. 11d.; rebate granted to the eight tenants, £2 2s.; houses, 8; persons resident, 42; value of improvements, £1,087 10s. Ranger's report: "This little settlement continues in a most flourishing condition. As I have pointed out for some years, the success or failure of the settlement depends almost entirely on its water-supply. It appears that in 1896 William Mulvena, a freeholder who adjoins Tahawai, was granted a right by the Warden to lift two heads of water from Kurow River. He does not use all the water, so for an annual payment of 2s. 6d. per settler he allows about half a head of water to go for the use of the settlement. This runs down a small race in a north-westerly direction, the estate also sloping in that way. The settlers then take what they require for domestic purposes, and irrigate their land in turn. I would like to point out here that with a water-supply Tahawai has always been and will be a great success; without the water nothing can save it from failure. The arrangement arrived at by the people for the use of the water in turn for irrigation purposes does not work out quite so satisfactorily as could be wished, owing to some of the settlers damming the water at their own boundary and monopolising it for a longer time than they have a right to, to the disadvantage of those further down. There was very little crop of any kind on Tahawai this year. Most of the settlers irrigate, and obtain large supplies of the finest clover-hay for the stock during winter. With plenty of grass in summer most of the settlers supply milk to the Kurow Creamery. The settlers mostly find employment outside while the families look after the holding."

Maerewhenua.—The occupied area in this estate is the same as last year—viz., 10,929 acres 2 roods 12 perches by seventy-two selectors at an annual rental of £3,553 2s., including three temporary licenses over 22 acres 3 roods 36 perches at £3 2s. 6d. per annum, the unlet area of 6 acres 3 roods 12 perches being of a yearly value of 19s. 8d. The rent received during the year amounted to £3,694 7s. 4d., bringing the total receipts to date to £24,941 6s. 10d. Rebate of rent was granted to forty-four tenants to the extent of £116 1s. 4d. Houses on the estate, 58; persons resident, 245; value of improvements effected, £18,448 15s. 9d. Ranger Atkinson reports on this settlement as follows: "The settlers generally on this estate are in a very sound position. This is owing greatly, I think, to the fact that most of the sections are held in fairly large areas, which enables the holders to carry on mixed farming by growing wool, fat lambs, dairying, &c. A creamery has been established near Georgetown, which takes the milk-supply of those at the southern end of the estate, while the creamery at Duntroon is of great assistance to the settlers at the northern end. The crops on the estate this year have not been equalled for many years. The yield of wheat will, I believe, average fully 40 bushels per acre, while the oats will yield, I should think, 55 bushels per acre. The root-crops, especially turnips, have never been better. The season generally has been a backward one, and somewhat wet, but, notwithstanding, the crops have been harvested in fine condition. There is an abundance of feed which, with the turnips, ought to carry the stock in good condition well through the winter. The settlement conditions are being well carried out. The buildings and other necessary improvements are of a very substantial character, and there is no doubt that the settlers on this estate are flourishing and well contented with their position."

Puketapu.—Area occupied, 496 acres and 36 perches; eleven selectors; annual rent, £189 0s. 10d.; receipts for year, £187 10s. 7d.; total receipts to date, £1,264 13s. 9d.; rebate granted to nine tenants, £7 6s. 2d.; houses, 9; persons resident, 23; value of improvements, £1,160 8s. 7d. In his report on this settlement the Crown Lands Ranger states: "This small settlement continues to make fair progress. Most of the settlers supply milk to the Palmerston Creamery, and with the exception of two, who work in the district, all of them are employed on their holdings. The crops, both grain and root, are much better than last year, and grass is plentiful."

Ardgowan.—The prosperity of this estate continues unabated, its locality and environment, coupled with the character of the soil and fairly moderate rentals, insuring success. No change in the occupation has taken place since last report, there being sixty-five selectors, occupying 4,165 acres 2 roods 34 perches, at a rental of £1,893 19s. 4d. per annum, including one temporary license over 2 acres 3 roods 30 perches at 16s. 8d. yearly. The rent received during the year amounted to £1,753 0s. 7d., the total from inception now being £12,780 11s. 7d. The sum of £103 9s. 1d. was granted in rebates to forty-seven tenants. Number of houses now on the settlement, 29; persons resident, 116; value of improvements, £12,267 4s. 1d. Ranger Atkinson reports: "The settlers on this estate continue in a flourishing condition. The crops have been well above the average, and, although the season has been somewhat broken, the grain-crops have been harvested in good condition. The root-crops are also very much better than in past years, which, with the large quantity of hay saved this year, should carry stock comfortably through the winter. The dairy factory on the estate continues to be of great assistance. The majority of the settlers are supplying milk, which enables them to benefit by the ready-money at the end of every month. With the exception of one or two settlers, all find quite enough to do on their farms without looking for employment outside. The position of the settlers is improving every year, and the settlement conditions are being very well complied with."

Makareao and Makareao Extension.—The occupation of these settlements also remains the same as before, there being twenty-seven holdings under lease in perpetuity, three small grazing-

runs, and four miscellaneous licenses, embracing a total area of 4,862 acres 1 rood 9 perches, at a total annual rental of £674 14s. The year's receipts, apart from the proceeds of the sale of lime, were £678 10s. 8d., making the total to date £4,497 2s. 11d. The sum of £46 8s. 2d. was granted in rebates to twenty-four settlers. Number of houses, 21; persons resident, 80; value of improvements, £4,723 1s. 9d. The following are the Ranger's remarks on these estates, reporting on them as one and the same: "This estate is in a much more satisfactory condition than last year. The crops of grain have been a long way above the average of former years, and the yields have been in proportion, which, with the good prices ruling, places the settlers in a very favourable position. The root-crops are also very good, which will be of material assistance to the stock during the winter. It is rather surprising that a creamery has not yet been established in the district, when it is proved how successful they have been in other districts. A considerable quantity of oats was cut into chaff; in one case the price equalling £8 per acre. On the smaller sections the settlers are employed outside, while on the larger their time is fully occupied on the farms. The residence and other conditions are fairly well complied with."

Momona.—This prosperous little settlement of 219 acres 1 rood 16 perches, occupied by fourteen settlers at a yearly rental of £210 6s. 2d., continues to make excellent progress, the only drawback to one or two of the tenants being the defective drainage, referred to in the Ranger's report, in time of heavy rain. It is hoped, however, that steps will be taken shortly to remedy this defect. The receipts for the year amounted to £204 9s. 1d., total from beginning now being £1,175 11s.; rebates granted, £6 6s. 7d. to eight tenants; houses, 14; persons resident, 54; value of improvements, £1,990 2s. 6d. Ranger O'Neill's report is as follows: "This estate is in a most satisfactory condition. Every settler appears to be doing well, and to be perfectly satisfied with his place. The condition of settlers is most satisfactory, and every one is progressing favourably. They are all milk-suppliers, there being a dairy factory adjoining the north-eastern corner of the estate. Though the sections are small, little or no outside work is sought, and every holding is in the highest state of cultivation. Good metalled roads surround the settlement, and a railway-station is within easy distance. One difficulty occasionally presents itself to some few of the settlers, and that is the matter of efficient drainage. The Taieri Plain generally suffers in this way, but only at the time of exceptionally heavy rains. A movement, however, is on foot to place the whole district under one Drainage Board, and the time would appear not far distant when an effective means of drainage will be arranged. The improvements required amount to £185 within the first two years, and £491 within six years, while the value of improvements already effected amounts to £1,990. Such valuation for improvements, added to the fact that every settler has a good house and good outbuildings, shows that the settlement is in a most satisfactory condition."

Tokarahi.—There has been no alteration in the occupation of this settlement during the year, 10,968 acres 3 roods 39 perches being still held by seventy-nine selectors at £4,116 7s. yearly; this includes twenty-seven miscellaneous licenses, over 186 acres 3 roods 22 perches, at £16 4s. 10d. per annum. The annual value of the small area of 3 acres and 27 perches remaining unlet is £2 16s. 10d. The receipts for the year were £4,520 9s. 7d., the total to date now being £22,428 2s. 10d. Amount of rebate granted to sixteen selectors, £79 1s. 6d.; houses on the estate, 44; persons resident, 183; value of improvements, £16,565 14s. 6d. Ranger Atkinson's report is as follows: "This estate continues to maintain its very satisfactory condition. The crops generally have been very good, and the yields in every way satisfactory. During the past year the area under cultivation was 2,857 acres, as against 2,269 acres last year, and there are two houses and ten souls more than last year. Owing to the unusually favourable season there has been an abundance of grass, indeed, far more than the stock could keep under. Consequently a good deal of hay has been made. The creamery located at Tokarahi Railway-station has been running at high pressure during the season, to the great advantage of the settlers, more of whom are becoming suppliers every year. The root-crops have not been so good for many years. The condition of the stock will as a consequence be well maintained throughout the year. Owing to the competition between the Canterbury and Otago freezing companies, excellent prices have been obtained for fat sheep and lambs during the past season. The large majority of the settlers are kept fully employed working their holdings throughout the year. The improvements effected are of a most substantial character, being evidence that the settlers are satisfied with their position and prospects. The settlement conditions are very well complied with."

Janefield.—Through default of the lessee, the lease of the homestead allotment on this settlement has been declared forfeited, and the section is being again opened for selection at a reduced capital value in respect of the buildings. Some of the buildings previously let with the land were found to be unnecessary, and could not be profitably worked therewith. These will, if possible, be disposed of separately, and the proceeds credited to the Land for Settlements Account. The area therefore at present occupied is 133 acres 2 roods 37 perches, at an annual rental of £222 13s. When the proposed alteration has been given effect to there will be no obstacle to the complete success of this small settlement, on which there are now nineteen houses and ninety-two persons resident, the value of improvements being £3,485 7s. Rent received during the year, £220 11s. 4d., making the total to date £765 13s. 11d. The sum of £5 1s. 1d. was granted in rebates to twelve tenants. Ranger O'Neill reports hereon as follows: "This settlement is in a very satisfactory condition. Substantial improvements have been effected, including some very fine dwelling-houses. As the allotments are small, little or no grain-cropping is done, but root-crops are produced to some extent. The settlers have made very fair progress during the past year. They are all partly or wholly engaged in railway, factory, or farm work in the surrounding districts The conditions of the various leases have been well carried out, and generally the settlers are fairly contented."

Elderslie.—This estate, of 11,506 acres 3 roods 18 perches, is wholly occupied by thirty-three tenants, at an annual rental of £4,126 19s. 4d., including eight miscellaneous licenses, over

245 acres 2 roods 35 perches, at £18 8s. 10d. per annum. The receipts for the year amounted to £4,315 5s. 5d., the total from the beginning now being £10,617 11s. 7d. Rebates of rent were granted to eleven tenants to the extent of £130 0s. 9d. Number of houses, 20; persons resident, 75; total value of improvements now on the land, £7,811 0s. 10d. Ranger Atkinson reports: "This estate, along with others in North Otago, was never in a better or more flourishing condition. The crops have turned out above the average of past years. The season experienced just suited the class of country, being in great contrast to the droughts which too often affect the North Otago district. During the past year 2,663 acres was in cultivation, as against 2,076 last year, while there are two more houses and twelve more souls on the estate. The large yields and the good prices should be the means of placing the settlers in a much more satisfactory position than previously. This estate also benefited in the matter of fat sheep and lambs by the competition between the rival freezing companies. The settlers were all fully employed during the year on their several holdings. The conditions of settlement are being well complied with, and I have every reason to believe that the tenants are well satisfied with their prospects. The improvements effected are of a most substantial and permanent character, both as regards buildings and fencing."

Barnego.—No change in the areas let and unlet has taken place during the year, 6,048 acres and 5 perches being occupied by twenty-one selectors at £1,316 5s. 6d. per annum. The annual value of the unlet area of 1,006 acres and 5 perches is £125 7s. The receipts for the year—which, as in other cases where there are buildings, include principal and interest on account of such buildings—amounted to £1,129 6s., the total to date being £3,521 15s. 2d. Rebates of rent amounting to £90 13s. were granted to sixteen selectors. Number of houses, 17; persons resident, 66; value of improvements, £4,986 10s. The Ranger's report on this settlement is as follows: "The settlers on the lower-lying portions of this estate are all doing well. They are all milk-suppliers, and there is a dairy factory within easy distance of the estate. Very little cropping is done, and, with the exception of a few acres of root-crop each year, the land is kept in grass. On the higher portions of the estate mixed farming is carried on. The crops are good this year, but, as in other parts of South Otago, the season has been very late, and it is doubtful if the Barnego settlers will be able to save all their grain-crops. The general condition of the settlers on this estate may be described as fair, and they have all made satisfactory progress during the year. The prospects of those supplying the dairy factory are very bright, but the prospects of those engaged in mixed farming are doubtful this year, owing, of course, to the unfavourableness of the season. Good roads are available to all parts of Barnego. The conditions of the various leases have been satisfactorily complied with."

Earnscleugh.—The total area now leased on the settlement is 1,224 acres and 11 perches to eleven tenants, at an annual rental of £170 8s. 6d. This includes the two areas of 850 acres and 38 perches and 103 acres 2 roods respectively let on pastoral license as homestead-sites; eight small allotments on lease in perpetuity; and a temporary license over a road-line area of 2 acres 1 rood 11 perches not now required for road purposes. Amount received during the year, £163 0s. 5d.; total from the beginning, £285 11s. 9d. Rebates amounting to £28 8s. 9d. were granted to eight selectors. Including the homesteads, there are eight houses, with forty-one persons residing; and, in addition to the improvements on the land at date of selection, further improvements to the value of £632 10s. have been effected. It will be seen from the Ranger's report that there is every prospect of this settlement becoming a prosperous one. Ranger O'Neill states: "This settlement was taken up in December, 1901, and since then considerable progress has been made. In each case the selectors are residing on the settlement, and each has his holding fenced and built upon. Some of the lessees are engaged in dredging in the neighbourhood, and these have not yet had sufficient time at their disposal to do much in the way of planting fruit-trees. Others have turned their attention wholly to planting, and already some fine plantations of fruit-trees have been made. The surrounding district is very suitable for fruit-growing, especially where a reliable water-supply is obtainable for irrigation. Large quantities of fruit are produced, and it may be expected that the output will be largely increased by the Earnscleugh Settlement in the near future. Improvements to the value of £632 10s. have been effected, and there are forty-one persons residing on the settlement. The prospects of the settlers are bright, and their present condition quite satisfactory. Given a good water-supply the Earnscleugh Settlement promises to be a profitable fruit-producer."

Windsor Park.—This estate, recently acquired from Mr. E. Menlove, was opened for selection on the 28th May, 1902, the selection area being 3,814 acres 2 roods 35 perches, in thirty-eight allotments, the rentals per acre varying from 4s. 9d. to 14s. 3d. It was eagerly taken up, as may be inferred from the fact that there were no less than 185 applicants. The whole is therefore occupied by thirty-eight tenants at a total annual rental of £1,655 8s. 2d., including principal and interest on account of buildings. The receipts to date amount to £1,118 8s. 10d. Ranger Atkinson reports as follows: "This estate was only selected at the end of May, 1902, but since then considerable progress has been made. 840 acres was cultivated, seventeen houses erected, and fifty-four souls are residing. Improvements to the value of £1,412 have been effected. The land is of very good quality, and in the course of a year or so the settlement should prove a successful one. In and around Ngapara, where the sections are held in small areas, the tenants are not residing, they already having homes in the township, and finding employment both in the township and district. The season having been a very favourable one, the crops, both grain and root, have been beyond expectations. The improvements are substantial, and the settlers appear to be satisfied with the results so far."

Windsor Park No. 2.—This is a further portion of Mr. E. Menlove's famous Windsor Park Estate, acquired shortly after that already dealt with. It was opened for selection on the 28th October last, and comprises a selection area of 2,177 acres, 2 roods 11 perches, in ten allotments. As in the other case there was a keen demand for the land, the applicants for the ten subdivisions numbering seventy-nine. The whole is consequently held by ten selectors, at an annual rental of £875 16s. 8d., the rates per acre varying from 3s. 6d. to 11s. 10d. The receipts amount to £437 16s. 3d. So far, five houses have been erected, and there are ten persons residing. The improvements effected are valued at £519 19s. 3d. The estate has been too recently let for ordinary and rigid inspection. The Crown Lands Ranger remarks as follows: "This settlement was taken up too late in the season for anything to be done in the way of cultivation. Some of the settlers are effecting improvements. The land being held in fairly large areas, and the soil generally being of good quality, there is every prospect of this portion of Windsor Park being occupied profitably by the settlers."

Duncan Settlement.—This small settlement, situated within a short distance of the Township of Brighton, was lately acquired from Mr. John Graham of that place, and opened for selection on the 29th December last in six ordinary farm allotments, the total selection area being 632 acres and 27 perches. In addition there is a small section of 1 acre 1 rood 16 perches which is under lease for coal-mining purposes, subject to rent and royalty, and which carries with it underground coal-mining rights in respect to some 14 acres of the adjoining section. The receipts on account of this lease will, of course, be credited to the Land for Settlements Account. The allotments on this settlement were not so readily taken up as was expected, considering the many advantages which it affords to small settlers. Its close proximity to market and easy access by road and railway, the creamery on the ground, and the adjacent coal-pit all seemed to be facilities which it was thought would have led to the whole of the settlement being quickly sought after. At the present time four out of the six allotments have been selected, including homestead, covering an area of 422 acres and 5 perches, at an annual rental of £171 16s. 8d., making, with the coal-lease area, a total area in occupation of 423 acres 1 rood 21 perches, by five holders, at an annual rental of £181 16s. 8d. in addition to royalties on coal. The two allotments unlet contain together 210 acres and 22 perches, the annual value of which is £56 13s. Amount of rent received, £85 18s. 4d. The homestead is at present the only house on the land, four persons are resident, and the improvements at date of selection were valued at £347 10s. 6d. The Crown Lands Ranger has not yet formally reported on this settlement.

Summary.—The following is a comparative summary of information relating to the several settlements for the past two years:—

	1901–2.	1902–3.
Number of settlements or estates ...	14	17
Number of settlers, including holders of temporary licenses	407	462
Area in occupation, including temporary licenses	54,860a. 3r. 35p.	61,458a. 0r. 33p.
Average per selector	134a. 1r. 16p.	133a. 0r. 4p.
Gross annual rental	£17,460 3s. 6d.	£20,194 16s. 8d.
Receipts during the year	£18,981 19s. 5d.	£19,617 6s. 6d.
Total receipts from inception ...	£72,690 3s. 2d.	£93,032 8s. 8d.
Area unlet at 31st March	4,566a. 0r. 22p.	4,417a. 0r. 4p.
Annual value of unlet area	£688 3s. 10d.	£723 17s. 4d.
Value of improvements at 31st March	£59,373 16s. 6d.	£83,348 16s. 8d.
Areas under cultivation—		
Oats	5,759 acres	7,195 acres.
Wheat	2,980 "	3,566½ "
Barley	80 "	213 "
Root-crops	2,426 "	3,031½ "
	11,245 acres	14,006 acres
Number of dwellinghouses	288	299
Number of persons resident	1,138	1,195

General Remarks.—During the year vigorous steps have been taken with the view of securing a stricter compliance with the conditions of leases as regards cropping. For this purpose I had special field-books prepared in which the Rangers can note the different cropping paddocks and the rotation of crops, with a suitable record-book for same in the office; and for several months of the year Rangers Atkinson and O'Neill have conjointly gone over nearly the whole of the settlements, laying down the fencing with chain and prismatic compass, and noting necessary particulars for the accomplishment of the desired object. These inspections numbered 403, over an aggregate area of 59,583 acres. In regard to this matter there was a danger that, unless some systematic scheme of checking the order of cropping were adopted, a number of settlers would lapse into carelessness, if not designedly disregard the conditions of their leases relating to cropping—which conditions were intended to operate in the interests of permanent settlers themselves, as well as to prevent the State lands from becoming deteriorated by indifferent husbandry.

The following summary shows the areas cultivated, and the nature of the crops, during the year:—

Settlement.	Oats.	Wheat.	Barley.	Root-crops.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
Ardgowan	653	258	...	316	1,227
Barnego	788	22	...	493	1,303
Earnscleugh	35	1	...	1	37
Elderslie	1,544	941	89	89	2,663
Janefield	9	3	...	16	28
Maerewhenua	1,085	1,120	10	821	3,036
Makareao	163	87	...	32	282
Makareao Extension	53	20	...	76	149
Momona	31	2½	...	27½	61
Pomahaka	885	...	...	495	1,380
Puketapu	26	...	...	20	46
Tahawai	8	...	...	...	8
Teaneraki	59	...	...	30	89
Tokarahi	1,469	776	102	510	2,857
Windsor Park	387	336	12	105	840
Windsor Park No. 2	...	...	...	...	...
Duncan	...	...	...	...	...
Totals	7,195	3,566½	213	3,031½	14,006

Resolution Island.

I regret that, owing to the uncertain communication with the West Coast, I have been unable to procure from Mr. Henry, the Curator, a succinct report of his operations during the year in time for presentation herewith. I have, however, received from time to time a few notes of his movements and observations in the locality of Resolution Island, in hunting for birds and exploring the country, which I forward.

Conclusion.

In concluding this report I have to remark that the volume of administrative and office work has in no way lessened, but rather increased during the year, notwithstanding the fact that the number of new selections has been comparatively smaller than a few years ago. The transactions in connection with lands already selected and held by Crown tenants are gradually becoming more numerous, involving a yearly increasing amount of time and attention, and it gratifies me to be able to state that in the work of administration I am efficiently supported by the staff at my disposal.

D. Barron,
Commissioner of Crown Lands.

SOUTHLAND.

The results of the transactions of the past financial year may on the whole be considered satisfactory, as, although the gross revenue falls below that of the preceding financial year by over £4,000, the number of selectors over all classes is increased by seventy; the number of forfeitures and surrenders has decreased by twenty-one, and the number of selectors in arrear with rent has decreased by fifty-five, as compared with the year 1901–2.

The following summary shows the land transactions for the year ended 31st March, 1903:—

SUMMARY OF LAND TRANSACTIONS, 1902–3.

Nature of Selections, &c.	Transactions during the Year.		Area held under Lease at 31st March, 1903.		Gross Revenue received during the Year.
	Number.	Area.	Number.	Area.	
		A. R. P.		A. R. P.	£ s. d.
Cash	22	310 0 12	...	...	635 2 1
Deferred payments	...	...	62	13,669 3 35	720 5 11
Deferred payments made freehold	9	1,542 3 2	...	...	...
Perpetual leases	...	...	84	15,087 2 17	622 18 3
Perpetual leases made freehold	5	857 3 12	...	...	612 8 2
Occupation with right of purchase	28	6,516 0 10	239	50,378 1 22	1,112 10 9
Lease in perpetuity	13	2,085 3 22	234	69,279 0 30	1,830 0 5
Lease in perpetuity (exchanged from other tenures)	2	207 1 0	...	...	...
Occupation leases (Mining Districts Land Occupation Act)	8	436 3 19	44	1,616 0 32	204 9 6
Village settlements—					
Deferred payments ...	...	...	10	205 2 13	72 14 11
Deferred payments made freehold	2	34 1 10	...	...	...
Perpetual leases	...	...	101	1,394 2 36	209 10 10
Perpetual leases made freehold	3	43 3 12	...	...	105 17 6
Occupation with right of purchase	...	...	4	4 0 24	1 11 0
Lease in perpetuity ...	17	313 1 14	263	4,052 0 12	337 11 0
Village-homestead special settlement	...	...	53	568 1 24	166 7 4
Improved-farm settlement ...	4	172 0 25	44	5,307 0 35	261 16 1
Small grazing-runs	...	...	18	61,293 0 13	709 11 5
Pastoral runs	18	299,903 0 0	92	1,416,532 1 0	3,669 7 11
Miscellaneous leases and licenses	40	7,814 0 28	310	42,288 1 5	753 1 10
Timber-cutting	...	10,027,175 s. ft.	...	...	3,176 9 3
Other miscellaneous revenue ...	...	...	...	...	536 9 6
Total ordinary Crown lands	171	320,237 2 6	1,558	1,681,677 0 18	15,738 3 8
Land for settlements—					
Lease in perpetuity ...	11	2,547 1 8	84	22,593 2 9	2,648 3 7
Small grazing-run	1	1,150 0 0	1	1,150 0 0	38 10 0
Miscellaneous	5	1,688 2 33	9	3,076 0 39	414 15 1
Total land for settlements	17	5,386 0 1	94	26,819 3 8	3,101 8 8
Endowments ...	1	3,468 0 0	73	51,563 3 29	1,550 11 2
Grand totals ...	189	329,091 2 7	1,725	1,760,060 3 15	20,390 3 6

Lands opened for Selection.—The total area opened for sale or selection during the year was 135,901 acres, of which 117,328 was pastoral land, the balance consisting mainly of lands forfeited and surrendered, and of lands reduced in price and reoffered. No new blocks of land have been offered, the survey of the lands in the Longwood and Waiau districts not being completed.

Lands remaining open for Selection.—The total area of surveyed lands was 73,646 acres, comprising the following lands: Town and suburban, 866 acres 3 roods 25 perches; village-homestead settlements, 986 acres 1 rood 18 perches; rural, 62,171 acres and 26 perches; rural, lease in perpetuity only, 1,595 acres 3 roods 19 perches; land for settlements, lease in perpetuity, and small grazing-runs, 8,025 acres 2 roods 34 perches; unsurveyed pastoral runs, 1,153,871 acres: total, 1,227,517 acres and 2 perches.

Lands proposed to be opened for Selection.—During the current year I expect to open 9,500 acres in the Waiau and Longwood districts, survey of which is now nearly completed; and about 2,000 acres in the Alton and Lillburn Survey Districts. On Stewart Island, if the land be found suitable for settlement after careful examination, a block of a few thousand acres may be opened. The whole of the lands to be opened are bush lands.

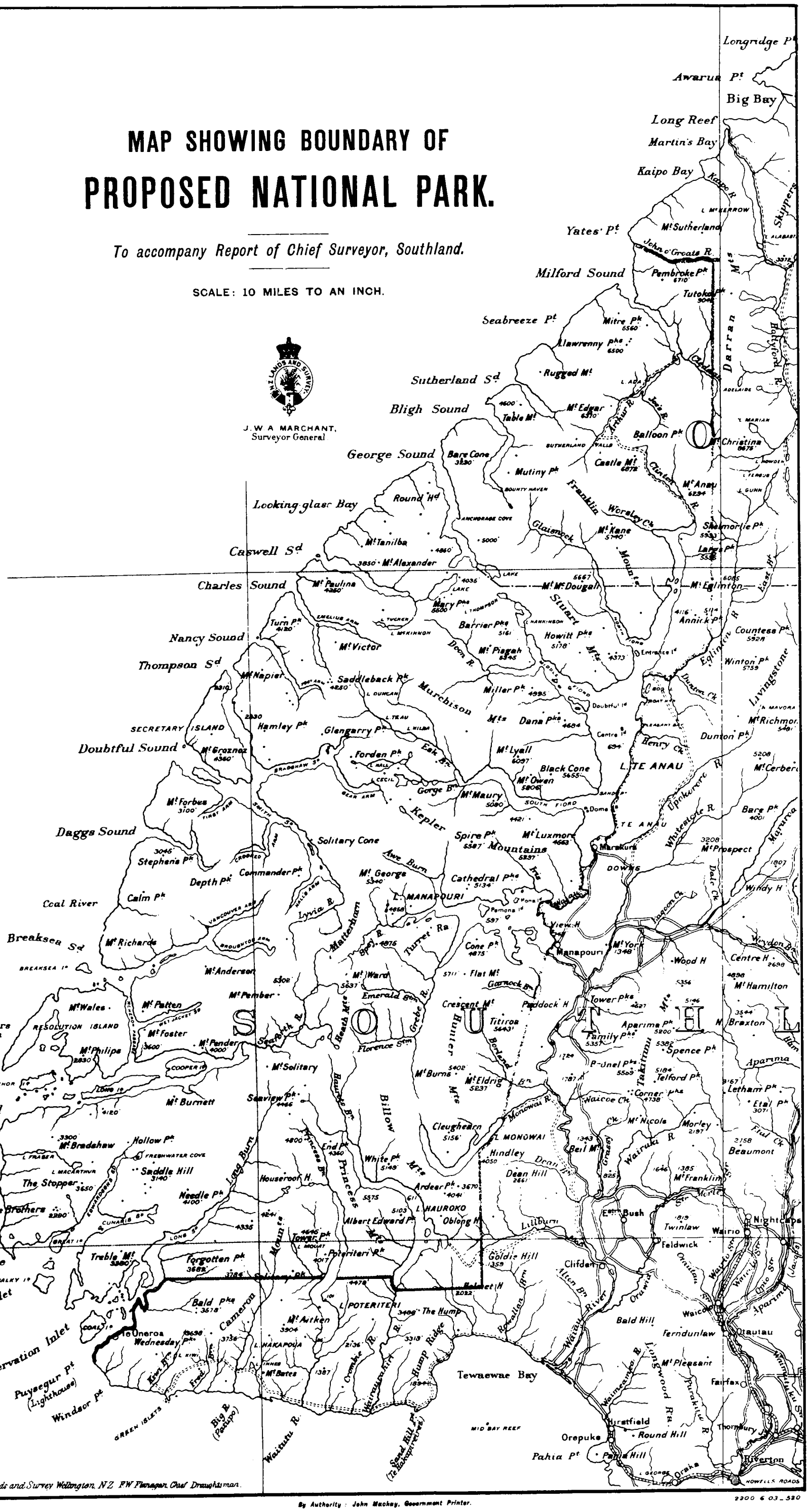
Reservations for Tourist or Scenic Purposes.—In addition to the areas already proposed to be reserved for these purposes in Stewart Island, I contemplate submitting for approval the reservation of the whole of what I may term the Sounds district as a national park. It may appear a very

MAP SHOWING BOUNDARY OF
PROPOSED NATIONAL PARK.

To accompany Report of Chief Surveyor, Southland.

SCALE: 10 MILES TO AN INCH.

J. W. A. MARCHANT,
Surveyor General



Head Office, Department of Lands and Survey, Wellington, N.Z. F.W. Flanagan, Chief Draughtsman.

By Authority: John Mackay, Government Printer.

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extensive reservation, but the country within the suggested boundaries is excessively rugged, and I may say quite unfit for pastoral purposes, owing to its high altitude and inaccessibility, and any rents that might accrue from it in this direction certainly would be very small in comparison to what might be derived therefrom from tourists and others were it stocked with big game, &c.; and, moreover, the native flora and fauna would be preserved, which is very desirable.

The following is a description of the proposed reserve, viz.: Bounded towards the north by the John O'Groats River, towards the east by a line running due south through Mount Eglinton to Eglinton River, then by said river to its junction with Lake Te Anau, thence by the east bank of Lake Te Anau to its outlet (Waiau River), thence by the west bank of the Waiau River to its junction with Lake Manapouri, thence by the eastern bank of Lake Manapouri to the Waiau River where it leaves the lake, thence by a straight line to north-east end of Monowai Lake, thence by south bank of said lake to a point which meets a line running due north and south through Goldie's Hill from the north boundary of Rowallan district, thence due west along said Rowallan district boundary to Lake Hauroko, thence by east bank of said lake to outlet of Wairaurahiri, thence by west bank of Hauroko Lake in a northerly direction to the north boundary of Waitutu district, thence by a due west line along said boundary and north boundary of Hakapoua district to Preservation Inlet, thence by the east bank of the said inlet to Puysegur Point, and thence by the Tasman Sea and coast-line in a northerly direction to the starting-point—viz., mouth of John O'Groats River—including the islands met with along the said coast. The accompanying lithograph shows the proposed reserve.

When time permits I propose to investigate and further consider what lands in this district it is desirable to reserve for scenic and kindred purposes.

Revision of "Land Guide."—In pursuance of the intention expressed in my last annual report to have the values of the bulk of the rural land then open to selection in the Southland "Land Guide" revised, I submitted the matter to the Land Board, which recognised the necessity for such action, and appointed members of the Board and Crown Lands Rangers to inspect and revalue the lands in the several survey districts. With the exception of a few isolated sections the whole of the lands referred to were revalued, and the prairie values reduced from 25 to 50 per cent., and following up these revaluations 54,162 acres were scheduled for reoffering between the 15th October, 1902, and 31st March, 1903. The area of such revalued land reopened before the 31st March, 1903, was 2,538 acres, of which but 696 acres was selected. The remainder of these revalued areas will be reoffered before the end of June next.

Revenue.—The gross revenue received during the year was £20,390 3s. 6d., being £2,605 3s. 6d. in excess of the estimated revenue, but £4,093 17s. 11d. less than the amount received during the year 1901–2. This decrease is due to a falling-off in the receipts from deferred-payment and perpetual-lease selectors, to the fact that no new lands were offered for selection, and that a large proportion of the lands open to selection is of very poor quality. The reason for the smallness of the area of the new selections taken up during the year, and the comparatively few applicants for holdings for the purpose of farming, is that during the financial year ending 31st March, 1903, a very large area of open land in this district has been placed in the market and disposed of by commercial firms doing business in this town. Having observed in the course of the year frequent sales of farms mentioned in the newspapers, I obtained from a few of the firms here some information regarding the farms sold, and find that five firms alone have disposed of 101 farms or holdings ranging from 10 to over 1,000 acres, the total area sold being over 95,000 acres. These lands are mostly subdivisions of estates and large farms, and are sold for cash or on terms; and it would appear that the best and most desirable class of settlers, those with experience and cash, do not seek to obtain lands from the Crown, but evidently prefer to obtain freehold lands in other quarters.

Cash Lands.—The operations in cash lands were limited, there having been but five selections of rural land, amounting to 260 acres; three purchases of land under section 114 of "The Land Act, 1892," of a total area of 25 acres; and fourteen purchasers bought 24 acres of town and suburban lands at auction: making a total of twenty-two purchasers, who purchased 310 acres and 12 perches for £635 2s. 1d.

Deferred-payment Lands.—The total area now held under this system is 13,670 acres, the number of licensees being sixty-two. Nine holdings of an area of 1,543 acres were made freehold during the year, and one holding of 72 acres was forfeited. Only four selectors, holding 352 acres, are in arrear to the amount of £9 10s. 2d. The decrease in area held as compared with last year is 1,615 acres.

Perpetual-lease Lands.—The net area of rural land held under perpetual lease is 15,088 acres, distributed amongst eighty-four lessees. The freehold of 858 acres was acquired by five lessees. Two lessees, holding 207 acres, exchanged to lease in perpetuity. Three leases were forfeited, which covered an area of 281 acres. Only three lessees were in arrear at the end of the financial year, for rents amounting to £30 11s. 10d., the area held by them being 1,000 acres. The decrease in area held as compared with last year is 1,346 acres.

Occupation with Right of Purchase.—Under this system twenty-eight selections were made, covering an area of 6,516 acres, the net area now held being 50,378 acres, and the number of selectors 239, showing an increase of 5,918 acres and twenty-three selectors over last year. The number of forfeitures was five; area forfeited, 597 acres. Eighteen lessees, holding 3,018 acres, are in arrear to the amount of £52 19s. 6d.

Lease in Perpetuity, Ordinary.—Thirteen selections, comprising 2,086 acres, were made under this system, the net area held at close of financial year being 69,279 acres. This area shows a decrease of 4,566 acres as compared with last year; but the number of selectors now holding is 234, an increase of five over last year. Seventeen selectors, holding 5,717 acres, are in arrear to

the amount of £97 1s. 6d. Two exchanges from perpetual lease to lease in perpetuity were made, area 207 acres. Four leases were forfeited, area 1,557 acres. Six leases surrendered, 5,302 acres; three of the surrenders being made in order to obtain reduction of rent.

Village Settlements (all Tenures).—During the year, in conjunction with other work, and as circumstances permitted, Ranger Campbell has made a thorough inspection of all the village settlements in this land district, forty in number, and the results of his inspections are given below.

The village settlements are held as follows: Deferred payment, ten selectors, 205 acres 2 roods 13 perches, £10 10s. annual rental; perpetual lease, 101 selectors, 1,394 acres 2 roods 36 perches, £181 2s. 10d. annual rental; occupation with right of purchase, four selectors, 4 acres and 24 perches, £2 13s. 2d. annual rental; lease in perpetuity, 263 selectors, 4,052 acres and 12 perches, £371 18s. 8d. annual rental; village-homestead special settlements, fifty-three selectors, 568 acres 1 rood 24 perches, £135 18s. annual rental: total, 431 selectors, 6,224 acres 3 roods 29 perches, £702 2s. 8d. annual rental.

Seventeen selections on lease in perpetuity, of a total area of 313 acres, were made during the year. Two deferred-payment licenses, comprising 34 acres, and three perpetual leases, containing 44 acres, were made freehold during the year. One exchange from perpetual lease to lease in perpetuity was made, area 11½ acres. One perpetual lease, 13 acres, and five leases in perpetuity, 111½ acres, were forfeited; and one lease in perpetuity, of 19½ acres, was surrendered. The total number of selectors in arrear out of 431 was twenty-one, holding 390 acres, and the amount of arrears, £21 15s. 1d.

The year's transactions show an increase of six selectors, and an increase in area held of ninety-one acres, as compared with last year.

The settlers generally appear to be a hard-working industrious class, and to have coped well with the difficulties of their position. The total value of improvements effected is £25,284; the value required being £7,286.

The Ranger reports as follows: "I find that this class of settlement is not so popular in the Southland District as formerly, owing no doubt to not having the proper class of land for settlement. I am glad to say that the settlers under the village and village homesteads are prosperous; they have made good and substantial improvements in the way of buildings, fencing and clearing, and grass-sowing. The holdings are small, consequently they have almost entirely to depend on outside labour and poultry and pigs. The majority of them are prosperous and industrious, and few, if any, make complaint. Their progress, industry, prospect, and condition in the way of labour are good. They all seem contented, and give no trouble. I have every reason to believe that their success is assured."

Small Grazing-runs.—With the exception of one small grazing-run of 1,150 acres in the Glenham Settlement taken up, there has been no movement in this tenure. There are eighteen lessees of ordinary small grazing-runs, holding 61,293 acres. There have been no forfeitures or surrenders; and only one lessee is in arrear, for the amount of £8 4s. 7d., as against seven last year, owing £167 7s. 7d.

Pastoral Runs, Ordinary.—During the year under review 117,328 acres in seven runs was offered for sale, and 299,903 acres, comprising eighteen runs, was taken up; but of these, thirteen licenses, covering 117,671 acres, were offered in the previous financial year, the rentals commencing this year. Fifteen licenses, covering 144,367 acres, expired; two licenses for 14,100 acres were forfeited; and one license for 7,811 acres was surrendered. One of the forfeited runs and the surrendered run were again taken up during the year. The number of licenses now held under this tenure is ninety-two, over a net area of 1,416,532 acres. None of the licensees are in arrear with rent.

Endowment Lands.—A total area of 51,564 acres of endowment lands, held by seventy-three lessees, is administered by the Southland Land Board. Of this area, 33,828 acres belongs to the Bluff Harbour Board, and is divided into five pastoral runs, three small grazing-runs, and one small area held on yearly license; total, nine lessees, Bluff Harbour Board Endowment. The balance of 17,736 acres belongs to the Otago School Commissioners, and is divided into seven deferred-payment licenses, thirty perpetual leases, twenty-six leases in perpetuity, and one occupation-with-right-of-purchase license; total, sixty-four lessees, Otago School Commissioners' Endowment. Of the seventy-three lessees, twenty-two are in arrear to the amount of £222 18s. 3d., but I am taking steps to have this amount reduced at an early date. There were three exchanges from perpetual lease to lease in perpetuity; area, 931 acres.

Miscellaneous Leases.—In this class two coal leases, for an area of 44 acres, were taken up; three flax-cutting licenses, over a total area of 5,520 acres; and thirty-five ordinary, over 2,250 acres; also five under the Land for Settlements Acts, totalling 1,689 acres. The total number of miscellaneous leases of all classes held is 319, over 45,365 acres. Total rental, £916 11s. 4d. No arrears of rent.

"*The Mining Districts Land Occupation Act, 1894.*"—Under this tenure thirteen applications, for a total area of 746 acres of unsurveyed land, were received. Ten of them, covering 681 acres, were approved by the Land Board; and the remaining three have not yet been reported upon by the Warden. Four leases, of an area of 350 acres, were forfeited or surrendered. The total number of selectors is forty-four, and the area held 1,616 acres.

Land for Settlements.

In this district there are five settlements purchased under the Land for Settlements Acts, containing a total area of 34,373 acres, of which 26,820 acres is leased by ninety-four selectors, and the total rental payable thereon is £3,838 8s. 3d.; the amount in arrears being £566 12s. 11d. This amount is a large proportion of the total rental payable, the Land Board having dealt

leniently with the selectors in giving them time to pay, in consideration of adverse circumstances stated by the lessees; but a point has been reached at which no further latitude can be given, and the lessees must be made to see that if they desire to continue in their holdings they must pay their rents. The condition of each settlement is as hereunder stated.

Merrivale Settlement.—Situated in the Waiau district, containing 9,998 acres, divided into forty-seven allotments, was opened to selection in December, 1895. The whole area available for leasing, 9,474 acres, is held by forty-seven selectors. Thirty-nine houses have been erected, in which 155 persons reside. Only one selector is not residing, and seven are residing on adjoining sections. The total value of improvements effected is £8,302, the value required being £7,703. The area under cultivation is 1,059 acres, oats and turnips being the crops grown, the balance of area being in grass or bush. Most of the settlers live by dairying. The arrears of rent on this settlement are larger than they have been in any previous year, the cause being that owing to the unfavourable season in 1901–2 some of the crops were a failure, and the lessees were unable to pay their rents; and the past season has also been a very wet and cold one, and the lessees have again suffered loss. The arrears amount to £343 17s. 8d., owing by eleven selectors. Notwithstanding this, I am of opinion that if the lessees in arrear are not unduly pressed they will recover their position. I consider the prospects and future of this settlement very good, as the land is generally superior, the class of tenants residing on it is very good, and there is now one creamery and one dairy factory in full operations on or near the settlement. With all these combined benefits, I think the future prospects of the settlement are excellent. The Ranger reports as follows: "There are forty-seven selectors on the Merrivale Settlement. With the exception of one, they are complying with the residential conditions of lease. The selectors have made substantial improvements in the way of buildings, fencing, and grass-sowing. There is a dairy factory and creamery on the settlement, also a school. The settlers on this estate are on the whole progressive and industrious. Very few of the selectors go in for sheep, but almost the whole of them send milk to the factories. As far as I could see, all the selectors are doing remarkably well; their progress, industry, condition, and prospects are very good. Complaints are few. I am under the impression that the Merrivale Settlement will doubtless prove the best in Southland."

Otahu Settlement.—Situated in the Waiau district, containing 6,153 acres, was first opened to selection in November, 1897, divided into thirteen allotments, eleven of which were subsequently grouped into five allotments. 3,567 acres is held on lease in perpetuity by four selectors, all of whom are residing. The remainder of the estate is held on grazing license by three persons. In all nine people live on the settlement. The value of the improvements effected by the four leaseholders is £890, the required value being £259. One selector is in arrear for the amount of £45 8s. 10d. The total area under cultivation is 250 acres, upon which oats and turnips are grown by the selectors for the purposes only of fattening stock. Farming proper in this settlement is carried on on a very small scale, owing to the rather inferior and very light quality of the soil, which does not appear to stand cropping nor to retain grasses when sown down; it is also a considerable distance from railway communication. I do not think the future prospects of this settlement are at all encouraging. The Ranger reports: "There are seven selectors on this settlement. They are making very good improvements in the way of buildings, fencing, ploughing, and grass-sowing. The land is of very inferior quality, oat-crops yielding only from 10 to 15 bushels per acre, but, strange to say, the land gives good crops of turnips if sown in October. The land will not hold English grasses, therefore is useless for dairying purposes. Although a dairy factory is quite close to the estate it is of no value to the settlers. Considering the quality of the land the selectors are making fair progress; they are industrious. The land is not suitable for small areas, only a few patches of it being suitable for cropping purposes, and unless the land is irrigated the prospects of the selectors are very poor; progress fair, prospects poor. I may note that there is a sawmill on the estate, which gives employment to a few and supplies timber to the surrounding settlers, also railway-sleepers. This settlement requires nursing."

Beaumont Settlement.—Situated in the Wairaki district, containing 4,484 acres, was opened to selection in January, 1898, divided into fourteen allotments. Of these, six, containing 2,282 acres, are held on lease in perpetuity by six selectors, four of whom have built and are residing, and the other two live adjoining. Thirteen persons live on the settlement. The improvements effected are valued at £1,067, while the value required is £339. The area under cultivation is 387 acres, being in oats and turnips, as the tenants live principally by keeping sheep and a few cattle. Three allotments, containing 578 acres, are held on grazing license, and it has been found most difficult to get the unselected allotments taken up even for grazing purposes, owing to the very sour, wet, and poor nature and quality of the land, and the expense which would have to be incurred in fencing so as to keep the stock in. Four selectors are in arrear with rent amounting to £177 6s. 5d. The Ranger reports as follows: "There are nine selectors on this settlement. The area for cropping is very limited, being only a small strip along the banks of the river. With the exception of this small strip, the land is of very inferior quality, the soil is cold, sour, and wet, and is not at all suitable for cropping, unless a large amount of money is spent. No doubt time and money would improve the settlement, but unfortunately the selectors have little or no money. Four of the selectors have made fair progress in the way of buildings, ploughing, and fencing, and so far are industrious. The prospects and conditions of the selectors are poor. Beaumont settlement requires nursing for some considerable time before any profitable returns may be expected."

Ringway Settlement.—Situated in the Aparima and Jacob's River Hundred, containing 2,253 acres, divided into seven allotments, was opened in December, 1901, when all the allotments were selected. A dwelling has been erected on each of the six allotments upon which no house previously existed, and all the selectors are residing. In all there are fifteen persons on the settlement. None of the lessees are in arrear with rent. The value of improvements effected by the lessees is £1,122, the required improvements being £203. In this settlement mixed farming

is carried on, cattle and sheep being raised, and oats and wheat produced, thus being in a position to reap the benefits of the altered conditions of the markets. I think the prospects of this settlement very good, as the land is of very fair quality, and the whole settlement within a short distance of railway communication. The Ranger reports: "There are seven selectors on this settlement. There is a dwellinghouse on every section, and the selectors have made very good improvements in the way of buildings, fencing, and ploughing. Some of the land on this estate is very good, but the Canadian thistle has almost taken possession of the river-bed land. The settlers are doing their very best to extirpate the thistle, which is no easy matter. So far the progress on this settlement is very good, almost the whole of the selectors are progressive and industrious, and in time I have every reason to believe that this settlement will be a success. There are no industries in the immediate vicinity of the estate, with the exception of two sawmills which give employment to a number of selectors' sons and others. During the summer months a few of the selectors are employed at road-making, &c., and the remaining part of the year they work on their holdings. Progress, prospect, and conditions good."

Glenham Settlement.—Situated in the Wyndham district, was opened to selection in March, 1902. The area acquired was 11,484 acres. 8,647 acres were offered on lease in perpetuity, in thirty-one allotments, one of which was subsequently made a bush reserve for use of selectors on the settlement, and 2,808 as small grazing-runs in two runs. Before the 31st March, 1902, ten allotments, containing 2,511 acres, were selected. During the year under review eleven allotments, containing 2,547 acres, were taken up on lease in perpetuity, and one small grazing-run of 1,150 acres. The township reserve of 15 acres is leased temporarily by the selector of the homestead allotment, and as there were not a sufficient number of settlers on the settlement to work the dairy factory it was leased to the Invercargill Dairy Supply Company, and has been working all the season. It has proved a considerable benefit to some of the selectors, seven of whom have been supplying milk to the creamery, and I am informed the average supply daily was 230 gallons from October, 1902, to the 31st March, 1903; the price paid for butter-fat being 9d. per pound to part of December, and then 9¾d. per pound until March. The total area leased is 6,228 acres, the annual rental of which is £1,273 11s. 8d. The value of the improvements effected by the lessees is £1,626, while the value required is £514. Nine allotments on lease in perpetuity, and one small grazing-run, containing in all 5,101 acres, are still unlet. Although a large portion of the settlement still remains unselected, I anticipate a considerable portion will be taken up before long, as on the whole the land is of a medium quality, and should my anticipations be verified it will give an impetus to the creamery or dairy industry, which is undoubtedly a great desideratum to intending settlers and to a settlement generally. Taking all the surrounding circumstances into consideration, I think the future prospects of the settlement are fairly good, and that it will be a prosperous one with good farming in the future, anticipating, of course, that the unselected portions are taken up. Owing to the large unselected area on this settlement, I have had to keep a caretaker in charge looking after fences, keeping down noxious weeds, poisoning rabbits, letting the grazing and collecting rents for same, all of which duties have been performed in a most satisfactory manner. The amount collected for grazing during the financial year amounts to £320 0s. 10d. The Ranger reports as follows: "There are twenty-four selectors on this settlement. During the year good progress has been made by them in the way of building, fencing, and ploughing. On the whole the land is inferior, oat-crops very light, yielding only from 15 to 20 bushels per acre. The land will not retain English grasses after the second year. One of the selectors has already abandoned his section. There is a dairy factory on the estate, but it is not fully supplied, owing to the want of grass. There is also a good school on the settlement. Progress fair, employment good outside the selectors' holdings, industries fair. Owing to the land being only medium, this settlement will require nursing for a considerable time to make it a success."

Improved-farm Settlements.

There are four of these settlements in the Southland Land District, containing in all about 6,200 acres. Of this area, 5,307 acres is held by forty-four settlers. I regret to state that, owing to a variety of circumstances, the settlements, with the exception of that at Papatotara, have not proved a success, and all have been a source of considerable loss to the Department. The Ranger's report shows that those at Haldane, Waikawa, and Moturimu have retrograded, rather than advanced, during the past year. In all these settlements leases have been issued to the settlers.

The following is Ranger Campbell's report:—

"*Haldane Settlement.*—Situated in Blocks IX. and X., Waikawa Survey District, contains 2,230 acres, of which 2,087 acres is held by sixteen lessees; the total number of persons upon it is fifty-nine, being six less than last year. The area felled during the year is 60 acres, the area grassed 45 acres, and the number of cattle upon the settlement is 366. There was a dairy factory upon the settlement, but for want of sufficient support it has been closed. The value of improvements effected by the lessees is £154. The total value of the improvements now on the land, including that paid for by the Government, is £3,527 13s. 8d. One section, containing 143 acres, is unoccupied.

"*Waikawa Settlement.*—Situated in Block XVII., Waikawa Survey District, contains 1,684 acres, of which 977 acres is held by five settlers; the total number of persons residing upon it being thirty, three fewer than last year. The area felled during the year is 3 acres, none grassed. Number of cattle, 65. The value of the improvements made by the lessees during the year is £4 10s. The total value of the improvements now on the land, including that paid for by the Government, is £1,470 2s. 3d. Six sections, containing 707 acres, are unlet.

"*Papatotara Settlement.*—Situated in Blocks I. and III., Alton Survey District, and contains 1,628 acres, held by fifteen selectors; the total number of persons residing being sixty, an increase

of eleven as compared with last year. The area felled during the year is 23 acres, and grassed 25 acres. The number of cattle owned is 112. The value of improvements effected by the lessees during the year is £71 10s. The total value of the improvements now on the land, including that paid for by the Government, is £1,941 18s. 8d. With the advancement of the Orepuki–Waiau Railway, this settlement should have a good future before it.

"*Moturimu Settlement.*—Situated in Block VIII., Campbelltown Hundred, near Woodend Township, on the Invercargill–Bluff Railway-line, and contains 658 acres, of which 615 acres is held by eight settlers; one section of 43 acres is unoccupied. The number of persons upon the settlement is forty-six. No improvements have been made during the year. The number of cattle is 36. The settlers mostly live by cutting sleepers, fencing-material, and firewood, and some are employed at an adjacent sawmill. I consider that owing to its situation the settlement will in time make good progress."

Selectors on the Books.—The total number of selectors of all classes now upon the books is 1,725, being an increase of seventy upon the previous year.

Forfeitures and Surrenders.—The forfeitures of ordinary Crown leases during the year numbered thirty-five, the area being 18,123 acres. One lease on a land-for-settlements estate was forfeited; area, 351 acres. Twelve leases, comprising 13,436 acres, were surrendered. Total surrenders and forfeitures, forty-eight; area, 31,910 acres. As compared with last year, these figures show a decrease of twenty-one in number, and an increase in area of 15,873 acres; some of the holders surrendered in order to obtain a reduction of rent. The number of holdings re-selected is ten; area, 14,210 acres.

Arrears of Rent.—Of ordinary Crown lessees, seventy-six, holding 13,358 acres, are in arrear to the amount of £292 14s. 11d., being a decrease in number of fifty-three, in area of 25,463 acres, and in amount of £257 18s., when compared with the preceding financial year. On the land-for-settlements estates, sixteen settlers, holding 4,416 acres, are in arrear to the amount of £566 12s. 11d., the corresponding figures for last year being eighteen settlers, 4,240 acres, and £511 8s. 8d. in amount.

Rebates of Rents—The following table shows the operation of "The Crown Tenants' Rent Rebate Act, 1900," to have been fairly satisfactory. The rebate allowed is ten per cent. on all tenures within the provisions of the Act:—

REBATES GRANTED DURING THE YEAR 1902–3.

Tenure.	Number.	Amount.			Total Number of Leases.
		£	s.	d.	
Deferred payment, rural	40	12	5	3	62
" village	6	0	15	6	10
Perpetual lease	66	36	5	0	84
Occupation with right of purchase	146	68	12	0	239
Lease in perpetuity, rural	134	94	4	5	234
" village-homestead settlements ...	161	21	18	7	263
Land for settlements	44	120	7	7	84
Totals	597	354	8	4	976

Rangers' Inspections.—Ranger Campbell reports having made 610 inspections during the year, covering an area of 53,223 acres. He estimates the value of improvements effected as £46,866, the value required being £19,205, showing an excess of £27,661. He considers the condition of the Crown tenants as a whole satisfactory. The occupations of the settlers vary with the character and situation of their holdings, and range from mixed farming of a high class to dairying, grazing, and wood-cutting, the majority being engaged upon their own farms, while some seek work elsewhere on other farms or on road or railway works.

Ranger Traill, of Stewart Island, reports thirty-five inspections over 3,938 acres, the positions of the various selections being very scattered. The value of improvements made is £1,615, the required value £1,241, the excess value being £374. Mr. Traill makes the following remarks regarding the condition, &c., of the Crown tenants on Stewart Island: "Generally speaking, the settlers are not in a prosperous condition. This is owing in a great measure to the rugged and forest-clad nature of the lands and severe climate. Taking into consideration the adverse circumstances above mentioned, the progress made has been fairly satisfactory. Nearly all the selectors have in view the clearing of their land and eventually placing stock on it. This will take, in most instances, many years to accomplish. Many of the selectors ask for more time to comply with the conditions of their leases, the reasons given are 'scarcity of work in the locality, and the exceptionally dense and heavy bush to be cleared off their land.' I am not aware as to any complaints as to want of roads. A resident medical man on the island is very much needed, and more frequent communication with the mainland. A large proportion of the settlers are engaged (when the weather allows) in fishing business, others are employed at the local sawmills, several have to go across to the mainland to obtain work, four or five are employed in boatbuilding, and others depend on the Government contracts, a small proportion are self-reliant. The principal employment for the settlers is the fishing industry, but this is very irregular. There are only two saw-

mills on the island, which employ only a few men. Very little prospecting for gold and other metals is now being done, although several rare metallic ores have been discovered at various times on the island. Several of the settlers have fitted oil-engines in the fishing-boats, which have turned out to be fairly satisfactory." Mr. Traill, in his capacity as Forest Ranger, further reports: "There is but one sawmill area held on Stewart Island. The regulations are being fairly well complied with. The output of timber is very small, as the mill is being worked shorthanded. There is one other sawmill on the island, working on a section held on occupation-with-right-of-purchase license. During the summer months a great deal of my time has been taken up in looking after the bush, to prevent it being fired by pleasure parties and others, and it is gratifying to be able to state that no serious fires have occurred and no trespass on Crown lands has come under my notice. I have made frequent visits to all parts of Block XII., Paterson district (Ulva Island) to see that the prevention notices were in order and excursionists were not killing native game or destroying the flora. There has not been any offender in this respect. The Natives who have permits to peel bark have, as far as I can ascertain, complied with the conditions. My knowledge of the forest resources of Stewart Island is chiefly limited to the sea-board and middle parts. On the sea-board there are only about six sites fit for sawmills, and these only for small mills. The island is forest-clad, but only in the inland sheltered valleys is there any timber of commercial value to be found. White-pine is unknown, black-pine is rare, but there are small patches of yellow silver-pine (the finest timber for boat-planks). For inlaying-work there are several trees on the island of value—for example, *Dracophylum longifolium*, which is plentiful and attains a large size."

Assistant Ranger Forrester made ninety-seven inspections in connection with sawmill areas and the revaluation of lands.

State and Crown Lands Forests.—During the year fifteen sawmill areas were surveyed, totalling 2,531 acres, of which 2,231 acres was in State forests and 300 acres on ordinary Crown lands, producing 8,937,600 superficial feet, the royalty paid on which in the former class amounted to £2,578 12s. 6d., from the latter class £364 3s. 1d., making a total of £2,942 15s. 7d.

The following gives in a concise manner the various transactions, the respective amounts of revenue, and the total revenue received during the year from all sources:—In State forests: Thirteen sawmill areas, 2,231 acres, £2,578 12s. 6d.; timber licenses (ordinary), £108 18s. 5d.; lease and transfer fees, £22 1s.: total, £2,709 11s. 11d. On Crown lands: Two sawmill areas, 300 acres, £364 3s. 1d.; timber licenses, £102 14s. 3d.: total, £466 17s. 4d. Total sum received from all sources, £3,176 9s. 3d.

I would point out that the £2,942 15s. 7d. does not represent the total revenue receivable from royalty on the fifteen sawmill areas, but only the amount actually received, as it has always been the practice in this district to take one-half the assessed royalty on each surveyed area in cash, and the balance or remainder is payable by approved bills with six months' currency, which, of course, often falls due in the next financial year. If trade discount were allowed, the total royalty on each area in many cases would be collected in the first instance, which would be to the advantage of the Department, but I understand discount cannot be allowed without special legislation.

The number of sawmill licenses issued (in duplicate) was sixteen. The number of timber licenses issued was eighty-four. Such licenses cover cutting fencing-material, firewood, telegraph-posts, mining-props, and hewing railway-sleepers, &c. The number of permits issued was forty-seven; these are only used by settlers who have no timber on their holdings, and they cover the taking of fencing-material, draining-slabs, and firewood.

During the year twenty-three sawmill areas and five reserves were surrendered, totalling in area some 6,000 odd acres, the greater portion of which will be available for settlement purposes should the State-forest reservation be withdrawn therefrom.

The sawmill industry, more particularly during the early part of the year, was not so brisk as the owners could wish, as, I understand, a difficulty was found in disposing of the output, and during this period I believe a number of mills were working at a loss. On the whole the regulations and conditions have been fairly well complied with, and, in cases where there has been a breach, extenuating circumstances had to be considered, such as bad weather, dullness of market, bad roads, or a difficulty in arranging for egress and access through private properties. Now that the trade is brisk no such circumstances can be considered, as due allowance and latitude has been given in every case, and I may yet find it absolutely necessary to enforce compliance with conditions in some cases more strictly than hitherto.

There are fifty sawmills operating in this land district, capable of turning out 4,500,000 superficial feet per month when working full handed and full time, giving employment to eight hundred men, with a combined average pay-sheet amounting to rather more than £8,000 per month.

It will be seen that the milling industry in this district is considerable, giving a large field of employment, and distributing a large sum of money monthly.

JOHN HAY,
Commissioner of Crown Lands.



C.—1. Lily Falls, Wairoa South.



Nihotapu Falls, Auckland District.

APPENDIX II.—SURVEYS.

EXTRACTS FROM THE REPORTS OF CHIEF SURVEYORS ON THE SURVEY OPERATIONS FOR THE TWELVE MONTHS ENDED 31ST MARCH, 1903.

AUCKLAND.

Minor Triangulation and Topographical Surveys.—Under this heading is an area of 230,891 acres, costing 1·58d. per acre. This, for the most part, is, more properly speaking, provisional or subsidiary work, executed to enable topographical maps and reports to be prepared and schemes of subdivision drawn up for poster lithos, covering the greater portion of unsurveyed Crown lands in the Auckland District. This work, with the exception of 16,300 acres triangulated in connection with Native Land District Court work in Horohoro and adjoining districts, was the outcome of the pressing demand for Crown land, which had to be ready for disposal by the end of the year.

Rural and Suburban.—138,089 acres, consisting of 421 sections, at a cost of 1·05s. per acre, is returned this year. This is slightly less than that completed last year, but it must be borne in mind that the energies of the staff had to be devoted to the topographical work mentioned under that heading, while the ordinary settlement surveys were at a standstill. Waari Hamlet is a block near Henderson Railway-station, cut up in suitable sections for workmen's homes.

Town Section Survey.—Three Native townships—Puru, Karewa, and Parawai—make up a total of 510 acres, subdivided into 399 allotments, at a cost of 19s. per allotment. The first two named are extensions of Kawhia Town. The other is situated on the inner side of the south head of entrance to Kawhia Harbour, the outlet to the extensive settlement now progressing in Kawhia County.

Native Land Court Surveys.—This year a total of 351,386 acres, in 107 blocks, at a cost of 3·11d. per acre, is returned. In addition, thirty-seven blocks, totalling 29,897 acres, were surveyed, the cost of which was paid for privately, making a grand total of 144 blocks, with an area of 381,283 acres. The major portion of this work lies in the King-country, being the subdivisions ordered by the Native Land Court of the Rangitoto-Tuhua Block.

Gold-mining Surveys.—These surveys show a slight increase in area, the number of claims surveyed being thirty-eight, with an area of 1,952 acres, costing 4·13s. per acre; to this should be added eleven claims, of 184 acres (145 acres river-dredging claims), the cost of which is paid privately, which brings up the total to 2,136 acres.

Roads.—The staff has surveyed 107·83 miles at an average cost of £13·44 per mile, and have now in hand a total of about 146 miles.

Other Work.—This total (£2,112 14s. 11d.) comprises various services as follow: Inspections, road exploration and grading, Rangers' reports; timber measurements, traverse Rotoiti and Rotoma Lakes, reports, &c., for Warden, Hauraki Mining District; reports on estates for land for settlements; plans and engineering surveys, Waerenga and Ruakura Experimental Farms, &c.

Inspection.—Mr. L Cussen in his report states that "the character of the work performed by staff surveyors is uniformly good, and they showed much energy and aptitude under the heavy pressure of survey-work in connection with the large areas of Crown lands which the Government decided to have opened for settlement." The private surveyors' work inspected in the Rangitoto-Tuhua subdivisions was well performed.

Field-work in Progress.—The staff, numbering eight staff and twenty-one temporary surveyors, have in hand nearly 360,000 acres of rural-land surveys, and will continue the subdivision of the large areas of Crown land to be thrown open for settlement principally in the Counties of Kawhia, Mangonui, Whangarei, Hokianga, Rotorua, Opotiki, and Whakatane. The survey of Otorohanga and Te Kuiti Townships for the Maori District Land Council are also in hand.

Land Transfer Surveys.—227 plans were examined and approved, consisting of 785 subdivisions of a total area of 46,402 acres. Fifty plans are still in the office, of which the examination is not yet complete.

Office-work.—194 sectional and township plans, and 171 plans of roads taken and closed, and thirty-nine Native Land Court plans, with 887 traverse sheets, were received and checked. 419 plans were indorsed on Native Land Court orders, and 2,128 plans on certificates of title, &c. Numerous tracings were prepared and forwarded to Head Office for lithographing, the current work for the year being very heavy.

Miscellaneous.—The great demand for Crown land taxed the energies of the field staff to the utmost, and to meet this pressure twelve extra surveyors were temporarily appointed. Six of the permanent staff and eight temporary surveyors are now working double parties, to enable the area under survey to be opened for settlement at an early date. The addition to the field staff involved a greater volume of office-work, which apart from this has been annually increasing, and has been taxing the energies of the office staff to the utmost.

GERHARD MUELLER, Assistant Surveyor-General.

HAWKE'S BAY.

Topographical Survey.—The operations under this head comprise the topographical survey necessary for the preparation of the sale maps of Crown lands situated in the Motu, Koranga, and Hikurangi districts, for selection before survey, and the topographical survey of portion of Puketapu and Tongoio districts, the total area surveyed being 114,745 acres, at a cost of 1·73d. per acre. Of this area 57,680 acres, being ordinary topographical survey, was executed by Mr. Hay, and the balance—viz., 57,065 acres, being survey of Crown lands before selection—by Messrs. Dalziell, Farnie, and Roddick, the country being rough, with heavy forests.

Minor Triangulation.—The total returned under this heading is 74,145 acres, at a cost of 1·08d. per acre. Mr. F. S. Smith returns 6,095 acres, being breaking-down of the major triangulation in the neighbourhood of Gisborne to govern Land Transfer surveys. Mr. Hay returns 9,300 acres in the Puketapu and Tongoio districts, which completes the triangulation of these districts. Mr. Brook, 7,500 acres Kumeroa Estate, and Mr. Robertson, 51,250 acres Argyll Estate, being the extension of the triangulation over these estates to govern the subdivisional survey.

Rural and Suburban.—The total area returned under this heading is 54,469 acres, at a cost of 0·53s. an acre. Mr. Hay returns 6,210 acres, 4,758 acres being subdivisional survey of the Forest Gate Estate, 1,444 acres being portion of Mount Vernon Estate, the balance being cemetery and factory sites at Mangatoro and Kumeroa. Mr. Brook, 9,198 acres, being subdivisional survey of Runs 84, 85, and 86, in the Hangaroa district. Mr. Dalziell, 2,000 acres, being survey of Sections 8 and 9, Block X., Motu district, in rough forest country. Mr. Farnie, 2,754 acres, being subdivisional survey for settlement of Crown lands in the Wakarara and Makaretu districts. Mr. J. A. Robertson, by contract, 34,307 acres, being periphery survey of the Milbourne and Te Reinga (Argyll) Estates, which have been subdivided for settlement.

Town Sectional Survey.—Only four sections have been surveyed, of an area of 14·27 acres, by Messrs. Hay and Stevenson, being reserves situated in the Town of Napier and the Hatuma Township Reserve.

Native Land Court Surveys.—The staff have not made any during this year, but licensed surveyors have surveyed 20,134 acres at the cost of the Native owners, the plans of which have been received and recorded.

Road Surveys.—A total of 44·6 miles have been surveyed at an average cost of £21·29 a mile. Of this Mr. Roddick has surveyed 23½ miles in Poverty Bay to open up Crown lands, the balance being deviations and short roads to open up Crown lands surveyed by Messrs. F. S. Smith, T. Brook, P. A. Dalziell, E. H. Farnie, J. Stevenson, and H. M. Smith. The cost has been considerably increased, which must be owing to Mr. Roddick's roads being in rough bush country, and the remainder being short lines of roads where expensive transport, &c., add considerably to the cost.

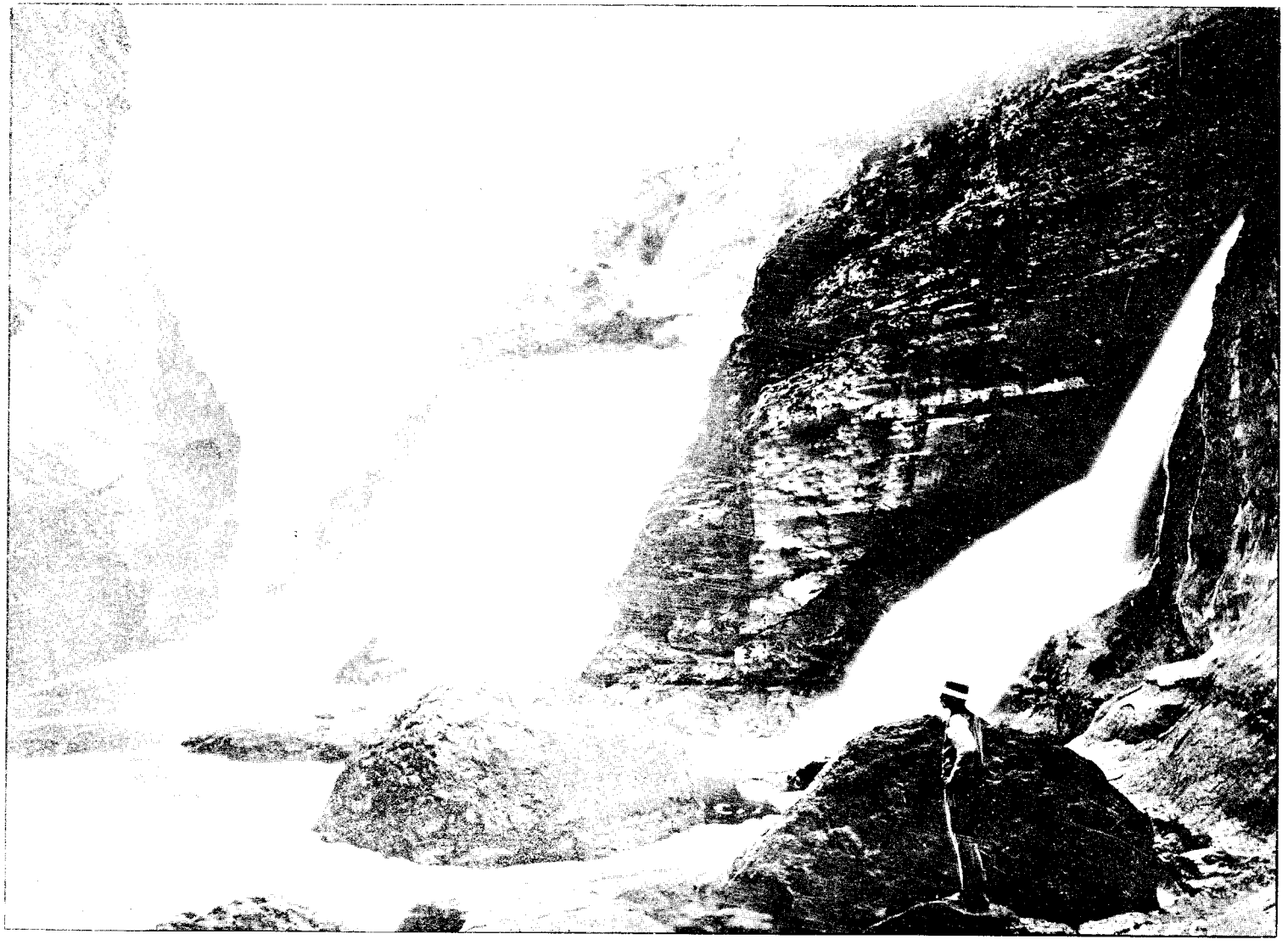
Other Work.—Under this heading is included field inspections, reports on blocks, redefining section boundaries, field-work of which the plans are not completed, the cost of which is carried to next year, and miscellaneous work which cannot be classed under any of the usual headings.

Field Inspections.—Owing to the pressure of other work only fourteen field inspections have been made—six by Mr. Hay, and eight by Mr. F. S. Smith. Mr. Smith's inspection included the checking of Mr. Matthews's triangulation in the Mangatu district, which was found to be satisfactory, and generally the inspections have shown that the surveys are being executed in a satisfactory manner.

Summary of Year's Operations.—During the year eight survey parties have been employed and two contract surveyors, who have surveyed 114,745 acres of topographical survey, 74,145 acres of minor triangulation, 54,469 acres of rural and suburban, 14¼ acres of town section survey, and 44¾ miles of roads. They have also completed a considerable amount of field-work in the various classes, which is not returned, owing to the plans not being completed. (Messrs. F. S. Smith, Hay, and Brook have been employed on the standard survey of the Towns of Gisborne, Dannevirke, and Clyde, a work which was urgently required, and which will be of great service in governing Land Transfer surveys in these towns.) Authorised surveyors have surveyed 20,134 acres of Native lands, being subdivisional surveys as ordered by the Native Land Court, 125 plans of surveys under the Land Transfer Act of an area of 33,992 acres, thirteen miles of road, and fifteen surveys, containing 999 acres, under the Public Works Act, &c., all of which plans have been examined and received. There is a considerable increase generally in the survey-work over that of last year.

Proposed Operations for 1903–4.—The work for the coming year will be the survey and roading of Crown lands in the Motu, Hangaroa, Urutawa, Koranga, Ngatapa, and Hikurangi Survey Districts, where Messrs. Roddick, Farnie, Dalziell, and Reay are now employed roading and subdividing, as selected, some 146,000 acres of forest country; the survey of 8,900 acres, by Mr. Brook, of Crown lands for selection in the Hangaroa district; the completion of the survey of the Argyll Estate by Mr. Hay, who will also be employed in surveying the Crown awards in Mangatoro and Tamaki Blocks; the subdivisional survey for settlement of the Takapau Estate (Wigan Settlement), by Mr. Grant, on contract; and the survey and subdivision of any estates that may be acquired for settlement.

Office-work.—A total of 242 plans have been checked and recorded, and 2,299 plans placed on certificates, leases, and other instruments of title. Of these, thirty-one are Departmental plans of surveys of an area of 69,541 acres, and twenty-eight road plans of 84¼ miles of road survey. Authorised surveyors have deposited 125 plans of Land Transfer surveys of a total area of 33,992 acres, forty Native Land Court surveys of an area of 20,134 acres, and eighteen public works plans of a total area of 1,056 acres. Owing to the press of other work we have not been able to complete



Te Reinga Falls, Waipoa, Hawke's Bay.

the plotting of block sheets, which are necessary for the proper recording of new work, but hope in the near future to be able to bring them up to date. 551 old plans have been repaired and mounted, all our old plans being now in fair order. We have also had the usual correspondence with surveyors and others *re* surveys in operation.

Miscellaneous.—No changes have been made in the staff during the year, and nothing has occurred to call for special mention. ERIC C. GOLD SMITH, Chief Surveyor.

TARANAKI.

Minor Triangulation.—This comprised only 16,000 acres in the Upper Tongaporutu, executed by Mr. Laing at a cost of 1·25d. per acre, mainly for the purpose of governing his settlement surveys. In terms of your instruction, triangulation and standard work has had to give place to the more pressing work of preparing new country in a rapid manner for settlement.

Rural and Suburban.—This totals into 60,393 acres, subdivided into 187 sections, at a cost of 1·629s. per acre, and but for the fact of the death of Mr. Oldfield at the beginning of the season, and also the retirement of Messrs. Sladden and Watson at practically the same time, all of them able and energetic surveyors, the output for the year would have been much greater. The settlement surveys comprised generally hilly forest country, the localities being the Ohura country, Upper Tongaporutu, Uruti, Upper Whenuakura, and Patea, and the workmen's-homes settlement near New Plymouth. The bulk of this work was of an arduous character, and the price at which it was done is, I think, reasonable; whilst I trust that you will concur that the average measure of accuracy attained was also satisfactory—viz., 0·916 links per mile on meridian and 1·168 links per mile on perpendicular.

Roads, Railways, and Water-races.—These comprise 19·718 miles surveyed in different parts of the district, at a cost of £14 17s. per mile. These are of a miscellaneous character, including road deviations, roads to give access to Crown lands, or roads to be legalised before the rights in the titles expired. The railway portion is a definition of the Stratford–Kawakawa line in the Ohura country.

Native Land Court.—Of this class of survey an area of only 3,577 acres was defined, in five subdivisions, at a cost of 0·907s. per acre, being Native orders surveyed in connection with the Crown lands surveys in the Ohura district, and call really for no special mention, beyond saying that I found it economical and convenient to have this work done when our surveyors were working on the blocks.

Other Work.—In this list will be found the numerous general class of duties all essential and necessary in their way, but of a character that cannot be included in the ordinary scheduled form of the annual return, such as repairs to trigonometrical stations, explorations in new country, reports and special inspections, making pack-tracks through Crown lands so that the selectors may see the Crown lands and afterwards get to their holdings pending permanent road-construction, subdividing sections previously surveyed, back-pegging, &c., all this incurring a total expenditure of £770 0s. 4d.

Inspections.—During the year I have visited all the staff surveyors, making in all ten inspections of staff surveyors' work, and four inspections of Land Transfer surveyors' work, and duly forwarding to you forty-eight sheets of diagrams showing the results of my checks. All the work executed was, on the whole, exceedingly satisfactory; indeed, only in the case of one private surveyor, and that of a trivial character, has there been any necessity as the result of field inspection to call upon surveyors to either amend their maps or go over their surveys again on the ground. A greater number of technical inspections would have been made but for the fact that since November my energies and that of the entire staff have been devoted to placing lands in the market from provisional surveys, which, although necessitating my visiting the surveyors and seeing that the work was proceeding on rapid and practical lines, did not require testing as to accuracy. Altogether, in connection with inspection of surveys, exploration and examination of new country to be opened, as also visiting the holdings of Crown tenants, and other matters, I have been absent from New Plymouth for 150 days during the past year.

Repairs to Trigonometrical Stations.—Special attention has been devoted to this work, and during the year fifteen permanent trigonometrical pyramids of the more useful stations in the older-settled portions of the district have been erected, and in all 124 stations have been visited, repaired, and reported on. I have started a trigonometrical register, so as to have a complete record and history of each station. The main point I have in view is that these standard points of reference are preserved intact, and will be available not only for ourselves but for those who have to follow us. A number, I regret to say, in this district have been destroyed—sometimes by being ploughed out, in other cases, I fear, through sheer wantonness. But, fortunately, a number of these have served their purpose, and standard lines have taken or will eventually take their place, and in consequence it will not be necessary to re-establish them. A number of others, however, will require replacing. This is a work that will be taken up in the winter months, or as opportunity offers, as I feel that its importance cannot be well overrated.

Field-work in Progress and proposed for Next Year.—I have still in view the completion of the major triangulation round Mount Egmont, as also standard-work in the settled districts. These I am postponing in the meantime, and it is unlikely that they will be touched during the coming year, the reason being, of course, to permit of every available surveyor being employed on settlement-work. This will comprise a total of about 210,000 acres—in the first instance, provisional or selection surveys made for urgent sale purposes; and after the land has been once put in the market the final sectional pegging will be completed. This will include large areas in the King-country, Upper Tongaporutu, and in the neighbourhood of Whangamomona. I also

anticipate laying out perhaps 200 acres in township lots in Ohura and Mokau-iti, chiefly to meet the wants of business people erecting stores, &c., for trading in the new districts being opened. In addition to this, I estimate that something like sixty-six miles of roads will be located, partly to give access to Crown lands being dealt with, and also roads taken under Warrant and the Public Works Act, and possibly a few road-deviations. These, I anticipate, will generally be done by staff surveyors when laying out our own Crown lands. Altogether the coming season bids fair to become a brisk one from a settlement point of view, and I shall be well pleased if something approaching the work now outlined has, twelve months hence, been accomplished.

Office-work.

From the figures of the Chief Draughtsman, Mr. J. Langmuir, the following is the general statement of the year's operations:—

Examination of Plans.—Mr. Carrington, the officer in charge of this work, reports having checked twenty-eight plans of settlement surveys, comprising ninety-nine sections of an area of 53,250 acres; two trigonometrical plans, 28,900 acres; twenty-six plans defining 28⅓ miles of lands taken for and roads closed under the Public Works and Land Acts; thirteen plans of 13¾ miles of railway under the Public Works Act were verified and checked, and in the case of the road final action has also been taken for legalisation; one Native plan of four sections, comprising 191 acres; and sixteen miscellaneous plans of nineteen sections, comprising 1,114 acres; making a total of eighty-six plans embracing a gross area of 54,555 acres sectional, 28,900 acres trigonometrical, and about forty-two miles of roads and railways. The traverse reduction sheets for the whole work numbered 257; the entire work was recomputed.

Compilations, Publications, &c.—All Crown-grant record-maps have been brought up to date. Five new road record-maps were constructed, and all others also brought up to date where transactions had occurred. Of the four Land Transfer record-maps required for the town of New Plymouth, two have been completed and one is half finished. Maps have also been started of the Towns of Hawera and Eltham, and an index-map of the suburban townships round New Plymouth was compiled. Fifteen tracings of sale-plans were prepared by Messrs. Gordon and Covil for reproduction by the photo-lithographic process; seventeen block sheets were plotted and completed, leaving 190 still to do, but in about 110 of these there is yet no sectional work. This estimate is based on the assumption of one sheet only to each block, but in many cases there may be several sheets. In every case where the block sheet had been started all current recording has been kept up on the same to date.

Native Land Court Plans.—One plan was dealt with, ten duplicates were prepared for the Native Land Court, five plans were indorsed on Native Land Court orders, and four nominations under the Act were prepared.

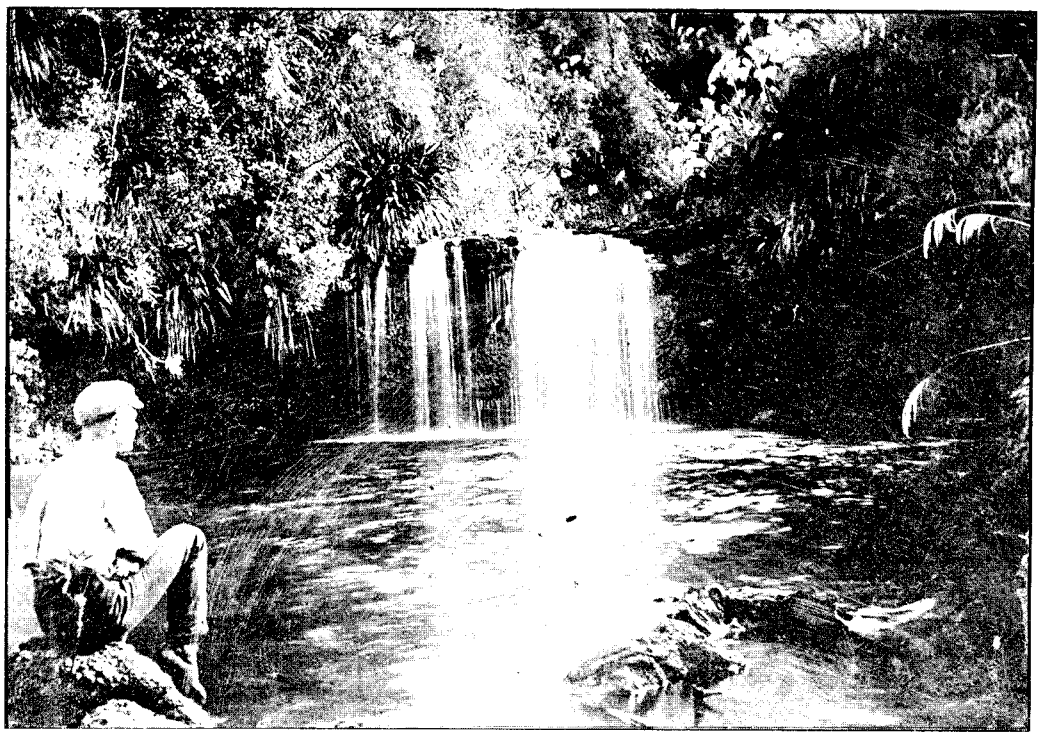
Land Transfer Work.—Mr. Skinner, Land Transfer Draughtsman, reports that during the year 207 Land Transfer plans, comprising 1,455 sections and subdivisions of an area of 7,184 acres 2 roods 26 perches, were checked and approved. Mr. Skinner was assisted during periods of extra pressure by Messrs. Cook and Carrington, the former during the present year having checked fifty-five and the latter four plans.

Standard and Trigonometrical Maps.—Owing to excess of other work no progress was made with these, but as it is possible that within a reasonable period a new base line will be measured agreeable to a common standard for the colony, it will probably be better to defer any further action as regards this class of work until such is completed.

Reserves.—During the year the work of compiling schedules of reserves, consisting of about 2,700 sections, preparatory to having them entered up in the reserves ledger, and also the preparation of seven county and forty-seven supplementary maps to illustrate same, has been dealt with and is now practically completed. The writing-up of the ledger from the schedules is now in hand. This has been a very laborious work, necessitating as it did the searching of all *Gazettes* and Statutes both of the Provincial and General Governments from the year 1854 to date, the examination of all record and other maps, and also a considerable amount of searching in the Land Transfer and Deeds Office to verify ownerships and clear up doubtful cases. In justice to the officers undertaking this work, I should explain that the reserves in Taranaki, particularly in the older-settled districts, were a perfect maze; there are numerous provincial and general statutes authorising their sale, exchange, subdivision, change of purpose, &c., and, no clear record having been kept, it really involved an entire search of the early history of Taranaki to bring about the result that has now been arrived at. Special maps and schedules have been prepared, and the whole will be entered in a special ledger prepared for the purpose.

Titles.—Mr. Cook, Crown Grant Draughtsman, reports the preparation and issue of 667 leases, licenses, and freehold titles. The arrears on the 31st March amounted to sixteen titles

"Thirds" and "Fourths" to Local Bodies.—Under this heading I have to report the preparation of seven county maps, showing all leases and licenses from which "thirds" and "fourths" accrue, the state of construction of all public roads, and other information necessary in connection with the expenditure of the moneys; twenty-five proposals, amounting to £2,269 15s. 8d., for expenditure on roads and bridges, &c., were made by the local bodies, and nineteen were submitted to and approved by the Land Board during the year for a total sum of £1,087 11s. 11d. The amount of "thirds" and "fourths" to the credit of the local bodies in the Receiver-General's Deposit Account and the Receiver of Land Revenue's Deposit Account at the 31st March was £6,071 10s. 1d. Although the maps to illustrate this very important branch of our operations have been completed, a considerable amount of manuscript-work is still necessary, so as to give clear files and schedules for the different local bodies and roads. You will, I feel sure, quite appreciate that this and other matters of a like nature will take time to bring to a state of perfection.



Waterfall on Turakina River, Wellington District

They are, however, on the way. I would like also to be permitted to point out that these and many other entirely new matters are being carried out with the same staff as formerly; whilst even the former ordinary general business of the office has largely increased as the tables will show.

Repairs to Maps, &c.—On taking charge of this land district I found that a number of plans were in a very dilapidated state through wear and age, and I at once took steps to prevent these records (the value of which cannot be estimated in money) from going to destruction, and up to now 380 plans have been mounted, and 285 block sheets, as well as twenty-four record-maps, repaired and bound with silk. There is still a very large number to overtake, but those requiring immediate attention have been made, at any rate, safe and serviceable.

Amalgamation of Offices.—During my predecessor's time the Lands and the Survey branches were carried on under different heads, with separate records for each. I found it more conducive to economical working and general efficiency to have them amalgamated. The entire clerical staff is therefore under Mr. Bannister, the Chief Clerk, with one set of Lands and Survey records. On the same lines all land and survey inquiries, applications for land, &c., are now attended to in one common public room by the officer in charge there.

Miscellaneous.—Besides the ordinary routine work of the office (which includes the attending and affording information to the public; supplying other Departments and local bodies with information; preparing working-tracings and 20-chain outline boundary plots for all the surveyors now engaged at the provisional survey of land for settlements in the land district, so as to facilitate and assist surveyors to get provisional plans in promptly; reducing, registering, and recording plans received) much other work was undertaken not mentioned in detail above. 489 tracings were made for the Valuer-General; 178 schedules of reserves according to local bodies' districts boundaries, illustrated by forty-five coloured lithos, were compiled and supplied to the Agricultural Department.

Departmental Changes : Death.—This branch of the Department has lost the services of Mr. Thomas Oldfield, one of the most hard-working and respected field surveyors. His end, which gave a great shock to all his friends, came suddenly in the early morning of the 20th October last, just as he was beginning the labours of the day in the bush, answering the "great roll-call" in harness and at his post, and in one of the wildest corners of Taranaki, away back at the head-waters of the Whenuakura River. The son of a general in the Imperial Army, who was also a Crimean veteran, Mr. Oldfield, after being educated at Sandhurst with the intention of entering the army, came to New Zealand when quite a young man during the period of the early Maori wars; when, true to the traditions of his race, he joined the colonial Forces during the struggle, rising to the rank of sergeant-major in the Armed Constabulary, from which he retired with credit in 1874. Later on he went into mining and other speculations, spending a small fortune in endeavouring to develop the Taranaki ironsand, in which to the day of his death he was a great believer. Later on, his Sandhurst training coming to his aid, he studied surveying, and worked at this profession in Auckland and Taranaki, joining the staff here in 1898. He served in his day his adopted country well, and he passed away respected by all.

Retirements.—On the 30th September last Mr. L. C. Sladden, temporary surveyor, resigned his position, and his resignation was accepted with much regret. He was one of our most zealous and conscientious surveyors, and joined the service as a cadet in 1887, being trained under Mr. District Surveyor Brodrick, in Canterbury. In view of the urgent surveys during the last few months his loss has been much felt. Mr. Sladden has gone into private practice in New Plymouth, and I was fortunate enough to secure his services under contract for the Spotswood Settlement survey, which he completed with great promptitude. A loss of just as severe a character was that of Mr. R. W. Watson, Assistant Surveyor, who had been trained in this branch of the Department, having joined as a cadet in February, 1894, Mr. District Surveyor Bullard being the teaching surveyor. The allurements of South Africa proved too much for him, and he left to try his luck in that region in September last. He was a young surveyor, of marked ability, with a special capacity for rapid and accurate work in broken country, and I feel sure that he will do New Zealand credit in the land of his adoption.

I need hardly say that these unlooked-for events, and, in the interests of quick settlement, the sudden change from an actual to a provisional survey system during the last four months of the year, are accountable for a much lower output of completed surveys than would otherwise have been the case; added to this the usual summer working season, so far as the weather was concerned, has been almost the wettest on record.

In conclusion, it again gives me much pleasure to acknowledge and place on record my appreciation of the loyal and zealous assistance accorded to me during a very busy year from the entire staff. My thanks are also due to the Land Transfer surveyors outside of the Department for the prompt manner in which they have carried out any requisitions made upon them, as well as for their cordial co-operation with me in regard to all professional matters.

JAMES MACKENZIE, Chief Surveyor.

WELLINGTON.

Owing to the urgent call, upon which all the field officers were at once transferred from the works they were engaged upon, to the preparation of blocks of land for selection and settlement at a late period of the year, a very large portion of the work due has to be returned as incomplete at the 31st March, in that plans thereof have not been received, nor, as regards the new field-work, is the field-work sufficiently advanced in many cases to enable areas of work finished to be given. Work to the value of £7,192 15s. 7d. is thus carried forward. The blocks being prepared are dealt with under the proper heading below.

Topographical. — Mr. Greville's detailed survey of Kapiti Island, 4,720 acres, is the only completed survey of this nature, although Messrs. Morice, Stevenson, Roberts, and Carkeek and others have made surveys of this kind in connection with the settlement blocks they are engaged upon.

Triangulation.—The important and much-wanted work upon which Mr. Lowe was engaged has been, like the rest, suspended during his charge of the settlement surveys of the Waimarino Block. He has now an area of 2,150,000 acres of large triangles of which the field-work is nearly completed, and an additional area of 565,000 acres of small triangles requiring some further field-work, in all less than six months to complete the whole. The cost has been so far £1,373 8s. 5d.

Rural and Suburban.—Land-for-settlements blocks of this nature—Linton's Woodlawn Estate, Rangitoto district; Tablelands and Longbush Estates, Huangarua district; and Crown land blocks, Mangamahu Village (Mangawhero district), Rangipo-Waiu, Murimotu, Rangitatau and Raketapauma Blocks—have been sectionized, a total of 37,610 acres.

Lands for Selection before Survey.—A preliminary survey of some 38,900 acres in the Te Tuhi, Ahu Ahu, and Puketotara Blocks has been made by Messrs. Stevenson, Mountfort, and Roberts, and this land will shortly be opened for selection. A preliminary survey of about 50,000 acres has also been made by Messrs. Lowe, Scott, and Frasi in the Waimarino Block, and this land will be open for selection shortly.

Other Work.—This includes the general miscellaneous work connected with survey operations, and inspection of surveys, timber assessments, explorations, extension of standard and alignment surveys, valuations and reports, road-deviations, rebuilding and repairing trig. stations. The extension of standard and of alignment surveys were discontinued early in the present year.

Inspection of Surveys.—Mr. Inspector J. D. Climie reports that he made twenty-one field inspections, including ten Land Transfer, six staff, and five miscellaneous surveys. He also made one valuation of Epuni Hamlet, at a total cost of £260 0s. 3d. Generally, the work on examination was found to be satisfactory, excepting in a few minor points where corrections had to be made.

Office-work.—Apart from the many duties of office routine, which it would be impossible to enumerate, I may state that throughout the year sixty-six plans of sectional and Native surveys, containing 53,343 acres, were received. Fifty-two plans, comprising 446 allotments containing 60,384 acres, were approved, reduced, and recorded on Crown-grant and office maps. Twenty-five drawings and tracings were prepared for photo-lithography, comprising 351 sections containing 23,391 acres. Six county lithos were prepared as provisional maps for publication, a 40-chain map of Akatarawa district was completed, and six Crown-grant record-maps were constructed. In addition, eighty-six new plans of a statutory nature were received, and 108 were approved.

Reservations of Land.—During the year the reserves ledgers have been kept up to date, also index and detail maps of each county posted up; twenty-two reserves have been vested, 100 permanently reserved, and 18 sent forward for gazetting.

"Thirds" and "Fourths."—The allocation to the credit of the local authorities of the due proportion of rent under the various systems as laid down by "The Land Act, 1892," has been carried out, and £8,117 4s. 3d. was paid to the local bodies on approved proposals and hypothecations. This is over £1,700 more than was disbursed under the same headings last year. 266 proposals for expenditure on roads, bridges, &c., were made by the local authorities; these were carefully examined, and 220 were submitted for the consideration and approval of the Land Board. Sixteen certificates of hypothecation were also submitted for the approval of the Land Board, and issued under the signature of the Chairman. The large sum of £19,625 12s. was lying to the credit of local bodies in the Receiver of Land Revenue's Deposit Account on the 31st March. I think, however, that members of the County Councils and Road Boards are beginning to recognise their responsibilities for the expenditure of these moneys, and I look forward to the balance being considerably reduced during the ensuing year in providing better access for the settlers, especially those comparatively far back. It seems very hard that they should have to put up with bad roads year after year while these large sums of money can be obtained for the asking (by the local bodies concerned) for the purpose of improving the road access, the want of which is a constant source of complaint by settlers, and is also very frequently urged by them as an excuse for non-compliance with the residential clauses in their leases.

Native Land Court.—Thirty-nine Native blocks, comprising 101 subdivisions, containing 21,831 acres, were surveyed by private surveyors; and thirteen other blocks were surveyed, comprising 120 subdivisions, containing 112,422 acres (in which the Government is interested—having advanced the cost of surveys, or having undertaken the work by staff surveyors and taken out liens in the Native Land Court); so that the total surveyed by staff and authorised surveyors is 134,253 acres; and plans of seven blocks, comprising twenty-three subdivisions, containing 2,472 acres, were compiled.

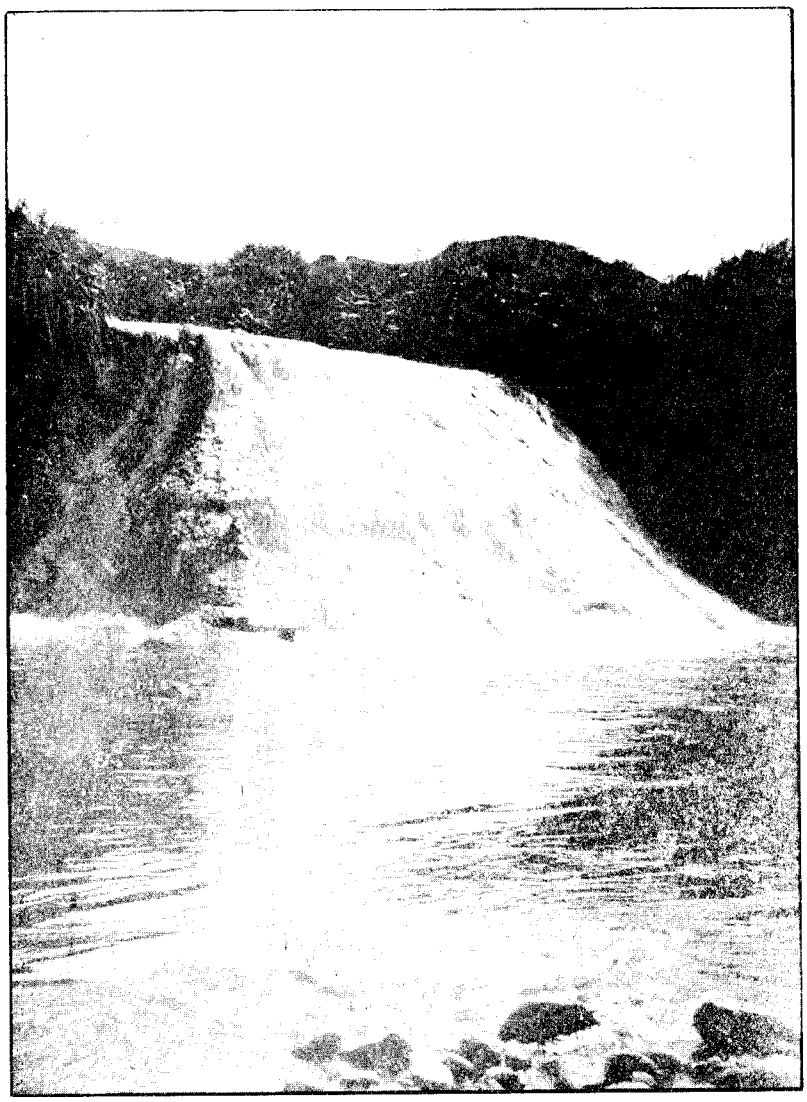
Roads and Railways.—The 68¼ miles traversed and mapped include 11½ miles of the North Island Main Trunk Railway. The principal object of the road surveys has been to secure the dedication of them to public use, and establish permanent points of reference throughout the district. A considerable mileage has been compass-traversed in the Ohotu, South Kaitieke, and Te Tuhi, Ahu Ahu, Puketotara Blocks, preparatory to opening up these lands for selection.

Land Transfer Office (Survey Branch).—322 working-plans were passed, showing a decrease of twenty plans as compared with last year, but there were more large ones than previously; 2,234 deeds and other instruments were passed; twenty single and 1,812 plans in duplicate were placed on certificates of titles; and twenty miscellaneous plans drawn or compiled.

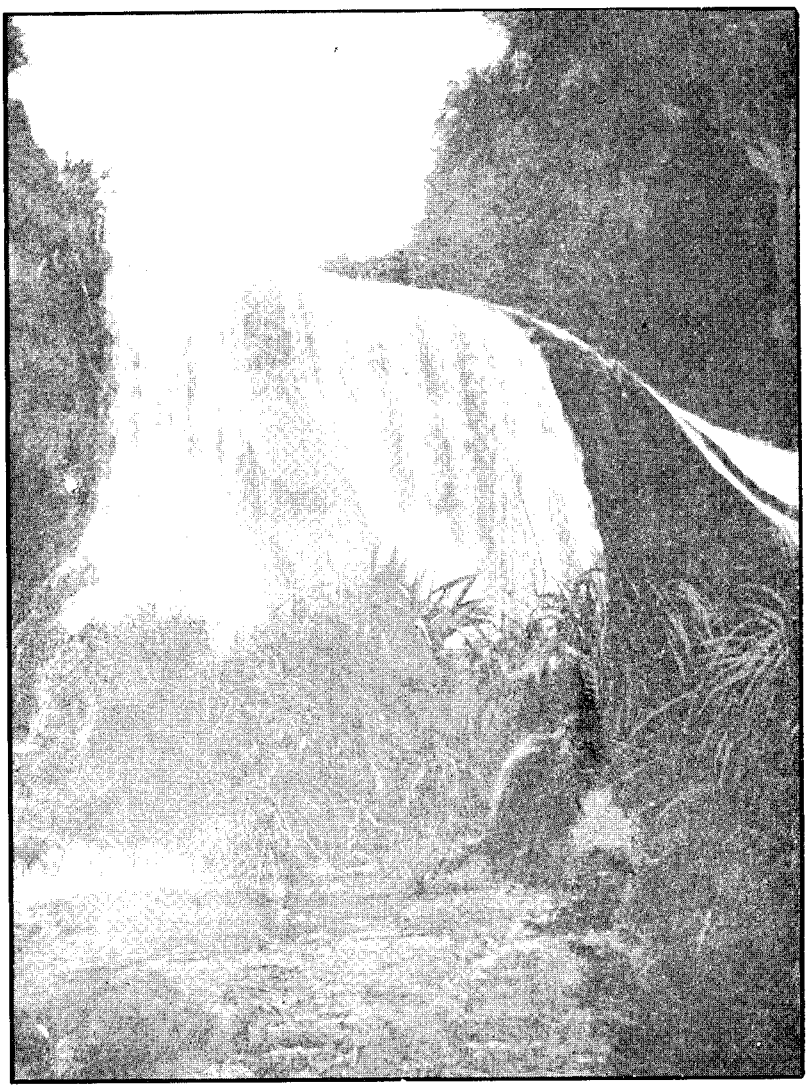
Titles.—The officer intrusted with the duties of preparing leases, licenses, and warrants reports that 155 leases, sixty-seven licenses, and 120 freehold titles were prepared and issued. The arrears on the 31st March amounted to forty-four titles.



(Fig. 1. Turakina Waterfall, on Turakina River, Wellington District.



Rereanpeko Waterfall, Motukawa Block, Wellington District



C.—1 Rangiwaea Waterfall. Wellington District.

Miscellaneous.—The usual demands made on the office staff were attended to. These comprised supplying of information to the public generally, and of data for the execution of surveys by staff surveyors and others; 107 tracings, thirty-nine general plans, seventy-three lithos, twenty-six sale-plans, and seventy-six application forms were mounted, and sixty-one plans repaired; reducing and recording data on maps; and a multitude of other duties. 1,480 block sheets and smaller maps have been bound with silk and repaired, a total of 2,737 altogether; six county maps were prepared; and twelve standard block sheets have been laid down.

Proposed Operations for 1903–4.—A staff of nine permanent and nine temporary surveyors are at present engaged on field-work in different parts of the district and have an area of some 333,284 acres of subdivision surveys in hand, consisting chiefly of pastoral lands in large sections. 60,793 acres of the Ohotu Block is included in the above area, and is being surveyed under the Maori Councils Act by Messrs. Carkeek, Stevenson, Drew, and Hovell. Mr. Climie will continue the inspections where necessary, and be available for other work as required. Mr. Lowe, assisted by Messrs. Frasi and Scott, is preparing for subdidision about 50,000 acres in the Waimarino, chiefly in the Kaitieke and Manganui districts, to be opened for selection shortly. Messrs. Thompson and Marchant will complete the roading and subdivision of the Maraetaua, Taonui, and Ngapukewhakapu Blocks, and Messrs. Mountfort and Roberts will complete the roading and prepare for selection before survey the Te Tuhi, Ahu Ahu, and Puketotara Blocks in the Tauakira district. Mr. Wheeler will complete surveys in hand, and be available for various surveys necessary in the Wanganui district. Mr. McKay will complete the survey of the Normandale Settlement, Lower Hutt, and will, if the urgency of settlement-work will permit, then continue road and railway surveys necessary in the Karioi and adjacant districts. Mr. Strachan will probably complete the survey of the Kirikau and Retaruke Blocks by the end of September. Mr. Girdlestone will be available to assist Mr. Greville in subdividing the Awarua 1B and 1D Blocks, of about 81,000 acres; and Mr. Lewis will complete the survey of the north Waimarino Block, including the proposed improved-farm settlement block on the left bank of the Wanganui River, opposite Taumaranui.

JOHN STRAUCHON, Chief Surveyor.

NELSON.

Topographical Surveys.—Under this head about 86,400 acres has been surveyed for selection prior to division into sections, and an additional 157,000 acres is being surveyed with a view to throwing the lands open for selection at an early date. Of these, about 89,000 acres is on the West Coast between Karamea and Mokihinui and south of Brighton; about 34,000 acres near the Inangahua Junction; and some 25,000 acres on the Buller, Matiri, and Owen Rivers, between the Village of Murchison and the Hope Valley; while in the Tadmor and Rainy-river Valleys there is some 10,000 acres under survey. Since January last the staff has been increased by the employment of six additional temporary surveyors, who in most cases are working with double parties, in order to push forward the work and allow of the settlement of these Crown lands at the earliest possible date.

Trig. and Topographical Surveys.—The only return in this class is an area of 32,000 acres in the Tutaki Survey District, carried out by Mr. D. M. Wilson. This was undertaken chiefly for the purpose of locating numerous isolated surveys in the Valley of the Mangles.

Rural and Suburban.—15,203 acres has been laid off in 105 sections, averaging 145 acres, most of which has been disposed of. These lands are situate in the Tadmor, Sherry, and Slippery Valleys, Motueka and Tutaki Survey Districts, and a small block near Westport.

Town Surveys.—During the year Mr. Snodgrass has surveyed into allotments, averaging quarter of an acre, a portion of the reclaimed land to the northward of the Town of Westport. This work was commenced last year, consequently it appears with "Other work."

Mining Surveys.—There has been very little work of this description during the year, very few applications having been received, there being only six sections, comprising 326 acres, scattered between the Collingwood district and the Grey Valley.

Roads and Railways.—46½ miles of road has been traversed, thirty-five miles of which has been executed by Mr. D. M. Wilson in the Mangles, Matakitaki, and Buller Valleys, the latter including the pegging of the main coach-road (between Motupiko and Murchison) from Hope Junction to Longford, of which only small isolated portions had previously been defined, seven miles and a quarter of main road between Motupiko and Belgrove, and four miles and a quarter in the Sherry and Slippery Valleys, which were done by District Surveyor Sadd.

Other Work.—Under this class numerous works have been carried out for County Councils and for various other Departments, the inspection of lands and reports thereon as to their suitability for settlement, the repegging of forest reserves in the Wai-iti Survey District, inspections of holdings, engineering surveys of bridge-sites, roads, &c., State coal-mines at Seddonville, and particularly the topographical surveys in progress as referred to under that heading.

Office-work.—The construction of new Crown-grant record and selection maps, the compilation of survey-district sheets for publication, preparation of sale-plans, and the work of posting up to date the originals of existing publications has occupied the attention of the office staff principally. A complete schedule of all reserves in the district has also been compiled, and tracings and descriptions prepared of a great number of sections which it was found had not been proclaimed as reserves. A considerable amount of work in connection with the investigation of road rights, and the preparation of the necessary transfers or conveyances to the Crown has been carried out. Several check surveys have been made in the city and suburbs.

Proposed Operations, 1903–4.—The services of the whole staff are to be devoted to the completion of the blocks of lands it is intended to throw open for selection before survey, and later

on its division into suitable areas for small grazing-runs or farms as may be decided upon; this work will keep the surveyors fully employed during the year. There will also be the usual miscellaneous services connected with inspections, reports for guidance of the Land Board, and works needed by other Departments and local bodies.

I am pleased to put on record my appreciation of the assistance given to me by the officers here during the past year, and would recommend them to your favourable consideration when you are making out the estimates. W. G. Murray, Chief Surveyor.

MARLBOROUGH.

Minor Triangulation and Topography.—Under this heading Mr. Buckeridge has returned 77,750 acres in Patriarch district. The average cost was 1·32d. per acre. This was the only minor triangulation executed in this district during the year. The area triangulated would have been larger but for Mr. Buckeridge's resignation. He left this Department on the 6th June, 1902. There still remains about 140,000 acres of triangulation to be completed.

Rural and Suburban.—Eighty rural sections, embracing 237,171 acres, have been surveyed during the year, at an average cost of a little over 4d. per acre. This comparatively small price is explained by the fact that the area including the Birch Hill Block of over 200,000 acres was cut up into very large blocks of pastoral runs and small grazing-runs, and portions of the survey were only magnetic, and the higher boundaries were fixed by cross-shots.

Town Sections.—The only town sections surveyed last year were five in the Town of Kaikoura, at an average cost of £2 15s.

Road Surveys.—Altogether 26¼ miles of road surveys were executed in various parts of the district. The average cost was £10 8s. 5d. per mile.

Field Inspections.—During the past year I have made six visits to the field surveyors in their camps. I have also made fourteen other visits of inspection as follows: To recreation, scenic, and other reserves, 6; road lines and deviations, 6; land for settlements, 2. I also paid a visit to Kaikoura, and attended a meeting of the Land Purchase Board in Wellington. In addition, Mr. F. E. Greenfield, of the office staff, inspected the field-work of seven Land Transfer surveys in and near Blenheim.

Proposed Operations for 1903–4.—Mr. D. W. Gillies, District Surveyor, has about six months' work on hand, in subdivisional surveys in Arapawa and Cloudy Bay districts, and with other work likely to come in will have full employment for the next season. Mr. C. W. McFarland has about two months' work on hand in the Kaituna Valley, and I have no doubt that he also will be kept fully employed with "spotting" surveys. Mr. H. Maitland has about a month's mapping on hand in connection with the surveys of the Awatere Runs. He has also a few "spotting" surveys on his list, and has some arrears of mapping in connection with former surveys which it will be necessary to complete before any new work is undertaken. It is probable that some land will shortly be acquired for a forest plantation, in which case a survey will be required. There are also three towns—Blenheim, Picton, and Havelock—that urgently require a revision of the original surveys, and unless a standard survey is made in each case there will be a considerable increase in the cost of survey whenever any sections are dealt with in the Land Transfer Department. These standard surveys should be put in hand as soon as a surveyor can be spared for the purpose. A standard traverse should also be carried over the rich level lands in the suburbs of Kaikoura. There is also about 140,000 acres of minor triangulation required to complete a topographical map of the Marlborough Land District, and I should like to have this finished during the coming season.

Office-work.—Mr. Armstrong, Chief Draughtsman, reports as follows: Between September, 1901, and December, 1902, three draughtsmen were transferred from this office to other districts, and only one sent here from the Wellington office. One of our draughtsmen was also absent on sick-leave for three months and at various other times, so that the office staff has been considerably undermanned. The current work has therefore engaged nearly all our time, and there has been no opportunity to work off arrears. Besides the ordinary miscellaneous routine work of the office, the principal items are as follows: Seven survey districts have been drawn and forwarded to the Head Office for lithography—viz., Tennyson, Patriarch, Raglan, Leatham, Upcot, Kaitarau and Puhipuhi. As there are only nine more districts to complete, I expect that the whole of the Marlborough District will be lithographed during next year. Compilation of lithographs for the publication of a map of the Marlborough County is well in hand, about half of the county being completed. Seven plans for poster lithographs were drawn, comprising a total area of 240,431 acres. Twenty-eight ordinary and eighteen Land Transfer plans, showing an area of 380,297 acres, were examined and approved; 247 plans were placed on Crown grants and other instruments of title; and thirty-two plans (in duplicate) were drawn on certificates of title for the Land Transfer Department. An exhaustive report on the triangulation of the Marlborough Land District was compiled. A register of the whole of the public reserves in the district which have been permanently gazetted was prepared, and tracings and descriptions of all "paper" reserves requiring to be gazetted were forwarded to the Head Office. The whole of the coast-line, comprising about 670 miles, was plotted on the Admiralty charts from Departmental surveys, and a schedule furnished showing the latitudes and longitudes of coastal trig. stations.

C. W. Adams, Chief Surveyor.

WESTLAND.

Topographical Survey.—Under this heading is 44,750 acres of new country, by Messrs. Wilson, Muir, and Harrop, and pourtrays the mountainous districts comprising the head-waters of Crooked, Otahake, and Browning Rivers; it also embraces Mr. Douglas's explorations of the coastal lands immediately south of the Wataroa River. These several surveys fill up vague patches on our maps, and we are now enabled to furnish the public with complete and trustworthy information of these localities.

Rural and Suburban.—An area of 5,933 acres, comprising fifty-three sections, has been completed during the year, at a mean cost of 2·55s. per acre. This somewhat high average has been due to an exceptionally wet season, the heavily timbered nature of the country, and the isolation of the allotments. Messrs. Wilson and Muir cut up the Kokatahi Estate for settlement purposes, and completed the surveys of "spotting" sections in various districts. Mr. Harrop also made several surveys of small scattered holdings, and laid off a number of sections in the Kawhaka Valley for future public selection. Messrs. Falkiner, Morison, and Cunningham have been busily engaged in cutting up blocks for selection in the Toaroha, Waitaha, and Poerua districts; but as they have only been with us for a few months none of their work is completed, and is therefore not included in this return. My field inspections prove the faithful and skilful manner in which all the surveyors have carried out their work. I might add that we have had one of the wettest seasons on record, and much hindrance has been caused by the "picking-up" and adjustment of old defective surveys of adjoining sections.

Gold-mining Survey.—During the year 1,016 acres (thirteen special claims) has been surveyed by contract surveyors Macfarlane, Spence, Morison, and McCabe, who were nominated and paid by the applicants. The staff surveyors and Crown Lands Rangers have also made inspections and furnished the Wardens with reports on various mining applications.

Roads.—Mr. Muir completed surveys of a mile and three-quarters in connection with the roading of Kokatahi and Teremakau Settlements.

Other Work.—In connection with this the sum of £502 12s. was expended, and is made up as follows: W. Wilson—Repairs to trig. stations, £10 10s.; surveys, plans, reports, and inspection for Roads and Mines Departments, £249 18s. 2d. and £69 2s. 3d. A. G. Muir—Reports for Land Board, £2 15s. A. N. Harrop—Road survey for Mines Department, £56 14s. 8d.; repairs to trig. stations, £4 16s.; exploration and reports on lands, sick-leave, and general office-work during convalescence, £108 15s. 11d. In connection with the expenditure of this office, attention should be drawn to the amount which this small office recoups for work done for other Departments. The total amount repaid to us during the year totals £838 11s. 6d., and half of this is on behalf of the Roads Department—viz., one-quarter salary, &c., Chief Surveyor, nearly the whole of an assistant Surveyor's pay, and two-thirds of the Accountant's wages—as we take charge of the whole of their work in this district.

Proposed Operations, 1903–4.—In accordance with your instructions, the whole energies of the staff have been and will be used in opening up land for settlements; we must therefore postpone several important operations, such as standard surveys of Towns of Hokitika and Kumara, necessitous revision surveys, traverses of main roads, and final laying off of many reserves. Mr. Wilson will most probably be occupied with work on behalf of the Roads Department, and therefore, beyond making a few "spotting" surveys, his services will not be available. Mr. Falkiner will finish the two blocks at Waitaha, and, after laying off a village township there, will proceed with the survey of lands in the Wanganui district. Mr. Harrop, after completion of two blocks in Teremakau and Kawhaka Valleys, will overtake certain pressing section-work in Hohonu and Turiwhate districts. Mr. Morison will complete his present settlement-work at Poerua, and then cut up the lands on north bank of the Wataroa River, below the Ferry. Mr. Cunningham will be fully employed with his present blocks at Koi-te-rangi, and with the surveys of the Kokatahi Township and adjacent areas. Two additional surveyors will define allotments for sale in Towns of Hokitika, Kumara, and Greymouth; mark out lands in Grey Valley; and, if possible, attend to certain arrears of settlement surveys in South Westland. The surveys of numerous reserves which it is proposed to uplift during the year must also be attended to, and should the land surveys in connection with the State coal-mine near Cobden be controlled by this Department we will require more assistance.

Office-work.—Mr. Grant, Chief Draughtsman, notes that fifty-two surveyors' plans, with tabulations, were checked and approved; 430 miscellaneous tracings were made; 207 plans placed on titles, leases, &c.; 910 vouchers, with 563 cheques, put through; drawings, plans, and report on Westland triangulation; ditto with scenic reserves report; and elaborate chart of the coast-line for the Marine Department; 140 tracings of land dealings; forty-eight sale-plans for posters.

In conclusion, I would especially direct your attention to the zealous manner the Chief Draughtsman and other officers have worked while endeavouring to keep returns, &c., up to date, and to acknowledge the willing help they have at all times accorded me.

G. J. Roberts, Chief Surveyor.

CANTERBURY.

The settlement surveys completed and mapped during the year have been for the most part the subdivision of estates acquired under the Land for Settlements Acts.

Mr. Brodrick returns 2,956 acres of the Mead Settlement, 179 acres being a portion of the Waikakahi, and 5,140 acres of the Chamberlain Settlement; and, in addition to this, a few isolated surveys. Mr. McClure's returns of completed work embrace 3,181 acres of the Mead Settlement, 100 acres Kaimahi Settlement, and seventeen town sections at Hanmer Springs. He has com-

pleted the field-work of 5,359 acres of the Chamberlain Settlement, and 8,174 acres in the Oxford district, but the mapping not being finished in either case they do not appear in this year's returns.

Mr. Mathias, who was transferred to the Southland District in October last, completed 5,918 acres of the Lyndon No. 2 Settlement; and the work of Mr. Hunt, authorised surveyor, who was engaged for a few months to assist in the survey of the Chamberlain Settlement, comprised 9,584 acres, being part of the small-grazing-run portion of that settlement.

The total area of rural and suburban survey returned is 27,353 acres, at the moderate cost of 7¾d. an acre.

The cost of the survey of the seventeen town allotments at Hanmer Springs was at the rate of £2 1s. a section, this high rate being mainly due to the heavy travelling-expenses attendant on so small a job a long distance away.

The "other work," the cost of which is represented by £712 19s. 4d. in the table, is of a very varied character, and such as cannot be classified under the usual headings. The principal items are: Standard traverse, Timaru suburbs, £170; reporting on runs for the information of the Classification Commissioners, £102 9s. 4d.; reports on roads and damage in settlements, £26 9s. 2d.; inspection, £26 6s. 1d.; selection of suitable points for a scheme of major triangulation, and collecting information for my report to you on the condition of the twenty-five different series of minor triangulation in the district, and standard surveys, £115 2s.; reports on Native forests, £17 7s. 6d.; and incomplete surveys of coal leases abandoned by applicants, £57 5s. 11d.

Inspection of Surveys.—I had hoped to have been able to report that the surveys of every private surveyor doing Land Transfer work in the district had been inspected, but the great press of work, with a limited staff, has, to my regret, prevented the carrying-out of my intentions. However, six surveys by authorised surveyors have been checked, and with one exception the surveys have proved to be of the highest order, reflecting great credit on the members of the profession affected, and it gives me much pleasure thus to place it on record. For my own part, I have visited surveyors at their camps on eight different occasions, consulting with them, and arranging details of the work they had in hand.

Work in Hand.—Mr. Brodrick has four miles and a quarter of standard traverse survey of the Timaru suburbs and one mile and an eighth road survey, the mapping of which has yet to be done; and Mr. McClure has 13,533 acres of sectional survey, and some standard survey of the Christchurch suburbs complete in the field, in the same condition.

Land Transfer Work.—Mr. J. W. Davis, Land Transfer Draughtsman, reports that 311 plans have been examined and passed, 1,573 deeds and other documents passed, and 3,681 diagrams drawn on certificates of title, besides 203 tracings made for the Land-tax Department. There has been a very considerable increase of work over previous years—for example, 14 per cent. increase in the number of plans checked and passed, 47 per cent. increase in number of instruments dealt with, and 19 per cent. in the number of plans drawn on parchment certificates of title by Mr. Davis and assistant, and with no extra assistance except that of a cadet for eight months of the year. In addition to the Land Transfer work, Mr. Davis and his two assistants have the checking of surveyors' plans of roads to be taken and closed under the Public Works and Land Acts.

Office-work.—Mr. C. B. Shanks, Chief Draughtsman, reports as follows: During the year there were thirty-eight plans received—seventeen from private surveyors, and twenty-one from the staff surveyors; the former delineating road-deviations and parcels of land required for gravel and other purposes, and lands taken by Proclamation for railway purposes; the latter, plans of settlements, standard traverse, town, and miscellaneous surveys; which have all been checked and passed. The most important and urgent mapping-work done was the compilation and drawing of plans for reproduction by photo-lithography of the Chamberlain and Mead Settlements. Other plans prepared for publication were those of Reserves 100 and 1,486, at the mouth of the Rangitata River; the Hanmer Springs Township, showing the recent and former surveys; small allotments in the Waikakahi Settlement, being the subdivisions of the original Sections 1 and 2, Block III., Waitaki district; and plan of Rural Sections Nos. 36611 and 36645. Thirty tracings were prepared on the 40-chain scale, illustrating the topography and boundaries of pastoral runs, for the use of the surveyors whilst inspecting, and to locate the position of the improvements thereon, which enabled us to amend and correct the original photo-lithographic tracings of the runs prior to republication. Other draughting-work was the completion of the tourist map of the Mount Cook country and the preparation of tracings of parts of the Levels, Geraldine, and Waimate Counties; to undertake this work, the Otaio district map, partly completed, and the Waitaki district, well advanced, were put aside. Miscellaneous mapping comprised additions to trig. index plan, and the construction of the Amuri index trig. map; amending, correcting, and bringing up to date the county, selection, and other compiled maps; and the making of a large number of working-tracings for the surveyors, besides illustrative tracings and lithos required for land inspections, returns, and correspondence. Plans were placed on 1,118 lease-deeds, 555 of which were done in the office, and the balance by contract, which was found necessary owing to the difficulty of keeping the current and urgent work well in hand with the limited staff of draughtsmen. The deeds comprised 180 leases in perpetuity, three occupation with right of purchase, eight small grazing-runs, five mining and timber-splitting licenses, and 166 miscellaneous leases and licenses, done in duplicate, triplicate, or quadruplicate as required, making a total of 357 leases prepared and issued, and thirty-six single copies of back leases for the Head Office. The arrears are fifty-nine, of which number twenty are written, and the balance are all very recently granted leases, the majority being of the Chamberlain Settlement balloted for on the 14th March last. Plans were also placed on the original copies of eighty-six certificates of title, and on two Crown grants (one original done in triplicate, and the other in duplicate), being an indorsed grant amending the area in accordance with a revised survey, all copies having engrossed descrip-

Map of the Mt Cook Dist

Shewing the Hermitage Accommodation House mountain ranges, glaciers, tracks, reserves etc.

T. N. Brodrick Dist Surveyor.

J. W. A. MARCHANT, Surveyor-General

Scale of miles — 0 1 2 3 4

W A Seyche del

Thos. Humphries Dist Surveyor Christchurch

RUN 89
Glentanner Station
A.G.D. Acland, Lessee

Head Office Department of Lands and Survey Wellington N.Z. P.W. Flanagan Dist Draughtsman

By Authority John Mackay, Government Printer.

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tions of the lands granted. Further information was placed on several of the record-maps, and seventy-one Crown grants and 116 certificates of title recorded thereon. Tracings of four deposit-plans and 149 tracings delineating 172 transfer dealings were made for the Valuation Department prior to September, when the duty of preparing such was again handed over to the Transfer branch of the Department, owing to pressure of work in this office.

Proposals for the Ensuing Season.—The subdivision of 32,726 acres of the Highfield Estate lately purchased is just commenced; and it is anticipated that early in the spring the survey of the Levels Estate, arrangements for the purchase of which have just been concluded, will be taken in hand: for this survey at least two additional surveyors will be required. There are other surveys needed, such as resurveys of sections in the Horndon, Chertsey, and other townships lately sold; and some 20,000 acres of rural work, which, however, is not particularly urgent; besides the standard surveys in the suburbs of Christchurch and Timaru, which, in the interests of the Land Transfer Department, the private surveyors, and the landowners, should be undertaken with as little delay as possible, but which it is impossible to do with our limited field staff and the amount of pressing work there is in hand and in view.

Staff Changes.—On the 1st October last Mr. Mathias, District Surveyor, was transferred to the Southland District; and on the same date Mr. Freeman, who, on the 20th August preceding, was temporarily transferred to the magnetic observatory to assist Dr. Farr, resigned to join a private surveyor with a view to qualifying for field duties. Mr. Cullen, Commissioner's clerk, was temporarily transferred to the Taranaki District on the 21st July, 1902, to fulfil the duties of Receiver of Land Revenue; he resumed duty here on the 12th September. Mr. F. M. B. Fisher, temporary clerk, resigned and left the service on the 31st January last.

THOS. HUMPHRIES, Chief Surveyor.

OTAGO.

Triangulation.—Mr. Neill reports that during the past year "practically no progress was made with the revision of the triangulation around Dunedin. A few of the trig. stations were rebuilt and repaired, and on Mihiwaka and Harbour Cone permanent trig. signals were erected." The cost of survey to date is £118 7s. 7d.

Rural and Suburban.—The return under this heading for the past year amounts to 22,000 acres, surveyed into 123 sections, at an average cost of 1·25s. per acre. Mr. District Surveyor Calder returns the largest proportion of this, his main item being the subdivision of the Highfield Run into ten small grazing-runs, the balance being survey of Duncan Settlement and some small isolated sections in different districts. Mr. District Surveyor Wilmot's return of 3,079 acres includes subdivision of part of Windsor Park Settlement, the balance being made up of "spotting" surveys scattered from Queenstown to Waipori. Mr. Neill's area consisted of the subdivision of Windsor Park No. 2, and part of the first portion purchased of the same estate.

Town Section Survey.—Only four sections in the Town of Naseby were surveyed during the year for different applicants, at a cost of £2 10s. per section. The work was done by Mr. Calder.

Gold-mining Surveys.—Fifty-six sections, having an area of 2,056 acres, were surveyed during the year. Of this, three sections, totalling 215 acres, were surveyed by District Surveyor Wilmot at a cost of 4·41s. per acre. The rest of the work—namely, fifty-three sections, having an area of 1,841 acres—was all done by private surveyors at an average cost of 4·79s. per acre.

Roads and Run Boundary.—Mr. Calder returns two small road surveys in Gimmerburn and St. Bathan's districts, and also defined the boundary between Runs 51 and 51B in Tuapeka East district. The work was done at a cost of £7 19s. per mile.

Native Land Court Survey.—The work returned under this head was the revision of the Papanui Reserve, which was commenced by Mr. Langmuir and continued by Mr. Neill. The area surveyed and mapped is 2,009 acres, at a cost of 3·09s. per acre. The field-work is complete of about 4,840 acres of the Otakou Native Reserve, but the plans are in an unfinished state. The whole of this work was more or less in bush country.

Other Work.—The total expenditure under this head amounts to £907 16s. 10d., of which the greater proportion is the cost of uncompleted surveys. Of Mr. Wilmot's return of £244 5s. 6d., £176 is the cost of field-work completed but not sent in, the balance being for various services, such as making inspections and reports for the Warden, reproducing boundaries, refixing and repairing trigs., valuing improvements, laying off Queenstown Hill track, and office-work. Mr. Calder returns £213 11s. 7d., of which £143 14s. is charged to the unfinished survey of Run 226, St. Bathan's district, the balance being for inspections and reports for the Land Board, attending on solicitors and general public, work for the Mines Department, and making duplicate plans for the Naseby office and keeping the office records. Mr. Neill returns £449 19s. 9d., of which £5 14s. 9d. was the cost of visiting the ground and reporting on road through rifle-range reserve in the Town of Oamaru; the balance, £444 5s., is the cost of unfinished surveys, the field-work of Otakou Native Reserve, and the subdivision of Patearoa Run.

Land Transfer.—The work done under the Land Transfer Act for the past year shows an increase on that done for the previous year. Seventy-eight plans were received for deposit, and checked, recorded, and approved. Besides these, the undermentioned applications, transfers, mortgages, certificates, &c., were dealt with: Seventy applications to bring land under the Land Transfer Act, 1,738 transfers, 1,104 mortgages, 182 leases, eighty-two caveats, 270 transmissions, and 609 new certificates (in duplicate).

Office-work.—In addition to the ordinary routine duties of recording new surveys, keeping run, road, Land Office, and county maps up to date, preparing new road-closing plans, supplying land valuation and head offices with tracings, computations of areas, &c., the following items seem

to call for special mention: Two district maps of Blackstone and Gimmerburn, and an up-to-date map of Oamaru Town were drawn for photo-lithography, also maps of Windsor Park Settlements Nos. 1 and 2. The following were drawn on transfer-paper, namely: Duncan Settlement and Town of Manuherikia. Besides the usual photos in connection with the above settlements, photos were also taken of Otakou Native Reserve and of Neill's "quadrupod" for permanent trig. signals. Compiled tracings were prepared on the 40-chain scale for publication on the mile scale of the following survey districts, namely: Logan, Idaburn, Maniototo, Serpentine, Long Valley, Manorside, Upper Taieriside, Kyeburn, St. Bathan's, Turnagain, Hedgehope, St. Abb's, parts of Rock and Pillar, Cluden, and Lauder. These comprise the whole of the Maniototo County. The following districts are now under way, and comprise the unpublished portion of Waitaki County, namely: Domet, Mount Buster, Otamatakau, Gala, Benmore, Ohau River, Ohau Lake, Ahuriri, Hawkdun, Longslip, and Longslipside. It is intended to extend this class of work to include the whole of the Otago Land District not already published on the mile scale. There is also being prepared a new map of the Tuapeka County showing tenures, &c. Tracing of the 5-chain plan of Dunedin and suburbs was completed, and forwarded to the Head Office to be published in several colours. The importance of this map will be appreciated for general purposes when the amalgamation of the surrounding boroughs into a Greater Dunedin is effected. The city and suburban boroughs are now moving in this direction. 183 plans of various kinds were received from the staff and private surveyors, and examined, approved, and recorded on Crown-grant, county, and Land Office maps. The number of Crown grants, certificates of title, and other instruments of title prepared during the year were 214 in duplicate, 984 in triplicate; total 1,198.

Printing.—Town of Manuherikia was transferred to stone, and 250 copies pulled; also 250 protractors, 250 abstract forms, 100 tidal forms, 200 monthly schedules, 100 weather reports, and seventy-five settlers' guide posters. Record-maps were repaired and folios properly bound. Forty-three maps were mounted for the Valuation Department, twenty-eight for the Roads, thirty-three for Rangers, and 524 for the Lands and Survey.

Proposed Operations for the Year 1903–4.—The work for the year may be approximately detailed as follows: District Surveyor Wilmot will complete a small settlement block at Tapanui upon which he is now engaged. Afterwards he will proceed with the subdivision of St. Helen's Estate acquired under the Land for Settlements Act, subsequently a block of land taken from Matakanui Run for subdivision under the Mining Districts Land Occupation Act; and also a considerable area reserved for close settlement from Moutere Run will be taken in hand by him, and these, with the numerous "spotting" areas throughout the district, will occupy his attention for the year. District Surveyor Calder is now engaged on and will complete the subdivision of Keenan's Run; this block is being surveyed into areas for disposal under lease-in-perpetuity and pastoral tenures. After the completion of this work he will assist in the survey of Patearoa Run, and will also carry out the various classes of mining and other surveys in his district. District Surveyor Neill has been since the middle of February subdividing the pastoral portion of Patearoa Run, and will continue this and the small grazing-run and smaller areas until completion. This, with the (in that district) necessary interruption of at least two months on account of snow and frost, will occupy him the greater part of the year.

The following is a list of the larger blocks to be surveyed, with approximate areas: Patearoa, 60,000 acres; Keenan's Run, 13,000 acres; part of Moutere, 12,000 acres; Matakanui, 2,000 acres; Tapanui, 1,000 acres. From the above it will be seen that the three staff surveyors will be fully employed for the year, so that should any estates be acquired under the Land for Settlements Act, it might become necessary to postpone some of the surveys above referred to.

D. Barron, Chief Surveyor.

SOUTHLAND.

Minor Triangulation and Topography.—No work under this heading has been undertaken or executed in this land district during the year, but, as directed, I have had all the triangulations thoroughly examined, and forwarded an exhaustive report, accompanied by map and diagrams. This important work I intrusted to Mr. District Surveyor Mathias, who has gone very thoroughly and carefully into the whole matter.

Rural and Suburban.—The total area surveyed during the year was 9,373 acres, comprising thirty-one sections, at an average cost of 1·63s. per acre. Nearly the whole of the country covered by these surveys is dense forest. Of this area 2,955 acres represents Mr. Hodgkinson's surveys in Blocks XVII. and XIX., Longwood, ten sections, at a cost of £406 7s. 7d., or 2·7s. per acre. Mr. Lilliecrona completed the plans of 3,605 acres in Blocks I. and V., Rowallan, adjoining his landless Natives survey, and, as he had finished the particular work for which he was engaged, he severed his connection with the Department, and is now in South Africa. Mr. Otway, who has also been engaged during the year on a survey of a block of land in the Waitutu district for landless Natives, has completed the field-work of 116 sections, embracing an area of about 31,000 acres, at a cost for the year of £896 10s. 8d. During the year the surveyors have experienced exceptionally wet weather, which has been very trying to themselves, causing considerable loss of time and retarding generally the progress of their work.

Gold-mining Surveys.—Six sections are returned under this heading, of a total area of 292 acres, at a cost of £87 13s., or 6s. per acre. These were done by private surveyors under the "fee system." One of the sections, 4 acres, was a coal-lease area.

Land Transfer.—Sixty-nine plans, embracing an area of 25,064 acres, were examined and passed. Marginal plans were placed on thirty-four certificates of title in triplicate, and 457 in duplicate.

Other Work.—The expenditure under this head represents the following: Report by Mr. Mathias on the triangulation, sketch and report and attendance at Court in the matter of the ejectment of undesirable Chinese at Round Hill, and the cost of the uncompleted work of Messrs. Hodgkinson and Otway in Waiau and Waitutu districts respectively.

Proposed Operations for 1903–4.—Messrs. Mathias and Hodgkinson will continue their surveys of Blocks XIII. and XIV., Waiau district. These surveys are being executed on provisional methods, so as to enable the land to be placed in the market at the earliest possible date, the pegging and actual survey of the sections being left until afterwards. Mr. Otway will complete the mapping in connection with his landless Natives' survey of 31,000 acres in Waitutu district; but as this work may not be considered so important as the actual settlement surveys, I will possibly put Mr. Otway to take up and complete Mr. Hodgkinson's work, as I am sorry to say it has been found necessary owing to ill health to grant him leave of absence. When the present settlement surveys which are in hand are completed, I have a number of small isolated surveys which will be acted on; and when the fine weather sets in it is my intention to detail one of the staff surveyors to take levels over Seaward Moss in Campbelltown Hundred, covering an area of about 14,000 acres, and have it thoroughly examined and reported on, to see whether or not the block is suitable for settlement, and whether it is possible to drain the land if other conditions are favourable. Then I might also have two blocks in Stewart Island explored and minutely examined. These proposals, I anticipate, will keep my staff fully employed.

Office-work.—During the year fifty-three plans have been received from surveyors, embracing an area of 11,704 acres, and with one exception have been examined and passed. Lithographic drawings were made of the Borough of Gore, and Te Anau, Wyndham, Mararoa, and Manapouri Survey Districts. As a result of the extension of the triangulation westwards, a good deal of topographical information was obtained, and I therefore had a litho. drawing made of Alton, Rowallan, Waitutu, Hakapoua, and Preservation districts. This information has been published on a scale of two miles to the inch, and should be useful for tourist and other purposes. A standard (mile to the inch) drawing has been made of Preservation district. In consequence of certain additions to the Borough of Invercargill a new map has been published, also a lithograph map of the Borough of Gore, both of which appear to be much appreciated. Three new Crown-grant record-maps (two rural and one town) were constructed, and a large number of additions made to existing ones. A new wall-map of the south-eastern portion of the district was completed, and also three new application-maps. Sixty-five lithographic tracings for sale-maps and 115 other tracings were made, besides 102 tracings of Land Transfer deposited plans for the Valuer-General. The number of maps mounted was 173.

For some time past we have been without the services of two of the draughtsmen, Mr. Treseder having been transferred to the Roads Department in October last, and Mr. Deverell having been attached to the Tourist Department since 1st January. This latter transfer is, however, only a temporary one.

As mentioned in my report of last year, I have had the preparation of Land Transfer record-maps in view, but have not yet been able to make a start on this most important work, on account of pressure of other work. However, I intend to put them in hand shortly, as I find that the services of the draughtsman usually employed on lithographic work will be available. I am pleased to say that, with the exception of a few of the more remote survey districts, all have been lithographed on the mile-to-an-inch scale, the lithographs being most useful and much appreciated by the public. As Mr. Deverell will shortly be available, I intend to utilise his services as much as possible in preparing and bringing up to date as many record-maps showing all tenures as circumstances will permit. This is an important matter, and, I am sorry to say, owing to pressure of other work and shortage of draughtsmen, I have not been able to accomplish as much during this year as I had anticipated.

I am pleased to again place on record my thanks to all officers under my control for the willing and ready assistance accorded me throughout the past year.

JOHN HAY, Chief Surveyor.

APPENDIX III.

REPORT ON VILLAGE SETTLEMENTS.

During the year ending the 31st March last 51 sections, with an area of 1,825 acres, were taken up under village-homestead regulations, and 31 sections, with an area of 654 acres, under other tenure.

For the same period 25 sections, with an area of 886 acres, were forfeited or surrendered under village-homestead regulations, and 18 sections, with an area of 386 acres, under other tenure.

The total number of settlers under all systems on the 31st March last was 2,021, holding an area of 42,653 acres, an average of 20 acres 3 roods 27 perches each. The annual rent and interest on advances was £6,562. The amount actually paid during the year was £6,632 12s. 2d.

The position of village settlements is classified as under :—

Number of Settlers.

	Resident.	Non-resident.	Total.
Under village-homestead regulations	975	471	1,446
Under other tenure	338	237	575
Totals	1,313	708	2,021
In the North Island	610	269	879
In the Middle Island...	703	439	1,142
Totals	1,313	708	2,021

Area held on the 31st March, 1903.

	A.	R.	P.
Under village-homestead regulations	31,008	2	3
Under other tenure	11,644	3	15
Total	42,653	1	18
In the North Island	18,916	1	7
In the Middle Island	23,737	0	11
Total	42,653	1	18

Annual Rent and Interest.

	£	s.	d.
Under village-homestead regulations	5,087	2	10
Under other tenure	1,475	12	8
Total	£6,562	15	6
In the North Island	2,787	1	4
In the Middle Island	3,775	14	2
Totals	£6,562	15	6

Sections taken up during the Year.

	Number.	Area. A.	R.	P.	Rent. £	s.	d.
Under village-homestead regulations	51	1,825	0	37	471	2	10
Under other tenure	31	654	2	34	59	13	2
Totals	82	2,479	3	31	530	16	0
In the North Island	54	2,010	2	7	479	3	8
In the Middle Island	28	469	1	24	51	12	4
Totals	82	2,479	3	31	530	16	0

Forfeitures and Surrenders during the Year.

	Number.	Area. A.	R.	P.	Rent and Interest. £	s.	d.
Under village-homestead regulations	25	886	2	0	80	14	11
Under other tenure	18	385	3	17	28	6	8
Totals	43	1,272	1	17	109	1	7
In the North Island	20	710	3	25	67	10	9
In the Middle Island	23	561	1	32	41	10	10
Totals	43	1,272	1	17	109	1	7

Amount advanced for Houses, Bushfelling, &c.

	Houses. £ s. d.	Bushfelling. £ s. d.	Total. £ s. d.
Under village-homestead regulations ...	9,084 5 0	6,030 10 4	15,114 15 4
Under other tenure	Nil.	Nil.	Nil.
Totals	£9,084 5 0	£6,030 10 4	£15,114 15 4
In the North Island	4,482 0 0	5,221 13 2	9,703 13 2
In the Middle Island	4,602 5 0	808 17 2	5,411 2 2
Totals	£9,084 5 0	£6,030 10 4	£15,114 15 4

Repayment of Above Advances.

	£ s. d.	£ s. d.
In the North Island	2,856 15 5	
In the Middle Island	1,059 13 9	
		3,916 9 2
Remaining unpaid		11,198 6 2
Total		£15,114 15 4

Amount received for Rent and Interest during the Year.

	Rent. £ s. d.	Interest. £ s. d.	Total. £ s. d.
Under village-homestead regulations	4,338 11 3	581 13 10	4,920 5 1
Under other tenure	1,712 7 1	Nil.	1,712 7 1
Totals	£6,050 18 4	£581 13 10	£6,632 12 2
In the North Island	2,315 1 7	363 5 10	2,678 7 5
In the Middle Island	3,735 16 9	218 8 0	3,954 4 9
Totals	£6,050 18 4	£581 13 10	£6,632 12 2

The total amount received as rent and interest in connection with village-homestead settlements from the commencement of the system to the 31st March last was as under:—

	Rent. £ s. d.	Interest. £ s. d.	Total. £ s. d.
In the North Island	15,894 3 6	6,791 12 8	22,685 16 2
In the Middle Island	27,295 18 5	3,312 13 0	30,608 11 5
Totals.	£43,190 1 11	£10,104 5 8	£53,294 7 7

Arrears of Rent and Interest on the 31st March.

	Number.	Area. A. R. P.	Rent. £ s. d.	Interest. £ s. d.	Total. £ s. d.
Under village-homestead regulations	89	1,836 3 4	216 12 3	146 11 10	363 4 1
Under other tenure	42	1,322 2 36	150 14 11	...	150 14 11
Totals	131	3,159 2 0	367 7 2	146 11 10	513 19 0
In the North Island	89	2,129 1 39	279 9 11	139 15 0	419 4 11
In the Middle Island	42	1,030 0 1	87 17 3	6 16 10	94 14 1
Totals	131	3,159 2 0	367 7 2	146 11 10	513 19 0

Value of Improvements on the Land.

	£ s. d.
Under village-homestead regulations	144,191 0 0
Under other tenure	23,850 0 0
	£168,041 0 0
In the North Island	80,477 0 0
In the Middle Island	87,564 0 0
Total	£168,041 0 0

With such good financial results as indicated in this report it seems a matter for regret that the system of village settlements cannot be extended throughout the colony, more especially as there are so many suitable men anxious to take up good land in moderate holdings.

J. E. March,
Superintendent of Village Settlements.

APPENDIX IV.—FORESTRY OPERATIONS.

REPORT BY HENRY J. MATTHEWS, CHIEF FORESTER.

In submitting the seventh annual report in connection with the State Forest Branch, I have to express my thanks to the Nurserymen in Charge, Foresters, and Assistant Foresters for the able manner in which they have carried out their duties during the year. The measure of success attained is chiefly due to the zeal and industry displayed by the officers in charge of the various stations.

The output of trees from the nurseries during the year amounts to 1,454,914, valued at £5,777 10s.; and the number raised in the nurseries and plantations is 3,936,107. The total number of trees raised in nurseries and plantations to date is 11,649,423, and the number at present in nurseries is 7,394,205, valued at £12,151 6s. 0d.

The number of trees and area planted during the year at each plantation is—Dusky Hill, 806,238 trees, 296 acres; Naseby Survey Paddock, 81,125 trees, 29¾ acres; Hanmer Springs, 97,400 trees, 28¼ acres; Whakarewarewa, 207,933 trees, 88¾ acres; Waiotapu, 376,184 trees, 177 acres: total, 619¾ acres, containing 1,568,880 trees. Total number of trees planted to date, 2,908,156; and total area planted to date, 1,438½ acres.

Trees and shrubs to the number of 105,233 have been supplied to other Departments and local bodies during the year, representing a value of £784 8s. 10d.

The expenditure for the year amounted to £9,329 2s. 9d., and the total expenditure to date is £37,690 14s. 3d. Against this sum, trees in stock, tools, buildings, &c., and value of all improvements made, show a total of £57,513 16s. 0d.

Digging pits, per thousand, for trees cost £1 5s. 9d. at Dusky Hill Plantation, £1 2s. 6d. at Naseby Survey Paddock Plantation, £1 12s. 4½d. at Hanmer Springs Plantation, and 14s. 6d. at Whakarewarewa Plantation. Tree-planting cost £1 5s. 1d. at Dusky Hill, 19s. 7d. at Naseby Survey Paddock, 16s. 6d. at Hanmer Springs, and 12s. 6d. at Whakarewarewa.

There has been a very small percentage of loss in transplanting trees from seed-beds to nursery-lines—barely 2 per cent.—and in transplanting trees from nurseries to plantations the loss is under 2½ per cent.

Lining out trees at the nurseries cost 7s. 1½d. at Eweburn, 4s. 9d. at Tapanui, 6s. 2d. at Hanmer, 8s. 10d. at Starborough, and 3s. 4d. at Rotorua, all at per thousand.

Tree-seeds germinated fairly well at all stations, the poorest results being (as is usual) with *Sequoia sempervirens*, and the best results with *Abies Douglasii*, *Abies excelsa*, *Catalpa speciosa*, and oaks. There has been no loss amongst the seedling trees through the disease known as "damping off," but a small number of spruce fir were destroyed by the grass-grub at Tapanui Nursery.

The lowest readings of the thermometer were—at Eweburn, 16°, or 16° of frost; Tapanui, 22°, or 10° of frost; Starborough, 30°, or 2° of frost; Rotorua, 24°, or 8° of frost; Waiotapu, 17°, or 15° of frost. The maximum temperatures recorded were—Eweburn, 78°; Tapanui, 96°; Starborough, 94°; Rotorua, 84°; Waiotapu, 90°.

The rainfall for the year amounted to—19·58 in. on 85 days at Eweburn, 48·32 in. on 173 days at Tapanui, 21·13 in. on 85 days at Starborough, 46·74 in. on 108 days at Rotorua, and 43·88 in. on 127 days at Waiotapu.

Tree-planting by prison labour continues to be satisfactory, as will be seen from the report in connection with the Waiotapu Plantation. Some provision, however, seems desirable for Forest officers supervising this class of labour to be authorised to issue orders direct to the men in place of through prison officials in accordance with the Prisons Act. The difficulty is at present got over by appointing a Forester as an officer of the Prisons Department, but this arrangement is not altogether satisfactory, by reason of divided authority in issuing instructions. The words "or any officer of the Forest Department" inserted in the clause dealing with this subject in the Prisons Act would meet the case. Arrangements are in progress to employ prison labour in connection with the nursery and plantation at Hanmer Springs, where some twenty-five men will be sent on the 1st August. It is also proposed to commence operations by prison labour at Dumgree Plantation, Starborough, South Marlborough, at an early date. A start has already been made in planting a portion of Somes Island, in Wellington Harbour, where some fifteen prisoners are now employed. No suitable land has yet been selected in Wellington District for the establishment of a nursery and plantation to be worked entirely by prison labour. Inquiries are, however, being continued with this object in view.

A new plantation-area of 1,050 acres has been taken in hand in South Otago, and some preliminary work undertaken. This plantation, known as "Conical Hills Plantation," is situated within a few chains of the railway-siding of that name, and about ten miles south of Tapanui. The land is gently undulating to moderately steep, with deep sheltered gullies running east and west. The soil is rather poor in places, though moderately rich along the river, which forms a natural boundary of some four miles in length. Rabbits were until lately very plentiful, but constant trapping, ferreting, and poisoning have thinned them out considerably. For the most part the land is covered with tussock, and dwarf scrub and flax is confined to the slopes towards the south. A useful four-roomed cottage and outbuildings are on the property, as well as an excellent shelter-break of *Pinus insignis*. As Dusky Hill Plantation will be filled up early this season, attention will then be given to this plantation, where it is proposed to plant about a quarter of a million trees during the present year.

Some planting has been done for the Mines Department on the land surrounding the Eweburn Reservoir, Maniototo; but the results are not altogether satisfactory, owing to rabbits being allowed to enter since our connection therewith terminated.

For the purpose of testing the growth of catalpa, sugar-maple, blackwood, and the more valuable eucalypti, such as jarrah, ironbark, and spotted gum, a block of 69 acres has been acquired from the Railway Department at Ruatangata, some four miles north of Whangarei. Twenty-seven acres of this is at present being cleared with the object of forming a nursery later on, while the remainder will be utilised as an experimental ground. Amongst other useful trees to be put on their trial here are cork-oak (*Quercus suber*), totara (*Podocarpus totara*), and purriri (*Vitex littoralis*), and possibly a few more of our most valuable native timber trees.

It is probable that another small area in the Pupipuhi Block will be set aside as an experimental station for the class of trees above mentioned. Here there are some 10,000 acres of forest reserve at present leased for grazing purposes which can be resumed as required, when the varieties of trees found most suitable for extensive artificial planting are determined.

Nurserymen's cottages and office accommodation are urgently required at Tapanui, Starborough, and Rotorua, and premises for workmen's living-apartments are necessary at all nurseries.

Work-sheds for sizing, counting, and bundling trees should be provided at the four nurseries before next winter, as this work can be more successfully carried on during weather unfit for outdoor labour.

As mentioned in last year's report, the outline of a scheme for more vigorous conservation of our remaining forests and extending planting operations has been prepared and submitted for approval. Suggestions have also been made for the control of scenic, climatic, and other reserves, many of which are at present being destroyed by stock and fire, which necessarily imply man. The necessity for prolonging the present volume of our timber-trade should be a sufficient reason for a more rigorous, rational, and economical system of forest-conservation, as artificial plantations now being made cannot be expected to yield mature timber for ordinary sawmilling purposes in less than sixty and possibly eighty years, a period far beyond that when our native forest will become exhausted—except, probably, for inferior classes of timber.

The preservation of natural scenery is of little less importance than forest-conservation if our colony is to maintain (far less increase) its growing popularity as a tourist resort, and yet practically nothing is being done to prevent the destruction of our beauty-spots, which suffer more or less annually through the ravages of stock and fire. Some provision seems desirable to enable the Crown to acquire (or have permanently set apart) picturesque spots on Native lands in the hands of Maori Councils now being dealt with for settlement. At present one of the finest pieces of bush scenery in the colony is threatened with total destruction through the Native owners selling the timber to a sawmilling company. The locality referred to is Matawhaura Bluff and the famous Hongi's Tract, between Lakes Rotoiti and Rotoehu.

In regard to climatic reserves and catchment-areas, there is, perhaps, no more important question that so profoundly affects our material welfare and future prosperity as that of a pure, copious, and enduring water-supply for domestic and industrial purposes. Any conditions which result in impairing the supply must be viewed with apprehension, and the one and only remedy is conservation of forest-clad areas. The diminution and threatened extinction of forests can only result disastrously to our towns—fatally to our commercial prosperity. A step in advance has, however, been decided on in regard to extending tree-planting operations. In place of producing the present annual output of two million trees from the four nurseries, arrangements have been made to increase the number to five million, and seeds estimated to grow that quantity have already been ordered. In the meantime the extra number will be raised at Rotorua Nursery, with the object of utilising the present unremunerative areas of pumice lands for planting purposes. With this object in view, a block of some 2,000 acres has been selected at Waiotapu, immediately adjoining the present prison-camp plantations. This land will be fenced by prison labour during the year.

As the Crown lands of the colony are being rapidly taken up for settlement, the question of reserving large areas for planting purposes is apt to be overlooked, but the matter deserves urgent and careful consideration. Legislation may be desirable to enable the Crown to acquire suitable blocks of private lands or to utilise portions of estates resumed for settlement for the purpose of making plantations in close proximity to farming districts, not only to provide timber for the use of settlers, but to act as shelter for agricultural areas, the benefits of which are too well known to require further comment.

Instructions have been received to prepare a "Treatise on Forestry" for the use of settlers, which work is well in hand, although frequent interruptions by ordinary duties are not conducive to satisfactory results. This production is intended to supply authentic information on the raising of trees either from seeds or cuttings, suggestions and instructions to would-be planters as to suitable trees for planting on different soils and in varying climates, also lists of desirable trees for shelter, timber purposes, and ornament. The work will be fully illustrated with some of the principal shelter and timber trees, as well as photographs of seed-beds showing the different stages from sowing to planting.

The esteem and popularity in which this branch of the Department is held, and the general interest it has aroused throughout the colony, is evidenced by the increasing number of visitors to the nurseries, and the voluminous correspondence which has grown up therewith during the seven years of its existence.

The reports which follow, on the nurseries and plantations, it will be observed, are by the officers in charge of various stations, this system being deemed preferable to brief summaries as heretofore.

Details of expenditure, values, trees, &c., from 1896 to date, are appended.

EWEBURN NURSERY, OTAGO.

THE past year's rainfall (19·58 in.) is the heaviest recorded since the commencement of the nursery. The lowest fall was in 1889–90 (13·42 in.).

Only 78° has been registered as the maximum heat, and the lowest (16°), on the 25th August. The thermometer fell below freezing-point on no less than 205 nights throughout the year, as against 166 nights for the preceding year.

Exceedingly cold sunless weather has been experienced throughout the year, consequently the general growth of nursery stock is not up to the average. Seedling trees and larch have been very backward, and are barely of sufficient size to prevent their being thrown out of the ground by the coming winter frosts, although a thin coating of straw will be spread over the seed-beds. *Pinus Austriaca* has not germinated so well as usual, consequent on the partial failure of this seed-crop in Europe last year. When the seedlings are weakly, and a sunless summer follows, considerable numbers "damp off" during the warm weather. *Pinus ponderosa* germinated well, and have since made fine sturdy plants.

The following species of trees were sown for experimental purposes, and the results to date are placed on record: *Pinus Canariensis* has done exceedingly well so far, but as it is not quite hardy its suitability for this rigorous climate cannot be decided until the winter is over. It, however, surpasses any other variety here for quick growth, and makes good straight plants. *Pinus Sabiniana* has not done well. It is a very hard seed, and all have not germinated. It is of much the same habit as *Pinus Benthamiana*, and if as hardy as that species should do very well here. *Pinus excelsa* has done very poorly, and does not seem to be a variety suited to poor dry soil. *Pinus rigida* has done fairly well, but until it has stood a winter little can be said for or against it. *Pinus Halepensis* has done very well, and seems to be a variety easily grown and vigorous. *Robinia pseudo-acacia* has grown about 10 in. high, and it should make a very good tree for growing on "salty patches," so prevalent here. *Eucalyptus coriacea* has done fairly well, having made good growth, and so far the recent frosts have not affected it.

Seed-sowing commenced on the 25th October, and as the weather was broken it was not completed till the 12th November. The date of sowing was somewhat later than last year, owing to the unfavourable season then experienced.

Two- and Three-year-old Trees.—Pinus Austriaca still remain on seed-beds, and have made splendid growth. It is intended to line these out instead of "lining in" close as heretofore. Some sown somewhat earlier were lined in close, but these have not done well, as the weather at the time was unfavourable for planting, which caused an unusually high percentage of loss. *Pinus ponderosa* is still on seed-beds, and has done very well. It is intended to send the strongest direct to the plantation. A large number have made from 6 in. to 8 in. growth this season. *Pinus Benthamiana* has also done well, and is still on seed-beds. As a rule this tree does well here, but is difficult to transplant. Last year 2,000 were sent direct to the plantation, and they have with one or two exceptions made good progress. A similar experiment will be carried out this next season. Larch has also done well this year—in fact, it is the most even crop raised of this species. As a rule they lose their leaders and are inclined to spread, but are more upright this season. Rowans have as usual done well, and have made about 15 in. of growth.

The work of lifting trees for Survey Paddock Plantation was commenced on the 1st August, and completed on the 30th October. The number of trees lifted and sent to the Survey Paddock Plantation was 81,125.

The weather experienced during transplanting was very cold and frosty for a time, and the ground being wet made it much harder to work. In all 132,308 trees were lined out, 203,560 trees were also lined in close. The cost of lining in trees was 5s. 3½d., and the cost of lining out 7s. 2½d. per thousand. These figures include lifting, sizing, and puddling.

The number of trees of all ages to date in the nursery amounts to 964,671, and the number of trees grown at nursery since the commencement is 1,463,811, the value of same being £2,261 18s. 9d.

The number of trees sent out from the nursery during the season was 120,947, supplied to the following places: Survey Paddock Plantation, 81,125; Tapanui Nursery, 14,500; Eweburn Reservoir, 24,722; Stock Department, Waipiata, 200; and Kokonga School, 400. The number of trees sent out to plantations, &c., since commencement of operations amounts to 342,107, the total value being £1,009 18s. 9d.

The shelter plantations around the nursery have made excellent growth this season, and the effect will very soon be felt to advantage. Although it is only about three years since these were planted, some have reached a height of 12 ft., while others in salty patches have not reached half this height. When the trees are high enough to make shelter the results in lining out will be more satisfactory.

The present living-accommodation for the workmen is much too small for requirements. During the planting season it is essential that the hands live on the premises, as few men can be got in the immediate neighbourhood, and long walks to and from work are not conducive to good working results. As frequently occurs here, when the men live at a distance one or two will turn up to work on a wet day, and should the weather clear a start could be made at lining out, but unless the full complement of hands are present this work is hindered, and costs more money, as well as time being lost at the proper season.

It would also be a convenience to have a sizing-shed erected, where this work could be carried on in comfort during wet cold weather. Handling trees in Maniototo under cover of a tent, as is done at present, is neither pleasant nor profitable work when the hands and feet are numbed with cold.

Details of expenditure, values, trees in stock, &c., are appended. The following is the rainfall for the year:—

Record of Rainfall and Temperature at Eweburn Nursery.

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.	Number of Days on which Frost occurred.
1902.	Inches.		Degrees.		Degrees.		
April	1·47	11	70	1st and 2nd	25	27th	12
May	0·53	6	55	7th and 21st	18	23rd	26
June	1·50	5	56	20th and 21st	17	17th and 29th	23
July	0·36	1	47	28th	20	13th and 27th	30
August ...	1·21	5	50	21st	16	25th	30
September ...	1·46	7	55	19th	18	9th	29
October ...	1·12	7	66	7th	20	20th	21
November ...	0·95	6	69	26th	25	11th	11
December ...	4·00	13	78	11th and 25th	26	4th	9
1903.							
January ...	3·83	11	78	24th	29	11th	2
February ...	1·62	5	78	3rd	30	23rd	4
March ...	1·53	8	72	26th	24	22nd	8
Totals ...	19·58	85	...	...	...	...	205

A. W. Roberts,
Nurseryman in Charge.

Naseby Survey Paddock Plantation, Otago.

(Area, 125 acres.)

81,125 trees were planted here permanently during the year, occupying an area of 29¾ acres. The total number of trees at this plantation is 288,505, covering an area of 105¾ acres.

For next season's planting 95,900 pits have been prepared, at a cost of £1 2s. 6d. per thousand.

Planting trees cost 19s. 7d. per thousand, as against 19s. 10d. for the previous year.

About 28 acres were under oat-crop, yielding 15 tons odd, and valued at £26 3s. 8d. This has been cut into chaff, and sent to Rotorua and Eweburn Nurseries.

The growth of trees has been very satisfactory, the greatest loss in planting this season being amongst trees sent from Tapanui. The following varieties have done best: *Pinus Austriaca* has done well, and seldom seems to miss if the plants are healthy. Some one-year-olds, once transplanted, were put in and have done very well; they also seem to strike quicker than the stronger ones. *Pinus ponderosa* does well, although shy to take root, but when once established it passes the former. *Pinus Benthamiana*, like *ponderosa*, is also difficult to transplant, but does well enough when established. Two thousand off the seed-beds were put out as an experiment, and these have all succeeded except an odd one or two. This experiment will be repeated this season. Larch has done very well, the best specimens being on the slope of the hill, where the soil is almost pure gravel. It does not do so well on the flat land, where it is rather damp during winter. *Pinus laricio* has done well in some places, but it is very slow, and seems to lie dormant for a long time after transplanting. *Abies Douglasii* has not done well, and so far is a failure here. Possibly the plants would do better if they had shelter for the first year or so, as it is in the young stage that they go off with frosty winds. Birch have done fairly well so far. Alders have done very well in the swampy land. Taking the plantation on the whole the trees have made excellent growth, and the loss does not amount to more than 2 per cent.

Draining has been carried out as far as possible, there being an area of 28 acres rather wet in the subsoil. The cost to date was £19 13s.

A strip round the western boundary has been chipped to a width of 6 ft. to prevent spread of fire from adjoining land.

The trees have been hand-hoed and undergrowth cleared away, also all blanks opened up ready for renewal this season. The work of hoeing round the trees for the first year is an improvement, as the difference in growth is most marked where this had not been carried out previously.

Rabbits or hares are rarely seen in the enclosure, and if the fence were netted up to the top wire it would prevent any stray ones getting in. The trees chiefly attacked are laburnums and rowans, but no serious loss has occurred so far.

The expenditure on this plantation for the year amounts to £321 14s. 7d., and the total expenditure to date is £1,365 9s. 5d.

A. W. Roberts,
Nurseryman in Charge.

Gimmerburn Plantation Reserve, Otago.

(Area, 420 acres.)

This reserve is at present being cropped with turnips, and 200 acres are now under cultivation. The land has been kept free of weeds as far as possible, in terms of the lease. It is intended to resume 100 acres in the autumn, and have it pitted in readiness for the following season's planting.

The rental received during the year for privilege of cropping was £84 19s. 6d.

A. W. Roberts,
Nurseryman in Charge.

Eweburn Reservoir Plantation.

The planting of this reserve has been undertaken by this Department on behalf of the Department of Mines. 24,722 trees have been planted, at a cost of £75. Since our portion of the work was completed the fences have unfortunately been neglected by the caretaker, and rabbits have played sad havoc by peeling the bark off about half of the trees planted.

A. W. Roberts,
Nurseryman in Charge.

Tapanui Nursery.

Rain fell on 173 days, with a total of 48·32 in., as against 39·09 in. on 144 days of the previous year; the maximum monthly fall, 8·05 in., being recorded in December. The lowest shade temperature was registered on the 14th June (22°), and the highest (96°) on the 5th and 20th December.

The growth of nursery stock on the whole has been highly satisfactory during the past season.

The continuous inclement weather greatly retarded seed-sowing, which was not completed until the 11th November.

Great success has attended the seedling-larch crop, which, besides germinating evenly, has made excellent growth, and the trees appear healthier than in previous years.

The seedling pines, with the exception of *Pinus strobus* (the seed of which decayed through excessive moisture), have also made fair headway.

So strongly have the two-year-old stock in seed-beds grown that a large percentage of same are sufficiently advanced for permanent planting, and will be transferred to plantations during the coming season.

The three-year-old lined-out trees have done exceedingly well, with the exception of one small break of *Abies excelsa*, which was attacked during the latter part of spring by the wireworm. No appearance of this pest was noticeable in preceding years.

Transplanting of one- and two-year-old stock from seed-beds was commenced on the 18th August, but frequent rainfalls prevented the work being completed before the 15th November. During that period 652,405 trees were lined out, occupying an area of 8½ acres, the transfer to nursery-lines costing 4s. 9d. per thousand, including lifting, sizing, and puddling.

One of the most pleasing features in connection with tree-growing operations at this nursery is the success of lining in trees instead of leaving them a second year in the seed-beds. A total of 551,000 small seedlings were treated in this manner at a labour cost of 1s. 6d. per thousand, with practically no loss through the operation. A large number of these trees have also reached a suitable size for removal to plantations.

The total number of trees of all ages in the nursery at present is 2,531,640.

During the year 684,722 trees, comprising all varieties grown on the nursery, were transferred to the undermentioned plantations, nurseries, &c.: Dusky Plantation, 556,422; Hanmer Springs, 103,000; Eweburn Nursery, 19,900; Glentanner Plantation, 4,000; Agricultural Department, Fairlie, 1,000; Karitane Domain Board, 400: total, 684,722. Eight hundred thousand trees in the nursery will be ready for permanent planting during the coming season.

The total number of trees grown to the 31st March, 1903, is 4,299,505, representing a total value of £8,269 10s. 2d. The total number of trees transferred to plantations, domains, &c., is 1,743,027, being valued at £5,418 11s. 2d.

Some desirable improvements have been effected during the past year, amongst which may be mentioned:—Water-supply: The water for domestic and other purposes has hitherto been obtained from tanks attached to building, but occasionally during summer months the supply from this source becomes exhausted, causing no little inconvenience in carrying water for horses, &c.; pipes have been extended to a creek, about 5 chains distant in an easterly direction from nursery, where an excellent permanent supply has been obtained. The shelter plantation was extended, and 160 trees, comprising the following varieties, planted therein: *Pinus insignis*, 45; *Pittosporum tenuifolium*, 25; cabbage-tree, 30; *Pittosporum eugenioides*, 30; *Cotoneaster Simmondsii*, 30. The formation and gravelling of road leading from the nursery-gate to Tapanui was completed during September, and is now in a thoroughly fit state for the coming season's traffic. Two extra stalls being necessary for additional horses, the express and harness room was utilised for this extension, and a shed for express wagon has been erected at the rear of building. The drainage from outbuildings has been completely overhauled and relaid with larger pipes, while at various places along water-tables gully-traps were set to carry off surface water. A scrub breakwind was erected on the south-west side of seed-bed ground, which greatly assisted in breaking the south-west gales frequently experienced here. The shrubbery in front of main building was extended by further planting of various suitable shrubs, and the general appearance of surroundings much improved.

Want of space for sizing and bundling in wet weather was severely felt last season. This work is now carried out in the implement-shed, but greater progress would certainly be made if more room were available.

Good progress has been made with the nursery extension, which includes about 50 acres of fertile land adjoining the western boundary of nursery. All surface stones now being removed, the land will shortly be ploughed deeply and cropped with oats. It will then be necessary to prepare about 20 acres of this area for nursery purposes. To continue producing the present number of trees annually the acreage at present in cultivation is insufficient, as rotation of crops cannot possibly be carried on.

A water-reserve and horse-paddock, containing about 60 acres, adjoining the eastern nursery boundary-fence, has also been set apart; and preparations are now well in hand for the erection of a wire-netting fence enclosing the whole of the recently acquired lands.

An average of thirteen persons was employed on nursery throughout the year.

Four acres of oats were grown for horse-feed, and, although very late in maturing, an excellent well-headed crop of about 11 tons will be harvested. Spare portions of land were utilised in the production of horse-carrots, and about 4 tons will probably be realised by same.

The total expenditure for the year amounts to £1,418 18s. 8d.

The following is the record of rainfall and temperature :—

Record of Rainfall and Temperature at Tapanui Nursery.

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1902.	Inches.		Degrees.		Degrees.	
April	3·79	16	76	1st	28	24th
May	3·38	17	66	9th	24	8th
June	1·10	7	62	12th and 18th	22	14th
July	3·34	17	62	14th	27	21st
August	3·50	7	68	21st	23	15th
September	7·12	19	62	28th	24	22nd
October	2·59	12	78	14th	24	18th
November	4·34	21	76	20th	28	11th
December	8·05	19	96	25th	30	5th and 20th
1903.						
January	4·73	19	92	19th	33	10th
February	2·42	7	92	16th	38	7th and 9th
March...	3·96	12	90	9th	30	21st
Totals	48·32	173	...	...	...	...

R. J. Robinson, Nurseryman in Charge.

Dusky Hill Plantation, Otago.

(Area, 845 acres.)

During the year 624,383 trees have been planted here at a cost of £1 5s. 1d. per thousand, occupying an area of 229¼ acres. 181,855 acorns were also sown *in situ* on steep hillsides where pitting was impracticable. These covered an area of 66¾ acres, and the cost of preparing land and planting amounts to 15s. 9d. per thousand. The area planted during the year is 296 acres, and the total area now under forest trees is 552 acres, containing 1,228,588 trees. 356,300 pits were made by contract at £1 10s. per thousand, and 256,650 pits prepared with grubber-pick at £1 per thousand ; making a total of 612,950 pits for the year, at an average cost of £1 5s. 9d. per thousand. The number of pits unplanted at end of last year was 487,983, and the number available for this season's planting 476,550. Over 100 acres of manuka-scrub land was cleared and burnt prior to pitting, at a cost of 5s. per acre.

An expenditure of £35 6s. was incurred in keeping down rabbits. No damage has been done to the trees by these pests this season, and for the future very little labour should be necessary to keep the plantation free.

Every species of tree planted has made excellent growth during the year, notably larch (both European and Japanese), many of which show over 30 in. of vertical growth for the season. The success of acorns planted *in situ* has again been great, and further extension of oak forests will be made by this method.

From Tapanui Nursery 556,422 trees were received, in seventy-six three-horse-wagon trips, at a cost of 1s. 10d. per thousand trees.

A good deal of labour was necessary in cleaning around newly planted trees, and the result of this work shows plainly in the increased rate of growth. £22 was spent in pruning trees of strong side branches and double leaders. Fourteen chains of open drains were made at a cost of 4s. 3d. per chain, and all water-tables kept in order along the four miles and a half of roads, which were ploughed for a width of 15 ft. to keep down weed-growth.

Past experience proves that planting of small-sized fibrous-rooted trees shows best results, and during the coming season it is proposed to plant some 260,000 lined in trees, in what are termed "grubber-pits." These pits are prepared by removing the turf with a mattock to a diameter of about 12 in., and then loosening the soil to a depth of 10 in. to 12 in. with the pick. In planting, the spade is thrust into the centre of these spots, then drawn forward, and the small tree inserted in the V-shaped aperture ; the spade is withdrawn, and gentle pressure with the foot completes the operation.

The remaining unplanted portion of this plantation (293 acres, less roads) will be filled up during the approaching season.

An average of twenty-one persons was employed throughout the year, and the expenditure amounts to £2,147 5s. 11d. The total expenditure to date is £6,351 4s. 6d., and the estimated value of the plantation is £12,349 0s. 2d.

Details of expenditure, values, trees planted, are appended.

Harry Howe, Forester.

R. G. Robinson, Nurseryman in Charge.

Conical Hills Plantation, Otago.

(Area, 1,050 acres.)

This property was set apart for forestry purposes in January last, when possession was taken and works commenced. It is situated within a few chains of Conical Hills Siding, and some ten miles distant from Tapanui Nursery, by a good metalled road. The land is chiefly undulating, and cut up by deep sheltered valleys. The soil is varied in character and rather poor, but suitable for the growth of a wide range of forest trees. A very small proportion of fencing will be required, as the Pomahaka River skirts three-fourths of the boundary, which is half-circular in outline. The property includes a cottage and outbuildings, which are being used by the Forester in Charge.

Clearing gorse and scrub on the river-banks has been the principal work undertaken so far, and preparations are being made for the erection of the necessary fencing, forming of roads, culverts, &c., as well as clearing land in readiness for pitting. It is anticipated that about 300,000 trees (chiefly ash and spruce fir) will be planted here during the coming season.

The expenditure amounts to £44 8s.

Harry Howe, Forester.
R. G. Robinson, Nurseryman in Charge.

Raincliff Plantation.

(Area, 206¾ acres.)

The gorse which was growing amongst the trees has been thoroughly grubbed out and burnt, all double leaders and strong side branches removed from trees, and 68 chains of new fencing erected.

The majority of the trees have made good growth during the year, more especially larch, *Pinus ponderosa*, and *Abies Douglasii*.

As mentioned in last year's report, this plantation is leased for grazing purposes (sheep only), and the young growth of gorse has been successfully kept down by this means. The rental received for grazing was £11 4s.

No work is contemplated during the coming year.

Statement of expenditure and values is appended.

David Buchanan, Assistant Forester.

Hanmer Springs Plantation.

(Area, 600 acres, approximate.)

Trees to the number of 6,900 were permanently planted here last spring, with good results. Of the above, 3,900 English birch were planted along the northern and western boundaries of plantation for shelter purposes. Ninety thousand five hundred acorns were also planted *in situ* on the banks of Dog Creek, at a cost of 4s. 10½d. per thousand, where pitting would be impracticable. These have germinated and grown exceedingly well, a careful examination showing rather less than 3 per cent. of failures.

The area covered by this year's planting is 28¼ acres. 64,206 pits have been completed, at a cost of £1 12s. 4½d. per thousand.

Fifty-four chains of draining has been done, and two fire-breaks, each 60 chains long by 1½ chains wide, have been cleared of scrub and flax. A considerable area of land has also been cleared for pitting.

The erection of a boundary-fence was completed last June in a very satisfactory manner, and three gates placed to give entrance to various parts of the reserve.

A galvanised-iron tool-house has also been erected.

A temporary nursery, about 2 acres in area, was enclosed by a wire-netting fence, and cultivated during last spring. 186,250 two-year-old trees sent from Tapanui Nursery were lined out, at a cost of 6s. 2d. per thousand.

All nursery stock has made good growth during the year, and 211,450 two-and three-year-old trees are now in readiness for transference to plantation during the coming season. One hundred and fifty thousand acorns will also be planted in pits already prepared for same.

An average of four persons was employed during the year.

The expenditure for year amounts to £528 19s. 10d., and the total expenditure to date is £1,180 13s. 11d.

Manuel P. Stark,
Assistant Forester.

Starborough Nursery.

Rain fell on eighty-five days during the year, with a total rainfall of 21·13 in. Maximum temperature registered, 94°; minimum, 30°.

Seedling trees are a very good crop indeed, on the thin side, but that is all in their favour, seeing that the bulk have to stand two years in the seed-beds. Owing to the changeable and unsettled weather experienced in spring and early summer, seeds germinated slowly, and from the experience of the last two years from the middle to the end of October is quite soon enough to begin sowing.

Eucalypti.—To test this very valuable timber tree, and ascertain the kinds best suited to this district, a collection of thirty-eight varieties was sown. It is purposed to plant a number of each kind on a specially selected site, thus a year or two hence definite information will be at the disposal of the Department.

Robinia pseudo-acacia.—This tree in its young state grows very fast here, the bulk of them having made an average growth of 2½ ft.; a tree of this class is badly wanted in Marlborough.

Abies Douglasii.—For one year's seedlings the crop is exceptionally fine.

Two-year-old trees in seed-beds: Larch have made an extraordinary growth; the bulk run from 1½ ft. to 2 ft. Owing to their immense growth and thickness in the seed-beds, all small and weakly seedlings have perished. A considerable reduction has to be recorded in the stock schedules on this account. One hundred thousand of those trees are now ready for planting out on plantations.

Pinus Austriaca.—A splendid tree; the plants are healthy and sturdy.

Lining out one-year-old trees was begun on the 12th August. Weather conditions during planting were very favourable. *Pinus insignis*, and to some extent *Berberis*, suffered from the fierce and parching gales experienced in October and November, and considerable loss has to be recorded thereby, especially among the pines. Cost of lining out 119,498 trees, 2s. 4d. per thousand.

Transplanting two- and three-year-old trees and shrubs: This work was completed on the 23rd September; owing to the late date and the size of the trees, considerable care had to be exercised. 14,971 trees were transplanted, at a cost of 15s. 4d. per thousand; these are now in a fine condition for removal, and will insure the success of the extensions to plantations and shrubberies contemplated this coming winter.

The number of trees in nursery at 31st March is 862,150. The estimated number of trees available for permanent planting out is 127,000. These will be lifted, sized, and puddled in readiness for carting to the plantation.

The number of trees grown to date is 862,150, and their value £1,030 2s. During the year, as opportunity offered, good progress was made with the general scheme of nursery-formation by roading, levelling of nursery-grounds, picking and carting off stones, and extending the water-supply, also in erecting necessary horse-troughs at stables and horse-paddock.

Subsoil ploughing: An area of 17 acres was treated, at a cost of £14 12s. 6d. The work has been an object-lesson to settlers, the success of the oat-crop proving beyond doubt the great benefits to be obtained by deep cultivation in a soil and climate like South Marlborough.

Good progress has been made with improvements. An area of 5 acres was prepared, and planted with 4,300 trees; this work has been very successful, all the trees having made good growth, and little or no loss observed, except on a few exposed places along the river-bank.

Six chains of hedges were planted, and as a permanent improvement will be of great service in a year or two.

During last month the whole of the boundary-line was enclosed with a rabbit-proof fence. This work comprised the erection of entrance-gates to nursery, erection of 25 chains new fencing, improving 60 chains of existing fences, and erecting 85 chains rabbit-netting; total cost, £104 7s. 11d.

The average number of men employed during the year was five.

Horses, tools, and implements are all in first-class order, and have been well looked after during the year.

Living-accommodation is urgently required for the workmen, some of whom are compelled to live in tents. A nurseryman's cottage and office would also be a convenience, as at present a rented house some distance from the nursery is being utilised.

Horse-feed to the value of £129 10s. was grown—chiefly oaten sheaf, which will be chaffed and sent to other nurseries.

The expenditure for the year amounts to £958 16s. 9d., and the total expenditure to date is £2,608 10s. 5d.

The following is a record of temperature and rainfall for the year:—

Meteorological Report, Starborough Nursery, Seddon.

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1902.	Inches.		Degrees.		Degrees.	
April	3·23	9	74	2nd	34	24th
May	1·68	10	68	10th	30	25th
June	2·46	7	66	3rd	32	7th
July	0·22	2	68	25th	30	17th
August	1·48	8	68	21st	30	11th
September	1·83	7	74	6th	32	9th
October	0·72	4	76	28th	32	20th
November	1·13	7	82	22nd	38	27th
December	3·43	13	87	28th	36	20th
1903.						
January	3·59	10	92	25th	42	30th
February	0·66	5	94	26th	44	22nd
March	0·70	3	90	25th	38	13th
Totals	21·13	85	...	...	...	...

N. Craig,
Nurseryman in Charge.

Rotorua Nursery.

Generally speaking the year has been a trying one for nursery-work, owing to the extremely dry windy weather, which started in October, shortly after the transplanting was completed, and continued almost incessantly during November and the greater part of December.

In the light pumiceous soil of this district, transplanting operations have to be delayed until the frosty weather is over, and, as drying winds are generally prevalent during the spring, the young plants are called upon to tide over the worst season of the year before they have time to make any root-effort. This year some six hundred loads of soil were blown off the roads and vacant pieces of land and carried amongst the young trees, completely covering some of them, and having a very pernicious effect by injuring the epidermal tissues of the leaves, thus stopping the growth and preventing the trees from offering any resistance. Some of the pines had the appearance of having been carefully sandpapered, and the leaves instead of being green were almost transparent. Fortunately, moist growing weather set in about Christmas, and the trees recovered rapidly, and have since made excellent growth.

During the year rain fell on 108 days, with a total fall of 46·74 in., the heaviest monthly fall occurring in January, when 9·23 in. were recorded. The greatest heat was registered in December, with 84° Fah.; and the lowest temperature in July, with 24° Fah., or 8° of frost.

The work of transplanting seedling trees was commenced at the beginning of August, and completed early in September, the number of trees dealt with being 730,000—472,000 lined out, and 258,000 lined in closely. The average cost of transplanting was 3s. 3d. per thousand for lining out, and 9d. per thousand for lining in. The loss in transplanting is estimated at 6 per cent.

Seed-sowing commenced in October, and all species except *Sequoia sempervirens* (redwood) germinated well and have made good growth. The estimated number of trees of all ages in the nursery on the 31st March was 2,770,294, and their value—reckoned at considerably below wholesale market rates—£4,201 3s. 4d., particulars of which will be found in Schedules C to C^4. Of this number, 1,000,000 (including some 500,000 eucalypti in four varieties) will be sent to the various plantations during the coming winter and spring.

Trees and shrubs numbering 649,245, and valued at £2,960 12s. 9d., were sent to various plantations, Government reserves, &c., during the year, particulars of which will be found in Schedule C^5.

From the initiation of the nursery to date trees numbering 4,566,481, and valued at £8,502 14s. 2d., have been grown, and the number of trees transferred to forest plantations, Government reserves, domains, &c., is 1,290,326, and their value £6,227 10s. 3d.

An area of 15 acres adjacent to the stable building was fenced as a horse-paddock. This land was ploughed last autumn, and left in a rough state through the winter, when it was broken down with a Cambridge roller and cross-ploughed. Lime was then applied at the rate of 1 ton to the acre, and thoroughly incorporated with the soil by means of a spring tooth harrow. After the land had again been rolled four times, a mixture of grass and clover (principally composed of Chewing's fescue, *Danthonia*, cow-grass, and alsyke clover) was sown and brushed in. The result is highly satisfactory. The seed germinated well, and by the middle of January (fourteen weeks after sowing) the horses were turned into the paddock.

During the spring some twelve hundred trees and shrubs were planted throughout the nursery-grounds for shelter and ornamental purposes. The shelter trees, consisting principally of the fast-growing *Pinus insignis*, have succeeded splendidly, and ought in a few years to afford excellent protection to the young nursery stock; while the ornamental shrubs have also done well.

During April last the water-service was extended through the transplanting-area. Half-inch pipes were laid along the side of the road, with standpipes and taps placed at convenient distances. This has proved a great labour-saver, as hitherto, when trees were being lifted for the plantations, water had to be carted nearly a quarter of a mile for puddling them.

Seed-protecting frames, to the number of 98, were made before seed-sowing commenced in the spring. In order to economise land and also labour, these were made 6 ft. in width instead of 3 ft. as has hitherto been the practice. The new 6 ft. ones have proved highly satisfactory, and it is intended to adopt this size for most classes of tree-seeds in the future.

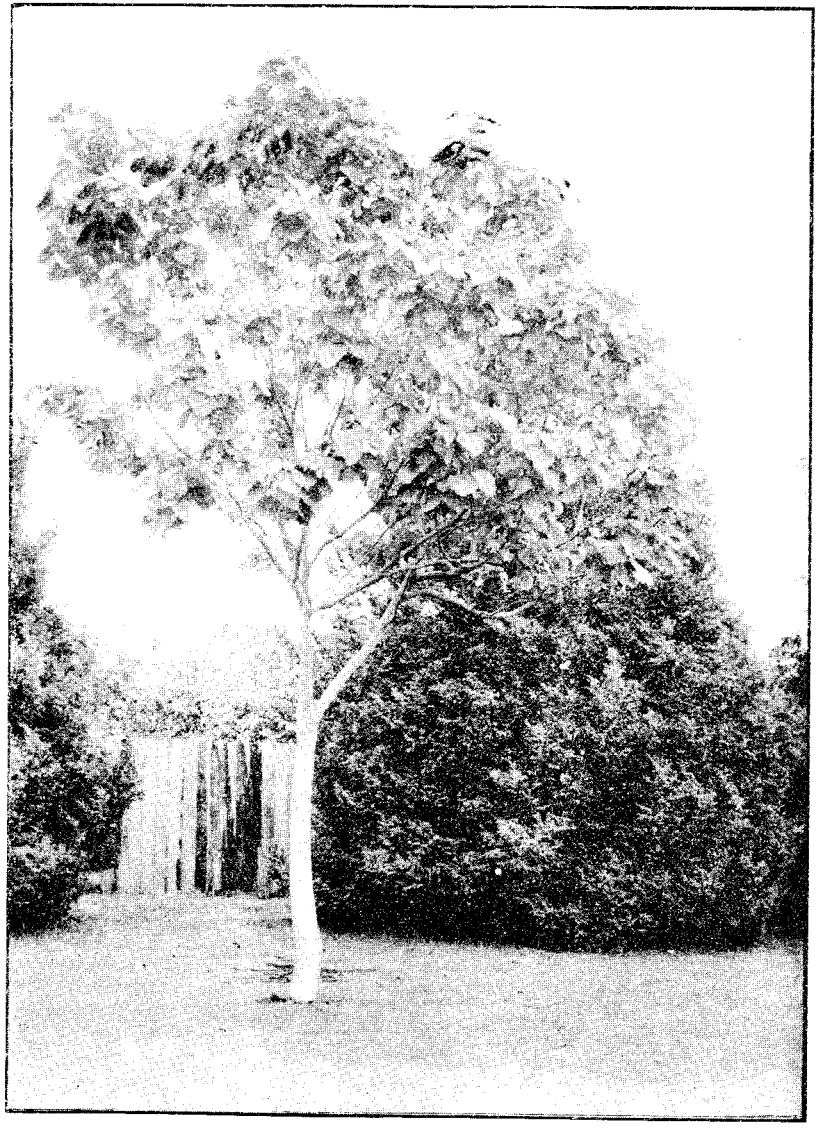
Among the seedling trees this year are *Catalpa speciosa*, *Catalpa bignonoides*, *Acacia melanoxylon*, and some three dozen varieties of eucalypts, all of which were raised for the purpose of testing their suitability to this district.

The *Catalpa speciosa* has received a deal of attention during the last few years from the United States Forestry Bureau, who strongly recommend it as a tree eminently suited for artificial planting, on account of its rapid growth and the value of its timber for railway-sleepers and other purposes where durability is required. The trial so far has been very satisfactory—9 lb. of seed was sown in September, resulting in some 37,000 sturdy plants from 12 in. to 15 in. high. These will be transferred to the plantation during the coming planting season.

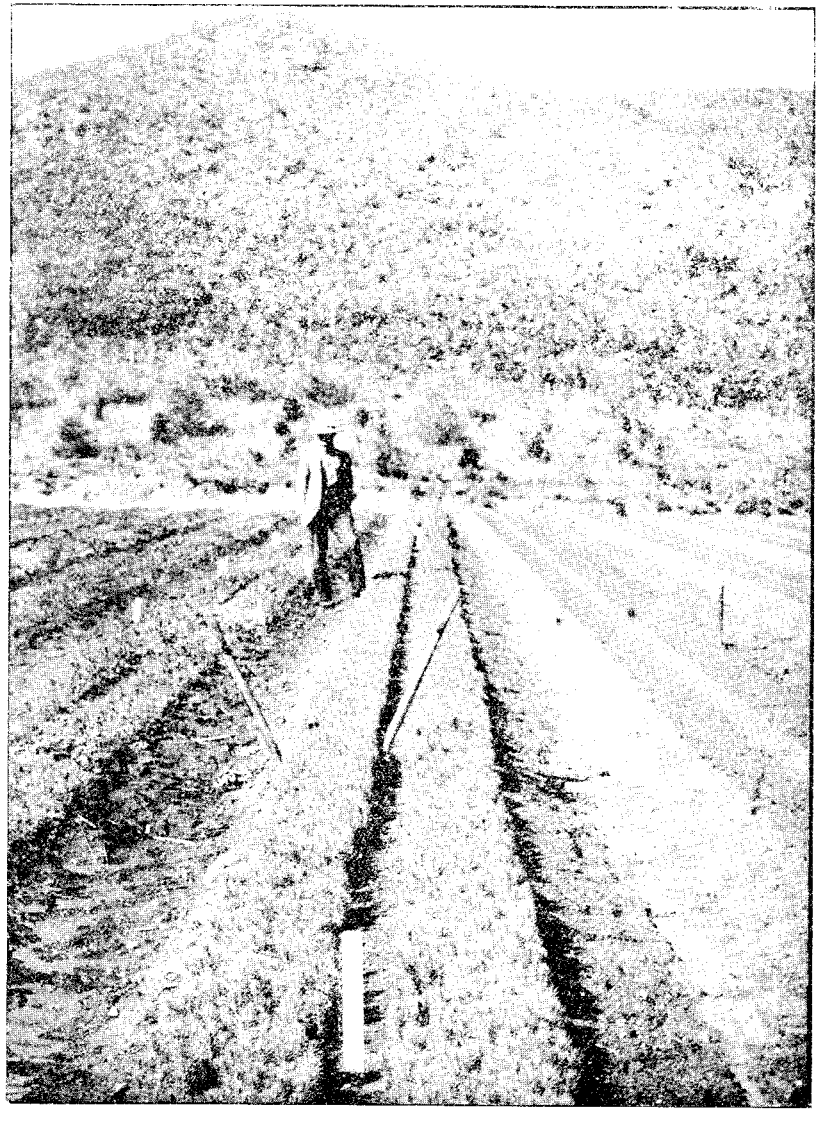
Catalpa bignonoides made very fast growth in the seed-beds, but is less hardy than the variety *speciosa*, and is inferior to that variety as a timber tree. It is improbable that it will stand an average winter in the district.

Acacia melanoxylon, commercially known as blackwood, is a native of Australia. The timber is most valuable for furniture, railway-carriages and veneering, but it is yet uncertain whether or not it will stand the frost here.

The eucalypti were grown mainly to test their frost-resistance. This genus, comprising probably 150 species, is largely distributed throughout Australia, where it is endemic, and is there found



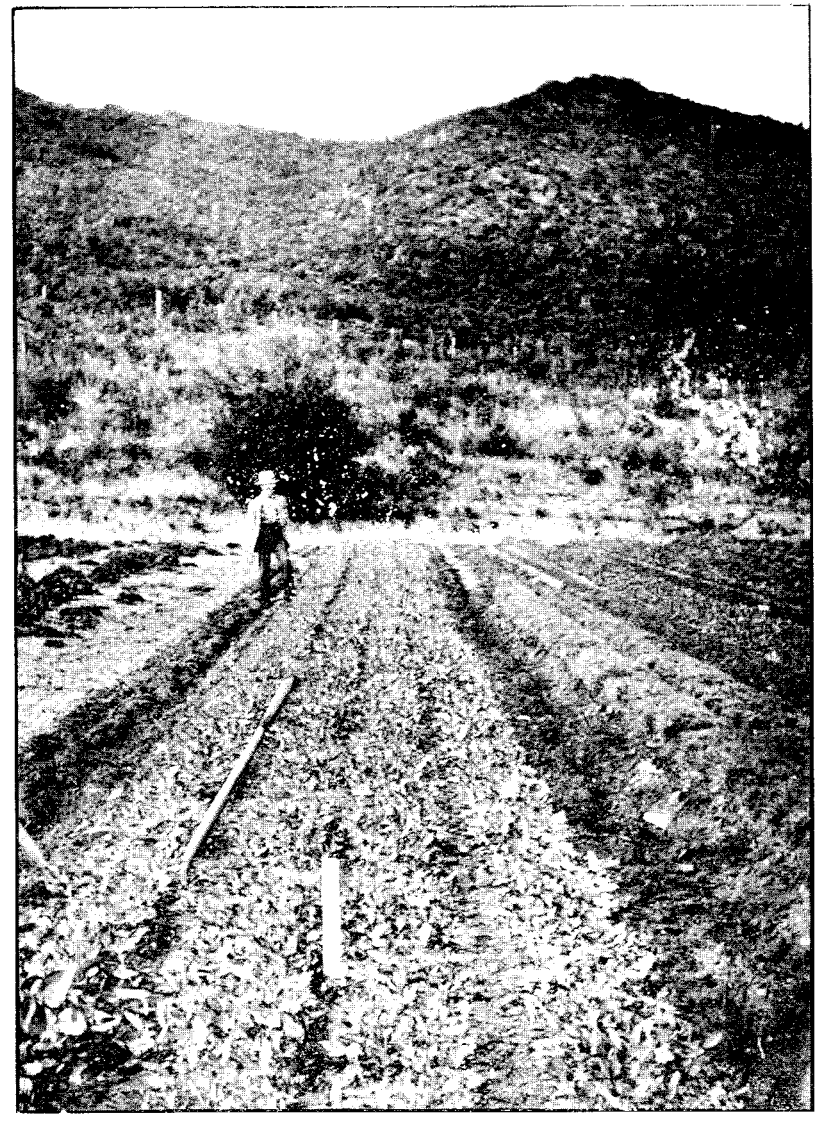
A specimen of Hardy Catalpa (*Catalpa speciosa*) growing in pure pumice at Rotorua. Height 18 ft.; age, eight years.



One year old Aleppo Pine (*Pinus halepensis*).



A bed of 30,000 Hardy Catalpa (*Catalpa* [illegible]) at Rotorua Nursery [illegible]



Seedlings of the White-gum Tree (*Eucalyptus* [illegible]) six months old.



Seedling Larch at Rotorua Nursery, two years of age, 30 in. in height.
C.—1.



A European Larch (*Larix europea*) on the pumice lands, Rotorua.
Age, seven years; transplanted to present position when two years old.

in such a variety of climates that it is impossible without actually testing them to say which will succeed here. Specimens of each variety will be planted out during next spring, and a selection made for future guidance, while the remainder will be sent to the Ruatangata Plantation, near Whangarei, in order to test their suitability to that climate.

Following is a brief description of the varieties which have already been tested here:—*Amygdalina* (peppermint gum): Hardy; thrives in a hot or cold climate, but prefers rich soil, in which it sometimes attains a height of 400 ft.; timber adapted for fencing-posts, shingles, and rough building purposes. *Rostrata* (Victorian red-gum): Not hardy here. *Teretecornis* (forest red-gum): Very hardy; timber valuable for posts, piles, street-paving, railway-sleepers, and general building purposes. *Stuartiana* (apple-scented gum): Extremely hardy; timber very hard, and useful for fencing-posts and fuel. *Coriacea* (syn. *pauciflora*—white-gum): One of the hardiest of fast-growing gums; does well at almost any elevation, but thrives best in moist soil; the timber is adapted for ordinary building and fencing purposes. *Melliodora* (yellow box): Not hardy here. *Obliqua* (stringy bark): Very hardy, does well in poor dry soil; timber extensively used for fencing-rails, palings, and shingles. *Globulus* (blue-gum): Quite hardy, but discarded for extensive planting here on account of its liability to attacks of the leaf-fly. *Viminalis* (manna gum): A swamp gum; will grow on almost any soil, and stands frost well; very fast grower; timber inferior in contact with the ground.

Of the preceding varieties, *E. teretecornis*, *E. coriacea*, *E. Stuartiana*, and *E. amygdalina* have been selected for the extensive planting here, and about one hundred thousand of each of these varieties will be transferred to the plantation during the spring. With a view to minimising the loss usually attending the transplanting of gums, preparations are being made to tie the young plants separately in sphagnum moss, and line them in closely under seed-frames covered with manuka scrub until about October, when they will be transferred to their permanent positions in the plantation.

It is intended to increase the annual output of this nursery to four million trees of all classes, and preparations are being made to enlarge the present stable and workshop, prepare more seed-sowing land, and make extra seed-protecting frames.

Expenditure for the year amounted to £1,739 19s. 9d., and the average number of persons employed was thirteen.

The following is the record of rainfall and temperature for the year:—

Record of Rainfall and Temperature at Rotorua Nursery.

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1902.	Inches.		Degrees.		Degrees.	
April	7·55	11	72	5th, 6th	29	20th
May	3·60	10	67	10th	29	24th
June	5·65	12	61	6th	25	2nd
July	0·58	3	57	31st	24	18th
August	3·88	7	57	5th	25	12th and 31st
September	4·88	16	61	7th	25	10th
October	4·61	10	70	8th	30	20th
November	0·97	6	74	22nd	32	5th and 21st
December	1·28	8	84	13th	38	3rd
1903.						
January	9·23	15	76	13th	39	12th
February	3·36	6	81	17th	35	3rd
March	1·15	4	78	11th	32	22nd
Totals	46·74	108	...	...	...	...

H. A. Goudie,
Nurseryman in Charge.

Whakarewarewa Plantation.

(Area, 817 acres; established 1899.)

During the year the area planted was increased from 229 acres to 317¾ acres, representing trees to the number of 159,933, which were planted during July and August. In addition to this, blanks in former planting, amounting to 31,860, were replaced, and a hedge of *Berberis Nepaulensis*, using 2,000 plants, was planted. The loss in transplanting does not amount to more than 4 per cent., and all the newly transplanted trees have a good healthy appearance.

As a rule in this district very little height-growth results during the first year, but on the approach of the second spring the trees show wonderful vigour. Some of the larch which were planted here in September, 1901, have made during the season 3 ft. of height growth, while the *Pinus Austriaca* (which are slower growing than the larch) have made fully 15 in. Both these

trees will in another year be well above the fern, which will to a great extent obviate the necessity of keeping the ground clear of undergrowth.

In the eucalypti area good growth has been made. Amongst the older trees in many instances a height-growth of 3 ft. and 4 ft. is noticeable. During the spring and early summer an area of 20 acres was cleared, and spots prepared, at 4 ft. apart, by turning over the turf and chopping it up with a spade, in each of which a pinch of seed of *Eucalyptus coriacea* was sown. This method of treating gums has not been wholly successful, as, although results were got on fairly flat land, on the steep hillsides the seed was carried away by the rain.

A trial lot of 100 three-year-old trees of *Catalpa speciosa* were planted here last winter with good results. This is a valuable North American timber tree, and the experiment was to test its suitability to the pumice land. The trees were planted 5 ft. apart, and cut back to within 4 in. from the ground shortly after planting, and during the season have made 2 ft. to 3 ft. of good sturdy growth. Judging from this, it would appear that the soil is suitable, but whether or not they will stand the winter is as yet unproved. There is, however, every indication that they will. Further experiments will be made during next winter with some 30,000 young trees, which are now ready in Rotorua Nursery.

The number of trees planted on this reserve from its initiation to date amounts to 615,423.

The average cost of planting trees during the season by day-labour was 12s. 9d. per thousand, and the cost of pitting and clearing by contract was 14s. 6d. per thousand and £1 per acre respectively.

For next season preparations are being made to plant some 500,000 eucalypti, and about 100,000 trees of redwood, larch, catalpa, planes, &c.

Details of expenditure and values to date and for the year are appended.

The average number employed during the year was four.

H. A. Goudie,
Nurseryman in Charge.

Waiotapu Plantation.

The employment of prison labour on this forest reserve has now got beyond the experimental stage, and, judging by the work done during the last two years and a half, it can be said with confidence that the system is a pronounced success. In valuing the work done by prison labour, the cost of similar work done on the plantation at Whakarewarewa was taken as a basis. This is the only method in which a fair estimate, both of actual labour and the success obtained amongst the trees planted, can be arrived at, as the soil and climatic conditions of each place are very similar.

During the year the value of the plantation has increased from £1,125 7s. 2d. to £3,479 0s. 10d., and of this amount £904 12s. 11d. represents the actual value of work done by prisoners, the remainder being value of trees, cost of tools, &c.

Last winter trees to the number of 293,063 were planted, with excellent results. Of this number 284,935 (chiefly *Pinus ponderosa*, *P. strobus*, *P. laricio*, *P. Austriaca*, *Abies Douglasii*, and poplars) were planted on an area of 108½ acres which was cleared and pitted before the middle of May last. The remaining 8,128 trees were used to replace those which died amongst the number planted last year.

A trial similar to that made at Whakarewarewa, of sowing eucalypti *in situ*, was made during the spring, and resulted in only partial success. 83,121 prepared spots were sown, and of that number about one-third have germinated. It may be said, however, that the weather experienced at the time of sowing was very dry and windy, and not conducive to success, especially on the light soil of the district.

Fire-breaks were formed through all land cleared during the year. These are 100 links wide, with a 14-ft. wagon-road in the centre, dividing the land into nearly equal blocks. It is intended to plant two rows of walnuts on each side of these roads during the coming winter.

A large wagon with a tilt was purchased for carting trees from Rotorua Nursery, which has proved very suitable for the purpose, and the trees now arrive none the worse for transport.

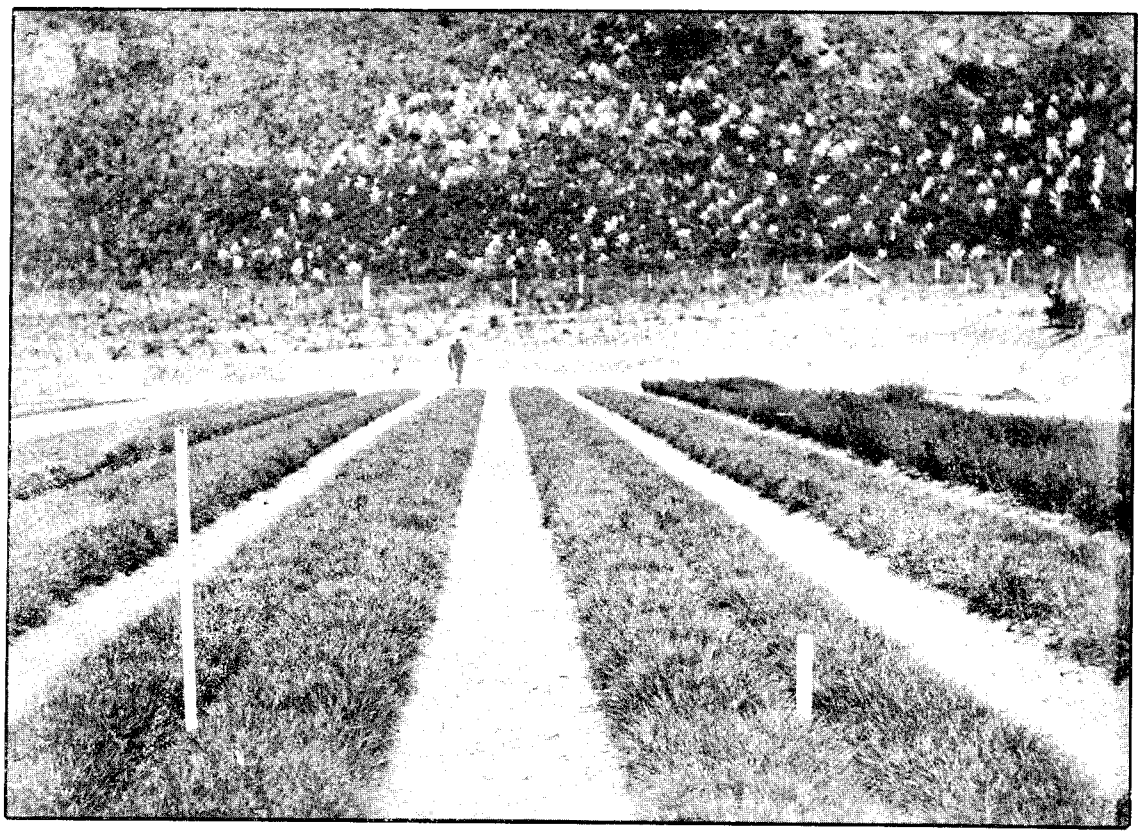
From the beginning of the financial year till the end of December the average daily number of prisoners employed on forestry work was nineteen, but as this number was unable to get sufficient ground cleared and pitted for the trees coming on in Rotorua Nursery, four more huts were built, and the number of men increased by sixteen, making a daily average for the year of 22·59. The men were attended throughout the year by three warders, and the work supervised and directed by the Forester in Charge.

For next season's planting an area of 154 acres was cleared, and up to the 31st March 245,206 pits were dug. This work will be continued until the beginning of May next, when it is anticipated that 500,000 pits will be ready to receive trees.

Next year it is intended to experiment with *Catalpa speciosa*, oak, chestnuts, and several hardy varieties of eucalypti, in order to test the suitability of these trees for extensive planting here.

As another season's planting will almost complete the present enclosure, an additional area of 2,000 acres adjoining will be fenced shortly.

Details of expenditure and values are appended.



One year-old Seed beds of Austrian Pine (*Pinus austriaca*).

This is undoubtedly the hardiest pine of Europe and the best shelter tree for wind swept locations.



200,000 Austrian Pines, three years old, transplanted and ready for sending to Plantations

The following is a record of rainfall and temperature for the year:—

Record of Rainfall and Temperature at Waiotapu Plantation.

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1902.	In.		Deg.		Deg.	
April	8·11	11	74	5th	24	13th and 14th
May	3·90	12	67	9th	26	24th and 29th
June	5·61	14	60	11th	18	4th
July	0·63	7	56	30th	17	17th
August	3·41	6	60	22nd	18	30th
September	5·02	15	64	29th	18	2nd and 9th
October	3·36	14	72	7th	22	2nd
November	0·98	9	76	21st	22	20th
December	1·72	11	90	12th	32	2nd
1903.						
January	7·75	13	84	7th	32	2nd
February	2·24	7	88	15th and 16th	28	2nd
March	1·15	8	82	5th	22	21st
Totals	43·88	127	...	...	...	..

JAMES HENDERSON, Forester.
H. A. GOUDIE, Nurseryman in Charge.

KAINGAROA PLANTATIONS (FOUR).

(Total area, 25 acres.)

As it is intended that the extension to the plantation at Waiotapu will in time absorb these four experimental enclosures, no further areas were planted during the year, and the only work done was the planting of trees to fill blanks through failure last season.

Owing to the fact that one of these areas is about half-way between Galatea and Waiotapu, a considerable amount of damage has been done during the year to the fence and trees by stock-drivers using the enclosure as a resting-paddock for their horses and cattle. It is intended shortly to erect notice-boards at each of the enclosures, warning people from trespassing, and any breach of the law will be dealt with by the Commissioner of Crown Lands.

A small quantity of seed of Hungarian brome-grass was sown here in the spring, to test its adaptability to the high altitude of this plain. The seed germinated well, and the young plants throve notwithstanding the dry season, but whether they will survive the winter yet remains to be seen.

Details of trees planted and expenditure are attached.

JAMES HENDERSON, Forester.
H. A. GOUDIE, Nurseryman in Charge.

STATEMENT OF EXPENDITURE FROM THE 1ST APRIL, 1902, TO THE 31ST MARCH, 1903.

Eweburn Nursery.

	£	s.	d.
Amount at 31st March, 1902	4,891	12	4
Tree-growing	307	17	1
General maintenance	168	12	4
Nursery-formation (draining, &c.)	132	3	2
Horse-shoeing and general repairs	18	15	0
Horse-feed	26	8	3
Tree-seeds	26	9	8
Tools, implements, &c.	3	4	8
Fuel	14	19	4
Water-supply	1	19	6
Miscellaneous work	0	13	7
Supervision	45	4	8
	£5,637	19	7

Tapanui Nursery.

	£	s.	d.
Amount at 31st March, 1902	5,849	18	4
Tree-growing	992	19	6
General maintenance	52	7	10
Nursery-formation	22	5	3
Horse-shoeing and repairs	45	8	2
Horse-feed	40	3	9
Manures	12	3	3
Tree-seeds	45	2	9
Tools, implements, &c.	29	0	9
Water-supply, drainage, &c.	43	2	6
Buildings	27	19	5
Fencing	7	7	3
Miscellaneous works	1	12	0
Supervision	99	6	3
	£7,268	17	0

Rotorua Nursery.

	£	s.	d.
Amount at 31st March, 1902	5,848	1	6
Tree-growing (three crops)	792	4	3
General maintenance	183	17	1
Nursery-formation	92	5	6
Horse-shoeing	15	18	10
General repairs	71	14	7
Horse-feed	52	12	0
Manures	50	18	6
Tree-seeds	114	9	2
Tools, implements, &c.	57	13	9
Seed-frames (new)	146	6	2
Water-supply	19	10	0
Building, Alterations to	10	19	10
Fencing	2	12	6
Miscellaneous works	28	14	7
Supervision	100	3	0
	£7,588	1	3

Starborough Nursery.

	£	s.	d.
Amount at 31st March, 1902	1,649	13	8
Tree-growing	219	14	11
Nursery-formation	75	4	8
General maintenance	131	12	4
Buildings—stable, toolhouse, &c.	93	14	6
Fencing	91	15	11
Water-supply	4	19	3
Tools, implements, &c.	95	16	0
Horse-feed	89	1	7
Tree-seeds	32	8	11
Seed-frames	0	14	1
Horse-shoeing and repairs	21	9	0
Manures	16	1	9
Miscellaneous works and travelling expenses	15	16	9
Supervision	70	7	1
	£2,608	10	5

Naseby Survey Paddock Plantation.

	£	s.	d.
Amount at 31st March, 1902	1,043	14	10
Digging 95,900 pits	107	18	9
Planting 81,125 trees	82	7	6
General maintenance, draining, &c.	76	19	3
Cropping 28 acres oats	14	0	0
Cartage of trees from nursery	10	4	9
Portion nurseryman's salary	6	2	0
Supervision	24	2	4
	£1,365	9	5

Gimmerburn Plantation Reserve.

	£	s.	
Amount at 31st March, 1902	382	6	2
Supervision	5	12	6
	£387	18	8

Dusky Hill Plantation

	£	s.	d.
Amount at 31st March, 1902	4,203	18	7
Digging 612,950 pits for trees	791	2	0
Planting 624,383 trees	782	15	9
Planting 181,855 acorns *in situ*	143	8	11
Acorns—Purchase of, and railage	5	5	1
Cutting and burning scrub	38	10	8
Cartage of trees from Tapanui Nursery	50	14	0
General maintenance	216	4	7
Fencing horse-paddock	3	9	6
Tools	10	18	6
Miscellaneous works	38	10	9
Supervision	66	6	2
	£6,351	4	6

Conical Hills Plantation.

	£	s.	d.
Clearing gorse and scrub	12	10	9
Fencing-material and freight	11	14	0
Tools, &c.	1	11	0
Road-formation	3	2	6
Miscellaneous (insurance on building)	0	7	9
Supervision (laying off roads, &c.)	15	2	0
	£44	8	0

Raincliff Plantation.

	£	s.	d.
Amount at 31st March, 1902	922	6	9
Clearing gorse	69	15	2
Fencing	63	10	0
Pruning trees	22	4	0
Travelling-expenses of workmen	2	9	11
Supervision	11	1	7
	£1,091	7	5

Hanmer Springs Nursery and Plantation.

	£	s.	d.	£	s.	d.
Amount at 31st March, 1902	709	5	6			
Less amount received for party fence	57	11	5			
				651	14	1
Digging pits for 64,206 trees				103	18	6
Planting 6,900 trees				10	14	3
Planting 90,500 acorns *in situ*				22	1	1
Lining out 106,250 trees in temporary nursery				32	17	0
General maintenance				59	14	0
Tree-growing (sowing tree-seed, &c.)				13	1	0
Fencing, labour, and material				92	18	6
Clearing scrub and ploughing				95	19	4
Tools				25	12	7
Buildings				27	15	6
Miscellaneous works				5	8	1
Supervision				39	0	0
				£1,180	13	11

Whakarewarewa Plantation.

	£	s.	d.
Amount at 31st March, 1902	1,751	8	10
Clearing and burning 88¾ acres	59	5	0
Digging 196,933 pits for trees	144	5	3
Planting and sowing 196,933 trees	163	1	3
Carting trees to plantation	7	3	2
General maintenance	167	17	4
Tools	2	8	0
Repairs	1	17	9
Horse-feed	9	15	9
Tree-seeds	3	10	0
Nurseryman's salary (proportion)	60	0	0
Supervision	30	10	3
	£2,401	2	7

Waiotapu Plantation.

	£	s.	d.
Amount at 31st March, 1902	473	1	10
Wagon and harness	86	2	9
Tools	1	16	0
Horse-feed	20	11	10
Carting trees from Rotorua	20	1	6
Water-supply	1	13	11
General repairs	8	10	5
Foresters' salary	110	1	6
Travelling-expenses and proportion of nurseryman's salary	12	7	8
Supervision	49	3	6
	£783	10	11

Kaingaroa Plains Plantations (Four).

	£	s.	d.
Amount at 31st March, 1902	262	1	6
Maintenance	28	13	9
Tools and tents	6	5	0
Travelling-expenses and proportion of nurseryman's salary	5	8	0
Supervision	10	4	3
	£312	12	6

Ruatangata Plantation.

	£	s.	d.
Fencing	8	3	0

STATEMENT OF VALUES FOR YEAR ENDING 31ST MARCH, 1903.

Eweburn Nursery.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1902				4,116	14	7			
Less value of trees	1,186	13	8						
,, horse-feed used	24	15	10						
				1,211	9	6			
							2,905	5	1
Trees as per Schedule A							364	16	8
,, A^1							645	16	8
,, A^2							439	3	3
,, A^3							77	9	3
,, A^4							300	14	5
Tools, implements, &c.							3	4	8
Water-supply							1	19	6
Nursery-formation							132	3	2
Improved value							213	17	0
Horse-feed in stock							33	0	0
							£5,117	9	8

Tapanui Nursery.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1902				9,224	14	7			
Less value of trees	4,550	10	6						
,, horse-feed used	32	3	4						
				4,612	13	10			
							4,612	0	9
Trees as per Schedule B							877	12	6
,, B^1							432	10	0
,, B^2							3,488	10	3
,, B^3							2,295	8	1
,, B^4							191	12	9
Tools, implements, &c.							29	0	9
Water-supply							43	2	6
Nursery-formation							22	5	3
Improved value							151	14	1
Buildings							27	19	5
Fencing							7	7	3
Horse-feed in stock							59	17	9
							£12,239	1	4

Rotorua Nursery.

	£ s. d.	£ s. d.	£ s. d.
Amount at 31st March, 1902 ...	...	8,224 6 11	
Less value of trees	6,233 3 5		
" horse-feed ...	39 15 1		
" stores written off ...	40 16 7		
		6,313 15 1	
			1,910 11 10
Trees as per Schedule C	...	...	1,366 1 11
" C^1	...	...	907 3 3
" C^2	...	...	1,387 6 2
" C^3	...	...	162 5 6
" C^4	...	...	378 2 0
" C^5	...	...	2,993 9 0
Tools and implements	...	...	69 13 9
Water-supply	...	...	19 10 0
Seed-frames (new)	...	...	146 6 2
Buildings, Alterations to	...	...	10 19 10
Fencing	...	...	2 12 6
Horse-feed in stock	...	...	43 0 0
Improved value	...	...	284 0 1
			£9,681 2 0

Starborough Nursery.

	£ s. d.	£ s. d.	£ s. d.
Amount at 31st March, 1902 ...	...	2,119 16 4	
Less trees	542 17 0		
" horse-feed	132 16 8		
" stores written off	1 8 2		
		677 1 10	
			1,442 14 6
Trees as per Schedule D	...	...	353 10 0
" D^1	...	...	558 8 0
" D^2	...	...	60 9 0
" D^3	...	...	57 15 0
Tools, implements, &c.	...	...	95 16 0
Water-supply	...	...	4 19 3
Nursery-formation	...	...	95 4 8
Improved value	...	...	201 17 11
Seed-frames	...	...	0 14 1
Buildings	...	...	93 14 6
Fencing	...	...	91 15 11
Horse-feed in stock	...	...	147 5 4
			£3,204 4 2

Hanmer Springs Nursery and Plantation.

	£ s. d.	£ s. d.	£ s. d.
Amount at 31st March, 1902 ...		969 13 6	
Refund for party fence ...	57 11 5		
" Less value of trees ...	260 8 0		
		317 19 5	
			651 14 1
Trees as per Schedule E	...	...	51 15 0
" E^1	..	...	220 15 0
" E^2	...	...	321 2 0
" E^3	...	...	110 14 3
Trees and seeds transferred from Rotorua Nursery		...	8 5 0
Freight and cartage on trees ...	...	...	6 3 1
Planting trees	...	...	174 12 8
Value of 64,206 pits	...	...	103 18 6
Tools	...	...	25 12 7
Buildings	...	...	27 15 6
Fencing	...	...	92 18 6
Improved value of plantation ...	...	...	98 14 0
Increased value of plantation ...	...	...	27 1 1
			£1,921 1 3

Naseby Survey Paddock Plantation.	£	s.	d.
Amount at 31st March, 1902	1,793	0	0
Trees planted as per Schedule A[4]	251	12	4
Cartage of trees from nursery	10	4	9
Planting trees	82	7	6
Value of 95,900 pits	107	18	9
Improved value	106	13	7
Horse-feed in stock	35	0	0
Horse-feed transferred to nurseries	42	2	5
Increased value	82	7	9
	£2,511	7	1

Gimmerburn Plantation Reserve.	£	s.	d.
Amount at 31st March, 1902	482	5	8
Rental received for cropping	84	19	6
Improved value	5	12	6
	£572	17	8

Dusky Hill Plantation.	£	s.	d.
Amount at 31st March, 1902	7,401	0	11
Trees planted as per Schedule B[8]	2,445	7	9
Cartage of trees from nursery	50	14	0
Planting trees	931	9	9
Value of 612,950 pits	791	2	0
Tools, &c....	10	18	6
Improved value by labour	359	12	2
Fencing	3	9	6
Increased value	355	5	7
	£12,349	0	2

Conical Hills Plantation.	£	s.	d.
Improved value by labour	30	15	3
Fencing	11	14	0
Tools	1	11	0
	£44	0	3

Raincliff Plantation.	£	s.	d.
Amount at 31st March, 1902	964	10	6
Improved value	103	0	9
Rental received for grazing	11	4	0
Fencing	63	10	0
Increased value	47	14	6
	£1,189	19	9

Whakarewarewa Plantation.	£	s.	d.
Amount at 31st March, 1902	2,872	16	6
Trees planted and sown as per Schedule C[5]	918	18	8
Cartage of trees	7	3	2
Planting and sowing 196,933 trees	187	17	9
Digging 196,933 pits for trees	154	5	3
Clearing and burning 88¾ acres	69	5	0
Tools	2	8	0
Improved value by labour	203	11	1
Increased value	127	17	0
	£4,544	2	5

Waiotapu Plantation.	£	s.	d.
Amount at 31st March, 1902	1,125	7	2
Trees planted as per Schedule C[5]	1,188	14	7
Planting 292,999 trees at 12s. 6d.	183	2	0
Carting trees from Rotorua	20	1	6
Sowing 81,121 spots with tree-seeds at £1 per thousand	81	2	3
Digging 335,357 pits for trees at 14s. 6d.	243	2	2
Clearing and burning 154 acres at £1 10s.	231	0	0
Road-making	50	12	4
Tools, wagon, harness, &c.	87	18	9
Water-supply	1	13	11
Improvements by labour	225	15	8
Increased value	40	10	6
	£3,479	0	10

Kaingaroa Plains Plantations (Four).

	£	s.	d.
Amount at 31st March, 1902	449	16	3
Improvements by labour	44	6	0
Tools and tents	6	5	0
Increased value	22	9	9
	£522	17	0

Ruatangata Plantation.

	£	s.	d.
Improvements	£8	3	0

Summary of Expenditure and Values.

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
				Expenditure for Year ended 31st March, 1903.			Expenditure from September, 1896, to 31st March, 1903.			Value of Improvements, Trees, &c., for Year ended 31st March, 1903.			Values of Improvements, Trees, &c., from September, 1896, to 31st March, 1903.		
Amount at 31st March, 1902				28,559	11	10									
Less refund on Torea Neck Reserve	140	8	11												
Less refund on party fence, Hanmer Springs	57	11	5												
				198	0	4									
				28,361	11	6									
Eweburn Nursery				746	7	3	5,637	19	7	2,212	4	7	5,117	9	8
Tapanui Nursery				1,418	18	8	7,268	17	0	7,627	0	7	12,239	1	4
Rotorua Nursery				1,739	19	9	7,588	1	3	7,770	10	2	9,681	2	0
Starborough Nursery				958	16	9	2,608	10	5	1,761	9	8	3,204	4	2
Naseby Survey Paddock Plantation				321	14	7	1,365	9	5	718	7	1	2,511	7	1
Gimmerburn Plantation Reserve				5	12	6	387	18	8	90	12	0	572	17	8
Dusky Hill Nursery				2,147	5	11	6,351	4	6	4,947	19	3	12,349	0	2
Conical Hills Nursery				44	8	0	44	8	0	44	0	3	44	0	3
Raincliff Nursery				169	0	8	1,091	7	5	225	9	3	1,189	19	9
Hanmer Springs Nursery				528	19	10	1,180	13	11	1,269	7	2	1,921	1	3
Whakarewarewa Plantation				649	13	9	2,401	2	7	1,671	5	11	4,544	2	5
Waiotapu Nursery				310	9	1	783	10	11	2,353	13	8	3,479	0	10
Kaingaroa Plains Nursery				50	11	0	312	12	6	73	0	9	522	17	0
Wellington Nursery (proposed)				..			11	3	11	..			..		
Naseby Domain				..			10	0	0	..			10	0	0
Albury Plantation				..			72	4	11	..			72	4	11
Torea Neck Reserve				..			1	7	6	..			1	7	6
Ruatangata Plantation				8	3	0	8	3	0	8	3	0	8	3	0
Clerical assistance (two years)				180	0	0	180	0	0	..			..		
Supervision thermal reserves, &c.				..			336	16	9	..			..		
Contingencies: Photographic material, stationery, works on forestry, fidelity insurance premiums, &c.				49	2	0	49	2	0	45	17	0	*45	17	0
Value at 31st March, 1902				..			..			30,819	0	4			
										26,694	15	8			
Total				37,690	14	3	37,690	14	3	57,513	16	0	57,513	16	0

* Instruments, books, &c.

Number of Trees grown in Nurseries and Plantations, and Area planted, from 1896 to 1903.

—	Number in Nurseries, 31st March, 1903.	£	s.	d.	Number raised in Nurseries, 1896 to 1903.	£	s.	d.	Number raised in Nurseries and Plantations, 1902-3.	Number planted in 1902-3.	Area planted in 1902-3.	Total Number in Plantations, 1903.	Total Area planted to 1903.
		Values.				Values.					Acres.		Acres
Eweburn Nursery	964,671	1,527	15	11	1,463,811	2,261	18	9	488,811	..	..	..	..
Tapanui Nursery	2,531,640	4,798	12	9	4,299,505	8,269	10	2	972,000	..	..	..	..
Rotorua Nursery	2,770,294	4,201	3	4	4,566,481	8,502	14	2	1,656,320	..	..	..	..
Starborough Nursery	862,150	1,030	2	0	862,150	1,030	2	0	361,500	..	..	..	..
Hanmer Springs Nursery	265,450	593	12	0	54,000	51	15	0	54,000	..	..	..	..
Naseby Survey Plantation	..	..			..	..			..	81,125	29¾	288,505	105¾
Dusky Hill Plantation	..	.			181,855	..			181,855	624,383	296	1,228,588	552
Raincliff Plantation	..	..			..	..			..	..	..	50,000	206¾
Hanmer Springs Plantation	..	..			90,500	..			90,500	6,900	28¼	97,400	28¼
Whakarewarewa Plantation	..	..			48,000	..			48,000	159,933	88¾	615,423	317¾
Waiotapu Plantation	..	..			83,121	..			83,121	293,063	177	450,333	207
Kaingaroa Plantation	..	..			..	..			..	..	..	44,275	21
Government domains, reserves, &c.	..	..			..	..			..	..	..	133,632	..
Total	7,394,205	12,151	6	0	11,649,423	20,116	0	1	3,936,107	1,165,404	619¾	2,908,156	1,438½

SCHEDULE A.—ONE-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1902–3. (Seventh Crop.

Name of Tree.	Common Name.	Habitat.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
					Lb.	£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe ..	376,920	1	36¼	0 15 0	275 18 9	Fair.
Pinus ponderosa ..	Yellow pine ..	America ..	22,600	1	7	1 0 0	22 12 0	"
Pinus Canariensis ..	Canary Islands pine	Canary Islands	1,200	2	1	1 0 0	1 4 0	Very good growth.
Pinus Halepensis ..	Aleppo pine ..	Levant ..	2,400	1	½	1 0 0	2 8 0	Fair growth.
Pinus excelsa ..	Lofty pine ..	Nepaul ..	150	1	¼	1 0 0	0 3 0	Poor.
Pinus Sabiniana ..	Nut pine ..	California ..	23	1	¼	..	..	Slow, hard seed.
Pinus rigida ..	Pitch pine ..	North America	2,000	1	¼	1 0 0	2 0 0	Fair growth.
Larix Europea ..	European larch ..	Tyrol ..	32,800	½	84	1 0 0	32 16 0	Very poor.
Robinia pseudo-acacia	Locust tree ..	America ..	48,000	6	14	0 10 0	24 10 0	Very good.
Eucalyptus coriacea ..	Drooping gum ..	Australia ..	2,400	2	1	1 10 0	3 12 0	Fair.
Sorbus aucuparia ..	Mountain ash ..	Europe ..	318	10	28	0 10 0	0 3 0	"
Total ..	..	..	488,811	..	172½	..	365 6 9	

SCHEDULE A[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1901–2. (Sixth Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe ..	263,800	3	2 0 0	527 12 0	Good growth.
Pinus ponderosa ..	Yellow pine ..	North America	19,500	4	2 5 0	43 17 6	Good strong plants.
Pinus Benthamiana ..	Bentham's pine ..	"	5,500	6	2 5 0	12 7 6	Fair.
Larix Europea ..	European larch ..	Tyrol ..	18,800	6	2 5 0	42 6 0	Fair growth.
Sorbus aucuparia ..	Mountain ash ..	Europe ..	4,140	12	2 15 0	11 7 8	Very good.
Betula alba ..	English birch ..	" ..	4,150	12	2 0 0	8 6 0	Very good plants.
Total ..	..	..	315,890	..	..	645 16 8	

SCHEDULE A[2]. —THREE-YEAR-OLD TREES. — Details of Trees grown at Eweburn Nursery, 1900–1. (Fifth Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe ..	76,200	6	3 0 0	228 12 0	Good.
Pinus ponderosa ..	Yellow pine ..	North America	19,100	3	3 5 0	62 1 6	Poor growth.
Pinus Benthamiana ..	Bentham's pine ..	"	200	3	3 5 0	0 13 0	"
Larix Europea ..	European larch ..	Europe ..	45,490	6	3 5 0	147 16 9	Fair.
Totals ..	..	..	140,990	..	..	439 3 3	

SCHEDULE A[3].—FOUR-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1899–1900. (Fourth Crop.)

Name of Tree.	Common Name.	Habitat.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe	8,000	4	4 0 0	32 0 0	Fair.
Pinus laricio ..	Corsican pine ..	Corsica	4,800	4	4 0 0	19 4 0	"
Pinus ponderosa ..	Yellow pine ..	America	1,200	4	4 5 0	5 2 0	"
Larix Europea ..	European larch ..	Tyrol ..	4,980	6	4 5 0	21 3 3	Good.
Total ..	..	..	18,980	..	..	77 9 3	

SCHEDULE A[4].—TREES TRANSFERRED FROM EWEBURN NURSERY, 1902–3

Where sent.	Name of Tree.	Number.	Age.	Value per Thousand.	Total Value.
				£ s. d.	£ s. d.
Tapanui Nursery	Pinus strobus	14,500	1 year	1 0 0	14 10 0
Survey Paddock Plantation, near Naseby	Pinus Austriaca	6,425	4 years	4 0 0	25 14 0
	"	33,225	3 years	3 0 0	99 13 6
	"	12,400	2 years	2 0 0	24 16 0
	Pinus laricio	12,900	3 years	3 0 0	38 14 0
	Pinus ponderosa	6,675	3 years	4 5 0	28 7 4
	Pinus Benthamiana	100	3 years	3 5 0	0 6 6
	"	2,000	2 years	2 5 0	4 10 0
	Abies Douglasii	1,000	3 years	3 5 0	3 5 0
	Larix Europea	6,000	4 years	4 5 0	25 10 0
	Alder	400	2 years	2 0 0	0 16 0
		81,125			251 12 4
Government Reservoir Plantation	Birch	12,361	2 years	2 0 0	24 14 5
	Rowans	11,511	1 year	0 10 0	5 15 1
	"	850	2 years	2 15 0	2 6 9
		24,722			32 16 3
Kokonga School, Kokonga ..	Pinus Austriaca	100	3 years	3 0 0	0 6 0
	Pinus Benthamiana	50	3 years	3 5 0	0 3 3
	Pinus ponderosa	100	3 years	3 5 0	0 6 6
	Pinus laricio	100	3 years	3 0 0	0 6 0
	Larch	25	3 years	2 5 0	0 1 1
	Birch	25	2 years	2 0 0	0 1 0
		400			1 3 10
Stock Department, Waipiata ..	Pinus Austriaca	200	3 years	3 0 0	0 12 0
					300 14 5

SCHEDULE B.—ONE-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1902–3. (Sixth Crop.)

Name of Tree.	Common Name.	Habitat.	Estimated Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
					lb.	£ s. d.	£ s. d.	
Abies excelsa ..	Spruce fir ..	Europe ..	250,000	1	28	0 15 0	187 10 0	First-class crop.
Abies Douglasii ..	Oregon pine ..	America ..	75,000	1	6	1 5 0	93 15 0	Germinated evenly.
Pinus ponderosa ..	Yellow pine ..	" ..	35,000	1	7	1 0 0	35 0 0	Sturdy plants.
Pinus Benthamiana ..	Bentham's pine ..	" ..	2,000	1⅓	1	1 0 0	2 0 0	Good growth.
Pinus insignis ..	Remarkable pine	" ..	25,000	2⅔	7	1 0 0	25 0 0	Very good crop.
Pinus rigida ..	Pitch pine ..	" ..	4,000	1½	1¼	1 0 0	4 0 0	Good sturdy tre
Pinus excelsa ..	Bhotan pine ..	Nepaul ..	1,500	1	2¼	1 0 0	1 10 0	Fair crop.
Pinus Halepensis ..	Aleppo pine ..	Europe ..	4,500	1½	½	1 0 0	4 10 0	"
Pinus Austriaca ..	Austrian pine ..	" ..	2,500	1⅓	2	0 15 0	1 17 6	"
Pinus Canariensis ..	Canary Islands pine	Canary Islands	2,500	2	1	1 0 0	2 10 0	Very fine growth
Larix Europea ..	European larch ..	Tyrol ..	370,000	2½	137	1 0 0	370 0 0	Excellent crop very healthy.
Eucalyptus coriacea ..	Mountain gum ..	Australia ..	15,000	3	1	0 15 0	11 5 0	Good results.
Alnus glutinosa ..	Common alder ..	Europe ..	100,000	2	4	0 15 0	75 0 0	Germinated well.
Quercus pedunculata ..	English oak ..	" ..	11,000	9	120	0 15 0	8 5 0	Good growth.
Fraxinus excelsior ..	English ash ..	" ..	60,000	6	112	0 15 0	45 0 0	"
Betula alba	English birch ..	" ..	4,000	1½	8	0 15 0	3 0 0	Uneven growth.
Robinia pseudo-acacia	Acacia	" ..	10,000	2	14	0 15 0	7 10 0	Fair crop.
Total ..	..	..	972,000	..	..	..	877 12 6	

SCHEDULE B[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1901–2. (Fifth Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Abies excelsa ..	Spruce fir ..	Europe	150,000	4	1 0 0	150 0 0	All these trees have made excellent growth.
Larix Europea ..	European larch ..	Tyrol ..	75,000	12	1 5 0	93 15 0	
Pinus Austriaca ..	Austrian pine ..	Europe	130,000	6	1 0 0	130 0 0	
Pinus Benthamiana ..	Bentham's pine ..	America	9,000	7	1 5 0	11 5 0	
Pinus ponderosa ..	Yellow pine ..	"	30,000	5	1 5 0	37 10 0	
Pinus strobus ..	Weymouth pine ..	"	8,000	3	1 5 0	10 0 0	
Total ..	..	..	402,000	..	..	432 10 0	

SCHEDULE B[2].—THREE-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1900–1. (Fourth Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Abies excelsa	Spruce fir ..	Europe ..	429,500	9	3 0 0	1,288 10 0	Fair growth.
Abies Menziesii ..	Menzies' spruce	America ..	13,000	12	3 5 0	42 5 0	
Abies Douglasii ..	Oregon pine ..	„ ..	3,000	12	3 5 0	9 15 0	
Pinus Austriaca ..	Austrian pine ..	Europe ..	138,500	8	3 0 0	415 10 0	
Pinus ponderosa ..	Yellow pine ..	America ..	30,000	8	3 5 0	97 10 0	
Pinus strobus	Weymouth pine	„ ..	2,250	6	3 5 0	7 6 3	
Pinus Benthamiana ..	Bentham's pine	„ ..	1,000	9	3 5 0	3 5 0	
Pinus laricio	Corsican pine ..	Corsica ..	4,500	6	3 0 0	13 10 0	
Larix Europea.. ..	European larch	Tyrol ..	65,000	15	3 5 0	211 5 0	
Fraxinus excelsior ..	English ash ..	Europe ..	255,500	20	3 0 0	766 10 0	
Quercus pedunculata ..	English oak ..	„ ..	75,000	18	3 0 0	225 0 0	
Betula alba	English birch ..	„ ..	2,250	15	3 0 0	6 15 0	
Alnus glutinosa ..	Common alder	„ ..	30,250	15	3 0 0	90 15 0	
Acer pseudo-platanus ..	Sycamore ..	„ ..	77,000	18	2 15 0	211 15 0	
Sorbus aucuparia ..	Mountain ash ..	„ ..	4,520	24	3 15 0	15 18 9	
Cytisus laburnum ..	Ornamental laburnums	„ ..	350	24	2 10 0	0 17 6	Strong, well-grown stock, sufficiently advanced for permanent planting next season.
Berberis vulgaris ..	Barberry ..	„ ..	7,000	10	1 5 0	8 15 0	
Castanea vesca ..	Spanish chestnut	„ ..	50	12	4 5 0	0 4 3	
Juglans regia	Walnut ..	Persia ..	1,750	12	4 5 0	7 6 9	
Sophora tetraptera ..	Kowhai ..	New Zealand	2,250	10	5 5 0	11 16 3	
Melicytus lanceolatus ..	Hinehine ..	„	350	8	4 5 0	1 9 9	
Pittosporum tenuifolium	Black mapau ..	„	8,500	18	3 0 0	25 10 0	
Pittosporum eugenioides	White mapau ..	„	1,500	18	3 0 0	4 10 0	
Cordyline australis ..	Cabbage-tree ..	„	2,000	30	3 0 0	6 0 0	
Phormium tenax ..	Flax	„	400	24	3 0 0	1 4 0	
Fagus (varieties) ..	Native beech ..	„	350	36	5 5 0	1 16 9	
Cerasus lauro-cerasus ..	Common laurel	Levant ..	350	10	10 0 0	3 10 0	
Cupressus Lawsoniana ..	Lawson's cypress	America ..	250	12	4 5 0	1 1 3	
Ligustrum lucidum ..	Privet ..	China ..	470	15	2 0 0	0 18 9	
Benthamia fragifera ..	Indian strawberry-tree	India ..	300	6	10 0 0	3 0 0	
Euonymus Japonicus ..	Spindle-tree ..	Japan ..	200	6	10 0 0	2 0 0	
Shrubs (various) ..	..	..	300	9	10 0 0	3 0 0	
Total ..	..	..	1,157,640	..	..	3,488 10 3	

SCHEDULE B[3].—TREES TRANSFERRED TO DUSKY HILL PLANTATION, 1902–3.

Name of Tree.	Common Name.	Habitat.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe ..	66,150	12	4 0 0	264 12 0	
Pinus laricio	Corsican pine ..	Corsica ..	10,000	12	4 0 0	40 0 0	
Pinus ponderosa ..	Yellow pine ..	America ..	30,175	15	4 5 0	128 4 10	
Pinus strobus	Weymouth pine	„ ..	1,250	10	4 5 0	5 6 3	
Pinus Benthamiana ..	Bentham's pine	„ ..	4,450	12	4 5 0	18 18 3	
Abies excelsa	Spruce fir ..	Europe ..	84,875	16	4 0 0	339 10 0	
Abies Menziesii ..	Menzies' spruce	America .	9,975	20	4 15 0	47 7 7	
Abies Douglasii ..	Oregon pine ..	„ ..	15,375	20	4 15 0	73 0 7	
Larix Europea.. ..	European larch	Tyrol ..	91,900	20	4 5 0	390 11 6	All these trees have done exceedingly well since being transferred to the plantation. The loss through transplantation does not reach 2 per cent.
Fraxinus excelsior ..	English ash ..	Europe ..	125,100	24	4 0 0	500 8 0	
Quercus pedunculata ..	English oak ..	„ ..	44,850	20	4 0 0	179 8 0	
Acer pseudo-platanus ..	Sycamore ..	„ ..	54,400	15	3 15 0	204 0 0	
Betula alba	English birch ..	„ ..	350	20	4 0 0	1 8 0	
Sorbus aucuparia ..	Mountain ash ..	„ ..	1,300	18	4 15 0	6 3 6	
Castanea vesca ..	Spanish chestnut	„ ..	1,150	15	5 5 0	6 0 9	
Æsculus hippocastanum	Horse-chestnut	„ ..	2,000	15	5 5 0	10 10 0	
Juglans regia	Walnut ..	Persia ..	925	15	5 5 0	4 17 1	
Cotoneaster Simmondsii	Applewort ..	Nepaul ..	2,020	20	5 5 0	10 12 1	
Sophora tetraptera ..	Kowhai ..	New Zealand	5,500	15	5 5 0	28 17 6	
Griselinia littoralis ..	Broadleaf ..	„	2,350	12	5 5 0	12 6 9	
Pittosporum tenuifolium	Black mapou ..	„	2,327	24	10 0 0	23 5 5	
Quercus pedunculata ..	English oak ..	Europe ..	181,800	9	0 16 6	149 19 8	Planted *in situ*; have done well.
Total	..	..	738,222	..	..	2,445 7 9	

SCHEDULE B[4].—TREES TRANSFERRED FROM TAPANUI NURSERY TO HANMER SPRINGS AND EWEBURN NURSERIES, DOMAINS, ETC., 1902–3.

Where sent.	Name of Tree.	Number.	Rate per Thousand. £ s. d.	Value. £ s. d.	Remarks.
Hanmer Springs Nursery	Pinus Austriaca	50,000	1 0 0	50 0 0	Chiefly seedlings, sent to Hanmer Springs temporary nursery for lining out preparatory to permanent planting.
	Pinus ponderosa	13,500	1 5 0	16 17 6	
	Larix Europea	30,000	1 5 0	37 10 0	
	Betula alba	3,500	2 0 0	7 0 0	
	Alnus glutinosa	6,000	0 15 0	4 10 0	
		103,000			
Eweburn Nursery	Pinus Austriaca	10,000	3 0 0	30 0 0	For completing the planting of eastern portion of Survey Plantation.
	Pinus ponderosa	3,700	3 5 0	12 0 6	
	Pinus laricio	3,000	3 0 0	9 0 0	
	Betula alba	2,600	2 0 0	5 4 0	
	Alnus glutinosa	600	2 0 0	1 4 0	
		19,900			
Tourist Department (Glentanner Plantation)	Larix Europea	1,000	3 5 0	3 5 0	Planted at the Glentanner Shelter Hut, Mount Cook Road.
	Betula alba	1,000	3 0 0	3 0 0	
	Sorbus aucuparia	1,000	3 15 0	3 15 0	
	Castanea vesca	1,000	4 5 0	4 5 0	
		4,000			
Agricultural Department, Fairlie ..	Pinus Austriaca	150	3 0 0	0 9 0	For shelter plantation at Stock Paddock, Fairlie.
	Abies excelsa	150	3 0 0	0 9 0	
	Fraxinus excelsior	150	3 0 0	0 9 0	
	Betula alba	50	3 0 0	0 3 0	
	Ligustrum lucidum	500	2 0 0	1 0 0	
		1,000			
Karitane Domain Board	Pinus maritima	100	3 0 0	0 6 0	
	Abies Menziesii	100	3 5 0	0 6 6	
	Sophora tetraptera	100	5 5 0	0 10 6	
	Griselinia littoralis	25	4 5 0	0 2 3	
	Melicytus lanceolatus ..	25	4 5 0	0 2 3	
	Cotoneaster Simmondsii ..	50	4 5 0	0 4 3	
		400			
Total	..	128,300	..	191 12 9	

SCHEDULE C.—ONE-YEAR-OLD TREES.—Details of Trees grown at Rotorua Nursery, 1902–3. (Fourth Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand. £ s. d.	Total Value. £ s. d.	Remarks.
					lb.			
Abies excelsa ..	Spruce fir ..	Europe ..	300,000	1	28	0 15 0	225 0 0	Germinated well.
Abies Douglasii ..	Oregon pine ..	America ..	145,000	1	7	1 5 0	181 5 0	Extra fine.
Abies Menziesii ..	Menzies' spruce	„ ..	24,000	1	6	1 5 0	30 0 0	Rather weak growth.
Pinus strobus ..	Weymouth pine	„ ..	75,000	1	17½	1 0 0	75 0 0	These pines all germinated exceedingly well, and have since made good growth.
Pinus ponderosa ..	Yellow pine ..	„ ..	80,000	2	14	1 0 0	80 0 0	
Pinus rigida ..	Pitch pine ..	„ ..	7,500	3	¼	1 0 0	7 10 0	
Pinus Halepensis ..	Aleppo pine ..	Levant ..	20,000	3	2½	1 0 0	20 0 0	
Pinus Canariensis ..	Canary pine ..	Canary Is'ds	6,000	4	3	1 0 0	6 0 0	
Pinus Sabiniana ..	Nut pine ..	California ..	20	1	¼	1 0 0	0 0 5	Experimental.
Pinus excelsa ..	Lofty pine ..	Nepaul ..	200	1	¼	1 0 0	0 4 0	
Pinus Coulterii ..	Great-coned pine	America ..	300	2	¼	1 5 0	0 7 6	
Pinus insignis ..	Remarkable pine	„ ..	5,000	3	2	1 0 0	5 0 0	
Alnus glutinosa ..	Common alder	Europe ..	14,000	6	4	0 15 0	10 10 0	Good crop.
Larix Europea ..	European larch	Tyrol ..	380,000	2	165	1 0 0	380 0 0	Good.
Sequoia sempervirens	Redwood ..	California ..	600	3	6	2 0 0	1 4 0	Germinated sparsely, owing to inferior seed.
Juniperus virginiana..	Red cedar ..	N'th America	400	2	10	0 15 0	0 0 6	Very good results.
Catalpa speciosa ..	Catalpa ..	„	37,000	12	9	1 0 0	37 0 0	Extra strong growth.
Catalpa bignonoides ..	Indian bean ..	„	8,000	15	3	0 15 0	6 0 0	
Robinia pseudo-acacia	False acacia ..	„	15,000	15	14	0 10 0	7 10 0	
Acacia melanoxylon ..	Blackwood ..	Australia ..	5,500	6	1	1 0 0	5 10 0	Germinated well.
Acer saccharinum ..	Sugar maple ..	N'th America	12,000	6	14	1 0 0	12 0 0	
Eucalyptus teretecornis	Forest red gum	Australia ..	150,000	6	10	0 10 0	75 0 0	Splendid crop.
Eucalpytus amygdalina	Peppermint gum	„ ..	160,000	6	10	0 10 0	80 0 0	
Eucalyptus Stuartiana	Mountain ash ..	„ ..	150,000	6	5½	0 10 0	75 0 0	
Eucalyptus coriacea ..	Mountain white gum	„ ..	50,000	6	2¼	0 10 0	25 0 0	
Eucalyptus, var. species	..	„	1,000	6	36 p'k'ts	0 10 0	0 10 0	For trial purposes.
Juglans cineria ..	Butternut ..	America ..	1,300	9	40	2 10 0	3 5 0	Extra good growth.
Juglans regia ..	Walnut ..	Persia ..	8,500	6	195	2 0 0	17 0 0	
Total ..	..	..	1,656,320	..	..	..	1,365 16 5	

SCHEDULE C[1]. — TWO-YEAR-OLD TREES. — Details of Forest Trees grown at Rotorua Nursery, 1901–2. (Third Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Seed-beds.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
						£ s. d.	£ s. d.	
Abies excelsa ..	Spruce fir ..	Europe..	190,000	94,000	4	1 0 0	190 0 0	All these trees are well adapted to the pumiceous soil in this district; but the rate of growth is slightly under the average this year, owing to the dry windy weather experienced during the spring.
						2 0 0	188 0 0	
Abies Douglasii ..	Oregon pine ..	America	2,000	..	6	1 5 0	2 10 0	
Alnus glutinosa ..	Alder	Europe..	..	13,000	9	2 0 0	26 0 0	
Betula alba ..	English birch ..	„	..	10,000	15	2 0 0	20 0 0	
Juglans cineria ..	Butternut ..	America	..	450	18	4 5 0	1 18 3	
Juglans regia ..	Walnut ..	Persia ..	..	8,500	18	4 0 0	34 0 0	
Larix Europea ..	European larch ..	Tyrol ..	60,000	12,000	18	1 5 0	75 0 0	
						2 5 0	27 0 0	
Pinus Benthamiana ..	Bentham's pine ..	America	..	5,400	8	2 5 0	12 3 0	
Pinus Austriaca ..	Austrian pine ..	Europe..	85,000	120,000	6	1 5 0	106 5 0	
						1 10 0	180 0 0	
Pinus insignis ..	Remarkable pine	N. America	..	4,800	9	2 0 0	9 12 0	
Pinus ponderosa ..	Yellow pine ..	„	..	6,000	4	2 5 0	13 10 0	
Pinus strobus ..	Weymouth pine..	„	17,000	..	3	1 5 0	21 5 0	
Total ..	..	..	354,000	274,150	..	..	907 3 3	

SCHEDULE C[2]. — THREE-YEAR-OLD TREES. — Details of Forest Trees grown at Rotorua Nursery, 1900–1. (Second Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Abies Douglasii	Oregon pine ..	N. America ..	20,000	9	3 5 0	65 0 0	Done well.
Abies excelsa	Spruce fir ..	Europe ..	20,000	6	2 5 0	45 0 0	Only medium growth.
Abies Menziesii	Menzies' spruce ..	N. America ..	30,000	18	3 5 0	97 10 0	
Æsculus hippocastanum ..	Horse-chestnut ..	Europe ..	160	20	8 10 0	1 7 2	Good growth.
Castanea vesca	Spanish chestnut	„ ..	1,400	30	4 5 0	5 19 0	
Juglans cineria	Butternut ..	N. America ..	550	18	6 0 0	3 6 0	
Juglans regia	Walnut	Persia ..	5,500	30	4 5 0	23 7 6	
Corylus avellana	Hazel	Britain ..	700	36	8 10 0	5 19 0	
Larix Europea	European larch ..	Tyrol ..	90,000	15	3 0 0	270 0 0	
Pinus Austriaca	Austrian pine ..	Europe ..	105,000	9	3 0 0	315 0 0	
Pinus Benthamiana ..	Bentham's pine ..	N. America ..	7,500	12	3 10 0	26 5 0	Splendid growth.
Pinus laricio	Corsican pine ..	Europe ..	75,000	9	2 10 0	187 10 0	Very uneven.
Pinus ponderosa	Yellow pine ..	N. America ..	81,500	9	3 5 0	264 17 6	Very good growth.
Berberis Nepaulensis* ..	Barberry ..	N. India ..	6,500	12	0 10 0	36 5 0	For hedges. Good growth.
					2 10 0		
Sequoia sempervirens ..	Redwood ..	America ..	4,000	18	10 0 0	40 0 0	Very fine growth.
Total	..	..	447,810	..	..	1,387 6 2	

* Number in seed-beds, 40,000.

SCHEDULE C[3].—TWO-YEAR-OLD TREES, SHRUBS, ETC., GROWN AT ROTORUA NURSERY, 1901–2. (Third Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Hundred.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Benthamia fragifera	Indian strawberry ..	India ..	600	6	1 10 0	9 0 0	Grown mostly for planting on Government reserves under control of the Tourist Department.
Berberis stenophylla	Narrow-leaved barberry	..	180	9	2 10 0	4 10 0	
Carpodetus serratus	Puta-puta-weta ..	New Zealand	400	6	1 10 0	6 0 0	
Carmichaelia grandiflora ..	Native-broom ..	„	80	12	2 10 0	2 0 0	
Cerasus lauro-cerasus	Common laurel ..	Levant ..	1,200	6	0 7 6	4 10 0	
Cerasus lusitanica	Portugal laurel ..	Portugal ..	230	6	0 15 0	1 14 6	
Choisya ternata	..	Mexico ..	25	6	2 10 0	0 12 6	
Clianthus puniceus	Kaka-beak	New Zealand	100	8	2 0 0	2 0 0	
Coprosma robusta	Karamu	„	1,000	12	0 15 0	7 10 0	
Cordyline australis	Cabbage-tree ..	„	2,000	10	0 5 0	5 0 0	
Cordyline Hookerii	Toi (North Island var.)	„	4,000	8	0 7 6	15 0 0	
Cordyline indivisa	Toi (Dusky Sound var.)	„	500	6	0 7 6	1 17 6	
Cryptomeria elegans	Sacred cedar ..	Japan ..	30	8	2 10 0	0 15 0	
Dracophyllum (varieties) ..	Neinei	New Zealand	20	4 to 8	2 10 0	0 10 0	
Eleaganus Japonica	Wild olive	Japan ..	50	12	0 10 0	0 5 0	
Escallonia macrantha	Chilian gum box ..	Chili ..	400	4	0 10 0	2 0 0	
Gaultheria oppositifolia ..	Snowberry	New Zealand	100	6	2 10 0	2 10 0	
Melicytus lanceolatus	Hinehine	„	150	6	1 10 0	2 5 0	
Olearia (varieties)	Daisy-tree	„	140	8	2 10 0	3 10 0	
Persoonia toro	Toro	„	90	10	5 0 0	4 10 0	
Phormium species	Variegated flax ..	„	350	30	2 10 0	8 15 0	
Pittosporum (varieties) ..	Matipos	„	8,000	15	0 10 0	40 0 0	
Retinospora (varieties) ..	Cypress	Japan ..	240	8	1 10 0	3 12 0	
Salix cuprea (varieties) ..	Goat willow ..	Britain ..	50	10	1 0 0	0 10 0	
Senecio (varieties)	Leather-leaf ..	New Zealand	200	8	2 10 0	5 0 0	
Veronica (varieties)	Koromiko	„	700	4 to 9	3 15 0	26 5 0	
Weigelia rosea alba	White weigelia ..	Japan ..	20	12	1 0 0	0 4 0	
Weimannia sylvicola	Tawhero	New Zealand	80	4	2 10 0	2 0 0	
Total	..	..	20,935	..	..	162 5 6	

SCHEDULE C⁴. — THREE-YEAR-OLD ORNAMENTAL TREES, SHRUBS, ETC., GROWN AT ROTORUA NURSERY, 1900–1. (Second Crop.)

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Height in Inches.	Value per Hundred.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Aralia Seiboldtii	Angelica tree ..	Japan	2,700	15	2 0 0	54 0 0	Grown mostly for planting on Government reserves under the control of the Tourist Department.
Alectryon excelsum	Titoki	New Zealand ..	30	9	3 10 0	1 1 0	
Bambusa augustifolia ..	Bamboo	India	15	24	3 15 0	0 11 3	
Cerasus lauro-cerasus ..	Common laurel ..	Levant.. ..	1,100	18	0 10 0	5 10 0	
Cerasus lusitanica	Portugal laurel ..	Portugal ..	500	18	1 5 0	6 5 0	
Cotoneaster Simmondsii ..	Rose box	India	400	24	3 0 0	12 0 0	
Chamærops excelsa	Fan palm	China	1,000	6	0 10 0	5 0 0	
Cryptomeria elegans	Sacred cedar ..	Japan	350	24	5 0 0	17 10 0	
Cupressus sempervirens ..	Upright cypress ..	South Europe ..	300	24	3 15 0	11 15 0	
Cytisus (varieties)	Laburnums ..	Europe.. ..	1,600	12	0 10 0	8 0 0	
Dianella intermedia	Flax lily	New Zealand ..	20	9	2 10 0	0 10 0	
Dracophyllum (varieties) .	Neinei	" ..	15	8	2 15 0	0 8 3	
Fourcroyia gigantea	Giant lily	Mexico ..	14	15	5 0 0	0 14 0	
Fraxinus excelsior pendula ..	Weeping ash ..	Europe ..	9	144	0 7 6 (each)	3 7 6	
Hoheria populnea	Ribbonwood ..	New Zealand ..	30	15	2 10 0	0 15 0	
Ligustrum lucidum	Privet	Japan	2,900	15	2 10 0	72 10 0	
Metrosideros (varieties) ..	Rata	New Zealand ..	100	6	5 0 0	5 0 0	
Pseudo-panax crassifolium ..	Lancewood	" ..	100	12–18	4 10 0	4 10 0	
Podocarpus totara	Totara	" ..	112	18	5 0 0	5 12 0	
Phyllocladus trichomanoides ..	Tanekaha	" ..	100	18	5 0 0	5 0 0	
Plantanus orientalis	Oriental plane ..	Levant ..	2,000	72	4 0 0	80 0 0	
Piptanthus Nepaulensis ..	Evergreen laburnum	Nepaul ..	100	30	0 15 0	0 15 0	
Prunus pissardi	Purple-leaved plum ..	Persia	14	48	5 0 0	0 14 0	
Raphiolepis indica	Indian hawthorn ..	India	700	6	1 5 0	8 15 0	
Retinospora (varieties) ..	Cypress	Japan	2,700	30	2 10 0	67 10 0	
Sophora tetraptera grandiflora	Large-flowering kowhai	New Zealand ..	120	9	0 7 6	0 9 0	
Ulmus (varieties)	Elms	Europe.. ..	50	30	1 0 0	0 10 0	
Total	..	..	17,079	..	..	378 12 0	

SCHEDULE C⁵.—TREES, ETC., TRANSFERRED FROM ROTORUA NURSERY TO FOREST PLANTATIONS, ETC., 1902–3.

Where sent.	Name of Tree.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Whakarewarewa Plantation ..	Sequoia sempervirens ..	12,300	15	5 0 0	61 10 0	Good growth.
	Larix Europea.. ..	158,950	15	4 5 0	675 10 9	Good growth.
	Pinus Austriaca ..	1,750	10	4 0 0	7 0 0	For filling up blanks in former planting; splendid growth.
	Betula alba	1,235	15	3 15 0	4 12 8	
	Juglans cineria ..	400	30	6 0 0	2 8 0	Planted on fire-breaks at 16 ft. 6 in. apart; do remarkably well here.
	Juglans regia	1,050	36	4 5 0	4 9 3	Planted on fire-breaks at 16 ft. 6 in. apart; do remarkably well here.
	Juglans nigra	72	18	6 0 0	0 8 8	Planted on fire-breaks at 16 ft. 6 in. apart; do remarkably well here.
	Æsculus hipposastanum	100	20	6 0 0	0 12 0	
	Castanea vesca.. ..	336	30	6 0 0	2 4 0	
	Berberis Nepaulensis ..	2,000	12	0 15 0	1 10 0	Planted as a hedge, makes good growth.
	Catalpa speciosa ..	100	30	6 0 0	0 12 0	Experimental; very satisfactory growth.
	Platanus orientalis ..	3,900	60	4 0 0	156 0 0	Does well here.
	Sorbus aucuparia ..	600	30	3 15 0	2 5 0	Planted on steep exposed faces.
	Eucalyptus coriacea ..	48,000	..	..	..	Sown *in situ* at per hundred.
		230,793	..	..	919 2 4	
Waiotapu Plantation	Pinus ponderosa ..	55,525	9	4 5 0	235 19 0	Planted at 4 ft. apart. All these trees do exceedingly well in this locality, and are being extensively planted.
	Pinus strobus	9,400	9	4 5 0	39 19 0	Planted at 4 ft. apart. All these trees do exceedingly well in this locality, and are being extensively planted.
	Pinus laricio	27,450	12	4 0 0	109 16 0	Planted at 4 ft. apart. All these trees do exceedingly well in this locality, and are being extensively planted.
	Pinus Austriaca ..	170,143	10	4 0 0	680 11 6	Planted at 4 ft. apart. All these trees do exceedingly well in this locality, and are being extensively planted.
	Abies Douglasii ..	11,712	18	4 5 0	49 15 6	The failures do not amount to more than 2 per cent.
	Populus balsamica ..	1,575	30	4 0 0	6 6 0	Planted in swampy ground adjoining the river.
	Alnus glutinosa ..	2,000	9	1 0 0	2 0 0	
	Pittosporum tenuifolium	3,250	9	4 0 0	25 0 0	Used for filling up blanks.
	Cupressus Lawsoniana ..	2,292	12	5 5 0	12 0 8	
	Berberis Nepaulensis ..	800	9	2 0 0	1 12 0	
	Sorbus aucuparia ..	6,250	30	4 0 0	25 0 0	Planted on hillsides and in exposed places.
	Betula alba	880	15	3 15 0	3 6 0	
	Piptanthus Nepaulensis	175	30	10 0 0	1 15 0	Distributed throughout the pine area as a bait for hares.
	Spartium junceum ..	1,000	18	4 0 0	4 0 0	
	Gynerium argenteum ..	150	36	10 0 0	1 10 0	For ornamental planting around the camp.
	Cordyline australis ..	350	15	3 0 0	1 1 0	
	Various ornamental shrubs	111	9	10 0 0	1 2 3	
		293,063	..	..	1,200 13 11	

SCHEDULE C[5].—TREES, ETC., TRANSFERRED FROM ROTORUA NURSERY TO FOREST PLANTATIONS, ETC., 1902–3—*continued*.

Where sent.	Name of Tree.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Kaingaroa Plains Plantation ..	Cupressus Lawsoniana ..	4,633	12	5 5 0	24 6 6	All these trees were used for filling in blanks in former plantation. The *Pinus laricio* were two-year seedlings; *P. insignis* one-year.
	Betula alba	120	12	3 15 0	0 9 0	
	Pinus laricio	4,200	6	1 10 0	6 6 0	
	Pinus insignis	11,825	6	1 0 0	11 16 6	
	Abies Douglasii ..	100	12	4 5 0	0 8 6	
		20,878	..	..	43 6 6	
Starborough Nursery	Betula alba	16,850	4	1 0 0	16 17 0	
	Alnus glutinosa ..	1,000	4	1 0 0	1 0 0	
	Various ornamental shrubs (32 different sorts)	6,550	..	..	39 18 0	
		24,400	..	..	57 15 0	
Whakarewarewa Plantation, as per details above		230,793	..	..	919 2 4	
Waiotapu Plantation, "		293,063	..	..	1200 13 11	
Kaingaroa Plains Plantation, "		20,878	..	..	43 6 6	
Starborough Nursery, "		24,400	..	..	57 15 0	
Geyser area, Whakarewarewa Plantation, native shrubs ..		2,750	..	..	45 13 6	
Arikikapakapa Reserve Plantation, " ..		42,915	..	..	566 15 3	
Sanatorium grounds, Rotorua, various trees and shrubs ..		918	..	..	35 6 6	
Native School, Whakarewarewa, hedge plants and shrubs ..		2,150	..	..	6 12 6	
Rotorua Cemetery, various ornamental shrubs		500	..	..	14 13 3	
Post-office, Rotorua, *Pittosporum tenuifolium*		400	..	..	4 0 0	
Public School, Okoroire, shelter trees and ornamental shrubs		238	..	..	1 18 6	
Department of Agriculture, Motuihi, native shrubs ..		1,600	..	..	19 0 0	
Department of Agriculture, Kirikiriroa, shelter trees ..		12,140	..	..	37 10 6	
Hanmer Springs, *Betula alba*, seedlings, 4 in.		4,500	..	..	4 10 0	
Hanmer Springs Plantation, larch-seed, 30 lb.		..	..	..	3 15 0	
Eweburn Nursery, *Betula alba*, two-year old		12,000	..	..	..	
Total		649,245	..	..	2,960 12 9	

SCHEDULE D.—ONE-YEAR-OLD TREES.—Details of Trees grown at Starborough Nursery, 1902–3. (Second Crop.)

Name of Tree.	Common Name.	Habitat.	Estimated Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
					Lb.	£ s. d.	£ s d.	
Larix Europea ..	European larch ..	Europe ..	150,000	1 to 2	84	1 0 0	150 0 0	Good plants.
Pinus laricio	Corsican pine ..	Corsica ..	50,000	1 to 1½	12	0 15 0	37 10 0	Sturdy growth.
Pinus Austriaca ..	Austrian pine ..	Europe ..	20,000	1 to 2	14	0 15 0	15 0 0	
Pinus ponderosa ..	Yellow pine ..	N. America	20,000	1 to 1½	7	1 0 0	20 0 0	
Pinus strobus	Weymouth pine..	"	4,000	1 to 1½	9	1 0 0	4 0 0	Germinated slowly.
Pinus insignis.. ..	Remarkable pine	"	15,000	3 to 4	5	1 0 0	15 0 0	Fair plants.
Pinus Canariensis ..	Canary pine ..	Canary Isl'ds	1,000	3 to 4	1	1 0 0	1 0 0	Fine plants.
Pinus rigida	Pitch pine ..	N. America	2,000	1 to 1½	¼	1 0 0	2 0 0	Sturdy seedlings.
Pinus Halepensis ..	Aleppo pine ..	Europe ..	1,500	2 to 4	½	1 0 0	1 10 0	Good.
Abies Douglasii ..	Oregon pine ..	N. America	70,000	1 to 1½	6	1 5 0	87 10 0	Splendid crop.
Betula alba	English birch ..	Europe ..	4,000	9 to 15	12	0 15 0	3 0 0	Very strong.
Eucalypti (varieties) ..	Gums	Australia ..	4,000	6 to 12	..	1 15 0	7 0 0	Done well.
Robinia pseudo-acacia ..	False acacia ..	N. America	20,000	18 to 30	14	0 10 0	10 0 0	Extra strong.
Total ..	..	..	361,500	..	..	..	353 10 0	

SCHEDULE D[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Starborough Nursery, 1901–2. (First Crop.)

Name of Tree.	Common Name.	Habitat.	Estimated Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Larix Europea ..	European larch ..	Tyrol ..	150,000	9 to 24	1 5 0	187 10 0	Very strong growth.
Pinus Austriaca ..	Austrian pine ..	Europe ..	225,000	3 to 6	1 0 0	225 0 0	Splendid plants.
Pinus strobus	Weymouth pine..	N. America..	20,000	2 to 4	1 5 0	25 0 0	Very good.
			Number in Nursery Lines.				
Pinus ponderosa ..	Yellow pine ..	America ..	4,400	2 to 4	2 5 0	9 18 0	Sturdy plants.
Pinus Benthamiana ..	Bentham's pine ..	" ..	4,000	2 to 4	2 5 0	9 0 0	
Pinus insignis ..	Remarkable pine	" ..	19,000	9 to 18	2 5 0	42 15 0	
Berberis Nepaulensis ..	Barberry ..	India ..	39,500	6 to 18	1 10 0	59 5 0	
Total	..	..	461,900	..	..	558 8 0	

SCHEDULE D[2].—THREE-YEAR-OLD TREES AND SHRUBS.—Details of Trees grown at Starborough Nursery, 1902–3. (First Crop.)

Name of Tree.	Common Name.	Habitat.	Number of Trees in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Pinus insignis	Remarkable pine	America ..	5,500	18 to 30	3 0 0	16 10 0	Grand plants.
Sorbus aucuparia ..	Mountain ash ..	Europe ..	2,000	36 to 48	5 0 0	10 0 0	Extra strong.
Berberis Nepaulensis ..	Barberry ..	India ..	300	24 to 30	1 10 0	0 9 0	
Cordyline australis ..	Cabbage-tree ..	New Zealand	2,500	24 to 36	7 10 0	18 15 0	Fine plants.
Cupressus Lawsoniana ..	Lawson's cypress	America ..	950	18 to 24	0 10 0*	4 15 0	Good plants.
Pittosporum (varieties) ..	Matipo	New Zealand	1,000	6 to 18	2 0 0	2 0 0	Done well.
Veronica (varieties) ..	Koromiko ..	"	2,000	6 to 15	3 10 0	7 0 0	Good plants.
Raphiolepis ovata ..	Indian hawthorn	India ..	100	4 to 6	1 0 0*	1 0 0	Nice plants.
Total	..	..	14,350	..	..	60 9 0	

* Per hundred.

SCHEDULE D[3].—Details of Trees transferred from Whakarewarewa Nursery to Starborough Nursery, 1902–3.

Name of Tree.	Common Name.	Habitat.	Number.	Height in Inches.	Value per Thousand.	Total Value.
					£ s. d.	£ s. d.
Betula alba	English birch	Europe	16,850	4	1 0 0	16 17 0
Alnus glutinosa	Common alder ..	"	1,000	4	1 0 0	1 0 0
Various ornamental shrubs	(32 sorts)	"	6,550	..	..	39 18 0
Total	..	..	24,400	..	..	57 15 0

SCHEDULE E. — ONE-YEAR-OLD TREES.—Details of Trees grown at Hanmer Springs Temporary Nursery, 1902–3.

Name of Tree.	Common Name.	Habitat.	Estimated Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
					£ s. d.	£ s. d.	
Larix Europea ..	European larch ..	Tyrol ..	45,000	3	1 0 0	45 0 0	Fair crop.
Eucalyptus pauciflora ..	Mountain white gum	Australia ..	9,000	3	0 15 0	6 15 0	
Total	..	..	54,000	..	..	51 15 0	

SCHEDULE E[1].—TWO-YEAR-OLD TREES.—Details of Trees transferred from Tapanui Nursery, 1902–3.

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Pinus Austriaca ..	Austrian pine ..	Europe ..	50,000	2 0 0	100 0 0	These trees have done well, and will be permanently planted next season.
Pinus ponderosa ..	Yellow pine ..	America ..	13,500	2 5 0	30 7 6	
Pinus insignis ..	Remarkable pine	" ..	1,500	2 5 0	3 7 6	
Larix Europea ..	European larch ..	Tyrol ..	30,000	2 5 0	67 10 0	
Betula alba	English birch ..	Europe ..	8,250	2 0 0	16 10 0	
Alnus glutinosa ..	Common alder ..	Britain ..	3,000	1 0 0	3 0 0	
Total	..	..	106,250	..	220 15 0	

SCHEDULE E[2].—THREE-YEAR-OLD TREES.—Details of Trees transferred from Tapanui Nursery, 1901–2.

Name of Tree.	Common Name.	Habitat.	Number in Nursery Lines.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Abies excelsa	Spruce fir ..	Europe ..	58,000	3 0 0	174 0 0	These trees have made good growth, and will be transferred to plantation next season.
Abies Menziesii ..	Menzies' spruce ..	America ..	16,500	3 5 0	53 12 6	
Pinus ponderosa ..	Yellow pine ..	" ..	3,500	3 5 0	11 7 6	
Pinus laricio	Corsican pine ..	Corsica ..	4,200	3 0 0	12 12 0	
Pinus Austriaca ..	Austrian pine ..	Europe ..	21,000	3 0 0	63 0 0	
Larix Europea ..	European larch ..	Tyrol ..	2,000	3 5 0	6 10 0	
Total	..	..	105,200	..	321 2 0	

SCHEDULE E[3].—TREES TRANSFERRED TO HANMER SPRINGS PLANTATION, 1902–3.

Name of Tree.	Common Name.	Habitat.	Number.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Alnus glutinosa ..	Common alder ..	Britain ..	3,000	0 15 0	2 5 0	Planted in swamps; have done well.
Betula alba	English birch ..	Europe ..	3,900	4 0 0	15 12 0	For shelter purposes.
Quercus pedunculata ..	English oak ..	" ..	90,500	1 0 0	90 10 0	Acorns planted *in situ*.
Berberis vulgaris ..	Barberry ..	England ..	350	2 0 0	0 14 0	For hedge round nursery.
Cotoneaster Simmondsii	Applewort ..	Nepaul ..	250	4 5 0	1 1 3	
Ligustrum lucidum ..	Privet	China ..	300	2 0 0	0 12 0	
Total	..	..	98,300	..	110 14 3	

APPENDIX V.—SANCTUARIES FOR ANIMALS AND BIRDS.

GAME FARM RESERVE NEAR PARAPARAUMU.

THE following report has been received from the Wellington Acclimatisation Society:—

Since the last report was forwarded an agreement has been entered into for carrying on work at the reserve under a competent gamekeeper (Mr. D. Crossley), who has been appointed caretaker of the reserve.

As the result of the past season's breeding operations, Mr. Crossley took up to the reserve nearly seventy pheasants, losing only one of the birds in transit from Wellington and Karori. As the birds had to be packed over the last two miles before reaching the game farm, the result is considered very satisfactory. Under his agreement the caretaker is to build an addition to the present whare there, and look after all game birds that may be placed on the reserve from time to time. The pheasant-pens previously erected by the society were found to be in capital order, and are now occupied by the birds taken out by Mr. Crossley.

The society has ordered from Scotland a shipment of black game and partridges, and these will be brought to the colony under the care of a Scotch gamekeeper, who expects to be leaving for New Zealand in October next. It is thought that black game would do well at the reserve, while the partridges could be bred from and distributed in suitable localities after they had become thoroughly acclimatised.

This month (June) the caretaker is engaged chiefly in putting up addition to whare and erecting new pens, with the double object of providing additional storage-room and furnishing the pens required for the young birds next spring. He reports that the Californian quail are now to be seen in great numbers along the reserve, and that the opossums turned out a few years ago are increasing and have spread through the bush for a distance of two or three miles from the place where they were first liberated.

A road to the farm is much needed, as it is found almost impossible to successfully move either birds or material under present conditions.

Enclosed will be found a photograph of some of the young red deer originally turned out at the reserve. The deer continue to thrive, and the herd now numbers over twenty.

STATEMENT of RECEIPTS and EXPENDITURE for the year ending the 31st March, 1903.

Receipts.

April 1, 1902, to March 31, 1903—	£ s. d.
By Amount from general fund, Wellington Acclimatisation Society	149 0 7
Wanganui Society (two pheasants) ..	1 16 9
Rent of Reserve (eighteen months) ..	19 10 0
Amount received for fencing.. ..	13 18 1
	£184 5 5

Expenditure.

April 1, 1902, to March 31, 1903—	£ s. d.
Salary of caretaker	83 6 8
Pheasant-food	6 19 9
Cartage	2 17 0
Wire netting, tools, &c...	6 19 10
Removal of Karori pens..	1 4 0
Boxes for pheasants	1 2 0
Cheque-book	0 2 6
Bank charges	0 10 0
Travelling-expenses (caretaker)	1 6 0
Railway freight	0 12 8
Rent of premises at Karori	1 16 0
Fencing reserve	28 3 10
Balance	49 5 2
	£184 5 5

RESOLUTION ISLAND.

THE following notes and memoranda were received from Mr. Richard Henry, caretaker at Resolution Island :—

Pigeon Island, 26th August, 1902.

The "Hinemoa" called on the 8th June. The "Tutanekai" called in on the 5th August, when she was looking for a lost steamer. A few days later I went to Woodhen Cove, because it is a great place for catching wreckage from the north ; but there was no new stuff. Then I got ready for a good cruise around, and went to South Point—another good place ; but there was nothing new.

At Woodhen Cove the hens were as plentiful as ever, or perhaps more so, and all in splendid trim. Pigeon Island is swarming with them and penguins. I had to break my dog off them severely, and now I have trouble to get him to hunt kiwis or kakapos. Even if I was to let him hunt woodhens I would be no better off, for they are more sport for a dog and more plentiful, so that he would never find me a kiwi except by accident. I have some of those birds on Parrot Island, and he will not find them, though I can see that they are there by their tracks. I am out every fine day trying to get him into my work again before I have to get the birds for the "Hinemoa" on the 1st October.

Pigeons are very plentiful here this year, probably because there was a great crop of red-pine berries, which does not happen every year. I saw one young one barely feathered. I think they have only one, for this is the third nest I have seen with only one. They are very hard to find, for I spent a lot of time looking for them. I found this one by seeing the parents going often to the tree. The parents carry the food in their crops, of course. They give the young one no berries at first, but when it is well grown I think they must give it about a bucketful a day by the number of journeys they make. I think there were many reared here this year, for there is often a flock of playful ones flying about over Pigeon Island, and the old ones do not do that. The young ones grow up wonderfully quickly—perhaps are able to fly in about three weeks. They are eating miro berries and mapous now. The woodhens also eat the fallen mapou and red-pine berries, but not miros.

The kakas have just come, because there are a few rata-blossoms coming out and plenty of *Panax arboreum*.

Fish have been rather scarce this year, for a wonder.

28th November, 1902.

The "Tutanekai," with Captain Bollons, was here on the 11th October. She came at 5 p.m. and left at 8, which appears to be lots of time for me to answer letters particularly ; but many people came ashore, and I am so glad to see some one that the time soon goes.

I hauled out the cutter and copper-painted her bottom when the paint came by last steamer. The worms would soon eat her, but I have kept her perfectly sound as yet.

Whenever there is a westerly wind and a fine day I go for a sail in "Putangi." She is a 16 ft. centreboard boat—a good little sailer. I took her up to Te Anau nineteen years ago this month, and she is a good boat yet.

It has been very bad weather lately—only five fine days in this month so far. I must either wear oilskins or stay indoors, so I am glad to get out when it is fine.

I sent away two roas and five woodhens by the steamer for Rotorua. I had two kakapos that I got with difficulty with my clumsy dog, but they were very poor when I got them, and there was no hope of keeping them. They ate so little and worried so much to cut out of their cages that both were dead before the steamer came.

I had also two grey kiwis, which are the hardest of all to feed, for they will not eat the big worms until they are nearly starved. They want grubs and tiny little things. They were so reduced after a fortnight in my store that I saw they would not stand many days on the steamer, so I put them out on Resolution before they got too weak to recover.

16th December, 1902.

On the 6th the sun came out, and having my boat packed I started for a camping-out cruise, for I find that I learn nothing about the inhabitants unless I camp out for a night or two. I was up Acheron Passage to the Gilbert Islands, but the swell made the landing disagreeable, so I camped in Occasional Cove on Resolution. It is a miserable place, with kiekies and ferns up to my neck, and no place for a walk. I heard several roas at night, and there were wekas at the tent, but no other birds except penguins, which were sitting about in dens shedding their feathers.

Then I camped under the great scrub-patches on Mount Foster. I wanted to train my dog to find kakapos, but found none, though I heard one or two there at night. But we gave that place a great hunting with a dog that would scent one a quarter of a mile away. Probably we took over a hundred kakapos out of that when we were hunting. Then on the 9th, when it was still beautifully fine and warm, I came to Mount Evans, on the south coast of Dusky, making a very long day of it, calling at various places. I did not see a single teal nor a robin, though the robin was always the first to meet me at a new landing. Nor did I notice a single rata-blossom, so that they are very late this year. Mount Evans ought to be a good place for kakapos, and I never hunted there because it was too steep, yet I heard very few. Kakapos are demons to fight with their powerful beak and claws, and I cannot imagine a weasel killing one. It would take a ferret all his time. There cannot be any ferrets, because the wekas were there at my tent and others along the coast ; and I know by experience at Te Anau that the wekas go at once before ferrets.

I caught three kakapos there in three days' hunting, all in very poor condition—no rata-honey for them this year as yet. My dog has got the idea of looking for them, but is not good for birds. His snout is so short that I cannot fasten the muzzle on securely, and he is so small he can get in the holes, which are two very bad things ; yet he is clever, and I might get worse.

On the 11th the rain commenced, and next morning the hillsides were roaring. There had been 2·8 in. of rain. Next day was wet, and I only got home to-day.

There were always robins on Pigeon Island, and especially on Parrot Island, until the rats left, and then the robins left. I have been to Five Fingers Peninsula and various places to look for them, but not one have I seen. I cannot believe that a weasel ever came on to those islands, for my new dog was just mad for hunting the last of the rats, because I helped him with axe and spade, and made a great game of it to teach him to hunt a weasel, so that I am sure he would not pass the scent of a weasel now. And he is very keen-scented. The few rats we got were poor miserable little things, which suggested a long-continued sickness, and the same may have taken the robins, the rats being the distributers. Pigeon Island is just swarming with woodhens, and I have not missed a single chicken from those that live near the house. But it is evident that we had no useful information about weasels, even at Home, or we would not have brought them to New Zealand.

There is also a great scarcity of fish and sea-birds in the Sound all this year—and it cannot be the weasel that is affecting them, but it illustrates the want of order in the seasons here, and the coming and going of things. Numbers of moki usually appear in October, but now it is December and I have not seen them yet, nor the shoals of other fish, but the mysis have just come, and I suppose the fish will soon be here now, and then the birds and the cow-fish.

The parakeets are also absent, for the first time since I came here.

6th January, 1903.

The "Tutanekai" called this evening, and has anchored till morning. A lot of visitors ashore, and a jolly day for me.

17th February, 1903.

I went to the head of Dusky Sound on the 22nd January to call on the roadmen, because I thought I ought to do so, but did not stay long. That night I camped on Cooper Island, and there were plenty of kakapos drumming on the north side of the sound, but hardly one to be heard on the south side. This is the first time I have known them to breed two seasons in succession. Where all the drumming was there was no place to leave my boat in safety, or even haul her out, so I had to stay on Cooper Island and go over when it was fine enough.

My dog soon found me two nests of grey kiwi, with a pair in each, but would pass by a kakapo in a hole just as he would a penguin. The only ones he found were those that happened to be out in the ferns in the daytime. However, I brought home a pair on the 27th, and they turned out so sulky that they would eat nothing but grass, and worked their lives out cutting their cages, so that they were dead in a week. One of them laid an egg in the cage. The four kiwis I put on Cooper Island. They are defenceless little things, and their presence shows that the weasels are not there yet.

I went to the same place again on the 3rd February, and stayed ten days, most of them too wet and rough for me to cross. I had to let my dog kill a kakapo and praise him up for it, and then he soon found me some, for there are plenty up there in that high valley.

They are a queer lot; some of them are tame the first day I get them, while others are as fierce as wild-cats, no matter how long I keep them. The first year I was here I had some tame like that, and by great good luck I got a pair to fill my order for Rotorua. One of them is a big old male that will eat out of my hand without ever attempting to bite.

I brought home three on the 14th, after being two days stormbound on Resolution, where I let two others go. I kept the best ones, and have penned off half my store for them, so that they have plenty of room to climb about for exercise. Two of them are eating well—blue peas and oats steeped, also gooseberries—so that they will live. There is no use me feeding them on the wild berries, for they would only starve on the steamer, or where they are going to live, if they would not eat what food is available there. The soft peas are sure to be good food for them, and it is a valuable discovery for me. Yet one of those I have will not eat them, nor anything else satisfactorily. It is very hard to starve it into eating, for this is the twelfth day in the cage. Of course, I give it all sorts of leaves and moss, and everything I can think of.

20th March, 1903.

I was out from the 7th to the 12th, and had beautiful weather. When it does come fine here it is grand, especially at this time of the year. I wanted to photograph some of the young kakapos, and found two nests with two in each, but the dog destroyed them both before I knew that he had them, and it was so vexing that I would not let him hunt any more. They make their nests in very open holes, so that any dog could get at them, and I cannot keep sight of him in the bush, so that I do not miss him when he goes in a hole. The young ones are just like young kakas, only a purer white in the down. I saw several parties of teal—very much to my surprise, for I thought they had gone for good, they had been away so long. Also three of those that used to live at Pigeon Island have come back after being absent over eighteen months. I know that they are the same ones, because they will pay no attention to me. If they were strangers they would show a little surprise at all events.

The fish and sea-birds came back in their old style about the end of February; and to-day I caught some fine fat cod very easily within a hundred yards of the boat-shed. There is one thing pleasantly remarkable about the blue cod, in the fact that they never appear to have any sickness, or parasites in their gills or flesh, as is commonly the case with all the wrass family—the ling, and the barracouta; and even the moki have a little ring-worm in the cavity of the body, which I never saw in the cod. But it is quite a common thing to catch cod that have been bitten by other fish. I caught one recently that had nearly all its tail off, and its body so badly crushed that it was stiff, so that it would have been easy game for the next groper that saw it. These two things naturally go together—that is, the police are efficient, and the cod are kept in good order, while, on the other hand, such fish as the ling and *Sebastes percoldes* are nearly always sick with something or other,

probably because no fish cares for them and they have no police to keep them in order. Therefore they cannot be so wholesome for our food as such fish as the cod. It is common for a disease to assume a different form on the different hosts it affects; and only the other day I read that some of our worst diseases are supposed to be secondary stages of those on fish.

The trumpeter is another fish that is kept in good order by the prompt removal of all those that have anything the matter with them. It is very few trumpeter that I catch—perhaps not twenty in a year—and yet several of them will have severe bites on them; and as we may expect that not 1 per cent. of these escapes, and that I do not catch one in a thousand of them, I can guess at the extensive and continual slaughter that is carried on among the fish, and that if it was only stopped for a single year the ocean itself might be sick.

Even when men catch fish they are most likely to take the silly ones first, and silliness often goes closely before or after other defects. It is a long continuance of that sort of selection that has made the trout so clever in avoiding visible fishing-lines; and probably for the same reason all the native fish of New Zealand are much easier to catch than those of Australia, because they have not such long experience of men.

Wounded Duck.

At the beginning of every shooting season it is common to see a single Paradise flying about the sound looking for its mate, which shows that they go over the mountains to the grass country in search of seed or grain.

On the 4th April, 1903, a wounded drake came into my little sandy bay on Pigeon Island, and crawled under the wire netting to get at a bit of grass at my door, so that he must have been starving to be so venturesome. When I accidentally frightened him he flew lightly against the netting, but hurt himself so much that he fainted. I thought he was dead, but while I was looking at him he recovered and toddled away in great straits. He can fly well but walks a little lame, and spends most of his time lying on the beach. He seemed not to recognise oats in that unlikely place, so I peeled big sods of grass out of my garden and laid them down where he used to rest, and when he had plucked them well I laid the oats on them and then he ate it. Of course, I had to be very cautious and only go to his place when he was away, or he would have gone altogether. All wounded wild things like to go away and live by themselves, because their mates will not have them in the first place, and in the second it is their best chance of a rest for recovery. But those beaches are hungry places, and he must have got a great surprise when he came back and found a patch of splendid grass growing on the sand. It would puzzle his head about the power he does not understand. He is probably one of a pair that used to come here, and in his great distress he remembered where there was a bit of grass in a lonely nook, a suitable place for an invalid. I knew that they were very intelligent, but this one showed it in a most remarkable way, for it was only a few days until he knew perfectly well that I was leaving the food for him, and that I was friendly. He would be up at his box in the morning and find it empty, yet would swim back and go straight up to it again when he saw me leaving it. That showed his reasoning. If he will only stay here altogether he will be very welcome, and he may do so, for he flies a little stiffer than when he first came. When I go away in the sound I can always leave him some food, and he is welcome to the grass.

2nd May.—The sparrows soon found the duck's food; also the woodhens learned to eat the wheat, so I flattened a fern-stem and put it upon stakes within shot of the flax. Then I took a fine "rise" out of the sparrows, and have not seen them since. The duck recognised his box up there and flew up at once. He lies there now most of the day, or comes round after me and sits on a rock within 40 yards of where I am cutting wood. The paradise all like the company of men if the men would only have them, and that trait is almost sure to be in remembrance of a friendlier race of men that used to live in New Zealand.

10th May.—Within the last few days the duck has become quite tame. He has plenty of courage, and when he sees the woodhens walking right up to me he appears to say to himself, "If they are not afraid, I am not." So this morning he comes up and has his food in his box between the house and the store, though they are only 40 ft. apart and I am in and out several times getting breakfast. But first he alights on a high stump to survey the situation, and sees me putting down the food.

I write these trifles because it is a rare opportunity of doing so, and the intelligence of all the creatures is really the most important thing about them. It dictates their habits, and if we had been better informed in that department we would not have made so many blunders. See how much we underestimated the ability of the weasels. We thought them fools enough to go struggling with rabbits, but the weasels knew too much for that—and for us too it appears. I had no correct idea of the sparrows' cleverness until I came here; and perhaps all the people in New Zealand are still without the right idea, and therefore make great mistakes in dealing with them. The ability of the creatures to adapt their habits to new conditions has cost New Zealand a lot of money.

Young ducks brought up tame would be no use to study, because they would be ignorant. That is why I value this one so much—in hopes of getting a mate for it.

Sparrows.

There were a few sparrows reared here this last season. The two previous seasons a few of them built nests in a big red-pine near the house, but I believe that a long-tailed cuckoo robbed them, and then all the sparrows went away. This last season I did not hear a single cuckoo anywhere in the sound, though in other years they were very commonly heard. The Maori name of Resolution Island alludes to the long-tailed cuckoo.

When the swarm of sparrows left here last February about a dozen of them remained — probably those that were reared here—and whenever I sowed a little grass-seed they would eat it all, or

wait till it sprouted and then pull it up by the roots. After I shot a few of them the others became so clever that they were the most difficult birds I ever tried to shoot. There was no getting near them, and when I would be out in the boat they could do all the business they required. And as for trapping them, they would not go near any sort of trap or net, so that their knowledge in that department must have been born with them. However, I got them down to about two, when I began to feed the wounded duck, and, of course, they soon found the food on the beach. Not only that, but went away and told a lot of their mates, or sent them a wireless message, for now there is a whole party of them, that never came here before at this time of year. They only came for the rata-honey, or for seeds that are all done now. If there is anything in the wireless vibrations that we hear so much about, the birds and many other creatures may have known all about it long ago, and that would explain many of our present mysteries. At all events, it seems that sparrows will soon gather in numbers wherever there is food—even out on Pigeon Island.

Previously when a party of them came they used to sit on the tree over the house and jabber there for half the day, but this lot of new arrivals are as shy as wild geese, and keep on the far side of the little bay, yet I am hardly off the beach until they are dropping down on the duck's food. I would sooner have the rats.

Sparrows will never be checked by hard winters in this country, but may learn to live in this great extent of wooded mountains and go down on the crops like a plague. However, they have one weak point: they have not the slightest idea of hiding their nests, as so many other birds have. And even when they are building them they are always carrying straws like flags, and making such a parade that the whole community of other creatures knows where the nests are, and also when they are ready for robbing. Therefore the most likely check to be effective against the sparrows would be a nest-robber such as the long-tailed cuckoo. The latter, of course, are too few to be of much use. But if we wished to order a bird for the purpose, we would specify one that would be perfectly harmless otherwise, and that would come from some foreign country during the sparrows' breeding season, and then go home again. That just describes the cuckoo. And we should have more respect for them, and never shoot one of them under any circumstances, because more of them might learn to come if they had good times here.

We need not expect to get a check for the sparrows in a country where they flourish — as we did with the rabbits—but if there is any country with a mild climate where the sparrows do not flourish, it would be well worth while inquiring closely into the reason of it, with the hope of finding a harmless check for them. We shall not find it in the books, for they do not pay much attention to questions of that sort, but take endless pains with the definitions of species, their names, and classification. This may seem a trivial matter, but it was proposed the other day to import more game birds, which implied some wild grain for food, and if we succeeded in that the sparrows would gather and eat it, even out on those mountains. They are as mischievous for the sportsman as they are for the farmers, and will continue to be so for all time if we cannot rearrange matters.

FLIGHTLESS BIRDS OF NEW ZEALAND; AND OTHER NOTES.

By Richard Henry, Caretaker of Resolution Island.

WOODHENS (*OCYDROMUS*).

We have cleared most of the little peninsula on which our house stands, and now it is a favourite place for the woodhens; but they do not like each other's company, and there are seldom more than two to be seen at once, though there are half a dozen occasional visitors. They often treat us to some spirited races across the open, and are no mean runners when assisted by their wings, but all seem to be so well matched that they generally run dead-heats. If there happens to be one a little slow it is sure to be *minus* its tail, which is not of much account anyway; yet they seem to think a great deal of it, for the pulling of a feather is sure to bring on a fight, very fierce at first, but quickly dying away into threatening attitudes and various grunts which may represent bad language. The championship appears to be awarded more for courage than muscle, because the smallest hen, when she was thinking of nesting, would hunt away all the others, both males and females, except her mate, with whom she was generally friendly, but not always so. Those were the only pair here mated throughout the winter, and the only pair that would sing in concert. The male is our pet, and we call him "Chicken."

Out of all the others we hardly heard a chirrup until about the 16th July, when several of the old widows became quite musical all at once, and vied with each other in calling the loudest and the fastest. Then, to our surprise, we heard by the lower note and slower tune of one that it was a male. This one came to our place in a most disreputable rig-out of half-moulted feathers, so I called it "Scrag." It was a weakly, poor thing, and one of the hens used to thrash it and hunt it away. That is why I thought it a widow, though it had the stronger beak and legs of a male. However, I gave it a few good dinners of boiled fish, and it soon plucked up courage and learned to know the rattle of the lid on the dog's pot, and would come up carefully for a share. The dog seemed to notice that they only took little bits, and he soon disregarded them, so that now when I spread out fish on a stone it is common to see a weka on one side and a dog on the other, and both quite contented.

With better times and a grand new coat Scrag actually captivated the hen that used to hunt him about so contemptuously—the old story, "The course of true love," &c. Then he started

a series of fights with Chicken, and kept them up for several days, until both had lost nearly all the pretty feathers on their heads, and Chicken was obliged to give up part of his domain, retaining the house and Sandy Bay, while Scrag has Boatshed Beach. The boundary is a bunch of fallen timber, and they keep it fairly well, only Scrag is tempted up to the house sometimes for scraps, when he knows he is poaching, and will run with whatever he gets and eat it on his own ground. Chicken often hunts him to the boundary, but Scrag will not run a yard past it, so that they often have a fight down there, but nothing very serious. They jump up and kick like common fowl, but the claws are very weak, and can have no effect on such tough hides as theirs; and their wings are soft and fluffy, and only useful to hide their heads when down at the end of a round. The beak is the weapon, and the head the only place they aim at, so that there is a lot of shaping and fencing for very little bloodshed; in fact, their whole aim appears to be to disfigure each other by plucking the feathers that contribute most to personal appearances. At all events, that is the result of their battles. If Chicken was fighting for a mate now he would have no chance at all, for he looks so scrubby about the head that no self-respecting Maori-hen would look at him. The hens seem to have the same object in view when they fight, and it is equally effective. There was a pretty little hen here until she got her head plucked and lost all her good looks, and now she is always calling for a mate, but apparently cannot find one. This is surely an advance on the old method of deciding between rivals, for science has a better show, and there is less cruelty, yet the desired effect is attained.

Chicken can dance beautifully when he likes, which is very seldom, and very little of it at that. He waves his wings, dives his head, swings it to and fro, and then, with a flap, a jump, and another wave of the wings, he blinks his eyes as if he forgot the rest. Yet he has the right idea, and knows perfectly well what is graceful in motion. He has also some idea of "showing off," his beauty-spots being the bared primaries, which he shows to the best advantage by stretching his wings forward towards the ground, at the same time making himself tall and full breasted; but the humour takes him just as seldom as the dancing.

I found their nest about 200 yards away, in the sunniest place they could find, on a little hill. It is sheltered from the rain by the drooping flax-leaves, is deep and warm, and lined with frayed and dead flax. Every evening she used to go up there and call for him, and if down at the house he would answer and go away at once. They were always clucking and croaking about there, but I could never find any eggs in it.

On the 24th August, in the early morning, Chicken marched into the house and craned his neck at my hands with unusual eagerness. I thought he must be very hungry, and I gave him some food, which, contrary to his usual custom, he took up and carried away, trotting along the beach with his neck stretched out as if he was in a great hurry. After breakfast, when working at our big boatshed, we noticed him passing several times with some tiny grub or worm in his bill. I thought he must be feeding his mate while hatching, and went away to see the nest, but it was empty and cold. Yet all that day he was running back and forward until evening, when his gait gave the idea that he was tired out with so many journeys. Late in the evening he stayed away, and his mate came up to the house for food. Next morning when he came I went away along his track, and Burt gave him something, which he promptly brought along, but instead of going to the nest he turned away in the bush, and I had to follow his beaten track until I heard him clucking, and soon saw him under the bushes breaking up the food and calling his mate to feast. I saw her on a new nest, but fearing she might forsake that also I came away and left them.

A day or two later, when both were at the house, I went away to see the eggs; but the nest was empty—no eggs and no young ones. "All a hoax," said I, "or else the rats have eaten them." But next day, when coming home, we met them near the beach, and they scolded and threatened the dogs, so that I knew they had chickens; but I had to wait a long time before the old ones got confidence enough to call out of their hiding three tiny little black chickens, which were just able to stagger about, yet with sense enough to scramble under cover when the old ones told them to do so. They gradually brought them nearer the house until they occupied a sheltered corner, where the little ones remained while the parents went away for food. They are the very best of nurses. The male in particular is never tired of running here and there and bringing home something. They seldom succeed in getting more than enough, because when we give them too much they cram the little ones until they cannot eat another scrap, and then the old ones become solicitous, and hold up food to them with a crooning, pitiful note, as if they feared the little gluttons were going to die because they could not eat.

On a wet day the parents look miserable running about in the wet, but the little ones will be stowed away in some cosy nook, and never think of following the old ones without a great deal of calling and coaxing. In this matter they appear quite intellectual compared with other fowl; but they may have learned the idea before the advent of rats, and retained part of it for more than a hundred generations after its utility had become doubtful. That is in theory. In practice there are as many wekas as can get a decent living, many of them being poor and insufficiently fed, for which they can thank the rats. Recently I left a penguin's egg near a rat-hole, and when I returned ten minutes later the egg was gone. The rats are numerous and fierce, and why they have not eaten the little chickens when both parents are away I cannot understand, especially when they are so often in holes that would just suit the rats.

The staple food of the wekas appears to be sand-fleas, which are here in plenty, not only on the beaches, but all through the bush, under the dead leaves and rubbish; and they are never tired raking over this and pulling about the sea-weed in search of them. They also pull about the dead grass and turn over every chip in search of other things, but it is all done with the beak—they are not such fools as to go kicking things all over the place like common fowls. The sand-fleas are lively, and can make long jumps, so that whilst a rooster would be turning round to

look for them they would have all jumped away. Of course, there are hosts of other insects, including cockroaches in plenty and monster earthworms, which they may catch at night, for they are often out on mild nights, and always active late in the evening. Yet they seem to prefer the scraps from our table to anything they have on their own, and soon learn to eat everything we have. They may have acquired their taste for fish by finding some stranded on the beach, but where they learned to eat bread and butter is a mystery, for they take to it like a robin. There is a little plant with a white bulb like a marble which they know well, and like to eat, but it is watery and quite tasteless.

I threw my hat at one of them one day for being in some mischief, and it is quite comical how long and how well he remembers it, for whenever I take my hat off now he is under cover like a flash. And, again, a young one came to us at the clearing, and after dinner we brought it some food; and in that one lesson it learned the motion of the hand in throwing the food, so that some days after when I pretended to throw it something it ran towards me and looked for it on the ground. Thus they appear to be strikingly sensible, because they learn at once by experience; and if every living thing did that there would be hardly any fools after a few years' experience. Though their brain may be very small, it is probably of fine quality; or perhaps a host of fancies are absent in their case, and only the useful faculties are developed.

I found Scrag's nest on the 7th September, with two eggs in it, but they laid another after that, and brought out the chickens on the 8th October, so that the period of incubation was about twenty-seven days. They took turns at hatching, for when I saw the hen on the beach I found the male on the nest, and *vice versâ;* and in this they show their sense also, for it is easy for two compared with one doing it all, as in the case of the kiwi and kakapo.

In July, when out at the clearing, I heard a woodhen screaming in distress down in a gully, and as it continued I called to Burt, who was nearer the spot, to see what was the matter. Guided by the sound, he went down quickly and found a sparrow-hawk holding on to a woodhen under a log. He caught the hawk, and the hen ran away. When I went over I saw that the hawk's beak was full of the inner down of the hen, so that she had a narrow escape that time, and by calling for help exchanged places with her enemy. They have a special note to indicate the presence of a sparrow-hawk, and generally let us know when there is one about. The tuis, mokos, and robins can also sing out "Sparrow-hawk!" in their own language, and all the others understand; so that he is proclaimed everywhere he goes, which is just what he does not want, and he must have a very vexatious time of it trying to get a living. On another occasion I hung a fishing-net on the clothes-lines to dry, and when we came home a little male sparrow-hawk was caught in the net about 1 ft. from the ground. Our tame weka was in a great state of agitation, yet bold enough to come up and peck at the hawk in defence of her chickens, who was probably stooping for one of them when the net caught him.

In seven weeks the three chickens grew up nearly as big as their parents, but very soft, of course. And then one of them disappeared, with a hawk, I suppose, though we had killed six, and thought we were doing a good turn, because we saw one hunting a pigeon.

When the tide is low and the wekas are tempted away out on the beaches I think the hawks take 90 per cent. of the young ones, which may be quite desirable, because from recent developments the wekas appear to be the worst enemies of the ducks.

Our goose made her nest right before the window, and only 10 yards from the house. In gathering material she took a little straw, but preferred more substantial stuff. When leaving the nest she carefully covered up the egg, so that I was surprised to find it so deep among the sprigs and chips. I covered it up again as I got it, but next morning the nest was opened, and only a few scraps of eggshell remained. I was not sure whether it was the dog or the weka, but intended to find out. The weka was evidently interested in the nest, for we saw him walking round while the goose was on it. We knew, also, that he would break an egg at sight, for we tried him with a penguin's egg; he had also stolen a roa's egg-shell and destroyed it. This was a strong shell, and I saved part of it to show how he could punch holes in it. He could pick up a penguin's egg and run away with it so quickly that I could hardly get it from him. We got several goose-eggs by going at once and taking them away, until one morning I was busy with log-fires and did not go at once. I heard when the goose came off, because her mate gave her a noisy greeting, and a few minutes afterwards I found the nest torn about and the weka and his family around the broken egg some yards away. Next time the goose was on the nest the weka waited about there all the time, though the gander tried to drive him away, and I went out and threw soft things at him, yet he flipped about and defied me, so that I took a dislike to him for his outrageous cunning. When the goose came away Burt went at once and found the weka digging up the nest in search of the egg; and when she started to hatch, though there were no eggs, she regularly covered up the nest when leaving it, and the weka never failed to rake it out when he found her absent, and, of course, a goose could never hatch an egg where there was such an artful and patient thief as that.

Long ago I knew they were egg-eaters, but I never dreamed that they were half so bad as this shows them to be. We have had this weka since it was a chicken, and he has only a small domain where there are no penguins. Probably he never saw a duck's nest in his life, and certainly not a goose's, for this was the first in the sound, yet he seemed to know all about it, and that the eggs would be covered up. The ducks cover theirs until they start to hatch, and then also when they leave the nest of their own accord; and that is evidently where this weka's forefathers learned the habit, and faithfully handed it down to this promising youngster. To this small matter hangs a very long, old story, which we will never hear in full, about the ducks watching and fighting for their eggs, and the wekas successfully robbing them year after year until it became a fixed habit for transmission, the result of which we saw plainer and truer than by writing.

No doubt the weka is a finished thief; but he is not a fighter, because his wings are useless, and his courage is very little better for that purpose. The little teal are terrors to fight with each other, and then they make their wings crack like whips, so that they could easily drive off a weka; and as for a "paradise," she could kill one if she caught hold of it—but that would be the trouble.

There are wekas on Resolution Island, and when I saw this one's talent I feared for the mother kakapo, who has to do all the nesting herself, until I remembered that she stays at home during the day and only goes to feed at night, when the wekas are mostly tired. This habit she can thank for the very existence of her race.

We have spent a great deal of time clearing for grass, in the hope of fostering paradise ducks. We were inclined to foster wekas also, and were fortunate in having the experience with the goose's nest, otherwise we might have worked for a certain failure. Now, if I get the ducks the Maori-hen will have to leave Pigeon Island. With all their intellect they have weak points, of course, for the strangers will walk up and put their heads in a snare when you hold them out a bait on the point of a stick; and all those who are near at hand will come out and show themselves, while those that are far away are often calling out to tell where they are. I was always friendly to the poor old wekas, and thought them well worth developing, and I am very sorry to have to write them down so mischievous among their fellows. For all that they may turn out to be the most valuable pets in New Zealand.

We saw them skipping about at dusk catching moths and beetles on the wing; and with their very great cleverness and their tireless activity I think they would be a cure for the codlin-moths in orchards. There was some talk of importing bats from England for that purpose, but a bat is a mammal that might catch flies near an anthrax carcase and then fly away over fences and rivers to drop the germs of disease or die among healthy stock; and if we only knew enough about their migrations in the Old World the flight of disease might not appear so mysterious. In Victoria I knew where many hundreds of bats, perhaps thousands, used to sleep in a great old hollow tree, and often saw them streaming out of there in the evening like a swarm of bees. They were easily caught in dozens with a piece of netting, and I found that every one carried a variety of very visible parasites, and perhaps invisible ones, because they had an offensive smell. They often hawk for flies about dwellings and animal camping-grounds, so that they appear to be ideal mediums for collecting, exchanging, and distributing germs.

A new race of bats invigorated by transportation might turn out the very worst importation for New Zealand. On the other hand, a weka is the easiest of all birds to inclose where it is wanted, also the easiest to catch, to keep, and to carry, and would be likely to thrive well in its native land. If they only lived in England our fruitgrowers would be longing for them; but because they are at hand they are not much thought of in their own country. No doubt they will be eagerly inquired for in far-off countries if ever it is known that they have all the qualifications required.

Since writing the above I find that they will kill each other's young, and this, with the curious habit of leaving them behind, makes it necessary that each pair, when breeding, should have a run of their own, and be able to "make it warm" for all intruders. When the little ones are alarmed they pipe out a penetrating call for assistance, and the old ones appear as if by magic. Perhaps that is why the cunning rat did not eat them—he feared that shrill call and its consequences. When our chickens were about seven weeks old the mother handed them over to the father and took no more care of them, but went up on the hill behind the house, built another nest, and had three eggs in it partly hatched on the 28th October. I took one of them to get the embryo for Dr. Parker, intending to take the others at different stages if I am at home. At this rate every gardener could breed as many as he wanted. They can swim and dive well to escape, but I never saw them in the water except on business. It is wonderful how they can dispose of food, for they seem to be never beaten either by quality or quantity. A few minutes after a feast they are as hungry as ever, and they get rolling fat very quickly.

Our weka looks after his two big chickens during the day, bags food for them or hunts it up on the beach, and apparently gives them everything he gets. Sometimes he gives them a wigging and chases them away—for schooling, I suppose—yet he fights for them and has many a lively run hunting away intruders, who sometimes chase them and make them scream for assistance. Then he snorts and coughs, and his eyes glare with indignation as he rushes about looking for the offender, who is often sly enough to flip round a corner and make a bee-line out of dangerous ground.

At the end of October this is his usual day's work until some time in the afternoon, when he goes up the hill to the nest where his mate is hatching, takes her place, and lets her come out for food. If we see her we give her plenty, but she is in no hurry returning, evidently confident that the eggs are safe in his keeping until she has had her outing at leisure.

I wonder greatly they are such good managers if they cannot talk. Fancy him going up to the nest, if you can, and putting her off it without exchanging ideas about his object or intention, and without promising to remain until she returns. It is far easier for me to imagine him saying, "Come out now and get something to eat; I will take care of the eggs until you return, and do not be in any hurry, because I am tired and will be glad of a rest here."

17th November.—This evening I was looking at the antics of the woodhens when Scrag made a rush at something, and then I heard a rat screaming in a big hole under a stump. The dogs also heard it, and I had just time to see the weka drag out a rat when the dogs rushed in and killed the rodent, and I lost the chance of as great a treat as a bull-fight. I know it would require the keenest activity for a weka to kill a rat single-handed, and am not sure that it could do so; but the rat's screams would be sure to attract another weka, and then I think the pair could manage it quite easily, for one could hold while the other stabbed, or both could tug and pull, in which they seem to take a delight, and are very tenacious, so that the rat would be

worried to death. This tenacity of hold is quite unexpected from the shape of the weka's beak, but I have played with them by trailing a little fish on the rod, and was surprised how they could hold on until I lifted them off the ground.

22nd November.—We went to Breaksea Sound, and camped in a beautiful place called Beach Harbour, two miles east of Acheron Passage. We soon had the Maori-hens for company, of course, and there were two grown-up chickens. They were all rather shy at first, but food soon opened the way to their friendship or gratitude. I threw an old fellow some crabs, which he evidently took note of at once, for he followed me along the beach, and, after a few lessons, when I turned over a stone and he saw the crabs running he would come up and catch them himself, and his example soon made the others tame. Then I opened cockles for him with my knife, and he would stand at my knee and eat them with more confidence than the Maori-hen I had reared. But the reason I mention him at all is because he gave us an exhibition of his skill as a fisherman. Often I saw them wading in shallow water, but thought the fish too lively for them to catch. However, this one brought up several little fish as long as my finger, and paraded them about, calling his chickens to come for them. His neck and legs appeared to be rather long, as if to suit that sort of work, and I saw him peeping cautiously round corners as if expecting shy game, so that he must have been an old hand at it; and probably his forefathers were fishermen, because the circumstances were suitable.

With the isolation which these birds seem to crave, and indefinite time, it would not be hard to imagine the origin of a race of waders. In fact, the weka appears to be just the sort of bird to start with, because it will eat anything, and the little chickens are very hardy, with apparently a surplus of digestive power, which latter may be nearer the spirit of life than the old people used to think.

If a tribe of wekas had abundance of any one sort of food, either fish or fruit, I think they would be content with that, and become adapted for obtaining it; and with such material the simple laws we recently heard of could develop a variety of forms in accordance with the great variety of conditions, and the wonder is there are so few to fill them.

In Australia I knew the rails that came there in the spring, when the corn was knee-high. They made their nests in clover bottoms, and I often found their eggs, which were just like the weka's, but much smaller, of course. The chickens were also quite black like the weka's, and the parents made the same sort of croaking noise when I went near their nest, but I do not remember their ordinary cry. They could fly well, but did so unwillingly when alarmed, as if they preferred the long grass for refuge; but a dog would make them fly, and then their style was like that of the swamp-hen. They were distinctly migratory, but I never heard where they came from, nor could I imagine any suitable place for them in Australia during the dry season, because they seemed to like damp places. Then, if ever they came to New Zealand, it is no wonder they thought it a paradise, and, deciding to remain for ever, gave up flying. And the wekas have still a trace of their old migratory habits, because they will risk their lives like the rats, and swim for miles to get away out on some lonely island, far from their old homes and their persecuting neighbours. And perhaps these two, with their colonising impulse and great digestive power, may represent advanced germs of the fauna of many lands.

Habits.

All young wekas are wanderers and trespassers for perhaps a year after they are turned away from home, and during this time they are hunted and chased by every old weka that sees them, but especially by their own fathers and mothers. Fortunately the youngsters are generally the best runners, so that they can get out of danger, but they are severely tested to prove their ability to obtain and defend a home before they are allowed to settle down and get married. There appears to be no fighting for wives, as is the case with most other creatures. Females seem to be plentiful, and fight among themselves; and the fight between the males is distinctly for the exclusive right to their feeding-grounds.

We have six or seven years' experience of them now, and those living near the house are tamer than ordinary fowls. One pair has been with us for five years, and during that time I never saw them 10 yards outside their boundary. The domains of two other pairs meet on a grass plot near the house, and on rare occasions the whole six of them may be seen within a few yards of each other, all on their own ground, and respecting each others' rights to some degree.

If the female dies or is taken by a hawk the male soon takes another mate, but if the male dies the place is taken by another male and his mate. They take nearly a month to hatch, and for some time previously are very busy about the nest, so that it may be forty days before they bring the weakly little chickens to the beach; and all this time they are going backwards and forwards on the ground till they have a regular beaten track that I can easily follow if I want their eggs. I have heard that weasels and ferrets are famous trackers, and that either of them could find a weka's nest.

When I go to take the eggs the hatcher, let it be either male or female, will not come off the nest, and will resist being pulled off with all its might. It will peck at my hand, but never severe enough to break the skin, so that it would not hurt a tough-skinned weasel very much. I have also heard that a weasel has courage enough to attack a man. Wekas sleep in a warm place on the ground every night, and the ferret is a night hunter. I mention this because even the most intelligent of our people attribute the destruction of the wekas to the poisoned grain laid for rabbits, and this after the wholesale importation of ferrets, weasels, and stoats.

Number of Weka Chickens.

Three young ones are the most I have seen in one family in Dusky Sound, but I got four eggs in a nest at Lake Te Anau, where wekas were very plentiful before the ferrets came,

and in the grasshopper days I counted six young ones on the Middle Dome, near Lumsden. By the way, will the grasshopper ever come back? Perhaps the locusts in Australia may fly high some day with a fair wind, and be scattered over New Zealand again.

If a pair of wekas tried to rear four young ones in Dusky Sound they would probably all starve, at least when the rats were here, and those that were content with small families would be the most likely to survive. Even now I think the father often has a severe task to feed two big young ones, and start them with ability to live among all their persecutors, though he invariably denies himself and works his very hardest to do so.

Woodhens and Bantams.

As I have often heard stories of the weka and common fowl intercrossing, and have also read about it in the Transactions, I brought with me from Dunedin a bantam rooster and two little hens to see if they would interbreed. When I let them out of the box the weka, that was at my heels, set on them as he would one of his own sort that he wanted to frighten, but the fowls took no notice of him. With all the weka's reputation for fighting and bloodthirstiness, one of these little hens will hunt him away from the food, and, if he is in any way slow about going, will pull a mouthful of feathers out of him. I think the rooster got about one kick at each of them when he first came, but he can never get near enough now, though he has long legs. When the hens began to lay the wekas would steal every egg they could, and always tear up the nest, so that it would look more like a bundle of straw. This is important, because it shows that the weka's hereditary knowledge is more of duck-eggs than any others, for I think it is only the ducks that cover up their eggs; and if it were not for wekas and rats there might be great flocks of teal here.

By giving one of the hens a nest up on posts she brought out seven chickens, which I put in a wire-net enclosure, and it was very instructive to see the eagerness of the wekas to get at them when they first saw them. If it had not been for the netting the seven chickens would have all gone in about seven minutes; as it is they have taken four of them, and one of them while we were looking on. They are so swift and artful that there is no use chasing them.

The male and female wekas pair for life and hatch in turns, which would come awkward for fowls. However, the unexpected often happens, and if the eggs have a few brown spots on them, and the chickens turn out quite black, the male weka might not eat them at first sight, but otherwise I think he would.

A female weka cannot protect her chickens from other wekas for a single day if her mate is killed, because he has always done the fighting and kept his little domain free from intruders. If the mate failed in that his family would soon disappear.

Like the robins and tits, some of the male wekas will not allow their mates to come near our tent, evidently with a view to their safety, because when we stay in a place for a few days the male bird gets full confidence in our friendliness and allows his mate to come quite close.

KAKAPOS (*STRINGOPS*).

General.

The great ground parrot of New Zealand is called "kakapo" by the Maori. I think it is the largest and the only one out of the great family of parrots that cannot fly. Probably its ancestors could fly, and, like the rails, came here on the wing; but the absence of enemies on the ground, and the abundance of food, allowed the muscles of the wings to degenerate and those of the legs to develop, until now they are fairly good runners, and their wings are only for ornament, or at most to prevent them being hurt from a fall, for they love to climb about among rocks and trees in search of berries and seeds.

There is evidence that a great hawk once lived in New Zealand, and even now there is a fierce little hawk that delights in knocking down birds on the wing, so that the kakapo's forefathers may have been forced to give up flying, those alone surviving that took shelter in the undergrowth. Its breastbone has just the trace of a keel, so that it must have taken a long time to alter its shape to what it is—so long a time that kakapos may be truly said to be one of the heirs of the ages. And just now the "lords of creation" have imported ferrets and weasels that prey on all such things that sleep on the ground, and, as kakapos cannot be expected to learn in a day what their race had forgotten for thousands of years, the chapter of their history is in all likelihood coming to a close. Fortunately they have many friends, and the New Zealand Government takes a kindly interest in their affairs, and has appointed two reserves and men to put them out upon islands with some of their helpless neighbours, where, if fortune favours, they may long survive.

Kakapos may be called night birds and fruit-eaters, which is an unusual combination of characters, but they also eat grass, leaves, and some fungi when the fruit is over. They chew their food more effectually than any other birds that I am acquainted with. For this purpose there are diagonal grooves in the upper mandible, in contact with which the lower acts in the manner of a steel mill. On examining the food in their crop it is found to be so well masticated that it is impossible to tell what it is; yet by a wise provision some seeds are passed entire—such as tutu, which are poisonous, and mapou seeds, the berries of which are an important item of kakapo food. When they chew some of the fibrous grasses, reeds, or flax they leave the fibre in little pellets attached to the remainder of the leaf, so that they know how to use their simple milling-apparatus. There is a disc of feathers around the eyes like those of the owl, and like other creatures that go in holes they have hairs about the nose, or feathers produced into long pointlike hairs.

Some of them rest on the ground under ferns during the day, but the great majority prefer to take up their quarters in hollows and dens in the moss among the roots of trees, where

they sit on a root in the gloom all day, and only come out in the dusk of the evening. So well does their colour accord with the yellow and green of the ferns that it is impossible to see them unless they move. Of this they are well aware, and often keep perfectly still even when within arm's length. They are simple, poor things that know nothing of enemies. Once when without a dog I met one sitting on a stick under a fern a few feet from the ground, and went up to have a talk with it. It looked at me more in wonder than fear, until I chucked it under the chin, when it assumed a fierce attitude and protested in its hoarse voice, but made no attempt to go away, and when I let it alone for a few moments it coolly put its head under its feathers and went to sleep again.

They have their family quarrels, of course, and sometimes scandalous fights, for I have found both males and females with their eyes seriously injured and old scars on their heads, and it is by no means a very rare thing to find a female with only one eye, for it is their misfortune to have powerful beaks and claws. I must never put two in one cage, for they seem to blame each other for their trouble, and start fighting at once.

The tail of the female is longer than that of the male, and she is greener in colour, with less yellow on the head and breast. She is also less in size, and seldom very fat like her lazy mate—if ever she has a mate in the ordinary sense of the term, for they are the most solitary of birds. She makes her nest on the ground in some of the mossy dens, and lays from two to four white eggs like those of the harrier hawk. I never found two birds in the one den at any season, though there is room for a dozen, and I think that the male never goes near a nest, and knows nothing about it.

They only breed every second year—not independently, but all breed one season and none the next—and it is a great puzzle to naturalists why some do not breed in the off season, or how they all come to such a unanimous agreement about it. Months before the appointed breeding season the male is developing an air-sac in his throat, which he can puff up like a drum, and which may act like a sounding-board to assist in making the curious drumming notes in the spring. This note is not unlike the boom of the bittern, but is repeated five or six times in succession, and can be heard at a great distance. It excites curiosity not easily satisfied, and has caused some discussion and difference of opinion. A surveyor of large experience denied that it was a kakapo at all, and asserted that it was the rare *Notornis;* and a high authority laid it down that the air-sac was just outside the windpipe, and therefore not connected with the voice; but it is not necessary for air to pass through a drum to make a sound. A whole party of bushmen set themselves the task of finding out what it was, and came to the conclusion that it was not a kakapo, for when they followed up the sound and got quite close to it at night there was a moment's silence, and then it began again half a mile away, so they were certain it could fly. But it was only another kakapo, while the first one may have been at their elbows.

I was twelve years on the dry side of the mountains, near Te Anau Lake, and had ample opportunities for observing their habits. I heard their drumming every alternate year until 1892, which was their due season, but they did not breed that year, and skipped two years in succession. Now, they must have held a meeting about the projected alteration in their programme, and a wonderful meeting it was, no doubt, regarding its decision, for not a drummer was heard that year. To realise the wonder of it we must remember that they had to come to a decision about six months previously, for the preparation of their drums; so that it could not have been the effect of the fruit and the flowers of that season.

This is my second year on the wet side of the mountains in Dusky Sound, and now I find that the seasons here and at Te Anau coincide, so that delegates were needed from both sides of the Southern Alps, and they all agreed.

I have exhausted all my speculations about flowers and fruit and physical conditions to account for this intermittent season, but all in vain, and generally have to fall back on the idea that they have useful social laws as mysterious as those of ants or bees. This idea would be acceptable if they lived in close communities, but it is difficult to understand when we know that they are solitary birds, living in a rough country so dense with undergrowth that it is all the time like getting through a hedge.

About 1886, in company with a gentleman now in Dunedin, I found about a score in a few hundred yards, and there may have been about a hundred within a mile—but only on one occasion since have I known a number to congregate in so small a space; so the idea of a meeting may not be altogether fanciful.

It appears as if the breeding season was controlled by the males, for when there is no drumming in the early summer there are no eggs or young ones. And if they willingly missed two years in succession what a vision of self-denial and forethought it opens up! But should it be the density of population, and consequently the supply of food during the previous winter, that influences their conduct, it is a very beautiful arrangement to save a waste of life and labour. This would also be the most acceptable theory if it were not for the fact that every valley on the wet and dry sides of the mountains could not be in the same position as to food, so that we have to come back again to "social law"—even to the idea of a captain or a queen to adjudge population and order their conduct accordingly. The simple fact that all breed together and none independently proves that they are under discipline of some sort, and, as law implies law-giver, why not a captain? If the lordly *homo* could learn a lesson like this it would abolish the "dismal science" and save half a world of misery.

There are considerable areas in the bottoms of valleys and around landslips where berries are produced in great plenty, and such places are called "kakapo gardens." Then there may be miles of beech forest which apparently produce very little food; yet the birds wander away anywhere after the breeding season, even out on the grass on the mountain-tops. When the breeding season comes round again the males take up their places in the gardens, and about the

26th November commence their booming love-songs. These notes do not sound loud when close by, but can be heard many miles away, and may be useful in calling in the females to suitable places for nesting and feeding their young. Under favourable circumstances I have heard it at a distance of six miles, and somehow the humming, murmuring sound made the season appear more lonely and peaceful, giving a faint idea of how it might sound to their half-lost fellows away in the bush. In the virgin forest, where nothing heavier than themselves has ever trodden the yielding moss, they have very distinct pathways, especially going up some small hill, where in the driest place on top a gleam of sunshine may enter among the trees. Here will be several "dusting-holes" and signs of traffic, as if many birds go up there occasionally, either singly or in companies. But this habit of only coming out at night enables them to keep nearly all their social affairs to themselves.

When newly hatched the young are covered with snow-white down, and they remain in the nest until nearly full-grown. During this period the mother's feathers are all draggled and worn, and I often wondered how she could tramp away and carry home sufficient food to keep two or three young ones like balls of fat. The males are also very fat, while the mother is like skin-and-bone, and once I thought that, Phœnix-like, she might die when she reared a brood; but I soon found that idea untenable, though it would in a sort of way account for the intermittent breeding season.

When we are hunting for kakapos our fox-terrier is often at fault, running here and there in an excited manner, and finishing by finding nothing. It is a long time since we found one up a tree. In fact, we only got two up trees altogether, and I could not imagine kakapos running away from anything, for I always thought that they knew nothing of enemies. However, I have often got them with one eye out, and with deformed nostrils, as if bitten or bruised. Recently we caught one with part of the skin scraped off the top of the head, and both eyes so severely injured that it was nearly blind. It could not have been a ferret that caused the injuries, because wekas were plentiful, so it must have been another kakapo.

One of the last days we were out our dog tracked one up a tall sloping stump, and hunted a light young kakapo off the very top. We saw it flutter down, but it was so artful in hiding that it was some time before we found it. Now, this was a plain case of a light, active young bird trying to avoid a well-known enemy; and now I am quite satisfied that the old ones—probably the old males—persecute the young ones, and perhaps kill them. We found one just dying, with hardly life enough left to attract the dog. I thought it was starved, and did not look for marks or injuries. This may be only a wise arrangement to prevent too close breeding, for I think it is quite common for many animals to fall out with their young ones when they grow up. At this season, when food is scarce, they are the most unsociable creatures living, for each one seems to have half a square mile to itself.

It is surprising how very little one can learn about them, and that only by chance. Though we have been hunting round our tent for a fortnight, and far up the hills, yet one comes out on the beach at the tent every night and coughs and calls, and I have often gone out, but could not get a sight of it.

There is just one more little note I have to make—that is, on the scarcity of "scratching-holes" here compared with those at Te Anau. It is true that they are less troubled here with vermin. That may be one reason, and another may be the very great scarcity of anything like dry places in this bush. However, we found a hill-top near the south-east corner of Cascade that was nearly covered with pathways and "scratching-holes." The ground all round looked as if there had been an attempt made to clear it of ferns and sticks, and every root was bitten and peeled as if they had tried to remove it. I walked all over it and had a long look at it, and somehow the idea was forced on me that this was their play-ground or ball-room, and that if I could come here in the season with the eyes of a cat I might learn something of their social forms and customs.

Feathers.

The roa's relations in other countries often have two feathers of the same sort on the one stalk, but roas have no sign of them, neither have the kiwis. This may be due to the fine, slender, and sensitive beaks they have to keep a more delicate feather in order. Many birds have a distinct coat of strong feathers for outside wear, and then an inner coat of down; but the kakapos have both on one stalk, a fine strong one for outside and a distinct downy one for inside, so that both can be lifted off the skin in one act, otherwise they would not be easily kept clean when the birds live so much in holes and have such clumsy beaks to dress them with.

The Booming of the Kakapo.

On 26th December, 1897, we anchored in Cascade Harbour, and long before dark we heard the kakapos booming, after a silence of two years, and later on in the evening we heard them from all sides, though we had so often hunted there that we thought we had pretty well cleared them out of that place. Seven days previously we were under Mount Pender, where there are plenty of kakapos, but we heard no booming, so that they must have just commenced. At Te Anau they used to commence about the 1st of December, which date they kept to fairly well all the years I was there.

Next day we went hunting on the west side of Cascade, and caught three very fat kakapos. There were no berries or seeds on any of the trees, and we were puzzled to know what they got so fat on. There was a tiny seed or blossom on the carpet of green moss that covers that country, and I often saw little holes that they scraped out with their beaks, perhaps looking for truffles or fungi of some sort; but they chew their food so well in their milling beaks that I could not identify it. It was important to know what they were eating then, because it might solve the mystery as to their intermitting breeding seasons, but I could not find it out. Their crops contained mostly a green pulp, with some of a lighter colour, but what it was I could not tell.

The male can swell up his air-sack (of which the female has no trace) nearly as big as his body, so that he must be a formidable-looking fellow on parade. I never saw one booming, however, for they never boom in captivity.

I took a special trip to Wet Jacket Arm to try and get better acquainted with these birds, and on the 21st January, 1898, climbed a high ridge south-west of Oke Island. It was very steep and rough, and all along its narrow top for half a mile were "dusting-holes," as I used to call them, but there was not a particle of dust in them, as there had been about an inch of rain every day for a month. So "dusting-hole" is, I think, therefore, a bad name; "bower" would be more suitable. They were about 18 in. in diameter, fairly level on the bottom, and 3 in. deep, with steep sides. In some the peaty earth was pressed down firmly as if by the naked hand, while in others it was freshly raked up and loose. They were all connected by fresh, well-beaten pathways, so that a good many birds must go up there of an evening at this season, though in the off-season these places are deserted. This suggests that they are used for dancing or parades in their courtships. The Australian lyre-birds also make those holes, or ones like them.

Some one has suggested that the booming may be a defiance or challenge between the males, as in the case of cocks crowing; but I think that, owing to the thin population of kakapos in this dense forest, and the poor means of travelling, it was necessary for either the male or female to have a loud call. The voice of the female kakapo is a hoarse cough, and can only be heard for a couple of hundred yards, while the male's booming can be heard for a couple of miles. Therefore I think it likely that the males take up their places in these "bowers," distend their air-sacks, and start their enchanting love-songs; and that the females, like others of the sex, love the music and parade, and come up to see the show—that is, if they can see the green and yellow in the dark; if not, they can tramp along the pathways, listen to the music, and have a gossip with the best performers. However, it is almost certain that they can see distinctly, because the plumage of the male bird is pretty, and always looks its best at this season, and he would not retain that distinction without a reason for it.

Though we can hear plenty of kakapos in the evenings, we can never tell within a mile where they are, and they do not keep the booming going long enough for us to hunt them up. They start with a couple of short grunts, and then five or six deep measured notes like the sound of a muffled drum, the loudest in the middle. This series will be repeated about three times in the daylight, and then there will be silence until some others take up the cry, perhaps miles away.

On this ridge we got quite close to one when drumming, and it was a powerful note. I could feel the tremble of it, and my boy who was holding the dog 30 yards away could also feel it. I thought the drumming was just at my feet, and we stood still for a long time in hopes that the bird would commence again, but he was silent, and when we brought up the dog we found him 40 yards away, where he had taken shelter under a log. We had come up with all caution, stopping when he stopped, and walking while he was drumming, yet he seemed to have taken alarm. This will show how hard it is to get right up to one when he will take alarm at that distance. It was about 4 p.m., and very few are drumming as early as that.

In our fortnight's ramble we saw very few ridges that had "bowers" on them. On many there were none at all, and on others only one or two, and we never found them under 500 ft. or 600 ft. above the sea.

The birds have peculiar valves in the nostrils, which are larger in the males, and may be a part of the apparatus for drumming.

"Kakapo" is from two Maori words—*kaka*, a parrot, and *po*, night—which is very becoming, because I think they are the only parrots that feed at night. They have small eyes for night birds, and often climb trees in the daytime to sit in the sun after a spell of wet weather, which shows that it is not the light they fear; but probably, like many other creatures, they have chosen the night to feed the better to avoid their enemies. The only enemies they have here are the sandflies, which do not come out at night, but collect very quickly about any game they find near the ground in the daylight. The kakapo's slow movements would allow them to be punished very severely if they walked about on the ground in the daytime, for I know to my cost that the flies are expert at getting in under cuffs and collars, and may do the same with the kakapo's loose feathers. Therefore, when the sandflies have gone to bed the kakapos come out and gather food in peace, and retire to their dark places in the morning where the sandflies will not enter.

When I am in a penguin's cave here I can always see near the door a cloud of sandflies that will not enter even into the gloom where I can see quite well. A good many of the wiser penguins seem to know how far the flies will come in, but some of them have their nests too near the door, where their young ones will be punished severely, if not killed outright. I had two captive roas killed by sandflies.

I was always puzzled to know what the kakapos got so fat on in summer-time, but now I find that they suck the honey out of the rata-blossoms, like all the other bush birds, and as this honey is plentiful in the Sounds in December, it is an important food to mix with their various other items. I went out on the 18th December and gathered a teaspoonful of this honey in ten minutes with a little glass syringe, so that the kakapos could get as much of it as they wanted. The little branches of the ratas are very strong and able to bear their weight.

ROAS (*APTERYX*).

In coming home on the 10th December we brought two roas, which I have been feeding since, and watching their manners in the evening. For a little while I kept some in my garden at Te Anau, and got the idea they were very slow creatures, but those here are

much more lively and wideawake, which may be due to age or condition. This fact shows that it is not fair to estimate the character of a race from a single specimen or even from a few individuals.

At first I was surprised at the quantity of food they ate, but soon I found it was the rats that were eating most of it. The rats know how harmless the roas are for offence, and go right into their box for the food.

They do not take kindly to fish or meat at first; they often refused it when we had them in cages for removal to the islands. So now I do not trouble them the first night, but the second evening I catch them and make them eat a few pieces, and the night after they will eat it themselves. I knew they ate a few berries in their own homes, and, fearing fish might be too monotonous, I rolled it in oatmeal, until now they will eat porridge by itself. In the daytime they sleep huddled up together, though at first they would fight, not being mates, but now they seem to be the best of friends. I made a dark den for them, but they would not go into it, preferring to sleep behind it, under the log, where I can see them shivering with the cold, and annoyed by the sandflies.

The male is always much smaller than the female, and this one is moulting, which makes him look smaller still; so he gets in a nook inside, and the female sits close to him and almost over him, as if to keep him warm. There is only a round ball of their brown drooping feathers to be seen, and perhaps the point of the long beak clear of the feathers in some unexpected place.

When disturbed they lift their sleepy-looking heads from under the mantle of long feathers on the shoulders, where one would think them safe from sandflies, but I often see dots of blood around the eyes and mouth, for the flies are very insidious, and may bite severely without leaving a trace. Where there were no sandflies they might thrive much better than they do here; and, as they are so easily enclosed, it is a wonder every extensive garden has not a pair, for there is no doubt about their value, because they are specially fitted for finding the garden-pests that can so easily hide from jabbering sparrows and other musical humbugs that came here under false pretences.

The song of the roa is not very musical, but might become sweeter by association than our blackbirds and thrushes that pay us in whistles for stealing our fruit; while roas are humble, and so harmless that they will not even scratch the ground, but probe it with their slender beaks, guided by scent and hearing in the night-time, and then go to their holes at daylight, only to come out again when the other workers are going to bed.

There can be no harm in speculating about how these curious birds came to New Zealand, for there are no degrees in ignorance when nobody knows. Men may have done the mysterious distribution as part of their business here. The fact of finding no geological proof only amounts to the silly man's evidence when he offered to bring a dozen men to swear that they did not see him steal a spade. We know that men are eminently fitted for such work, and that they have been at it as long as we know anything about them; then, why not previously? They brought lions and tigers to Rome about two thousand years ago. There are as wonderful ruins in Java as there are in Egypt, and some of the Rajahs keep pet tigers there to-day. Then why not formerly, when perhaps they brought them as far as the Romans did, and even across "Wallace's line"? Even the sea-shells benefit more than half the living things by extracting the surplus lime that might poison the fish. Then why should not the ablest have useful work to do for the community?

Recent research suggests the probability of roas originating from birds that could fly. That is a very good story, but there is not nearly enough of it, because they must have had many adventures since they first flew up for a skite round some Old-World mountain-tops and got blown away to New Zealand. In the first place, they found no enemies in the New Zealand scrub, or they would not have lost their wings; and possibly there were swift hawks about that made them afraid to show themselves until they quite forgot about their wings.

There might have been a long period of cold, when roas were the fittest to survive as long as any forest remained. There may have been a sinking of the land, when such mountaineers as roas would be the most likely to survive, with their varied food; and when the land rose again some of them may have gone down relieved of enemies, and developed into moas in the fruitful valleys; for nature takes no heed of time in fitting her people for their surroundings. And even now no more perfect fit exists than that of the roas for their dominions. Their feathers are hairy at the tips and hard to wet or disarrange, yet soft and downy at the roots, amply warm and waterproof; and their skins are thick and oily, as if to defy the everlasting damp of the shady forest, where they never feel a gleam of sunshine.

As their food is in the ground, on the steep hill-sides, they have powerful legs for climbing, with strong spurs on their heels to let them go down steep and slippery places with ease and safety. The wing is no bigger than one of their toes, and naked with the exception of a row of little penfeathers, in memory of the old quills of long ago; while the tiny shoulder is useful as a rest for the beak when asleep.

The wonderful beak is long, slender, and slightly curved, but, unlike all others, with the nostrils at the very tip, which fit it for finding its food deep in the moss and roots, where it has no competitors. It has also cutting-edges, which I was not aware of until I saw them rasping a lath of the cage. It is white when alive, and partly transparent when recently dead, showing a net-work of blood-vessels, as if highly sensitive for feeling its food at the bottom of the holes. Those holes are the size of a pencil when in earth, and 4 in. or 5 in. deep, but when in moss are cone-shaped, as if made with the head, and perhaps 10 in. deep, thus showing how acute their scent and hearing must be to locate some silent grub or worm down there. Only in a garden in the evening or bright moonlight can one be seen at work. Then it lifts its foot and puts it down so gently, with its neck outstretched and ear forward, in a listening attitude, that I am almost

sure it depends greatly on its hearing for finding its food; and it must be sharp to detect the small noises of worms or grubs so deep in the ground.

It often rests the point of its beak on the ground, apparently for support, but it may be to scent the worm-holes that come to the surface. Though their sight seems to be of little use to them, there is no doubt about their keen scent, because when a worm or piece of meat is thrown near them they are aware of its presence at once, and touch the ground here and there, coming nearer and nearer until it is felt and taken up. I have often seen their tracks on the sandy beaches at Te Anau, and was puzzled to know why there were only a few regular steps and then a deep footprint and a long stride to the right or left; but now I think they get part of their food in the spring by catching insects that fly close to the ground, and late in the evening, such as moths and beetles; so their sight is of some use to them, notwithstanding their blind manner.

I think that a large part of their food consists of earth-worms, though no doubt they will eat all sorts of insects, including many things they get out of puddles and water-holes; and, like the woodhens, they can fall back on some vegetable food. Last August I got some fine fat roas killed through the dog getting the muzzle off, and their stomachs were full of miro berries, the hard stones of which they completely digest, probably for the sake of the little oily kernels.

They will accommodate themselves in a sort of a way to bread and meat in captivity, but they get very poor, because they worry so much trying to get their liberty. They require plenty of ventilation, and if the sandflies get liberty they will kill them, so that I have great trouble to keep captives on Pigeon Island. Mr. Ness, of Port Chalmers, kept one for years in splendid health.

On Mount Bradshaw in December, 1898, I found two roas away out on the grass—the only ones I ever found out of the forest. One was under a bit of scrub and the other under a big tussock. The last one I had to wake up, and then it looked more surprised than afraid. I took it up in my arms and noticed that it had a great coat of feathers, so that it may live up there altogether. When I put it down it just fixed itself in its seat to go asleep again. It knew nothing of enemies of any sort.

We had put several pairs of roas on Parrot Island, which is only a couple of hundred acres in extent, and on the 15th November went to see how they were getting on, and found one hatching a fresh egg; and in the same hole with him was a little chicken only a week or two old. This was a plain case of breeding twice, but it was rather hard on the hatcher; yet he was in good condition, so that they must have been getting abundance of food in that new place. The egg was 5 in. long and over 3¼ in. in diameter, and weighed 18 oz. The hatcher would have weighed about 6 lb. and the mother about 8 lb., for I have weighed them several times; but in this case we did not see the mother at all. The father could not mind the youngster and hatch at the same time; but I have long held the idea that the young ones become independent very soon, for I have often got them away by themselves, and when I was keeping little ones and let them out for a while they would always work for themselves as a matter of course.

They are born fully feathered like their parents, and perhaps fully educated, which latter would be a great desideratum for humanity. The mother might come and look after the little one, but I think not this time, for I found one soon after laying an egg, and it was indifferent about anything. So the hatching male and big egg are necessary co-relations.

Though they could make holes for themselves in the soft banks, yet I think they very seldom do so, for there are always plenty to choose from under the roots of trees where they can sleep during the day. For the nest they like rather a small hole with only one entrance, and in the driest place they can find. There they gather a few handfuls of dry fern-leaves and scrub and lay their one great egg; and I think the male takes entire charge of it, and never leaves it until it is hatched, but I am not quite sure of this, for the female may sit a while at night and let him come out for food, but I never found one on an egg, though I have seen dozens of nests in the last fourteen years. On a very few occasions I have found the female in the hole with him when sitting, but generally he is there alone, though at other times the adults are always in pairs. Even if I were to go up the spur in the dark to a nest I might disturb them and learn nothing; but the point of his endurance can be easily settled by those that keep them in gardens.

At the beginning of his task he is in good condition, but when the egg is nearly hatched he is poor and quite stupid, while his mate is wide awake and fightable, so that they have just exchanged places since she laid that egg. I found two chickens just hatched, one of them not quite dry; yet there was not a scrap of eggshell in the nest, and I could not account for it. The chickens were quite helpless, and unable to stand up, so they must have either absorbed food enough to last them until they could walk or the parents carried it to them. When they are able to walk some of them at least are quite careless about staying with the old ones, for I have found a tender little thing several yards away from where the parents were asleep; and I found a tiny grey kiwi in a knot-hole near the beach, and my dog could not find the mother at all. So there are many questions to be asked about them, for they have some curious ways, and as yet we may not know half their history. From the size of the egg and the shape of his body it would be impossible for him to hatch two eggs at one time, so that the big egg must be a very old legacy.

The voice of the male is a high-pitched rather musical scream, with a tremble and a sudden drop of several notes at the end of each call, which may be about two seconds duration, repeated five or six times. The female sings nearly the same tune, but in a much lower and hoarser tone, somewhat like ro-ar, ro-ar, with both syllables accented and a slight rest between.

When disturbed in their holes they crack their beaks like a snap of the fingers, and protest in a grunt or growl, but never use the beak for defence. In fact, I often take both legs in my hand before they seem to be aware of it. But long ago I caught one by the head, and with its powerful legs and strong sharp claws it wounded my hand and wrist severely—poisonous wounds that were very slow to heal.

If cornered in their paddock here their behaviour is quite courageous, especially that of the female, for she will come towards my hand and stamp and kick with such energy that I take care to keep it out of the way. I think she could easily defend herself against a ferret out in the open, but not in a hole. So whoever essays to keep them should provide a den with a small entrance and a chamber inside without corners, so that poor roa would have room to use its legs.

The female's beak is about 1 in. longer than the male's, and has the slight curve near the point, while the male's has the curve more in the middle, and is about 5 in. long.

It is almost the rule to get a pair in a hole; and they may have last year's young one with them, nearly as big as themselves, but darker in colour. Whenever we do find single ones they are always females, as if they were in excess. I have noticed this more particularly since I came to Dusky Sound, because we are always wanting males to make up pairs, and I am certain that we never got enough to do so, on the whole. They have curious ways. The males always stay at home to "mind the baby," and do it well; the females are the biggest, the most courageous, and the most numerous; and I would not wonder if they do the most of the courting and fighting. The males in nearly all other birds are specially armed for fighting—our common fowl, for instance. The barn-door hen is inclined to fight sometimes, and if each one of them wanted a mate for herself she would fight a great deal more. Perhaps a slight scarcity of mates long ago started the female roa's fighting-impulse, and that would account for her superior size as it does with the fighting males. No doubt she has that impulse stronger than her mate, for when I am taking her out of a box she is always the most fierce and ready to kick, and I always take more care of her.

On one occasion I found a little male *A. oweni* hatching an *A. australis* egg. He could not have driven away his big cousin, so there may be hybrids which would be somewhat like *A. haastii*. Every item is worth recording, because we know so little about them. The egg had a chicken in it.

When a roa passes by our tent at night and becomes conscious of intruders it instantly alters its creeping step and tramps along with such a heavy footfall that I could not believe it to be a roa until I proved it several times by letting loose my dog. As their hearing is the keenest, perhaps that heavy tramp is "putting on style" from their point of view, where sight is not of much account.

KIWIS (*APTERYX*).

The grey kiwi is a shy, gentle little thing, that seems to depend wholly for his existence on his ability to hide away in lonely places. Kiwis are not half the weight of roas, but are the same in skeleton and form with the exception of the beak, which is straight. Their feathers are not so long and hairy, and instead of being brown are more the colour of a guinea-fowl's, but much softer in texture; and their stout little legs are white, as also the beak.

They are more fastidious about food and less hardy than roas, so that I never can keep them in good health for any length of time, and can hardly get a sight of them in their paddock out of the box, they are so shy and keen of hearing.

They live nearly in the same place as the roas, but the kiwis prefer the light, while the roas like the dark forest and the shade. Yet they must often hunt over the same ground; and their departure from each other in size, feathers, and shape of beak is probably due to their taste, or to the taste of their ancestors, and their ability for procuring widely different food in the aggregate. Kiwis generally have white grubs in their stomachs, with things like big maggots, wireworms, and all that class, while the roas depend more on earthworms, water-insects, and berries.

Food is the most important thing in the world, and, with the work required to obtain it, may be the origin of all the changes in animals. For instance, one animal may eat something that will invigorate its liver and enable it to eat more of it, and then away it goes fit to eat anything and live anywhere; while another may be too fastidious for that, eat something else, get bilious, and vary in the opposite direction. Yet our classification experts, in forming new species in the books, never consider the food or the liver, though they are of more importance than anything else, and would offer fine fields for scientific investigation.

I once had a dog that would not eat a scrap of raw meat, and he never got either mange or tapeworm, though such ailments were common among his associates. The greatest treat I could give him was bread and sugar, or porridge and preserved milk. He was the most sensible and energetic dog I ever had, otherwise he might have had to eat what he did not approve of.

Many creatures exhibit a taste for special food which may be dictated by some sense that we do not understand, and when there are opportunities to gratify those tastes they may be the starting-points of new species.

The kiwis are not so constantly in pairs as the roas, for it is just as exceptional to find a pair of kiwis as it is to find a single roa in a hole when they are not breeding.

The kiwi's egg is just as big in proportion as the roa's, and I think the male does all the hatching, for his breast is generally very bare at this time, while all the females are well feathered; and I have often got my dog to hunt in wider and wider circles around a nest, but never found her if the egg was partly hatched, as if she had gone away altogether. Perhaps she does this purposely, so that a little food may be left for him near the nest that he can get in mild weather; but I think she takes care to be there when the chicken is hatched, or at least the roas do so. It may be a fact that he starves there for thirty days—his vitality being greatly suspended,—as is the case during hibernation; because whenever I have seen him he was very dozy.

The chickens are beautiful little things, but it is impossible to feed them satisfactorily, and if you let them go for a moment they are so independent and active that you will never see them again, and as they are quite silent it is difficult to find them.

The voice of the male is just like the guard's whistle on the train repeated several times, each call being a second or two in duration; while that of the female is a little lower in tone and coarser in the dribble—on the same general plan as the roa's, but very different voices.

The nest of the kiwi is much cosier than the roa's, and is always in a hole too small for a roa to get into, mostly under the roots of a tree, but sometimes in the shell of an old log where it is dry and warm. They generally breed in October. As in the case of the roa, the female is the bigger, and has the longer beak.

All the ground birds like to go up on the naked mountain-tops in the summer, but it seems to be the roa's favourite feeding-ground; and the extent of open ground above greatly affects their numbers in the bush, for where there is no open ground within reach of their nightly rambles very few exist.

The kakapos that go out on the grass in the autumn are only those that live near at hand, for they are not built for long marches uphill like the roas, and the kiwi only goes out in the summer; but I have often seen the tracks of the roa in the snow as if he were the best to stand the cold, but he cannot get food in the frost. They all go down into the bush at daylight and come up again at night—except the wekas, which are day birds—and this constant going backwards and forwards has beaten very distinct pathways, especially on the tops of the spurs and on the best grades for getting up and down.

Where these paths first come out of the bush and the wind takes effect they are so wide and deeply worn that one could hardly believe that they had been made by birds, but the birds just stirred the earth, and the wind has been blowing it away for centuries.

PENGUINS (*EUDYPTES*).

Nesting-time.

The crested penguins come to Dusky Sound in July. The first we saw this year was on the 7th, but last year it was the 16th before we heard one shouting in the water. They must come in thousands, perhaps at night, for we seldom see them in the water, though the bush is just full of them near the shore. In quiet places—little caves in the rocks above the tide—they are crowded, and as we pass by in the boat we can see them sitting about in pairs or standing in rows like soldiers.

Though they are clumsy things ashore, they must be active to climb about in such rough places. They have the advantage of being well padded with feathers and fat, so that there is no fear of them being hurt if they fall. When we go into a cave for eggs the idlers scuttle away first, then most of the hatchers—all rushing and tumbling over each other in their silly hurry, and most of them screaming and squalling like geese with colds, while some are grunting like pigs. The fools never think of going into the water, where they would be quite safe from us, but huddle up in a narrow place as tight as they can crush, and all the outsiders are hammering at the others with their fins to drive them in tighter. And they can hammer—at the rate of about three hundred strokes a minute! It is a regular clatter, and they can make this with one wing while using the other as a prop.

At first I used to pity the poor fellows that got beaten, especially after I got a rap on the fingers; but now that I understand their cushions I think it only hurts like driving sheep with a hat. If a sea-lion wanted them he could go into a place like that and eat them all one after another; so I am satisfied the enemy they fear does not come ashore, and their dislike to go in the water when alarmed indicates that they fear some swift enemy in the sea—and it must be a swift one. After a little while they would get over their fright, and some would come back to the little ones in the nests, and when I came near the mother would crouch against the wall and look up so pitiful, as if begging for mercy. The poor things must have their hands full to save the young ones from being trampled on by such a clumsy rabble.

In one place near to us a pair had their nest right in the narrow mouth of a little cave, while there were a lot of others inside, and every time these latter came backward and forward they had to face the battery of those in the nest, so that they must have had a miserable time of it, and it was only a charity to take their eggs. Of course we have nearly forgotten the taste of hen-eggs, so the penguin-eggs suit us right enough if they are not too stale. They are very easy to boil, because it does not matter whether they are on for three minutes or six, they come out all the same, and they are twice as large as hen eggs.

Out on Parrot Island last year I drove a penguin off her nest, which had a little one in it just hatched. There was a woodhen a dozen yards away on the beach, and, evidently attracted by the cries of the little penguin, it ran up in a hurry to see about it. On its way up it had to pass another penguin, and it was funny to see how it shied off, and how they eyed each other. When the mother penguin saw the woodhen she returned as fast as she could jump, and the woodhen marched away pretending innocence, but all the time it had an eye in that direction, and I think it would have made short work of the little one if it had had a few yards start of the mother; but it would not be safe to come within reach of her powerful beak. Thus it seems a necessity for one of the penguins to stay by the nest until the young are well grown, but I do not know which stays, or if they take turns, because they are both just alike in appearance.

The one that is hatching frequently cries out like a young shag calling for food, and this makes me think that its mate may feed it. But they come here with such tremendous coats of fat that I should not wonder if they can do a very long time without food, like the seals. It is puzzling why we do not see them in the water when we are so often in the boat and they are so numerous on the shore. They may go fishing at night, but I think there is not 1 per cent. of those here out fishing in the daytime.

They make their nests in all sorts of places in the bush, but they prefer to get under cover of some sort. Hollows at the roots of trees or under clumps of bush flax are favourite places. If they had only the sense to keep quiet they would be much harder to find, but they are always scolding or calling about something, and if we only stand still for a moment we are sure to hear a chorus from a lot of sillies giving themselves away under some logs or scrub.

Though they seem such fools ashore, they must be wise enough at sea, for they go away from here on a six months' voyage, steering their way over the ocean, to return at the appointed time. Perhaps they go to the Auckland Islands or the Antarctic Ocean, for they have ample powers in those little flippers with the lightning speed.

For sport they can go through the water with speed like a porpoise, perhaps ten or twenty miles an hour, and, as if not satisfied with this, they come to the surface and take long flying leaps time after time, staying in the air nearly as long as they do in the water, so that it would take a very lively fish to catch one—and I think nothing could do it but a grampus. The tail is so arranged with strong little feathers that it can be used sideways as a rudder, for which the legs may assist, but I do not think the latter are used for swimming. Though the feet are webbed they are narrow and clumsy, with cushions beneath well adapted for climbing about on the rocks, but not at all for swimming, because the knee-joint, so free in other swimmers, is useless to the penguin.

Moulting.

After the young ones are grown up and gone away some of the old penguins remain for their moulting through January and February; but they are not particular about the date to a month or so. During this time they seem to be in misery and out of humour, as if moulting was a very disagreeable business. Only about 10 per cent. of them remain, which implies that they only moult every eight or ten years. They generally stay in the bush in dens under the roots of trees, where the young were reared. One of them often comes down to the water's edge; but, instead of holding up its head, proud of a pretty yellow crest and snow-white satin breast, it looks down at its pinfeather coat in a dejected sort of way, as much as to say, "Here is a pretty state of affairs; cannot go into the water, and have had no dinner for a fortnight."

It is no wonder that they are cross, as their voices plainly indicate, no matter what the words may be. It is something like the voice of guinea-fowl, but a very different tune, with a lot of snarl and complaint in it; and sometimes I think that there is a distinct call in it, as if they said, "Come on, come on; I am starving for that fish." While the one shouting out in the water seems to say, "Where are you?" But I notice it never gets an answer except by accident—as if it was always the wrong one that was within hearing. This made me think that their mates fed the moulters, as they do the hatchers; but I could never catch one at it, they are so sly.

Though they sit outside most of their time, they hop into their dens when they hear you coming through the scrub, and I have watched one of these callers for hours and nobody ever came near it; and by other indications at the den I think they get no food until their new feathers are well set. The shout of the one out in the water is just as if he had hurt himself, It is something between a scream and a roar; and when another one or two say the same thing. in slightly different voices, the concert is not at all unlike the hee-haw of a donkey. In fact, there is a variety that the sailors call the "jackass penguin," because it reminds them of a donkey singing. This is a great come-down for a bird as a singer.

They are more like ghouls than birds, for though there are plenty of nice dry dens for them to occupy, they seem to pick out the sloppiest they can find, and there they sit about in the mud as if they were comfortable; but I suppose their dense coats make them indifferent about wet—they may not understand it at all as I do. At breeding-time, if their rookery is to windward, you do not need a dog to scent it out in the bush, for you can do it yourself quite easily. It is always near fresh water, of which they must drink large quantities, because I often see them drinking; and I suppose that when they are using up their great coats of fat all they want is water. I was going into a cave one day for eggs, and there was a fellow at the door catching a little spout of falling water from the cliff. He had his great mouth spread out under it as if he was afraid of wasting a drop, and he stayed so long at it that I had not patience to wait for him to finish his drink. You would never think he had such a mouth unless you saw him showing it off in that way. Probably he had just come ashore, and was making up for lost time when he could not get it at sea, though he ought to have been able to catch some that way from a passing shower.

It is just possible that each rookery is a separate hapu of its own, because there is one near Luncheon Cove where they are all of a slightly different plumage, so that they must be very exclusive, because there are several rookeries of the ordinary kind within half a mile of them. There is another in "South Cave," at Pigeon Island, that comes about a fortnight earlier than any of the others that I know of, so that they look like an old-established separate community; and we need not wonder, for such often exists even among men.

I have not seen them fighting often, but when they do it is something awful for severity and endurance, for there will be a yard of foam around them for fully half an hour, and blood running so freely that I can see it red on their feathers, though washed off every moment with the splashing; so that it is a very serious business. They should take a lesson from the Maori-hens and fight oftener, have more fun, and do less damage.

As they only use their legs for steering, they keep their breasts very low when on the surface, to have their fin-like wings under water, and then they are the most ungraceful-looking birds that swim—something like a Muscovy duck getting drowned. But it would be hard to drown a penguin, for I took one down one day and threw it in the sea, and though it was quite calm I never saw it again. I might as well have thrown in a stone. It must have gone round the point or out of sight before it came up; and when I let one go in shallow water it darts about in a zigzag course—the best for defeating some swift enemy—till it gets into deep water.

The native ground-lark, with its zigzag flight, does not care a straw for the sparrow-hawk that can shoot like an arrow, though when he catches a bush bird out in the open it is almost certain death for it. I only saw him try a lark once, and then he was so badly beaten that while he was having a rest the lark actually chirruped a song in his face, and he said nothing, but flew away to the bush: and I suppose it is the same in the sea.

The covering of the penguin's fin demonstrates the transition from true scales at one end to feathers at the other; and the creature itself demonstrates the transition from a sort of a fish to a sort of a bird, while its jumping ideas suggest another transition which I should not like to mention. But I heard that there is one sort of penguin that has already started a pouch for hatching its egg, so that there is no knowing what it might mean with time and opportunity! Though they can run a little with one leg after the other, they lose their balance that way, and, like true Australasians, seem to get on best with the kangaroo's ideas. Supposing the world changed its balance a little, as it has often done before, and left the penguins' fertilised islands under a tropical sun, fruit might become more plentiful than fish, and that would be their opportunity to learn to jump about the country after bananas. Then, to prevent them getting lazy like the dodos, some of the seals might find fish so scarce that they would not be above going ashore and playing wolf after penguins to make them step out a little and clear off the bad jumpers. After that they would be a benefit to each other, because the lazy penguins would get eaten and the lazy seals would starve, while the smart ones would escape and survive. And thus they could go on getting swifter and swifter each generation, till they would become as smart as dingos and kangaroos.

A sudden change of balance in the world would account for the great quantity of bones now about the Arctic islands, and for the frozen mammoth whose skin we saved. It would also account for the periodic extinction of Old-World forms by which we classify our geologies; and then a slow return would account for all sort of changes in plants and animals.

It is quite probable that hunger drives many animals to change their food; for I heard that cows eat fish-heads in the Orkney Islands, and I know that a dog will live well on bread and biscuits, though he is a typical flesh-eater. I should not wonder if hawks first arose through the ablest and boldest among starving parrots eating their weaker fellows, for we have an instance in transit now in the case of the kea. In like manner, as the fruit islands gradually become cooler they would only produce grasses in abundance, and the old fruit-eaters would be compelled to change or disappear; and if the change came as slowly as it has in our historical period the simple law of variation and survival would be ample to produce all sorts of changes in animals. For instance, if the gorilla's country gradually got cooler and there were no men, those that learned to make the best nests and keep themselves warm would have the best chance to rear children and survive; and, as the climate got cooler still, in another hundred thousand years those that learned to put away a store of food for winter would also have the best chances. And once he learned to store food he would have time to think and improve his mind for another long period. I saw the orang-outang in the Melbourne Royal Park in 1884 putting away a store of food for itself. It would also cover itself with an old sugar-mat every time it came down out of its tree until it got another biscuit, which it would smell and taste, and, if satisfactory, climb up and put away in a box that was there for that purpose. The keeper told me that it would only eat at intervals, just like a Christian, so I do not see where the link is missing. All that the orang wanted was to be gradually starved out of its trees by the failure of the fruit, and be compelled to live on roots and seeds, and then be slowly adapted for walking on the ground like man. No animal alters by choice—not even the men with all their sense and inducements—but all are forced to alter by changing circumstances; and there is force enough in a slowly changing climate to account for alterations in plants and animals until they become perfectly fitted for their places according to the law.

Time was evidently never taken into account in drawing the plans for things in this world, and in reality it may only exist with its start and finish in our limited imaginations. But we have it written plainly in the stones and in the bones that when word came down, one of the orders given was "Change to improve or die." We know also that there were many residents here that disappeared, probably because they disobeyed. So I wonder what we are doing. Getting ready for another flood, I think, because nothing else would be so effective against the amount of fiery fighting material we have now on hand, except a sufficiently low temperature. We have the best of evidence that the climate of Greenland was once down as far as Italy, and why not again, when we know that great cycles are the order of the universe?

The Yellow-crested.

The yellow-crested penguins come here in squads or families. The first to arrive at Pigeon Island come to what we call "South Cave" about twelve days before any others that I know of.

The occupants of the caves come first, and then those that make their nests under logs and trees in the bush. They all go in and keep quite silent, so that you might go round in a boat and not know that there was a penguin in the sound until about a fortnight after they come, though there may be hapus of some hundreds every half-mile of coast. They do not care for dry caves unless there is fresh water right at the door, and a pool or stream seems to be a necessity for their rookery in the bush.

South Cave appeared to be fully occupied this year on the morning of the 29th June, though there were none in it two days previously; but it was the 22nd July before we got eight eggs, though there were over fifty pairs of penguins in it. If we take the first egg she will lay the other in the same nest, but when we take the two fresh eggs the nest is deserted, and I think, she lays no more for the season; but she may do so. The second egg is not laid until three or four days after the first.

When we take our tame woodhen's two eggs she will not waste a day hatching on nothing, but will go to the opposite side of her domain, make another nest, and have two or three eggs in it within a fortnight. And the penguins might do the same, but I think they are mere idiots as compared with woodhens.

Last year the penguins in South Cave were eight days earlier than this year. Only about 1 per cent. of them will have comfortable nests lined with dry grass or leaves, 50 per cent. may have a few sticks as thick as my finger laid about in disorder, as if they had but a faint idea of building a nest, while all the others will only have damp and dirty hollows in the highest part of the floor, which often cannot be reached without wading through a pool of liquid mud. However, this last arrangement will only allow the hardiest of the two chickens to survive, and then it will get more food for better development, so that what I think is stupidity may be clear common-sense to a penguin. They have wet lives before them, and pampering in their young days might not be the best preparation for the race of penguins.

Care of the Young.

My camp at South Point was right in the pathway of the penguins when they were coming down to the sea to get food for their young ones, which were under the rocks a couple of hundred yards up in the bush. There were only three nests just there, and generally three of the penguins came down together, passed the tent and fire with great fear and trembling, and then toddled away over the stones, or jumped from one boulder to another on the rough beach till they got in the surf. They did not seem to care whether it was sunshine or storm, but went their two trips a day very regularly—or more likely one trip for each of the mates, for both males and females came down.

The male is the bigger; he has a stronger beak and thicker neck. but the same plumage and crest as the female. He is also the bravest, though they are all timid as compared with woodhens, for I suppose they feel their deficiency as runners, while the woodhen's swiftness may beget him a great part of his apparent courage.

This little community of penguins seem to live very kindly with each other without any of the woodhen's enmity. A female was wanting to come past the tent, but was timid and sat there. Then a big one came on first and waited for her, and came on again and encouraged her until she got past and then she ran for it at her best. And when a pair of them meet on the pathway they expand their pretty crests, bow to each other, and pass by so close that their flippers touch as if in kindliness, which was surprising to see among the "beastly penguins." It shows that all the little kindly manners do not belong to the men; and that the idea of doffing the hat may have been taken from one of the oldest walkers on the land.

Among all the thousands I have seen I never saw their crests expanded till I came to this camp, and had no idea of how pretty they were. There are two crests, one on each side of the head, and when expanded they form two crescents of delicately curved yellow feathers standing a little apart, not unlike a golden crown.

When coming home, and just out of the water, they sit on a stone and have a good long rest, and then toddle or jump up the beach a little way and have another spell. Sometimes they are inclined to stay rather long fixing their feathers, as if they forgot about home, until they hear the awful howling up at the nest, when they start away again.

They have two distinct voices or tunes. One of them is a song that the pair sing in company when they are at home and happy, but it is a harsh old song; the other is an urgent call on the fisher to hurry home with the food. I was only there for a few days, but I soon learned that much of their language, and it explained a great deal of the noise they usually make at their nests.

Some of them go a quarter of a mile up in the bush to find water and a suitable place for their nests—sometimes up a steep gully that a man could hardly climb, a couple of hundred feet high. But I notice that those that go far away rear very few young ones: it is too severe a task. Travelling on land is evidently hard work for them, and they probably fail in carrying home the food to feed the young ones.

One of the requirements for a nest appears to be a convenient dark place where the young ones can get out of the light to avoid the sandflies, and even then I have not looked closely at one young one without seeing the effect of the flies about the head. They always stay out a good while when they are getting fed, and then the flies gather about them.

I used to wonder why I did not see more of them in the water when there were so many ashore, but, like other mysteries, it is very simple when you know it.

I often saw the three penguins going into the water at South Point, and even when it was quite calm I seldom saw them again till they came ashore. It seemed that they had some distance to go for food, and went right away at great speed under water, for they never think of travelling on the surface, but came up for breath so quickly that you would not know them from fish jumping. It is only the idlers that are seen on the surface. All the busy ones are underneath nine-tenths of their time, and invisible for the other tenth. They do not hunt about for riffraff fish in shallow water like the shags, but go away for something dainty.

I did not like to kill one of those that were feeding their young ones, but I wanted to know what food they were getting, so I tried to frighten some out of them, which you can easily do with a young shag, but not so easily with a penguin. The first one I caught positively refused to disgorge a scrap, but roared and fought till I had to let him go; but the next one was more timid, and gave up all I wanted. It was a queer mixture—some small fish like whitebait, red whale-food, some half-digested cuttlefish, and other jelly substance that I did not know, also a few anchovies, which are here again this year, but not in quantity.

Little Blue Penguins.

These little penguins are the only other sort in Dusky Sound, and a few of them can be nearly always seen out in the water fishing near the surface, or are to be heard calling to each other in voices like the bark of a little dog. They do not come ashore as much as the big ones, and their breeding season is about two months later. They make their nests in very deep holes under the roots of trees, so that I can never get at one without an axe and spade. The entrance to the nest is often too small for a woodhen to get into; and there is no screaming and squalling about it as there is with the big ones. Yet the little ones can make the most noise when their singing season commences, for they have very loud voices, and quite different from the others One of them gives a spirited groan with a shiver at the end of it, while its mate answers with a trembling scream, and they repeat this time after time until they are out of breath. There is a wild music in it when heard under the cliffs with the wind and waves; but when they come ashore and hold a concert near our tent on a quiet night it is altogether out of place.

They are not much above quarter the weight of their big cousins, and it is a blessing the latter have not voices as loud in proportion, or there would be no silence on Pigeon Island.

The little ones have no crests; their beautiful voice enables them to dispense with that ornament, while the big ones need it badly to make up for their bad singing. Otherwise their plumage and forms are the same.

The little ones appear to live mostly on very young fish only an inch or two long, with a few of the little *Mysis*.

When we first came to Pigeon Island our unruly dog killed several of them, and one that was bringing food to its young one had its maw distended with over half a pint of those tiny little fish. There may have been a thousand in it; and at that rate a pair of little penguins and their young one would be able to keep up with several fish-hatcheries going at "full steam."

KAKAS (*NESTOR*).

I have often found kakas' nests both in spring and autumn, and do not know which season they prefer, but I think that, like the kakapos, they do not breed every year. The nests are in hollow trees, not far from the ground, and the four pure-white eggs are laid in a hollow in the dry floor, without any other material to form the nest. Though there are generally four eggs I never saw more than two young ones, and did not know what became of the others until April, 1900, when I found a nest with two young ones in it and the other two out of it on the ground. One of the latter was very small and not quite dead, but the other was nearly as good as the ones in the nest and must have only just fallen out, but the dog killed it. This one, which was still in the downy stage, had two pieces of sharp gravel in its gizzard, some lawyer-berry seeds, and an oily white pulp, which may have been a mixture of wood-grubs and miro kernels. The gizzard was also about four times the size of a full-grown bird's.

A large part of their food at all seasons consists of grubs which they cut out of partly decayed timber, of honey from the rata and *Panax* blossoms in summer, and of various berries and miro-nuts in the autumn. The miro has a terribly hard stone to break, and yet the kakas break them crosswise just before they are ripe for the sake of their little oily kernel, which is only the size of a grain of wheat.

The big wood-grubs are often 2 in. long and ½ in. thick, and are no doubt good food, for even men and dogs will eat them when roasted. Though the outsides of the trees may appear to be all decayed, these grubs keep a little way in the solid wood, so that it is hard work for a kaka to cut them out, though its beak and muscles are specially designed for that purpose. The only trees that appear to suit them on this coast are the red-pines and miros, and I think that they need to be twenty or thirty years dead before the big grubs will be found in them; but there are different little grubs that may take seventeen or twenty years to come to maturity, as in the case of some of the *Cicados*.

They say there are seventeen hundred different beetles in New Zealand, and no doubt the kakas will eat all their young ones they can get. There is one sort that bores in the pith of the living *Panax* and makes its leaves wither, and the kaka shows that he plainly understands what is the matter by locating and cutting out the grub in one act. With all my supposed reasoning-powers I cannot locate the grub as readily as the kaka, and I do not think he can smell it through the wood. Instinct is all very well, but it would be as well to apply that term to the tricks of a card-sharper. "Instinct" may do for explaining what we do not understand, and the term is probably kept for that purpose.

When the parents saw me leaving the nest they went to it at once, and, understanding that I had taken the young ones, followed me down to the boat, all the time screaming for assistance, which attracted all the kakas within hearing, and they made a great demonstration of sympathy and willingness to assist. They often do the same in response to the call of a wounded one, and then the pot-hunter can make an easy bag of kakas. This may be considered a silly trait in their character, but it also indicates courage, of which I think the kakas have the greatest stock of any creatures I know. They have a greater variety of notes and calls than any other birds in this bush, and I would not be surprised if they had what might be called a language, and could discuss a simple subject as well as a parish council. All the other kakas knew what the parents were saying when I took their young ones; and we will all admit a part of a language, but most people draw an arbitrary line somewhere, though they do not know exactly where.

For sanitary reasons the nest has to be on a level with the door, and the young ones soon learn to keep order. This may be the reason that no sticks or straws are brought in to tangle their feet. It may have been in this direction that the intelligence of the other two little ones failed

them at the first test, and suggested their unfitness for the struggle of life. Or could the parents have reasoned it out that it would be better for them to have two well-developed young ones than four half-starved ones? It is possible that we underestimate the wisdom of many wild creatures, because we have every-day proof that we do not understand some of their faculties. We know that the cuckoos are as much politicians as our members of Parliament; that seals are navigators without instruments; and that migratory birds may have a knowledge of astronomy and the calendar; but we lump it all as instinct, as if we knew how it is done.

However it may be, I could hardly drag the young birds out of their nest, for they would hang on to everything with beak and claws, but I wanted them for pets and took them away. They were rather hard to feed at first, for I took them before they were feathered. When feeding them they had a queer way of shuffling their heads, which from my point of view was better for scattering the food about the floor than getting it down their throats. One of them is rude and bold and has a stronger beak, while the other is gentle and pretty, has a different voice, and is probably a female. The big one will not allow her to get a morsel of food till he is satisfied. If she shakes her head and tries to swallow any he will put his beak in her mouth and prevent her; and it is plain that if food was scarce, and if the male always acted in the same way, which is not unlikely, his conduct would tend towards a scarcity of females. This may be Nature's good reason for the females being the weaker, for she has many clever designs for the improvement of her people. Keen competition among the males would keep away the inferior or immature, which is very important for improvement sake. In many cases the fighting weapons in horns and tusks are specially designed for this, as if quality was more desirable than numbers. The kakas can cut wood with their beaks like a mallet and chisel, so that only the bravest and best would carry on the race if there was any great scarcity of females; and the fight is the only thorough test for soundness, cleverness, and courage. The way that our young men pass their examinations seems to be more a test for memory and attention than the above.

My pets required feeding about five times a day, and I soon found that I had undertaken a task that I had not bargained for. You must remember that the parrots chew their food thoroughly in their beaks, and that the parents prepare it thus for the young ones, and carry it home in their crops. So I had to pound up a piece of biscuit and mix it with mince-meat or fish, and then pour on boiling water to form a pulp that could be forced through a little rubber tube. The danger is that they will swallow anything you give them if it is slightly warm, because they depend on the parents to give them what is suitable. I was trying one of mine to see if he cared for the fruit of a miro-berry, and he swallowed it whole. The stone lodged in the little gizzard, where there was not room to grind it up, and ultimately caused his death. For the same reason it is dangerous to give them gravel, because the parents may have given them sufficient to last them till they grow up.

When an old kaka eats a grub he generally rejects the skin, but when he is done with it it is like a bit of dry tissue-paper. When I offered my pets grubs they would either drop them or swallow them whole, and I did not know how to manage. Evidently I took them too young.

When they became able to fly they ceased to be any more trouble, but would sit out in the bushes most of the day. They were most active late in the evening, and would come for food, and choose what they liked best. They were very affectionate, and were always craving for caresses and attention. They also acted kindly towards each other, for the big one's rudeness had ceased long ago, perhaps when its little mate had passed the prescribed test.

Soon after the big one died the little one was killed by a hawk. I heard the screams of distress a little way in the bush and went quickly to see what was the matter, but several old kakas had answered the call, and one of them followed the hawk about through the trees while others tried to intercept him, but they were not nearly smart enough for the sparrow-hawk. None of them seemed to be the least afraid of him except my little one, that was dazed and cowered under a limb. This showed that the first-rate kaka was too many for that hawk, while my second-rater in physique and education became his easy victim, for it died a few days afterwards, and showed the marks of the hawk's claws in its body.

This showed the futility of rearing any but the best, and the necessity of rearing them in the best manner. Therefore there is clear common-sense in getting rid of the inferiors at the earliest sign of their unfitness, so that the others might have plenty of food for their full development. If any pair of kakas tried to rear and protect four young ones they might all go to feed the hawks, and their labour would be thrown away so far as kakas were concerned, or worse than thrown away if it only went to feed their enemies.

That hawk tried on a strategem that is worth noting. He flew out in the open where every one could see him, and appeared to fly right away. I could not get my pet down out of the tree and had to leave it, but was not long up at the house when it was screaming again. Down I went with a gun I had just got ready, and got an easy shot at the hawk—the same hawk, for it had a notable light-coloured breast, which I think indicates age, or at least it does so in the case of the harriers.

The female kakas generally have lighter-coloured heads than the males, also weaker beaks, but they all vary greatly in the little details, so that no two of them are exactly the same. At one time my young male showed a distinct crest, but it disappeared in a few weeks.

Many New Zealand trees and shrubs are very erratic in producing their fruit, for sometimes all berries will be scarce or absent altogether at their proper season, while without any regularity other seasons will produce abundantly; and even a rata-tree that may produce 1 cwt. of honey this year may not have a spoonful for two years running. Yet the kakas and kakapos seem to know beforehand, and will often have their young ones hatched just when there is plenty of food for them. At Te Anau the pukekos only bore one crop of berries in about seven years. All the ducks eat them, even the blue ducks.

22nd July, 1901.—Later last evening we heard a kaka screaming in distress in the scrub near the house, but could not see it, and this morning we saw a tui attacking one that seemed very tame, so I got a rod and snared it, and now I have a grand young kaka in a cage, so tame that it will eat out of my hand. It is a vigorous, fightable young male with apparently a slight dent on top of his head, but how he got it I do not know. He is terribly afraid of his shadow in the glass, and screams as he did last night, so it might have been another spiteful old kaka that bit him. He had some fried sole and bread-and-jam for breakfast, and a bit of grilled chop for dinner, and a little bit of suet. He holds the food in the heel of his fist, and eats heartily just as if I had him for months, and this upsets my old idea of their being hard to feed.

My promising pet did not last long, but took sick and died within a month. I kept him in a cage nearly 4 ft. square with an earthen and sandy floor. He took plenty of exercise, cutting at his cage for liberty, which I thought was all right when he ate so heartily, but he was always anxious and worried, and probably too old when I got him. I may have trusted his own judgment too much in his choice of food, and I think I cheated him into eating bread by putting jam on it, for he would not eat bread without the jam. Bread had formed a pulp in his crop, which seemed to have remained in it for a long time. I probably made a mistake in giving him too much food, especially strange food such as meat, bread, jam, and fat, while I could easily have given him more wood-grubs. His gizzard was so small that it would go in a lady's thimble, and it was full of the skins of big grubs I had given him.

PIGEONS (*CARPOPHAGA*).

The New Zealand pigeons are such quiet creatures that they leave me little to say about them, though I have been living near them for about a score of years. Happily there is only the one kind, which saves all the christenings and the straw-splittings about species, and the males and females are so much alike that I do not know one from the other. Therefore, I know nothing of their social rules or of their fights and courtships, if ever they have any; and they are so silent that it is hardly worth their while having voices at all. You may hear a single "coo" from one of them, repeated two or three times at intervals, but after that you may not hear one again for months, though there may be a dozen pigeons within hearing every day. To make up for this they are rather noisy with their wings, and may convey impressions to each other by this means, because I can tell by the flap of their wings whether they are lighting on a tree or leaving it; also by the sound of their flight whether they are going away or coming. This was easily acquired in Taranaki, where the forest was so dense that you could not see them half the time up in the trees but could hear them quite plainly.

In ten years I only found one pigeon's nest at Te Anau, and that was such a slight collection of material that I would not have taken it for a nest at all if the pigeon had not been sitting on it. It was in a *Schefflara* tree about 10 ft. from the ground, and was so loosely built of twigs that I could see the young one up through the bottom of the nest. I climbed up a sapling and there was but one young one, only just hatched and shivering with the cold, so that I came away at once in hopes that the mother would soon come back. I thought I saw other nests at different times, and once I thought I could see an egg in one, but was not sure of it, which will indicate what a poor nest they build. There is many a bunch of twigs lodged in the trees that is just as dense as a pigeon's nest, and thus the builders of frail nests would be most likely to survive, because they would attract least notice. I also saw some nests in Taranaki, but so frail that I thought them unfinished. They must be skilfully built to prevent the hatcher working the egg through them. Though the pigeon can hit hard with her wing, her feathers and skin are so tender that she was never intended for fighting, and must depend upon concealing her nest. One nest I saw at Inglewood was on a mat of kekeis in a great red-pine, but I think it would not have lasted there very long, the place was so full of rats; and the pigeon that built there was probably preparing for the extinction of her family.

At Te Anau they live mostly on miro-berries, also red- and white-pine berries in the late autumn, then on kowhai-leaves, and, in the early summer, on the white blossoms of the ribbonwood up in the high gullies. But they used to eat several other leaves and blossoms. At Linwood, where they were very tame, they used to sit on the garden hedges and eat the leaves of the Cape broom.

They are reputed to be very good for the table, but I think a good deal of this is due to their fine appearance and their size, and the balance purely to faith; for they are always flavoured with the food they are eating, and most of this is so insipid that I would not pick up a pigeon at Te Anau unless I was very hungry. Though the weka is reputed to be the very worst table-bird, I would sooner eat one than a miro- or kowhai-flavoured pigeon.

They are also described as poor fliers and as easy prey for the "bush hawk," but I have often seen this hawk start them, and they have always flown up in the open, while all the other birds would dive into the bush. This is the best proof that the average pigeon is able to beat the hawk on the wing. Of course, a time will come in the life of every pigeon when she is not able to beat the hawk, and that is why he will follow her a little way to see if she is up to the proper standard. If not he takes her, because it is part of his business to do so. Old-age pensions are not allowed among pigeons. The hawk may also catch weakly or inferior ones in a fair hunt, and thus prevent the propagation of inferiors, as we do when we cull our animals or plants to maintain them at their best. He may sometimes catch a good one by stratagem, for I have found him eating a good fat pigeon.

When the hawk sits up on a high tree many little birds will come up and insult him by sitting about within a yard of him, and even pretending to swoop at him. This is because they know that they can get speed on quicker than he can; but when he is coming along at forty miles an hour it is only their tails that are to be seen as they dive into the bush. Thus a

pigeon may not start till he is so close that she has not time to get speed on before he strikes her, or in her fright may hurt herself against a branch and then fall an easy victim. But it is seldom this happens, and only when there are no little birds about, as they always give notice of his coming.

Here in Dusky Sound I have seen a hawk hunting a pigeon for a long time in and out of the bush, until they were both flying slowly as if tired. The hawk seemed to have all the best of the speed, and often swooped at the pigeon, but she easily avoided him by a quick turn, like a hare with a greyhound, which gave the hawk a lot of lost ground to make up. I do not know how it finished; but if the pigeon had nerve enough to continue those tactics until the hawk was exhausted it might have meant the death of the latter, as without food he would have been less able to succeed in his next hunt, and it would have been a severe lesson, and would have taught him that he must not try to catch good pigeons, but should attend to his business by looking out for the weak or sickly ones.

The same pigeons come here to Pigeon Island and feed on the same trees year after year, for the dog often goes within 6 ft. of them and barks at them, but they know him and take not a bit of notice. Other pigeons will have their regular beats also, and if a dozen or two were shot they would soon appear to be scarce in that locality. They only stay from about March till August, and after that they are very scarce in Dusky Sound, though there are always a few of them about.

GREBES (*PODICEPS*).

In reading a very interesting old volume of the "Transactions of the New Zealand Institute" (vol. x.), I notice that it is assumed as a matter of fact that the dabchicks walk overland from one pond to the other, which implies that they cannot fly. This I know to be an error, because I have seen them flying like quails. I have also seen one trying to walk, and I may fairly say that it could not walk at all, but just pushed itself along the ground with its legs. I had just caught it in a net, but it was not in the slightest degree injured, because I took it out carefully at once. In its condition at that time it appeared to be also quite unable to fly, of which it was very well aware, for it would not make the attempt, though it never had such urgent reason for doing so. I put it in a partly dried-up lagoon where there was no cover, but plenty of young fish and other food. The strip of water was about 50 yards long with level ground for as many more, and the lake only 100 yards away over an easy ridge not 10 ft. high, so that it had a splendid opportunity to get up and fly into the lake if it had the least idea that it was able to do so.

When I frightened it and tried to make it fly it just dived and stayed down such long intervals that I had to sit down and wait for it, and once it stayed under about half an hour until I thought it was drowned, though the deepest part of the water was only up to my knees. I intended to leave it there to see if it would walk away in the night or disappear, but a harrier hawk had already marked it, so I put a great bundle of scrub in the water, and my net on it. Next morning when I came the hawk was on the scrub, by which I knew my captive was still there, but I could not see it though I tried hard to do so. I set the net round it, took away the scrub, caught the dabchick and let it go into the lake. If the water is clear and shallow enough for the hawk to see a diving young duck all the time under water he generally gets it the first time it comes up.

I caught that dabchick specially to prove that it could fly, but it only made a fair attempt to show that it could neither fly nor walk; and I seriously began to doubt my own eyesight and memory until some years later I fortunately saw them flying again. I was stalking ducks one day when I saw two dabchicks get up and fly round like teal; they did this several times within half an hour, went up a good height and had a skite round like the best of fliers, which made me think that they were just practising for a migration. When I showed myself, however, they made no further attempt to fly, but resorted to their diving tactics. Probably that is the reason that so few people have seen them flying. Another reason may be that they may only fly for a short season in the year, or in a period of years, or even at irregular periods. They may be so constituted that a scarcity of food may be their forcible inducement to prepare for a flight to better quarters. Something like this happens with all migratory birds, but especially with those that appear to be poor fliers, and yet when food fails are able to fly hundreds of miles without a rest.

There may be a non-flying family of dabchicks, as there are of rails and teal, but I saw them flying at Te Anau Lake, and also their big cousins the crested grebe, but only when they were playing, practising, or fighting, and never when they were alarmed. The fact that they fly so seldom and will not fly when chased in a boat convinces every one that they cannot fly at all; and when they see the small wings they are doubly sure of it; but if they would inquire a little further they would find ample muscles for working those little wings, which would not be the case with non-fliers.

I lived ten years at Te Anau and two years at Manapouri, during which time I was very often out on those lakes where the crested grebe were formerly numerous, yet I only saw them flying on three occasions—twice when a pair were practising in the harbour at Te Anau Downs Station; and elsewhere I saw one hunting away an intruder, and they both got up and flew away along the surface of the water for several hundreds of yards, so that they could fly well at that season, but I do not remember the date.

Just where the Waiau enters Manapouri from Te Anau nearly all the grebes on the lakes would sometimes congregate—perhaps once a year—but for what purpose I did not understand, because out on the lakes they were always in pairs and appeared to be mated for life. They lived wholly on minnows, for I never found any other food in their curious gizzards, which were always crammed tight with their own feathers as if it was unnatural, but I never found the feathers absent though I examined many of them at intervals of years.

They made rude nests of sprigs in the scrub close to the water, and generally high up on something so as to be out of the floods; and they laid three or four white eggs, which were rather long and narrow.

In the downy stage the young ones had light-coloured longitudinal stripes and were very pretty.

I have just seen one in the salt water of Dusky Sound. It was in the end of Cascade Cove. I had a good glass and distinctly saw its ruff and crest, but after breakfast it had disappeared.

PARADISE DUCKS (*CASARCA*).

To a stranger the name of "paradise duck" seems too grand for the bird, for at a distance the drake appears to be black with white on the wings, and the duck's head and neck are white as snow, with many shades of buff and brown on the breast and hips. It is only when seen at a short distance, sitting at ease in the sun to show their glossy plumage, that their great beauty appears and justifies their common name. The native name is "putangitangi," which means the water-fowl which makes a great funeral crying—and this she does to perfection with her loud clarionet voice. She calls and calls for her lost mate for days, until her voice is broken and only part of her note is heard. She calls in her highest key as she comes into the bay, flies round, eagerly questioning if he is there, and as she wheels out at the point beyond there is a forlorn sound in her voice that may have prompted the old Maoris to call her the bird that mourns. The drake has quite a different voice, a sort of nasal trumpeting that he uses rather sparingly for a few days until he consoles himself with another mate—a widow, I hope.

They are the most trusting and intelligent birds, greatly inclined to associate with man whenever they get the least encouragement. Nearly every up-country homestead in Southland might cultivate their confidence, and have the close company of a pair of beautiful paradise ducks that would fly about the yard and allow the people to come within a dozen yards of them. But where they are saluted with a charge or two of shot at long distances it is no wonder that their intelligence gets them the character of being shy and hard to "get at."

At Lynwood Homestead, one of the oldest stations in the district, a pair of paradise ducks may often be seen, and these could not be hunted away with a pocketful of stones. There also may be seen the native pigeons flying about the yard and garden, feeding on the broom hedges in winter, and perching by the gates almost within arm's length of the passers-by. A piece of native bush at the door affords cover for numerous tuis, bell-birds, and kakas, and hundreds of blackbirds and thrushes that keep up a concert for "foreigners"—but the patriotic New-Zealander says that the thrushes only spoil the music of the bellbirds and tuis.

The paradise ducks have not occupied all the North Island, and I take them to be very local, for I have known a pair to remain in a little bay in Te Anau Lake for a whole year, and probably for two years. The ablest drake, with his mate, takes possession of the best feeding-ground, marks out the boundary of his domain, and protects it against all comers. He keeps a sharp look-out for intruders, and if they alight on his side of the point he comes along, followed by his mate, and drives them off or has a fight. The victor remaining soon comes to know me. This is how I know that the one pair stayed so long, because they were always tame. The ducks only scream and scold, but the drakes collar each other by the throats and beat away with their wings until they are so exhausted they are unable to fly for some time afterwards.

Last year a great old fighting drake came in while my duck was away hatching, and, as in duty bound, her mate fought a great battle for his home and family. At first the flapping was fast and furious, but gradually got slower and slower, until one of them lay on the water, but never turned tail to his enemy. When I put off in the skiff the single drake remained and the pair went away, evidently thinking it too warm a place to camp. The strongest and hardiest have the best feeding-ground for their young, which are more likely to prosper and survive, thus illustrating natural selection and improvement.

About September there is a great deal of courting going on, among the younger ones, I suppose, for I think they pair for life, and that they do not pair until they are about two years old—which will account for the companies of nearly all ducks or all drakes that may be seen about at all seasons. There is a lot of jealousy and squabbling among the ducks when they are trying to arrange matters, but the drake looks on quite passively and only remonstrates with them now and then when they are making too much noise. But when he once accepts a mate he is an ideal husband, and will hunt away a stray duck with as much resentment as if she were a drake. If the swans, grebe, or shags intrude he takes no notice of them, for I suppose he knows that they do not interfere with his food, but when a pair of grey ducks come he chases them with the greatest vengeance, and then shows his speed and strength of wind to the best advantage. No wonder he is tough on the table when he is always in such high training.

On the 20th November last the pair that were nesting near my camp appeared with seven young ones. My attention was first called to them by the cries of distress and the efforts of the old ones to protect them from a harrier hawk that seemed to be unusually bold and persevering, attacking the duck and drake alternately, and doing his best to scatter the young ones. I suppose he succeeded, or got assistance from a ferret, for next morning there were only four young ones, and the day after only three were left.

Sometimes when the drake is away acting as a decoy a hawk thinks he has a chance of stealing a young one; then the mother screams her loudest for assistance, and when the hawk lets down his legs she dashes straight at him, and does all in her power to save her little ones. When the hawk sees the drake returning he generally flies away, but I have seen one pick up a duckling and the drake fly at him and strike with his wing so that the hawk lost his balance and fell. He did not let go the prize, however, but succeeded in carrying it off. If there are no young ones the ducks do not take much notice of the hawk, unless he lets down his legs to seize something, which irritates them.

A party of paradise ducks were sporting on the water in front of my window, and a hawk kept hovering about tormenting them until he spied something floating—a dead minnow perhaps. Forgetting the ducks he reached down his legs, when, quick as thought, one of them flew at him, and to my great enjoyment he fell on his back in the water. When he got up he forgot all about his fish, and flew off in a great hurry, like the cowardly thief he is. The former abundance of rabbits tended greatly towards the undue increase of hawks, and now the scarcity of rabbits leaves the poor paradise ducks almost to continually fight with the hawks all day, and to fight with the ferrets at night, so that the result may be easily foretold.

When a family of paradise ducks are met with out on the plain or on the bank of a creek the mother often tries to steal away with her young ones, but the drake flies up and tumbles on the ground in the opposite direction, gets one leg over his wing, and flops about as if he could not run. Then he droops his wings and runs away as if he could not fly, and all the time his cries of distress are so well simulated that every novice takes him for a wounded duck. An inexperienced retriever will do his level best to fetch him back, but the drake generally fetches the dog and leaves it a long way off. Often have I encouraged my dog to go after the drake as the best way of getting it away from the young ones, but after a while he would refuse to look in the direction of the decoy. He had learned all about the trick, and was more inclined to hunt up a young one. A few years ago a gentleman, who was a barrister and a B.A. from Oxford, told me he had seen a wounded duck in the gorge on his way up here. "A black one," said he. "I nearly caught it, and I would have caught it, too, only I did not like to leave my horse too far behind me. It could only fly a little bit at a time, and I was within a yard of it when it seemed to get better." He seemed like a man that could run, and I was awfully sorry to think of such a grand piece of fun being wasted in the lonely gorge, with no one at all to enjoy it.

The duck is a fairly good actor, but the drake is a master of the art. If his talent is the result of reasoning it is quite easy to understand, but if it is some old instinct transmitted from ancestors that used it successfully there are several interesting questions relating to it. What enemy was it successful in deceiving? Could it have been the moa, or was there some other bird that has utterly disappeared? The latter is quite probable, because wekas were plentiful at Te Anau four years ago, but now traces of them are harder to find than traces of the moa. It all depends upon the durability of the bones, and I would not wonder if we had failed to record many old New-Zealanders, including the hoihois and taniwhas. However, the fact remains that the paradise duck never tries the imposition upon hawks or gulls, but only on men and dogs, that are too cute to be often deceived by it, and who are far more likely to find the young ones through the parents acting as decoys. So this acting must be either a legacy from their forefathers, or the measure of their intellect and judgment.

Great harm is done by shooting charges of shot into crowds of ducks at long distances, when a dozen may be wounded for every one that is killed, for a paradise will carry a lot of shot for miles. In this case it is not only the injury to the birds, but it greatly encourages their enemies. For instance, the harrier used to be a cowardly thief that had a great respect for the powerful wings of the paradise drakes, but now, after he has captured and killed his hundreds of wounded birds, he thinks he is able for the others, and continually torments them, and the ducks seem to be more afraid of him than formerly.

The hawks are so plentiful that the ducks hardly get a moment's peace. No sooner are they settled in some grassy corner than a hawk swoops down and pretends to seize one, and it is the same thing wherever they go—even if they fly for miles a hawk is sure to be there or within sight.

Those tireless wretches of hawks are well called "harriers," yet we hardly ever shoot one, though we shoot the bravest and best of the ducks that used to make their race respected. Thus the old-time balance is destroyed, and unless we interfere we can easily foretell the result. Where the paradise like best to live the ferrets are about defunct, so that the ducks might recover and repeople their old haunts if it were not for the hawks. The hawks are supposed to be good rabbiters because their nests are surrounded with the heads and legs of rabbits, and nearly every one that sees this comes to the conclusion that the hawks killed those rabbits; but a moment's consideration will show that the pair have hunted over hundreds of miles every day for the leavings of cats, dogs, and men. I have been in the rabbit country for many years, and I *never saw a harrier kill a rabbit.*

I spent a good many years about the Mararoa when paradise ducks were very plentiful; and as I did not shoot those that paid me the compliment of living near my camp I had the best opportunities of becoming well acquainted with their tastes.

I often noticed that when a pair were going to breed they were very particular about having the place to themselves, and the drake would engage in furious and long-continued fights with every intruder for his favourite place, which resulted in the hardiest fighter getting the best place for rearing his young ones; and if they cannot keep off intruders there will be no young ones, let it be ever so desirable a site for rearing them.

Nearly the same thing applies to many Australian ducks and to our own grey ducks, which will all go away to breed in the loneliest places they can find. I think that they will generally kill each other's young ones, perhaps through jealousy, at which we need not wonder, for that feeling is very common. I heard of a woman throwing vitriol on her rival not long ago, and I saw a pair of paradise ducks kill another's young ones at Station Bay, Te Anau, and every time they saw the little dead thing floating about they would beat it again with their wings. Even with tame ducks and barndoor fowl this sort of thing often happens, though it may escape notice that it was done by a flip of the wing. The little grey teal at Pigeon Island often rear four young ones, though the place is swarming with rats, and I think that a rat would be afraid to come within reach of a grey duck's wing while nursing her brood at night. I know that a rat would kill

a young duck, but I think it quite likely that the young ducks found in rat-holes in the gardens were only dead ones that they had collected.

For the first few weeks the young wild ducks appear to live wholly on live or drowned flies and moths and tiny water insects, with perhaps some vegetable matter, but certainly no seeds or grain, because there are none at that season. An eddy or backwater in a stream is their favourite feeding-place, and it stands to reason that if we keep a lot of big ducks in the breeding-ponds to eat all the tender things the young ones are likely to starve or be poisoned with unsuitable food, to say nothing about the big ones' jealousy and probable violence.

It seems also that there is a broad rule among animals demanding plenty of exercise for breeders, because the want of this will account for the many hard-working wild creatures that refuse to breed in captivity. Therefore the drakes should be allowed to fly a little if possible, and to fight as much as they please, so long as they do not trespass on the young ones' feeding-grounds.

When grasshoppers were plentiful, and before the advent of ferrets, I knew a pair of paradise ducks to rear twelve young ones. I think that when they are about three months old they would thrive on grain, and a little later would be able to take care of themselves among the big ducks, and would not need the pond to themselves all the year.

In conversation with Mr. Russell, we were agreed that paradise ducks are quite content on grass far away from the water, where they often hatch their young ones, as if they knew that they would be better out of the water until they were well able to run; so that our plan of asking them to hatch on the edge of a pond may not be nearly so intelligent as that of the ducks, because we do not know so much about the conditions they require.

The following notes on the paradise duck are from the pen of Mr. Richard Norman, of Albert Town, and appeared in the *Otago Witness* on the 11th December, 1890:—

"The paradise duck is more properly a goose than a duck, as it takes more after the former than the latter. They used to breed in this neighbourhood some years ago, but as the 'paleface' has changed the order of things they have retired into the back country. In the early days grass was good, and the fine tender grasses were abundant, so that they had plenty of green food. Grasshoppers of many different colours and other insects were abundant, so that they could always get plenty of food. The sheep, the rabbit, the sparrow, and the imported birds have changed all this. In the Matukituki Valley, which is similar to the condition of things as they existed here years ago, perhaps a couple of dozen pairs breed every year. I obtained a couple of young ones before they were able to fly, when they are always called 'flappers,' to send to the Dunedin Botanical Gardens. I thought them the most innocent creatures that could be imagined, with their mild gentle eye, and plaintive quacking and frightened manner, and the entire absence of any attempt to use their beak and wings. Of this pair Mr. McBean, the curator, has a fine duck, which is there much better off than in its wild state. Any one living near a railway-station who can procure a pair of 'flappers' should send them to the Gardens, where they would be highly prized and well taken care of. They get remarkably tame if they are taken in hand when they are ducklings. They show much attachment to their home. When the writer's father and mother lived at Pembroke (then known as Roy's Bay) thirty years ago they reared a brood of young ones which became so tame that they proved a nuisance, and were always coming into the houses. They would follow my mother about everywhere. At last they were sent to the Wanaka West station by water, twelve or fifteen miles away. A few days afterwards the biggest drake swam back. He could not fly, as they had been pinioned. He was complacently waddling up the track to the house when a man who came there that day shot him, not knowing that he was a tame one.

"The paradise duck should make a valuable addition to our poultry-yards, and unless this means is adopted for preserving the species it will become very scarce in a few years, perhaps extinct. People think because they see a few hundred in a stubble paddock or in a small valley that they are as thick as 'leaves in Vallombrosa,' when the fact is they have congregated there from a very large surrounding area.

"As the birds in New Zealand have not been subjected to countless ages of persecution, amounting almost to extermination, they are comparatively tame, and not cunning enough to successfully combat all the arts and wiles of their new enemies bent on their destruction. Some of the species must become extinct before the remainder have adapted themselves to the new order of things. The ferret, with its sharp claws and teeth and villainous beady eyes, is the worst foe of the lot, and more destructive than the whole of the other enemies combined. In many cases the shooting season begins too early. In late summers and fine open winters the paradise duck rears a second brood, or, at least, breeds late in the autumn; and when sportsmen come round with breechloaders and pour a perfect fusillade of leaden hail into a flock, many young ducks, which are not strong of wing, sometimes barely able to fly, come to grief at once. The spirit of destructiveness in Englishmen is so strong that it is no wonder that the Frenchman witheringly remarked that when they had nothing to do they would go out and 'kill something.'"

Importance of Isolation.

In 1898 Mr. W. W. Smith wrote: "After some years of experience in breeding paradise ducks I find it is very important to isolate them before the nesting instinct develops for the season. If success is to follow they should be placed in a large, sunny enclosure, away from public gaze or interference. They should also be supplied with little stone caves, or cool shelter-places, formed by placing a few large stones in heaps, in which they readily lay their eggs. In their natural state they almost invariably nest in crevices of rocks, or under large stones in the valleys of the upper reaches of the rivers. In captivity they lay better by adding a little clean, fine bonedust to their food. Pollard mixed into a dryish paste, with which the bonedust is easily

mixed, affords them a very nourishing diet. There must also be a clean pool in the enclosure, or the latter may be made on the margin of a lake or stream. If supplied with a box of small, gritty stones and finely-pounded oyster-shells, and fed on wheat once a day, there need not be the slightest doubt of their laying eggs under these circumstances. The surest mode of success is to gather the eggs and hatch them under good hens, or domestic ducks. When nesting there should be only one pair of ducks in each enclosure, and they should be as far removed from each other as possible. If enclosed along with other birds they become querulous and vicious, especially during the nesting season, and rarely lay eggs under such conditions. The so-called paradise duck of New Zealand is the handsomest sheldrake in the world, and is at all times a beautiful and interesting bird on ponds and lakes in the grounds of the villa or country residence."

BLACK SWANS (*CHENOPIS*).

I was acquainted with the swans in Victoria, but only in a casual sort of way, because they were much wilder there than they appear to be in New Zealand. This may have arisen from better food generating more spirit and activity, or it may be for want of enemies in New Zealand to clear out the stupid ones and leave only the best. I do not know that the wild swans set much store on seeds, but I know that in captivity they flourish exceedingly on almost any sort of grain in addition to their ordinary food of water-weeds. So they may have got more seeds in Victoria, where there are no rats, though I do not remember any seeds that seemed to be much account for food. However, one never knows how little things may make up. The Maoris did not think much of our wheat at first.

The swans seem to be making a slight departure here by breeding at all seasons, which I never noticed in Victoria; but I remember going there in the early spring for their eggs, especially if there was a flood, for then the nests would float up and be easily seen, and easily reached in a canoe; while at other times it was terrible work crushing through the "bamboo reeds," which are often 7 ft. high, and growing as thick as a crop of wheat. Our toitois are the nearest to them in appearance, but quite different plants, for the others always grow in water, have very few leaves compared with the number of seed-stems, are hollow and strong like little bamboos, and were used by the darkies for spears. Their seed was no heavier than cocksfoot-grass seed, yet wherever it was plentiful was the best place to find ducks, swans, and swamp-hens.

The Maori raupo reed was common in Victoria. Probably its light-plumed seed may have flown over here, and if so it is a pity the others did not come also, for there are many swamps and lagoons lonely in New Zealand for want of some such good shelter for the young waterfowl.

For her nest the swan gathers a great heap of last year's broken reeds, and in doing so must take care that it is not fastened down, or her eggs would be spoiled by a flood; she must also take care that it will not go away with wind or current. This she is intelligent enough to manage by pulling down the tops of the reeds and fastening them in so that the nest can go up or down without floating away. Six was the usual number of eggs in Victoria when hatching; but I have not seen more than five in a nest in these sounds, and often only four. It says something for their sense that they were able to use successfully the much poorer material they found in New Zealand to build their nests. In fact, they often build here high and dry on the land, which I never saw them do in Victoria. At Te Anau Lake I saw where a pair had worked in a little branch of a tree and some pieces of drift-wood to help to float their nest, but unfortunately a part of the branch was stuck in the mud and a slight rise had flooded their eggs. In shallow places in this lake a sort of green grass grows which the sheep and rabbits eat when the water recedes; this is also a favourite food for the swans, and when the lake is low enough for them to reach it there are always plenty of swans about, but when the lake rises again they all disappear. I have heard people say that a swan will desert her nest if once hunted off it, but I know that such is not the rule, for I have several times passed nests where I knew the eggs were not fresh, and every time the hatchers would get off and swim away. Of course when I had taken fresh eggs out of a nest the mother swan had sense enough not to lay any more there. I think that their food is very poor, and that it takes them all their time to get enough to keep them going. The hatcher's food is greatly reduced, as is also her vitality, and then to be made to fly away in a fright is evidently a serious injury, so that her reputation for desertion is often gained more by dire necessity than want of sense.

When we went into a backwater on the 16th October there was a pair with four little young ones, but next day there were only two. The old ones are such silly fools they go away out in the bay and keep the little ones swimming until they fall behind or die of hunger. Next day when they saw me far away on the point out they went again, but one of the little ones got on the mother's back and went sailing away while the other was left far behind. Next day they had lost them all—possibly a fish had taken them. However, they are of no use here, and I have an idea that they tend to reduce the number of flounders, either by eating their food or their spawn.

On another occasion we had just the same experience, and I went to some trouble to try and find out what had become of the young ones, but failed in my endeavour. If a gull or hawk had eaten them I should have easily found some of the feathers, because the wind was all the time inshore, so I came to the conclusion that a hapuka had eaten them. This fish is sometimes nearly big enough to swallow an old swan, and is bolder than our common sharks, for one of them has several times seized the frayed end of our reef-point and given it a good shaking; and small fish are more afraid of them than they are of the sharks.

I think the very young swans would never leave shallow water if they were not disturbed, and as they never dive, like all the ducks, they are easily caught in a canoe. The old ones may know this quite well. If so, I need not call them fools or cowards for being so nervous when they see a man in a boat.

I only know three sea-weeds that the swans eat, and they are the green ones. Their favourite grows in quiet places where there is a muddy bottom at low water, and is not unlike blades of grass, 6 in. long and ¼ in. wide. A variety of it grows also in fresh water, and is more abundant there, for it is very scarce in the sea. There is a little patch of it in front of my window at Pigeon Island, where a solitary swan has found it out, and comes for it occasionally. The swan often swims from the other side of the bay or from another little harbour, but I notice that it always times itself to arrive when the water is low enough to reach the weed, which requires a little thought and observation, because the times of tide are changing every day.

The next weed it eats is a sort of green moss that assumes various forms, sometimes like slime and grows mostly in back-waters near the mouths of rivers. It is much more plentiful than the other, and I think it forms the greater part of the food for the swans that live on the coast. I saw plenty of it floating about in the sea in front of the Hollyford River, and swans out there after it.

The other sort is like thin leaves of green paper, that grows plentifully among the common sea-weed on the rocks and stones; but the swans eat very little of it, and then only when it floats ashore. I never saw them fishing for it. The paradise ducks also eat a little of it.

The swan that comes here goes regularly up the beach for a drink of fresh water. A little higher up were some clumps of "cutty-grass," with a great crop of seed in little round drooping ears not unlike ears of wheat, and when they got well filled about the end of January the swan plucked everyone of them.

HAWKS (*HIERACIDEA*).

There are a good many sparrow-hawks about these islands and in the bush, though we seldom see them. They are sly, and fly late in the evening and at peep of day in the morning, when I often hear the little birds singing out their alarm-cries, and I know by the way the signal is passed along that it is the swift hawk on the hunt in hopes of taking some one by surprise; and we see traces of their work nearly as often as we see themselves.

Not once a year do we see one of them hunting a bird in the open here, probably because they get few opportunities of doing so; and their most successful plan of hunting is to fly swiftly through the trees, when, with their high speed, they have a great advantage over birds that fail to see or hear them in time to get a start. I am confident that they catch most of the pigeons this way, for they cannot catch a good pigeon out in the open, though, of course, a time will come in the life of every pigeon when the young and hardy hawk can catch her. I have often seen them start a pigeon with a great rush and clatter, but if she succeeded in getting out above the trees they nearly always gave her up.

On two occasions I have seen them catch fantails by a slight divergence in their swift flight, though the fantail is so nimble that it is the last bird in the bush I would expect the hawk to catch. Another surprise is the fact of their being able to overtake parrakeets out in the open. These are the birds that they most eagerly hunt when away from the trees, and they generally catch them notwithstanding their marvellous speed and activity. The kakas are poor fliers but demons to fight, and the hawks never appear to trouble the old ones, but they take the inferior young ones, which is all right and fair.

Recently I was up early, and over at our garden found the warm remains of a weka. There was so much of it eaten that I could hardly believe it to have been a sparrow-hawk's work, because I have often been surprised at how little they eat of a pigeon or swamp-hen. Therefore I set two traps, and next morning found a male sparrow-hawk with one foot in each trap and neither leg broken. He was as big as an ordinary female and very light in colour, which I think indicates age, for such is acknowledged in the case of the harrier. This one must have been feeding his young ones, and had come back for more food.

Late in February I saw a pair of young ones just learning to fly. They followed my boat among the rocky islets, and every time they lit on a rock they would lose their balance for want of practice. They were dark-brown on the breasts and almost slate-coloured on the backs. Their gapes were yellow and their legs of a greenish-yellow colour. I did not see their parents at all.

At Te Anau a pair fed their young ones near my camp for some time, where they were very welcome, because their game was mostly young sparrows, and I had an opportunity of seeing some of their manners. The male was only about half the size of the female, and he seemed to devote his whole attention to sparrows, which had many nests in a few solitary trees on the south-east end of the lake where there is no forest; but the female was more inclined to look after swamp-hens or wekas. The parents were like quail-hawks and the young ones like bush-hawks, so that there may be only one species that vary a little according to age and the locality they live in. I saw the pair hunt in company, and while one would be swooping down on the bird the other would be climbing up, and thus they swooped alternately, so that a parrakeet had no chance at all, and a starling could hardly escape. A sparrow is too cunning to afford a hunt, for he will not fly in the open, but will dive into any sort of cover, even in among the ferns; but the hawk used to fly through the trees where the nests were, and seldom failed to carry off something in his claws. When the parents wished to give a little bird to the young ones they would call out a scrap of their laughing scream to attract attention, and then drop the bird in mid-air, when the two young ones would race for it and easily catch it before it fell. And, as usual among the birds, the most alert and vigorous got the best and the most of the food.

Near Pleasant Creek, in Victoria, I saw a sparrow-hawk performing a very clever trick. I had taken shelter under a tree near a water-hole when I heard a rosella parrot screaming in distress, and I saw the hawk coming along close to the ground with the parrot in his claws. He flew right up to me and dropped in the water with his wings spread out on the surface. He was so close that I picked up a heavy piece of bark andh it him with it, so that he jumped

up and left his parrot in the water. I fished it out nearly dead, not by drowning, for the hawk had killed it by sticking his claws through it in many places. Therefore he only put it in the water to stop its noise, which was a very necessary thing to do, because if a trio of magpies had been near at the time they would have given him a job to defend himself while holding his parrot. Those parrots were very plentiful, generally in little flocks feeding on the ground, and magpies were also plentiful, so that it was a good idea for the hawk to come sweeping along, pick up a parrot and drop in the water with it.

No doubt that was a prosperous hawk, but I never saw the trick before, nor have I ever heard of it since, though it is now nearly thirty years ago. Other people may have seen the same thing, but, like myself, have thought it a little "too tall" a story to write down. Those hawks were not at all uncommon there, and, so far as I can remember, were the same as the New Zealanders, but, like all the Australians, were comparatively wild and shy.

It may be bad policy to kill the hawks, as Professor Newton thinks, but he should remember that we have killed and wounded a great many birds all over New Zealand, and that the wounded ones generally went to feed the hawks and tended to their undue increase, while the number of birds are less and the natural balance destroyed. Supposing that every hundred whales had had ten enemies before the whalers came; after the whalers killed fifty whales the others would have had too many enemies, which might be disastrous in itself, but if all the sunken and wounded whales went to feed up more enemies the case would have been harder still. This is the case with the swamp-hawks, and thousands of them might be shot now with great advantage, to all sorts of ducks at least. In fact, the ducks will never recover unless the swamp-hawks are greatly reduced; but it is different with the bush-hawks, and I will not kill any more of them.

Professor Newton has the same idea about the Faroe Islanders killing the predaceous gulls to save the other birds' eggs and young ones. He points out that "for untold ages those birds managed to get along very well together," but he misses the point that the islanders had already taken too many eggs, and that the services of the great black-backed gulls were no longer required in that direction. Therefore, the islanders are quite right in trying to reduce their numbers and keep any surplus eggs for themselves.

NATURAL ENEMIES.

Professor Newton, of Magdalene College, England, writes to New Zealand in a kindly way about her bird reserves, and warns her against killing the hawks, which he rightly says "would be the best safeguard against one of the evils to be expected from over-population—that is, the outbreak of disease, which might carry off a large proportion of the birds which it is desired to encourage." The above is all very true, and very applicable not only to our dealings with native birds, but also to our dealings with rabbits; and it is a pity that the naturalists at Home did not tell us in time that the best way to keep our rabbits healthy and flourishing was to import their natural enemies. We had to find that out for ourselves, and now, fourteen years afterwards, we get it out from Home.

As it has turned out, it is a blessing that we did bring the natural enemies of the rabbits, but we deserve no credit for doing so. It was exactly like one of young Scoresby's blunders, every one of which, according to Mark Twain, brought him honours and promotion until he became Lord Scoresby, Y.C. If we had not brought the natural enemies our rabbits might not be so good, nor their export trade so flourishing as it is now; but instead we might have been losing nearly as much grass by a worthless horde of rabbits.

And now, before we bring the sparrows' natural enemies we should consider what chance we have of exporting them at a profit.

There were evidently two sorts of natural enemies instituted as checks—one for ordinary creatures and the other for the diplomats. The hunter that chases his prey takes only the weakest and worst, which is a benefit to the creatures he hunts, and he may be called "the honest check," such as the dog and the hawk; while the enemy that lies in wait may often take the ablest and best, and thus injure the race it lives upon. This may be called "the fraudulent check," such as the cat and all the night prowlers that live upon day birds. This is the only sort that should be tried against such diplomats as sparrows.

Counterparts of the two sorts of checks exist notably among fish, and among many other creatures—they existed even among men before they thought fit to ignore natural law altogether. There used to be marauding hunters in England and over the border; in Syria and New Zealand; also highwaymen with swords, all of which came within the honest category: but they are all dead now, and we have the other sort instead, such as Jabez B. and Co., the defaulters.

I think it was in September that I first noticed a few sparrows this season (1900), but their numbers appeared to be constantly increasing until about the 7th or 8th of January, when they all left in a day, for I noticed the silence out in the big pines. I saw lots of them carrying straws for their nests, and thought that they were going to stay here; but I heard a long-tailed cuckoo out there, and he would soon spoil their nesting. Then they bethought themselves of the farmers' crops where there were no cuckoos, and left at once. I love cuckoos now, and will never shoot another of them. I used to shoot them for the sake of the other birds, because I saw one of them drop something one day, and found it to be a naked young bird with its head crushed.

The nest-building sparrows certainly met with something that they did not bargain for, because there was a fine lot of grass-seed just ready for them when they left. They are cunning and clever beyond belief.

The kakas also went away early in January with a good many of the tuis and mokies, but I know why they left: they did not want grass-seed, and went up the mountains after the rata-blossoms, which are later higher up, but there were plenty on Pigeon Island when the sparrows left.

Near the tops of the mountains ratas will be in full bloom as late as March, while I noted some this year on the 20th August in sunny corners near the water's edge.

A cuckoo may lay its egg in the best of the warblers' nests and destroy whole families, instead of hunting up the young ones and taking the weakest of them, as the hawks do. I believe that our long-tailed cuckoo lives principally by robbing birds' nests and eating both the eggs and young ones. Cuckoos were not uncommon a few years ago, and were fond of coming into orchards and into the trees around the farm-houses, but I think that no New Zealand farmer ever lost a chance of shooting them, even when he was greatly pestered with sparrows. The cuckoos are so bold that I have often heard their screams from streets in Dunedin, and so cunning that it is very hard to get a sight of them, so that they might do useful work even yet if we could only get up a friendly feeling towards them, like the Australians have towards their laughing-jackass. In that case it should be remembered that it is probably the little grey warblers that nurse the young cuckoos, and they would need to be respected also, which would be a heavy demand on the forbearance of the boys. However, I have not seen a young long-tailed cuckoo in New Zealand, but I have seen little birds feeding them in Australia, or ones very like them, so that it might be worth while for every farmer to save them, for I believe that migratory birds come back every year to the very spot where they get the best food. This is the very root of the migratory instinct, and the farmer that allows them security may expect them back again if it is a good place for sparrows' nests; and even if they do little good he may be perfectly satisfied that they will never eat his grain or fruit.

The cuckoo's season may be too short for the elastic sparrow's, but we know so very little about them that it would be well to give them a good long trial when it will cost us nothing to start with and we have nothing to lose by them. Putting a bird in the Act of Parliament does not seem to enlist the sympathy and assistance of the people, so that it would be as well to keep the cuckoos out of the list and try an appeal on the other side of humanity. Such an appeal has been successful on behalf of many creatures in many countries, and why not in New Zealand? Game laws have such an unpleasant flavour with colonials that they often think that they would be better without the game.

In December, 1900, there was a swarm of sparrows around my homestead on Pigeon Island. They were sucking the honey out of the rata-blossoms, and I suppose it was too monotonous, and that they came to my clearing for chickweed-seed. I let them get confidence for a long time, fed them in a spout, and then shot six of them in one shot, and spoiled the confidence of the whole lot—even of those that did not see the shooting. They all knew about that one act, and would not let me look at them afterwards. If I looked towards a mob of them they would fly right away over a hill and would not come back for a while. The honey streamed out of those I shot, and they were as fat as woodhens.

The tui and bellbird used to be enemies, but now they go mates to hunt the sparrows; but they made but little difference, for there were too many of them. There were also two grey thrushes sucking the honey and feeding on the sea-beaches alternately, but it is no wonder for them to suck honey, because they are fruit-eaters.

I went out to a rata-tree at my window (18th December) and gathered a teaspoonful of that honey in ten minutes with a little glass syringe. At that rate the sparrows could fill their crops in five minutes, and soon get fat.

The birds suck the same blossoms for several days, and it is probable that some ratas produce more food than any trees we cultivate, but it was not intended for men.

The *Panax arboreum* also produces a large quantity of honey, and has the same capacious cup for its reception. It blooms much earlier than rata, and continues blooming for a long time.

SEAGULLS (*LARUS*).

We were anchored at the end of Sportsman's Cove on Cooper Island, and at our stern was a strip of stony beach at low water. There was a pair of common gulls flying about and dropping down on the beach every now and then to eat something. My boy soon noticed that they took up shells, and let them drop on the stones purposely to break them. It was low tide, and they would fly out into the shallow water, fish up their big cockle, and fly back over the stones to a particular place, only going up 10 ft. or 15 ft., and following it down as quickly as possible as if afraid to lose sight of it; then they would worry it on the beach, or take it up again and drop it. One shell I saw taken up four times, not higher each time, as common-sense would point out, but anyhow, perhaps breaking it with quite a little fall. I suppose the gulls knew that it depended as much upon how and where it fell as it did upon the height. While at lunch I took the time, and saw one of them take up eight shells in fifteen minutes. At that rate they ought to have had the beach covered with broken shells, but it was not so, which suggested that they were only having lunch there.

There are great beds of these cockles at the mouths of nearly all the big creeks, and gulls are plentiful, yet I never saw them breaking cockles before, nor have I seen them anywhere else but there, though I know that they are nearly always very hungry. Therefore the cockles must either disagree with them, or the art is a trade secret with the Cooper Island gulls.*

I have taught one of them to come for scraps of fish, but it was very hard to tame, and has taken about three years to get a little confidence. It can swallow the biggest rat I ever caught on Pigeon Island, and on one occasion it ate one every morning for five mornings running, and was out there waiting for the sixth, but I did not catch it.

At Te Anau Lake I had a great dislike for them, because I often saw them catching young ducks. If a family of ducklings got dispersed so that the parents could not protect them all, and

* Since writing the above I find that the fishermen have often seen the gulls breaking shells by letting them fall on the hard stones.

a gull saw one in shallow water where it could not dive out of sight, let it be ever so clever it was doomed, because the gull would hover over it and meet it when it was forced to come up for breath. I have seen one swallow a young paradise duck as big as my hand, and I found the "casts" at their nests consisted mostly of the down of young ducks (in the season), with sometimes an undigested little webbed foot. But here they never trouble a family of young teal that are often about, and the parents show no resentment towards these gulls, which is the best of proof that they do not take their young ones. This shows how easily a visitor may take notes about many things and be cocksure of what is not a general rule, for the duck-catching art at Te Anau may also be a bit of a trade secret, like the cockles at Cooper Island.

I brought a young gull about twenty miles down Te Anau Lake, and it escaped from my hut in the night. I thought it would starve when I could not find it, but about a week after I found it on a beach with a whole party of old gulls that were very anxious to protect it, and it was just full of food. I do not think its parents were amongst them, because I left them one to take care of away up the lake. Thus they are not such a bad lot, and I thought more of them after that—"Charity covers a multitude of sins."

Here at Oke Island I saw them assisting to protect the young oyster-catchers, which are very like young gulls both in colour and shape, for they have no sign of long beaks when they are little. When we went near them the big gulls gathered up and protested just as they would with their own young ones.

I have often seen three eggs in a nest at Te Anau when dead rabbits were very plentiful, but I have not seen more than two here, and they rear very few young ones in Dusky Sound.

There was a mixed party breeding at Oke Island. The big gulls and the oyster-catchers had their nests on the beach, while a few terns and little gulls had theirs up on a big stone inaccessible to the wekas. We could see eggs and woolly young ones up there that would have been easy prey for the big gulls if they were so inclined. In Dusky Sound they generally build their nests out on a rock that has a little grass on it, but at Te Anau they were content with the high side of the beach.

These gulls used to have a great breeding-place on top of the Blue Mountains, over Tapanui. I got a basket of eggs there on the 20th November, 1877, around the bog-holes, but I think they got most of their food from dead rabbits at that time.

It is curious that they never learned to dive, though it would be of great use to them, and they are always on the water. When I throw my tame one a little fish and it sinks in 2 ft. of water the gull cannot get it. If it was only 18 in. deep he might get it by hovering over and plunging down with a great effort; even then he is never able to get his tail under water. A Maori-hen is a much better diver when occasion requires, though it is not web-footed and does not pretend to be a waterfowl at all.

The little red-legged gulls congregate at the big cliff in Facile Harbour, and with a few other little gulls and terns have a great courting party there about the 14th November, but only a few of them make their nests there. Some of these nests were close to the water, but most of them were high up the cliff which overhangs and faces the south. I could only see into one nest, which contained two eggs of an olive-green colour mottled with dark-brown spots. The nest was formed by a handful of dried grass arranged round a little hollow on the mossy rock. The birds are bold little fellows that resent intrusion, and evidently build in company for mutual protection.

On the 10th January I saw a young red-legged gull there, nearly able to fly. It was a beautiful little thing, both in manner and appearance, with different markings to the mother. It was so pretty that I think nothing could be hard-hearted enough to hurt it; and I have often thought that the prettiness of very young things may be a part of their defence or protection. This was notably so with this little thing; otherwise it was utterly helpless either for flight or defence, for its parents were harmless as defenders.

We only saw one pair of skuas (*Lestris parasiticus*) when we first came here, and I think they had a nest on Seal Rocks; but I blamed them for eating the terns' eggs, and shot one of them. Afterwards its mate came looking for it with its startling call, but after a while it went away, and I have seen nothing of them now for a couple of years. Yet I think they are common about Stewart Island and Ruapuke.

THRUSHES (*TURNAGRA*).

There was a native thrush about my house before I went away (8th October, 1898), quite tame; but since my return it has become almost too tame, for it comes into the house every chance it gets. It is generally whistling outside before I get up, and when I am at breakfast I lift the window and answer its call, when it comes hopping in, and about the table, tastes the tea and the milk several times and licks its lips with a critical air. It will eat a little bread-and-butter or porridge, but it likes oats or oatmeal best. It can shell the oats like a sparrow, though I do not know any native seed very like oats. It flies on the mantelpiece and studies the clock closely, then on to the carpenters' bench, where it looks into everything, even down the spout of an old tea-pot; flies up under a shelf and pulls down a spider's web, eats the spider, unfolds the nest and eats the eggs or young ones. That is why it is so inquisitive, because it likes spiders.

I do not kill spiders, because they catch great nets full of sandflies; but the thrush has cleared them nearly all out of the house, and outside also. I often notice it with a bit of web about its feathers. However, it is good company on account of its singular tameness, or ignorance of these progressive times; and if it does not get a lesson from a sparrow it will not last long in the new company of boys and cats.

It is not a stupid bird, for it only banged itself once against the window, while a robin will almost kill itself; the thrush will not try it now, so that it must be intelligent, and it looks like it in all its ways. It is evidently lost, or in search of a mate, and that is why it comes so readily when I answer its call. I showed it the looking-glass, and it was greatly interested in it. Its voice is not hard to mimic, so that it fully believes I have another thrush about. When I stood the glass against the wall on the floor the thrush was delighted with the company at first, but soon seemed to realise that the one in the glass was only mocking it. It called distinctly for the shadow, and listened for the answer; then went outside and began to sing, to see if that would have any effect.

Its song is not unlike the first few notes of the English thrush, but only in scraps, with many notes of its own and a fine loud voice. It soon tires of the singing and starts a long-drawn-out sorrowful whistle which I can hear at intervals during the day away in the bush, but it generally comes to the house in the morning. It sometimes whistles indoors, which makes a great noise, and surprises itself.

It is not unlike our old thrush, but more russet in colour, especially the tail, and the spots on its breast are very distinct. When I meet them out in the bush they are nearly always tame, and will come in the tent and eat the scraps like a robin; but, unlike the robin, there will be several thrushes apparently good friends. They are not at all plentiful, and I never found a nest.

They have peculiar ears. A purse of tender skin goes down into the ear with apparently no hole in the skin. I never heard of such an efficient ear-protector in other birds.

ORIGIN AND EXTINCTION OF THE TAKAHE (*NOTORNIS*).

Readers may remember that birds like our swamp-hens were mentioned in "Cook's Voyages" at several places in the Pacific, and everybody knows that our birds are common in Australia, so that they are likely to be migratory and great wanderers. By referring to a natural-history book we will find that they are as common in Ireland and the islands of Greece and Italy as they are in the islands of the Southern Ocean. They belong to a great family of rails that appear to be able to adapt themselves to all sorts of conditions. Thus they are of many different colours and forms, in accordance with the different places they live in and the different ways they get their living.

The coot in Australia is a most perfect swimmer and diver, with feet like a crested grebe, but you would think it a poor flier. Yet you may not see one of them for seven years, and then come out of a morning and see the lagoons black with them; and they may remain for months before they disappear again.

Our woodhens are also of the same family, but, unlike the wandering, diving coots, they stay at home all their lives on a few acres of dry land, thus showing how pliable they must be to adapt themselves to such opposite circumstances.

Mr. Nixon, of Dunedin, told me that in 1875 Captain Agnew, of "The Gleaner," brought a swamp-hen into Greymouth that came to his vessel when four hundred miles from the New Zealand coast; and there may be plenty of this sort of evidence if it was only collected.

The takahe is only a little way removed from the swamp-hen, to adapt it for living in the bush. And without doubt its forefathers came here on the wing, but, becoming tired or storm-bound, dropped down in the West Coast bush, where, before the advent of rats, they found no enemies on the ground, and abundance of good seeds and other food. Then, if there were a few bush-hawks about these well-fed hens would not care to fly until they were too fat to do so. On the wing swamp-hens are very easy game for the hawk, for I have seen him knock down several. And if some of those fat ones tried to get away and escaped a knock or two from the hawk they would be content to remain in the bush. Then with mates of like experience they could found that notable branch of the family that we call *Notornis*. We generally think of the hawk as a destroyer, but in reality it is he whom we have to thank for our most curious birds —the takahe, the roa, the kiwi, and the weka.

The takahes may have been developing in New Zealand for a long time before the advent of even Maori rats; and then there may have been some valuable food in roots or seeds that we have never heard of. We are often puzzled to know what the moas flourished on. It may have been grass, as in the case of the ostrich, but if they had any special good food the rats were capable of destroying it. It may have been the brown rats that came with Captain Cook that destroyed the takahes' food, because we may be almost certain that takahes were fairly plentiful when Cook came to Dusky Sound, otherwise the Maoris would not have known so much about them. Without our trained dogs, only one white man would have seen a takahe in our hundred years' acquaintance with their country; and the Maoris were practically without dogs. Thus they would not have had a name for the birds if they had been as scarce just previously to our coming as they have been since.

The rats will not allow a grain of oats to ripen on Pigeon Island, but will eat it in the soft stage; and three years ago they ate all the cabbage, turnips, peas, clover, and potatoes—in fact, everything in the garden but some ryegrass and rhubarb.

The strength of the takahe's beak suggests that it was a seed-eater; and nearly all vegetable and grass eaters depend largely on the fruit and seeds for rearing their young; but, according to the above experience, the takahes have had poor chances of rearing young ones since the brown rats came to Dusky Bay.

Thus it might happen that the takahes would breed like rabbits on the seeds that we could give them if we could only catch a few live ones.

MOREPORKS (*ATHENE*).

In the "Transactions of the New Zealand Institute," vol. xviii., page 97, a gentleman describes how he saw a morepork swooping down in the evening and remaining about the spot for some time, and on going to the place found the remains of a rat, thus implying that the bird had killed the rat, which I think is very misleading. I have had the opportunity of examining a good many moreporks, both here and in Australia, and it was always a surprise to me how light they were as compared to their appearance—mere puffs of feathers, perhaps not half the weight of a good-sized rat; whereas a hawk is just the reverse, and a heavy bird for its size. He may have mistaken a hawk for a morepork in the dusk of the evening, when the sparrow-hawks are most active; or the hawk may have eaten the rat earlier in the day, and the morepork have been there by accident.

Any one that takes the trouble to examine a morepork's weakly little claws will see at a glance that they were never designed for killing even mice, to say nothing of rats. The serrated edges of their toes imply that they are more suitable for pulling away the useless wings and legs of the things they eat. I know that they do pull the wings off the big moths and cicadas, for I found some of their crops crammed with the latter, and without one of their useless glossy wings.

Gilbert White saw the whip-poor-will (which has also serrated edges on its toes) putting its feet up to its mouth while on the wing, and he thought that it might have caught things in its claws and delivered them to its mouth; but it may have been only putting up its feet to pull away the useless wings.

I have known a rat to eat a nest of young robins, also several nests of domestic pigeons, and I was one of a party that saw a rat running away with young sparrows that were nearly able to fly. So, if the above story was correct, a morepork would be a great deal worse than a flying rat, and there would not be a little bird in the New Zealand bush. A predatory owl of that sort would be very useful now to deal with the coming sparrow nuisance.

Our laughing-owl, I think, did not enter the bush, but kept to the rocks and open country.

MOA-FARMERS.

In one of the late Professor Parker's valuable papers he showed that some fifteen or sixteen reputed species of moas lived in New Zealand about the same time. "A most unexpected result," he says, "since all other great flightless birds inhabit each its own country or district. In the whole of Australia, for instance, there are only two species of emu and one of cassowary, while no fewer than seven species of moa have been found in one and the same swamp."

But here enters the old disagreement about what constitutes a species; and when the best authorities disagree laymen may fairly assume that the question is not, and probably never will be, settled while animals continue to vary. If every man varies, and every living thing is born somewhat different from all others, and if no two leaves in the forest are exactly alike, then why need we disagree about what appears to be only a matter of degree in a universal law? Nature does not build up an animal or a plant in a day, nor always in a century, even from legitimate progenitors; then why should an experimenter expect, in what is comparatively an atom of time to mix two species that may have taken ages for divergence with millions of individuals and varieties of conditions? An able agricultural writer recently alluded to the "fixity of species" as Nature's majestic law, because some Yankee farmer in his hurry could not mix buffalo with common cattle; as if one man's lifetime was an appreciable period in the existence of such animals in America!

If Professor Owen had known as little about cattle as he did about moas he would certainly have classed those with horns and those without as different species, though that buffalo-farmer would never think of doing so. And, under like conditions, the learned professor, with a cargo of bones, would have given us at least fifty different species of dogs, when with only a cartload of bones he made us out a dozen different species of moas. There were tall greyhound-like moas, and stout massive ones, and on down to little Dandy Dinmont things not above 2 ft. high. This great variety living together suggests the interference of men, for surely without such there would not be so many different kinds of dogs and fowls as we have with us now.

We do not find many kinds of wild dogs in Australia, all being levelled up to nearly the one standard of size and colour, because they were practically without interference. On the other hand, there were as many different sizes of kangaroos as there were of moas, but directly under the influence of men and dogs as enemies, from which the moas must have been exempt for ages.

The necessities of defence and concealment in the kangaroo's case gave the various sizes great advantages in their own localities. The wallaby in the scrub, and the "old man" on the plain, had better chances there to escape and multiply, for the eagle-hawk would have seen the wallaby in the open, and the man or dog would have had a better chance to stalk or rush the "old man" in the bush. So that there was something to force their divergence and then keep them apart; while the moas either had men for masters or farmers or had their world to themselves, without an enemy that they cared for. They had an eagle, of course, but it probably had plenty to do attending to the flightless swans or geese, for it was hardly heavy enough to prey even upon moa chickens.

There were identical species of moas in both Islands, which is wonderful when we remember their aptitude for variation, and to my thinking almost proof that the old Natives farmed them as we farm sheep, and transported them with the other ground birds from one Island to the other. Stores of food and fencing would have been required according to our ideas of keeping ponies and draughts from intermingling, but these are small matters arising wholly from our habit of thinking that all the old people were fools—an error that will account for many of our difficulties in understanding such things. If it is a fact that the Maoris came and went from

New Zealand six hundred years ago through the trackless sea, they must have known more about navigation than Englishmen at that time, who were then afraid to go out of sight of land; while the Maoris may have been weeks at sea, steering their course by some subtle art and science that some of us at least cannot now understand. Then, why need we trouble our heads about the fencing and food required for a moa-farm? The Lyttelton steamer the other day lost her way in going to Chatham Islands, and had some trouble to find her destination.

I have read recently that the words for counting from one to ten in the Madagascan language and in Maori are nearly identical, and if that is a fact the dialect is likely to have come almost direct to New Zealand, or at least without any long delays among other island tongues. And, if it was not for the habit of thinking above alluded to, we might easily believe that the Madagascan moa was brought here by old-time navigators, who could also have brought roots and fruit and corn for its food, for we are not sure that the climate has been the same since the moa's first arrival. The earth may have taken a slight list to the south since then, and an age of heat, unlike the cold, leaves no deep grooves behind, unless its marks may be in the recent cool and changing forest trees.

If we only knew of oxen by their bones and horns we should not judge them easily farmed; so there possibly need have been no difficulty in taming the moas. The question is, Did the men bring them here, or find them here when they came? In the latter case the herds would have been too tame for hunting, and it would have been only a matter of butchering them when required; and surely a people intelligent enough to build and provision a vessel to bring their families over the sea—no matter from where—would have had sense to see the value of the moas in time to save and foster them, especially in such places as the Canterbury Plains, where the various kinds could have been tended for ages as we tend our sheep.

That there were moa-hunters there need be no doubt, for the arrow-heads alone would almost prove that; but they were probably recent Maoris developed into hunters of peaceful men, and then following up their calling by hunting the moas off the earth. As for not finding human bones with moas, we know how few of ours will be found with those of our sheep, for instance, because the latter are everywhere, with millions of better chances of finding favourable conditions for preservation and ultimate discovery.

At Manapouri Homestead, twelve miles from the lake of that name, and perhaps 100 ft. above it, Mr. Mitchell used to find stone tools and fragments enough to show that the place had once been the site of an old village, and that was almost proof that the lake was up there then. The "Long Valley" would have been the harbour, and the peninsula on which the house is built would have sheltered the village from the north wind. I think the outlet from a deep lake would hardly wear at all when there are no stones to rattle down in floods; but in this case the Mararoa River brought down material from the drift hills to form Manapouri Plain, and then supplied the stones to cut down the outlet from the lake; while Te Anau, having no such officious river, has long remained about the same. The level of this old village would probably make them into one great lake, bounded on the south by the Takitimos, which I heard translated as "great margin," which would have been very appropriate then, but is meaningless now. If the translation is correct, it is evidence that those old villagers lived on the bank of the great lake, and handed down the name from some far-off time when totaras grew on the hills instead of tussock and birch.

On the Bullock Hills, a few miles away, I found what is known as a Maori oven, and near it, on the surface, a patch of moa gizzard-stones; and during my ten years at Te Anau I found—away from the lake—several such scraps of history, which could not have been all coincidences.

On the south of Te Anau, a few feet above high water, patches of gizzard-stones are quite easy to find—after a fern fire—lying on the surface of alluvial soil quite apart from other stones, for, of course, such is the only place in which they could be identified in a stony country like that. They are of any size from that of peas up to small hen-eggs, probably representing different sizes or ages of birds, and they tell the story of how the birds died there, or the hunter emptied out the gizzards he wanted to carry away for food; and it is evident that they were never washed by waves or driven by streams or glaciers, or they would have been scattered. So Te Anau remains about the same level since the moa's time, while Manapouri has gone down 100 ft. at least, for I do not remember finding any moa traces on that lower plain.

There was an old village at Te Anau occupied perhaps as late as 1840, but also for a very long time previously, as shown by the distance of some of the sites away from the slowly receding lake and its driftwood. Yet within a stone's throw of the lake, between the little dunes, a party of us found a basketful of big charred knuckles and broken moa-bones, with the charcoal in the fireplace still on the surface, as if it had been used only a few years before. When I first went up there arrow-heads and pieces of moa-bone were common finds. Spear-heads most people call them; but no native would lash a rudely chipped stone on the end of a spear for penetration—the lashing alone would destroy it for that. He would sooner point the stick, like the Australians; and every boy knows the necessity of a weight on the point of his arrow. The native evidently did lash those heads on something, and I cannot think of anything else but a big arrow for the sake of the weight to strike a powerful blow, which in my experience is most effective in stunning or stopping an animal.

Some one has written that those charred bones were used for "firewood," but that is so easily settled by experiment that it would not be worth mentioning but to show that some one is always willing to tangle the ends of every question. At Te Anau traces of trees are as old as the hills, and probably driftwood has always been abundant since then, so that there was no sense in any one charring old bones up there; and a grass fire cannot, at all events, char the underside of a bone, for it will not always darken the bleaching on its top.

Some one may ask why those fanciful navigators did not take something more useful than the moa. Well, an animal's value in that light greatly depends, first, on its disposition, and

then on its food and on its ability for doing mischief. If the moa was as good-natured and as omnivorous as the weka it would have been a great recommendation in the eyes of the old voyager, with his limited space and opportunity for obtaining food by the way. A weka will eat fish, flesh, or fowl, and get rolling fat on berries, though its staple food is insects. Our tame wekas catch and eat all the goldfinches that come to our place, and they are the greatest egg-thieves I ever met, and will stay by a dead penguin or a big stranded fish while there is a mite on its bones, apparently eating nothing else for days, though they have a strong muscular gizzard with gravel in it like that of a goose.

The moas may have been far easier controlled and less mischievous than pigs; may have bred several times a year, like the roa, when food was abundant; may have grown faster than our sheep, and produced better meat, though the latter, of course, would greatly depend on the livers of those old people, who may have been wise enough to choose what would suit them best. They also took care to bring no beasts of prey or noxious things, which would hardly have happened if New Zealand was the remnant of a sunken continent. So I think we might assume that it was the men that stocked New Zealand, if they came here at all of their own accord; and it would be quite easy to believe this if we would only admit that some people this side of Suez could have built and steered a decked vessel about the same time as Noah.

The following paragraph is from the *Otago Witness* of the 15th December, 1898: "Last Tuesday, while two dredgemen belonging to the Earnscleugh dredge were breaking down the face to allow of the dredge working into the bank, one of them, Mr. Coad, picked up a moa's egg. A fall of earth consisting of sandy loam had just come down in front of the dredge, when they saw the egg floating into the well hole. Mr. Coad picked it up, placed it on the deck, and proceeded to examine it. The egg was perfect, having all the appearance of having been but shortly laid. There was not a crack in it nor a scratch on it. It measures in length 7½ in. and 5½ in. in width. Mr. Coad has been offered £75 for his find, but he refused the offer."

HEREDITARY KNOWLEDGE.

I remember reading about the very young swallows taking their flight from England when they had been only a few days on the wing; and when we know nothing to the contrary we are likely to assume that the parents led them away, and taught them where to find their food in the country they were going to. But I have seen young shining-cuckoos at Te Anau as late as April apparently alone, and quite happy though they had a thousand miles to fly immediately if they wished to survive, and no one to show them the way, for it is probable that a young cuckoo never saw its mother except by accident. As far as our knowledge goes the cuckoos leave their eggs and young entirely to foster-parents that do not leave New Zealand and are not likely to teach any cuckoo lore. Therefore this knowledge of geography and of their own peculiar impositions must have been laid in the egg, or, in other words, must be hereditary; and why not the same with the swallows? If the parent swallow has to lead away her young and point out routes and localities it is but a poor plan as compared with that of the cuckoos, because if anything happened the parents, or if they were getting old and weakly, their young would perish with them for want of the knowledge that could as well have been laid in the egg.

Every one knows that a trout will teach nothing to its young, but will eat them at the first opportunity; yet those young ones know what a visible line means when attached to a bait, and some of them know too much even for a man to deceive with all his art; therefore this sort of knowledge must be hereditary when they had no teachers and no experience.

The young snipes, flying away to some far-off country, may have all the geographical knowledge that their parents had gathered for ages about where and when to find the marshes and springs that shelter their food in a land that they had never seen, and probably never heard of. Thus the long flights of migratory birds may be directed by knowledge derived from far-distant parents that first made the journeys when the land was almost continuous.

What a wonderful thing is mind, of which we seem only to have a part deficient in some of the most valuable qualities that other animals possess—deficient in memory and thought, and in the power of transmitting our hard-earned acquirements that our young ones need so much.

However, I saw in Dunedin recently what I take to be cases of hereditary aptitude in little boys, better read and more intelligent at nine or ten years of age than they used to be at sixteen; and when we remember our progress in recent times there appear great possibilities in the next few thousand years, which will skip away like hours when our time is up. Then, if any of us are allowed to look back at this old world, we may see hereditary knowledge an established fact, with ignorance and imposture things of the past. The power of heredity to improve we readily admit among animals, but ignore in ourselves, not because its laws are obscure, but because our whims are easier to follow; and though we experiment in all other branches of science, this, the most important of all, we have hardly the courage to touch.

In this lonely forest the native robin is the tamest of all birds, though neither itself nor its near relations may have ever seen a man before, yet it hops into our tent with a confidence and knowledge that cannot be otherwise than inherited. It was not big enough to be killed for food, but was always respectfully sociable and perfectly harmless, which begat it the friendship of man. Man's crumbs in return begat him the friendship of the robin; and thus they may have existed for ages, until Nature approved of the printing, and though afterwards they scattered all over the world, and changed their colours and forms, they carry that imprint still.

My two geese on Pigeon Island could not be induced to pass through a little piece of bush, even on a wide track with grass and water in sight at the other end. They were afraid of foxes, I suppose, though there was not a fox in New Zealand.

The friendliness of the woodhens may also be the result of a very old imprint, though it does not seem likely at first, on account of their value as food. Yet the idea is very forcible that

theirs is an inherited friendship, like that of the robins. Those that never saw a man before will not only come up and stay with us but will follow us about in the bush if we do not hunt them away. To account for this we have to hazard a dive into the early history of New Zealand, with very little to start from.

It is admitted that the Maoris are only comparatively recent arrivals here, and that they found an older branch of their race here when they came. If those old people had no dogs they could have easily made friends with the woodhens, while a very slight taste of hunting would have made them as wild as rabbits. It was useless for the men to hunt them and silly to do so when they were so easily snared with a loop on the end of a stick, so that they were of necessity relieved from the greatest terror an animal can feel—that of being hunted for its life.

The young woodhens are all wanderers for a while and trespassers on everybody's ground, but the adults always stay in one place as long as they are able to defend it. Three pairs of them have three separate domains meeting within a stone's-throw of our door, and one of those pairs has been with us for five years, during which time I never saw them 10 yards outside their boundary. Though there is always a little poaching and threatening going on, yet they know each others' rights and respect them to a remarkable degree. At Woodhen Cove there are perhaps ten pairs claiming a frontage to a little beach not 200 yards long, and each pair try to keep their own section of beach for themselves. This curious trait of character would have made it very easy for the old natives to keep them partially domesticated, and then they could have taken the surplus young ones just before they were driven away.

When the Canterbury Plains were swarming with grasshoppers woodhens were very numerous wherever there were little patches of scrub for shelter. They were all light-coloured and nearly twice the size of those dark bush-hens, but rather shy, because the dogs had been hunting them for years, so that their original tameness was almost proof that the old Natives had no dogs. So that, as there was nothing to eat the scraps and refuse about the villages, the woodhens would have been welcome for that alone, to say nothing about their value as food. The useless fish out of nets and the other refuse would have kept many families of woodhens fat and happy, and would have begat a friendly feeling for their entertainers which those that felt the snare had no power to counteract; so that Nature may have noted the mutual benefit, and, having proved it for centuries, ordered that imprint for transmission to the woodhens which they show us now when we meet them here in the bush.

The sparrow-hawks are also likely to be very old residents in the uninhabited parts of New Zealand, because they have no hereditary knowledge of the unfriendliness of man. Why did they not go thieving woodhens and pick up a little from the Natives? Probably because the Natives did not throw things at the birds, but caught them all with snares. We have evidence that they snared even bell-birds. This would account for all the pure New-Zealanders being so tame. The Australian birds are all wild, because the natives were always throwing things at them. And our own swamp-hawk knows exactly how to keep out of range, even the young ones, so that their knowledge is hereditary, because they are wanderers and had opportunities of picking it up in other countries even before man came to New Zealand. The same idea will apply to our grey ducks to account for their wildness or knowledge of man.

The sparrow-hawk is one of those that will not last long enough to pick it up now, for even if a few old birds did learn by experience, it would probably take a long time for the printing to be transmitted to their young ones, though I have heard of some of our native pigeons in Caroline Bush becoming so wild that a man could not get a shot at them; and I have known a few pairs of paradise ducks acquire the same sort of knowledge, but it is likely that the latter's young ones would fly right up to the first man they saw with a gun, with the expectation of him being a moa perhaps.

ROBINS (*PETRŒCA*).

In all this virgin forest robins appear to be very plentiful because they are very fond of man's company, and never lose a chance of showing themselves to him. They will hop up to a visitor within arm's length as if begging for crumbs, which they will be as eager to eat as if they were accustomed to receive them all the days of their lives, though in reality they may never have seen a man before. Not only is this so, but their favourite food is earthworms. Where and when, then, did they acquire a longing for the scraps that man gives them? In populated countries they might soon acquire the taste, but in New Zealand they are the first birds to disappear after the arrival of a domestic cat in the neighbourhood. So that the robins must have acquired their confidence in man from those who kept no cats, or else they have forgotten the cats.

The sexes are very much alike with the exception of a little white dot over the beak of the adult male. Some females have this white dot, but not so bright as the male's. However, their manners are very different. The males are very fightable, and will do nothing else until they decide who is to be master of a coveted place, while the females are passive and a little shy.

They generally go in pairs, but the male will not allow his mate to stay near a camp. This is not from selfishness, because he will carry out food and give it to her in the bush. He will sample it himself first, and if he approves of it he will take up a piece of bread or boiled fish and fly into the bush, where you will hear him sing a little scrap of a song—with the food in his mouth—and if you are quick to get a sight of them you will see her come and receive it as a matter of course.

TITS (*PETRŒCA*).

The tits never ask for crumbs like the robins, nor will they eat anything dead, though they are fond of being about the camp, and are just as tame as the robins. They have the same idea about their females, which are so widely different in colour that they are easily known, and they are seldom seen about a camp compared to the males, which are common.

They build their nests under banks or under leaning trees, in such positions that the rats cannot get at them, and it is probably this precaution that allows them to be so plentiful in this rat-infested forest.

The female is also a little artist in trying to decoy away intruders from her nest. I have seen her tumbling about in the bed of a dry creek as if she was wounded or in great distress, but I did not run after her, for I had learned all about that little ruse, but I soon found her nest of four young ones at my elbow. Yet the plan must often be successful in deceiving the sparrow-hawk, perhaps, or it would not be acquired and retained, for it is a common little trick with a great many birds.

Just now, in June and July, 1901, I cannot find a female tit, though we have been out alternately for several days looking for one, and we have noticed their scarcity for a month back, while males are quite plentiful. The males are always more plentiful, but I never missed the females before, probably because I never wanted one.

SEA-SHAGS (*PHALACROCORAX*).

On our way out, on the 5th October, we spent a day on Anchor Island, and went about a mile along the lake to the south end, to where the shags have their rookery near the overflow creek. We counted sixty big white-breasted shags, but there may have been twice that number, for many were going and coming. There were three nests of the little black-and-white-necked river-shags, out of which we got ten fresh eggs. But the big shags seem to be laying and hatching all the year round, for I have not yet seen any of their breeding-places deserted. We saw them feeding their big young ones on the 20th June last, at Three Islands, in Breaksea Sound. Not half of those nests here appeared to be occupied, but we got three eggs out of each of three of the big ones, and in another we saw four eggs. In some of those we could hear the chickens, while others were white and clear. The nests were built of sprigs, and new ones are added to them until they are three stories high in favourite places, and several are to be found in one leaning tree, but all were over the water, so that the young would not be hurt when they fell down. I tried to lift off part of an old nest with a forked stick, but found it firmly fixed, notwithstanding its rude appearance. There were young ones in all stages up to full-grown, some of which I hunted down out of the nest to see if they had learned to swim, or required teaching like seals; but one of them, taking alarm, went straight down under water, and took quite a long dive for his very first trial, and when he came up he washed his beak and shook his wings with delight at the new experience. If a baby seal has to be patiently taught to swim, does it not suggest an absence of instinct and a claim for reason like men? Though there were generally three young shags in the nest when little, there were only one or two when grown up. But this caused no wonder when we saw the rude way they jostled each other every time the mother came with food, and the very little platform they had to fight upon. This seemed arranged to rear only the vigorous; but then the site of the rookery was evidently chosen with such contingencies in view, for there were several flat rocks out in the water and numerous big leaning snags, where the ousted and wind-fallen could clamber out and be as comfortable as in the nest. One of those I tried to hunt down, but only made it sick with fright, for it disgorged a fish and then held on tight, as if it thought that sufficient sacrifice for the moment. When the mother came with food to the big young ones in the water the competition was very severe, for they appeared to attack her, flapping and chasing her about until she allowed one of them to thrust its head down her throat—so it appeared at a distance of 30 yards—and I can imagine it must be a leathern throat to allow a prickly fish to be pulled up by the tail. While one was gulping its fish, the other chased the mother, who dived and gave it quite a long hunt before she yielded to its frantic efforts. She may enjoy its cleverness or may do this for schooling, for we need not suppose that her duty ends when she stuffs them with food.

At a little distance were a company of old shags, performing a comedy of their own, at intervals. They would start by setting up their tails as high as they could get them, and shaking the points of the wings over their backs, at the same time drawing back their heads until the beaks pointed upwards. Then, with a few croaks, they would all start a peevish cry, increasing in melancholy as they brought their heads forwards, until, with outstretched necks and distended throats, they shook their heads in a perfect agony of grief about something—perhaps more fish from their mates. When there were a dozen of them at this, timing each other for the last squall, it was a queer chorus, but in keeping with the ridiculous attitudes which I suppose were all grace and music to them.

We saw no other birds on this lake but a sparrow-hawk that sat above some of the nests waiting for a chance for a young one. We watched him sitting there for a long while without understanding details, but saw the shags, half frightened and fightable, stretching out their necks towards him. Thus I think they may protect each other's nests during the owner's absence. A hint this of how a race may be exterminated when their numbers are greatly reduced.

In going along the lake we saw many old totara-trees that had been barked in their young days, and sometimes could see the marks of the blunt stone axe that had been used by the Maoris to strip them. Some were stunted, old, slow-grown trees that may have been barked five hundred years ago. One of the men on the schooner, who talks Maori, says those tubes of bark may have been used for eel-pots, also for roofing.

We saw where a pig had recently barked the butt of a *Panax arboreum*, so one of them at least survived a couple of years.

SEALS.

In olden times, no doubt, seals were very numerous, and when all travelling towards their breeding-islands at one season the old natives may have followed them, or steered the course the various parties were going, and thus dispensed with chart and compass and provisions, for even

now some natives can catch seals with a harpoon at sea. To show how tame they used to be, one of the old voyagers wrote as follows of the seals on Mas-a-fura in 1767: "We went ashore, but could hardly set a foot down, the seals lay so thick. . . . We had to kill a notable number of them, because they were continually running against us." And, again, "The seals on the southern islands were so tame that they played fearlessly about the men who were skinning those they had just killed." That was only a hundred and fifty years ago; and, with millions of such seals as those, there is not a shadow of a doubt but that five hundred or a thousand years ago the natives could have followed them and caught them in the ocean for food when on their voyages of discovery.

In the year 1798 a million sealskins were taken from the neighbourhood of Mas-a-fura to Canton, and three millions and a half were taken before they were exterminated on that one island. No one will ever know how many millions were taken from our southern islands, because, what with Americans and others, whose interest it was to keep their successes secret, one-tenth of the skins taken may not have been recorded.

Most of the facts stated in the following are gathered from the report of the Behring Sea Commission.

The Commander and Pribyloff Islands, when first discovered, in 1741 and 1786 respectively, were entirely uninhabited by man; nor has any evidence been found since on either group that man had previously visited them. They were the only islands in the North Pacific that were not peopled or visited by man, and this was evidently the sole reason why the seals had chosen them for breeding-places, because the fur-seal when resorting to the land for breeding is practically defenceless, and is incapable alike of resistance or effective flight, while its flesh and fat are highly prized by all native tribes as food.

To quote from the report: "If further evidence be required, it is furnished by the facts relating to the fur-seal of the Southern Hemisphere, where all the notable breeding-places or rookeries were discovered on insular lands to which man had never come, and on which, during this critical period of the annual cycle of its life, the fur-seal was also exempt from the attacks of other terrestrial animals to which it would have been an easy prey. . . . This being granted, it is, perhaps, a legitimate subject for speculation what the conditions . . . of all the islands in the world were before their occupation by men."

Seals may have inhabited the world for ages before man, and have had a hereditary knowledge of all the islands in the sea. They may have been as numerous as man is now, for they would not care for land animals so long as they had sacred breeding-places on islands off the coasts; and we may have no idea of the number of seals that existed before man started to butcher them.

The report from Cape Colony says, "Upon several islands, especially in the Ichaboe group, are to be found the remains of vast numbers of seal, probably the effect of an epidemic disease at some distant period. In many places the hair, which is practically indestructible, has been found mixed with earth to the depth of several feet, and this, when sifted, gives a fair percentage of ammonia and phosphates, probably the residue of the bones and bodies of dead animals." Those islands are on the coast just below the Tropic of Capricorn, so that the natives would hardly need the skins for clothes; and the "epidemic" was probably the clubs of the northern fur-hunters.

Norfolk Island is a mere dot in the great ocean, and about five hundred miles away from anywhere; and, to show how hard a thing it is to find a small island like that, we may cite the hunt our swift steamers had for the "Perthshire," and they might be as long finding Norfolk Island if they did not know where it was located; yet the old canoe-men found it, and lived there for a while, although they had all left it before Captain Cook found it in 1774. Perhaps Norfolk Island is Hawaiki (the traditional starting-point of the Maori), but we cannot tell, as there was no one there to tell us the name of it. From its lonely position I have no doubt it was once a great seal-rookery, and that the natives found it by following the seals when they were going home to breed, and lived there until they were all eaten or driven away. After the seals had gone, the natives, who were accustomed to the fleshpots, would say, "Our soul abhorreth bananas and fish; there are plenty of splendid trees; let us make a lot of big canoes and follow the seals to the south-east at their next breeding season." This might account for the Maori migration to New Zealand, because, with the prevailing winds, they could hardly miss it from Norfolk Island.

Before the advent of man, New Zealand, being without any offensive land animals and having abundance of fish, was probably the greatest old seal-rookery in the world, and would have been quite easy to find by those who could keep afloat in canoes; but such people would never have been able to go back to Hawaiki if there were no seals going to point them out the way; and for the same reason they would not go willingly to Australia. The "darkies" were too handy with their spears to suit the seals.

The Sandwich Islands were still more lonely, for they were about a thousand miles away from anywhere; yet the old natives found them, and, I think, brought pigs there. They must have known where they were going, or at least were confident of finding land somewhere. Those islands were almost sure to have been seal-rookeries, and the seals may have been so tame and got so used to the canoes that they would come alongside within reach of the clubs and spears.

If this theory be correct, it would put the whole mystery of navigation in a nutshell, because it would supply chart, compass, and provisions.

Even now some Indians and Esquimaux catch the timid seals with harpoons, so that in the early days it would have been only child's play.

In this way all the lonely islands may have been discovered and populated. In the case of Easter Island, where we find the old temples and ruins, the people may have wisely farmed the seals, and have thereby flourished for centuries, until some civil war allowed the seals to be murdered as they were elsewhere, and then the people would dwindle away.

Easter Island is only about fifteen hundred miles from Mas-a-fura and Juan Fernandez, which was a little too far for them to follow the seals.

The Pribyloffs were only three hundred miles away from a thickly populated chain of islands, and yet the Indians never found them. Probably they had plenty of travelling seals around their own shores. The Russians only found them ten years after the American war of independence and Captain Cook's time. So that the seals had hidden themselves well.

The seals were, one after the other, hunted away from their old homes, first by natives in canoes, and then by modern navigators in ships. And it is wonderful how they tried to avoid man by seeking out the most distant and lonely islands in the ocean. It seems as if they had a hereditary knowledge—like the young cuckoos—of where the islands were and where they had to go to find a temporary home; or could it be that wandering seals found an island in the trackless sea and studied its suitability (owing to the absence of man, regardless of climate and all other conditions) for a home for themselves, and then marked down its position on their wonderful chart, in brain or memory, so that they could find it ever afterwards at any appointed time, though they may possibly have wandered through hundreds of islands and thousands of miles of sea? How the seals managed to do this I cannot even begin to think. The whole subject is outside of my mental horizon. I am not only deficient in the faculty, but in the machinery, for understanding what it is. As for "instinct," it is only a catchpenny way of solving the puzzle, because we see that with it they have used the very best of reasoning, perhaps better than we are capable of understanding. Instead of "instinct" for the animals, it is just as likely that man is wholly deficient in some of the most wonderful and useful qualities of mind.

It is well known now that the seals go away from the Pribyloffs for two-thirds of the year, and make journeys of many thousands of miles, and return at the proper time almost to a day. This implies that they must always have a so-called "instinctive" knowledge of their position at sea.

According to Dr. Conan Doyle the hair-seals in the Arctic Ocean perform a more difficult feat than this, which also gives a hint of how the native navigators may have used other seals. He writes, "For breeding purposes the seals all come together at a variable spot which is evidently prearranged among them, and as this place may be anywhere within many hundreds of square miles of floating ice it is no easy matter for the sealer to find it. The means by which he sets about it are simple but ingenious. As the ship makes its way through the loose ice-streams a school of seals is observed travelling through the water. Their direction is carefully taken by compass and marked on the chart. An hour afterwards perhaps another school is seen. This is also taken and marked. When those bearings have been taken several times the various lines upon the chart are prolonged until they intersect. At this point, or near it, it is likely that the main pack of seals will be found." Thus the old native navigators could have taken the direction of a school of seals, and have followed it by sun or stars till they saw another school to correct their course again; and in this way, at the beginning of the breeding season, they would be sure to find the rookeries and plenty of food and clothing-material waiting for them on the beaches.

Seals' bones are very perishable, for they are nearly as scarce in Dusky Sound as Maori tools. I put a seal's carcase up on the land so that I might get the skeleton, but when I went for it a year or two after it was half-perished, and the bones in a worse condition than a sheep's would have been after ten or twenty years. This will account for the scarcity of their remains.

APPENDIX VI.

MOUNT EGMONT.

The number of visitors to the North Egmont House and reserve during the past season was 1,022. The receipts totalled £141 15s., inclusive of a Government grant of £50, and the expenditure was £112 8s. 8d.; the principal items under this category being—Caretaker, £31 6s. 2d.; tollkeeper, £5; house and cottage repairs, &c., £22 12s. 6d.; labour on tracks, £36 1s.; clearing and grassing upper paddock, £7 10s. The unexpended balance will be spent in further improvements to the house and tracks.

The season just ended has been a record one as regards the number of visitors to the Northern House and its surroundings. The heavy traffic over the main track, coupled with the broken weather, has had the effect of damaging the roadway considerably, but the work done recently under the supervision of the Roads Department and North Egmont Committee will have the effect of keeping the track through the winter in fair condition ready for the opening of next season. The track from the North House towards the summit of the mountain will be opened out and improved, and also the pathway from the house to the Waiwakaiho Gorge, and thence on to Bell's Falls, will be reopened and made available to tourist and local visitors wishing to visit these undoubtedly charming spots.

It is the North Committee's intention to keep the house open during the coming winter months. This is an experiment which it is hoped will prove successful, as the novelty of the surroundings and Egmont in its winter garb should prove attractive to the more hardy type of mountaineers.

The popularity of the mountain as a health resort is becoming greater every day, and its recuperative powers are continually being recommended by the medical profession. The high

altitude, with its bracing and health-giving surroundings, coupled with the dry porous nature of the ground (light layer of soil resting on a scoria-gravel bed), have proved remarkably beneficial to all classes of the community.

The East Committee labours under the disadvantage of having their house more exposed than the others, and consequently only the hardy and more robust seem to favour this route, the main visitors from Stratford and its surroundings seldom reaching the plateau where the house is situated. They drive to the end of the Pembroke Road, leave their horses and vehicles there, stroll up the bush track until reaching a convenient picnicing-ground, and possibly afterwards penetrate another mile or two into the reserve, but the pleasures of a day in the bush appear to suffice the generality of visitors, who numbered 350. Receipts for the past season, including a Government subsidy, were £70 13s. 1d., and expenditure £68 4s. 8d.

Assisted by a Government subsidy, subscriptions from the Road Board and the general public, the energetic West Committee have done a good year's work, the effects of which will be more noticeable as time goes on. A house has been built, 32 ft. by 14 ft., consisting of a general room, and two sleeping-rooms, each containing twelve bunks; but about thirty-five persons could be accommodated if required. Tables and forms and a few utensils have been provided, but as the building has only lately been completed the formal opening will be made next season. A horse-track on a fairly easy grade has been completed, so that goods can be packed right up to the house. Although without a house to rest or sleep in at the end of a trip, two hundred visitors ascended the mountain *viâ* Rahotu by this route during the season. The receipts, £90, including a grant, will be quite exhausted by this initial expenditure.

The South House again had a very successful season, as its record of 1,084 visitors will show. The large number of visitors who make the mountain trip their great yearly outing tends to show the interest taken by the local residents. The comfortable house, together with lovely scenery to be found without much exertion in the immediate neighbourhood, has doubtless a great deal to do with this. No details of expenditure, &c., have been received from the South Committee.

During the year, under the Act of 1901, the Board leased for a term of twenty-one years the portion of open land in the reserve near Ahuahu, mostly to the owners of adjoining lands, who under the conditions of lease must fence, maintain, and keep the same in good order and repair. Only a sketch survey has been made, however, and the Board unfortunately has no funds at present for the final survey.

The year as a whole has been well ahead of its predecessors as regards the visitors and interest taken in Mount Egmont, although the season has been one of the shortest and wettest on record.

Having so often pointed out the great necessity there is for a centrally situated house or hotel where ordinary comforts may be obtained at moderate rates, together with a carriage-road thereto, I do not think that on this occasion I need refer to it beyond saying that, considering its proximity to the great tourist highways of the colony by sea and land, there is no place of its interest and character in the colony that can be visited with less inconvenience to the traveller and at less expense or loss of time than this beautiful and easily climbed mountain. I trust the need for such accommodation will not be overlooked now that Mr. Donne, the head of the Tourist Department, has visited it (although under unfavourable conditions as regards the weather) and has had pointed out to him what is to be seen there and in the other historic portions of Taranaki, where the ancient battle-fields and the ruins of Native strongholds now remain as the only evidence of the eventful struggle which took place between Briton and Maori for supremacy in this district.

During the year the Roads Department have expended £79 19s. 1d. on 1 mile 26 chains of bridle-road constructed, 2 miles 40 chains of bridle-road repaired, 10 chains of road widened; £47 on 4 miles of bridle-road repaired. On Dawson's Falls road there are 25 chains of dray-road in hand.

JAMES MACKENZIE,
Commissioner of Crown Lands
and Chairman, Egmont National Park Domain Board.

APPENDIX VII.

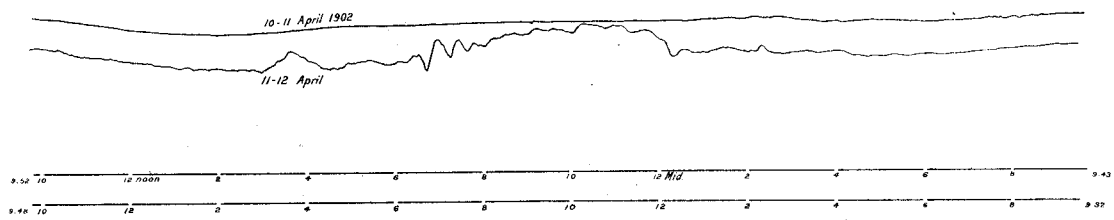
MAGNETIC OBSERVATORY AND MAGNETIC SURVEY.

By C. COLERIDGE FARR, D.Sc.

DURING the past year the work of the Observatory has been carried on satisfactorily and without interruption, though during a portion of it, in consequence of being without assistance, much responsibility, as well as much arduous work, devolved upon myself. The year has probably been a more active one all over the world than any which has preceded it. In view of the departure of the expeditions to the south, an international programme was drawn up, to which reference was made in last year's report, and we had also in the Observatory special arrangements to be carried out in conjunction with the British expedition. The performance of our part of the arrangements involved, besides the more ordinary work of a magnetic observatory, a continuous attendance on the instruments from about 9 a.m. on the 1st and 15th of every month till after 12 noon on the 2nd and 16th, periods of twenty-seven hours about once a fortnight, during which the instruments required unremitting attention. During the earlier part of the year, with Mr. Skey's always cordial help, this task was managed with some comfort, but on the resumption of the magnetic survey by him in September some months elapsed before I could procure assistance, and during that time the whole of the work fell upon me. I am glad to say, however, that our part in these

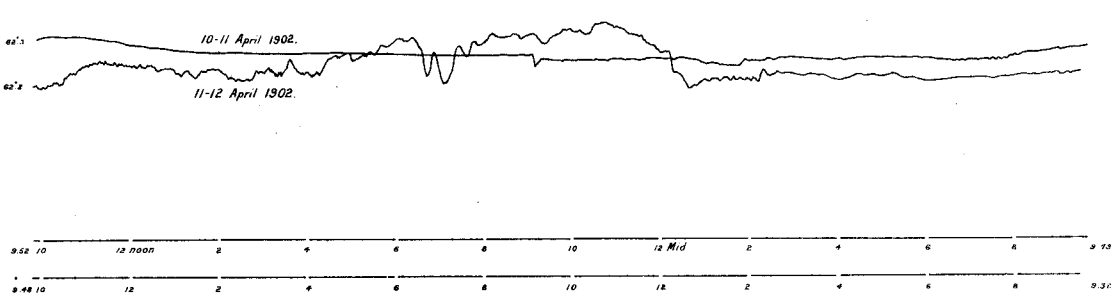
A C1.

Dec. Chch.



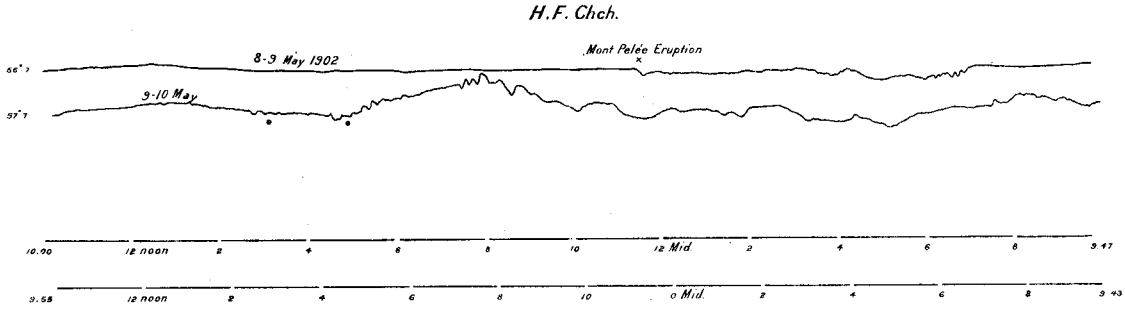
A

H.F. Chch.



B

H.F. Chch.



most important international arrangements was performed, and, I trust, in a manner which will be found satisfactory when the reductions have been made and the work is compared with that done at other places.

Besides this special work, the ordinary work of a magnetic observatory has been carried out throughout the year. This consists of keeping a continuous record of all magnetic changes. The curves so obtained are being reduced, but with the limited assistance I have this will be a long process. The first five months of the year 1902 have been measured, but the reduction even of these is far from complete, and no beginning has yet been made with the special work of "term days," the 1st and 15th of the months. With a view to accelerating this work of reduction, I have made an adaptation of a very well-known instrument to the purpose in view, and hope to get it constructed shortly. Such an instrument is almost necessary under ordinary circumstances if the results are to be reduced and published within a reasonable time. It is, however, under the conditions which result from the absence of the expedition, quite an essential. It will be necessary to publish these results separately. They will consist chiefly of figures.

With regard to the records for the year, there are two or three magnetic points which are of sufficient general interest to touch upon. A considerable magnetic storm occurred on the 10th April. Beginning very abruptly at 9 h. 10 m. p.m. on the evening of this day, it continued for over thirty-six hours. The curves for this day are reproduced (see Plate A.) From an Invercargill paper I see that "a magnificent display of aurora australis was visible about 8 o'clock on Friday evening, 11th April, in the Gore district, the characteristic vertical streamers of light moving with unusual rapidity and affording a most brilliant spectacle." Referring to the curves, (Plate A), it will be seen that this was just at the height of the storm as recorded at Christchurch. I had an opportunity of seeing the Melbourne magnetic curves shortly after this, and they too were very irregular. I have had inquiries from the United States Coast and Geodetic Survey for information regarding this occurrence, and have also seen the curves from the Cheltenham Observatory in the United States. These show fluctuations quite as pronounced as ours, if not more so. The storm began in the United States apparently at 9 h. 7 m. p.m. of our time on the evening of the 10th, whereas with us it began at 9 h. 10 m. p.m., as previously stated. This difference may only be apparent, however, as in the copies of United States curves I have the time scale is much restricted, and it is not possible to obtain the time of an event to an accuracy of one minute, though it would be in the originals. In the Magnetic Declination Table for 1902 of the United States Coast and Geodetic Survey, in which the curves referred to are reproduced, it is stated the storm began practically simultaneously in the United States, in Alaska, and in Honolulu, and to these we may now add Christchurch. Mr. Baracchi, writing to me from South Victoria Land, states that his curves for that day are probably more disturbed than those of any other for the year, but he does not state the time of commencement of the disturbance. Though the beginning of the storm in the United States is remarkably like that in Christchurch, its subsequent history seems to present marked features of difference. Thus, here we have a case of an event of great magnitude starting simultaneously over the whole world, and an event too of which the only indication given to us by our senses was the display of aurora a very considerable time after it had really commenced. The cause of magnetic storms is still very obscure, but some idea of the energy involved may be obtained from the simple experiment of trying the distance at which a bar magnet must be held from another suspended magnet for the effect of one upon the other to be just discernible. With an ordinary large bar magnet and with a magnet suspended with extreme delicacy, and with special means of detecting its slightest motion, this distance is not more than seven or eight yards. How great then must that be which simultaneously affects the magnetism of the whole earth by an easily appreciable amount! And when it is recognised that the seat of a disturbance of this kind is upon the sun and not in the earth, the wonder becomes greater still. This has long been known from the fact that magnetic storms occur more frequently at times when sun-spots are common than when there are few visible. Of recent theories, that of Arrhenius, which ascribes these phenomena to the ejection of excessively minute electrified particles from the sun's surface, has much to support it. We know of cases where such minute electrified particles do exist and travel with enormous velocities—from twenty thousand to sixty thousand miles per second, and possibly with even greater velocity still. And although we can scarcely be said to know that such particles are ejected from the sun to the earth, yet there is nothing impossible or even improbable in the supposition, and if this should be the case it would account for the phenomena of magnetic storms and auroral displays associated with them, and also for many other physical facts the explanation of which is still obscure. Another magnetic disturbance of special interest occurred about a month later than this. The feature of this is that it seems to have begun at identically the same moment as the disastrous eruption of Mount Pelée. The curve reproduced (Plate B) shows how suddenly it began. Owing to the kindness of the United States Coast and Geodetic Survey authorities, I have seen the curves of their Cheltenham Observatory for this day also. As with the disturbance of which I have previously been speaking, this too began apparently in the United States at precisely the same moment as it commenced in Christchurch, and in an almost identical way. Dr. Bauer, in his report already referred to, says, "The magnetic disturbance began simultaneously at the Cheltenham and at the Baldwin Observatories, at 7 h. 53 m. St. Pierre local mean time. According to the newspaper reports the catastrophe befell St. Pierre at about 8 a.m. on May 8th, and it was stated that the town clock was found stopped at 7 h. 50 m. How accurately this clock kept local mean time is, of course, not known." The point marked in our curve "Mount Pelée" corresponds to 7 h. 54 m. a.m. St. Pierre local time. It is thus a very remarkable coincidence, if it is nothing more, that within five minutes of the time when the eruption occurred the magnetographs in two countries so widely separated as New Zealand and the United States should suddenly begin to show signs of uneasiness. In reply to a request from the United States authorities, I have sent them copies of these curves, together with other information relating to about the same time. As a further illustration of the worldwide character of these phenomena, I may add that while

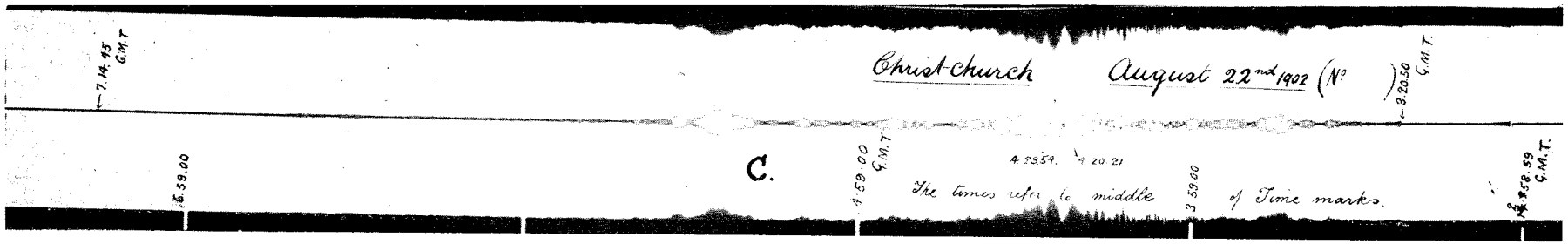
in lat. 48° 28′ S., long. 126° 28′ E., the officers of the relief ship "Morning" noticed an aurora on the evening of the 31st October. Captain Colbeck has described this to me as one of the most brilliant he has seen in southern latitudes. On looking at our curves for the same day I see that they are very much disturbed, probably more so, indeed, than those for any other day of the year, with the exception of the 10th April.

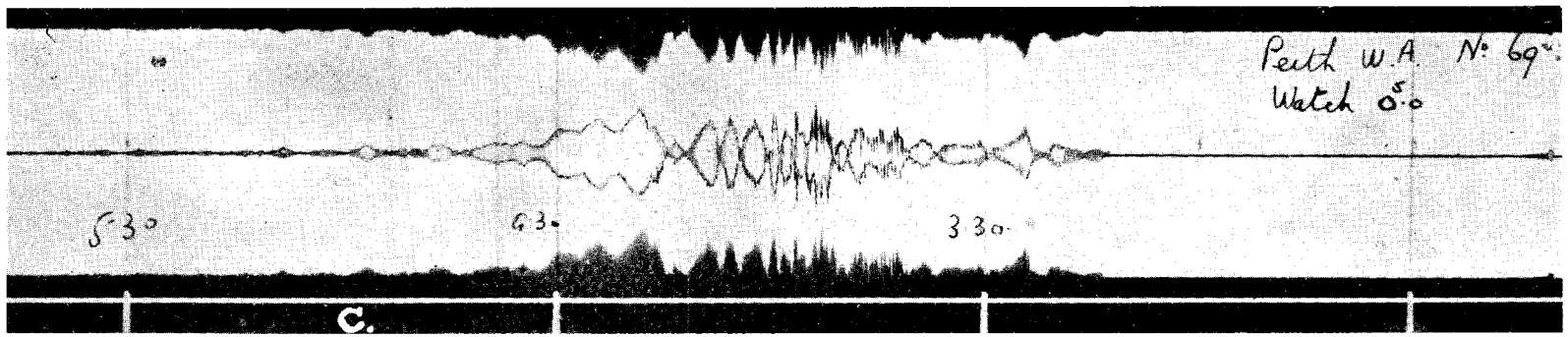
It may be as well, perhaps, to explain these curves a little. The lower pairs of lines, which are straight and broken at regular intervals, are called the "base lines." There are two of these, each corresponding to its irregular line above, because it is customary to use one sheet of paper for two days, moving the position of the recording spots of light on the beginning of the second day, so that the records may be separated from one another. The gaps in these straight base lines are made automatically by the clock every two hours. The break in the line begins at the even hours, and ends four minutes after them, and thus the interval between these gaps is two hours. By this means the time of any magnetic event can be determined to, say, one minute of time. The upper irregular curves represent the movements of the magnets during the day. The spot of light, which acts as a frictionless pencil, is reflected on to the revolving drum carrying the sensitised paper by a mirror attached to the magnet, and therefore the spot moves as the magnet moves, and all its motions are photographed. By making absolute observations, as they are called, with other instruments—that is to say, by determining otherwise, from time to time, the actual value of the magnetic forces—the curves can be standardised, and thus give a continuous record of the actual value of the magnetic forces at any time it may be desired to know them. The absolute observations are made here every fortnight. It is necessary to keep a continual fortnightly check on the self-recording instruments, as, owing to temperature-changes, &c., the two spots—that making the base line and that giving the record—get gradually either nearer or further apart, without at the same time a corresponding alteration in the intensity of the magnetic force. Superposed on this, of course, is the real change. It is usual to determine from these curves the value of the three components of the magnetic force every hour of the night and day, and this is done at magnetic stations all over the world. On ordinary days as distinct from special term days, similar records to these I am now describing have been obtained all over the world, and also by the scientific staffs of the various antarctic and arctic expeditions which are out. On the "calm" days the values obtained will be compared all over the world probably every hour, but on the "rough" ones, such as these reproduced, it is likely that a more exhaustive comparison will be made. Records such as these and their reduction, which, it will be easily understood, is a very laborious process, form the ordinary work of a magnetic observatory at times when no special expeditions are away, and it is from these that knowledge is being collected in various parts of the world of the magnetic changes in progress. Some of the changes are so long-continued that very many years of observation are necessary to determine them, and until they are determined in many parts of the world we cannot hope to ascertain what it is that is producing them.

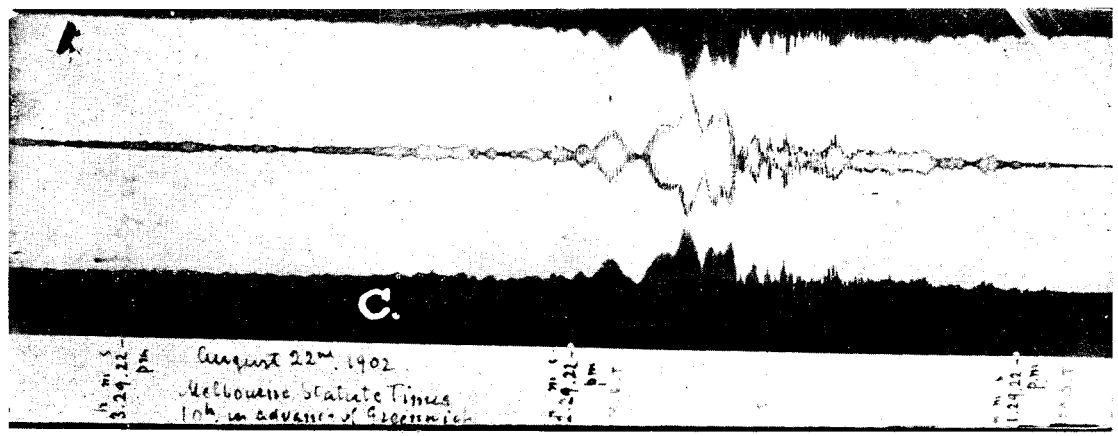
Apart from these are the special term days, records in which a uniform course of procedure was agreed upon by the International Conference. On these days it was arranged to spread out the record so that the lines of any event could be determined with much greater accuracy. In the magnetographs which the "Discovery" has, the drums carrying the sensitised paper on these occasions have been driven twelve times as fast as on ordinary days. With us it was simpler to alter the clock so that the speed was fifteen times that usually adopted. Probably at other conservatories other alterations have been made; but, whatever has been the speed of rotation of the drum adopted for term-days' work, it has been sufficient to enable it to be said that a magnetic event occurred at any particular station at a given time, which will not be more than five seconds in error, and in the term hours, which are special hours of these term days, results are to be given at every twenty seconds all over the world. Since there are three curves—namely, declination, horizontal, and vertical force—this means nine results to be obtained for each minute, or 540 for each hour. By an arrangement with the officers of the "Discovery," I, in common with several other observers, agreed to adopt high-speed running during the whole twenty-four hours of the term days, and if it finally be decided to take these results out at every twenty seconds also, it means 12,960 results to be obtained for each term day. As in any case there are twenty-four term hours in the year just past, there are nearly 13,000 results to be got out for these hours alone, besides those for other hours of these days and for ordinary days. It is expected that each observatory will do its own reductions, and it is desirable that in an international attack of this kind upon scientific problems of the very highest interest the collection of the results from the various centres should not be delayed. I hear from the "Discovery" that the records have been kept with few breaks, and that the whole of the term days of the year just past have been kept as arranged. Lying as we do almost due north of her winter quarters in McMurdo Straits, there can be no question that a comparison of our records with hers will be of the greatest interest and importance. We shall have for the first time a series of quick- and slow-speed records from stations all round the South Magnetic Pole. It is partly in consequence of the fact that the inaccessibility of the magnetic poles causes a dearth of magnetic information from near them, and partly also owing to the very interesting nature of the rapidity of the changes which take place near the poles, that such great value attaches to these records; and that Mr. Baracchi has, under most trying circumstances—how trying few of us, I expect, realise or appreciate—succeeded in collecting so much information is a matter for great congratulation, and we can only hope that he may be as fortunate during the coming year as he has been during the past.

During the year the Royal Society, as the representative of British science, has appealed for the protection of the Observatory against harm from the stray currents of electric tramways, and has asked, if the present site cannot be kept free from such currents, that the Observatory should be removed to some other. It is proper to say that placing the Observatory where it is was rendered necessary by the "Discovery's" expected visit, so that it might be readily accessible to

C—1.


7.14.45 G.M.T
Christ-church August 22nd 1902 (No)
3.20.50 G.M.T.
C.
4.59.00 G.M.T
4.2359. 4.20.21
The times refer to middle of Time marks.
3.59.00
3.58.59 G.M.T.


Perth W.A. No 69.
Watch 5.0
5.30
6.3.
3.30.
C.


C.
August 22nd. 1902.
Melbourne Statute Times
10h. in advance of Greenwich
3.29.22 P.M.
3.29.22 P.M.
3.29.22 P.M.

the members of the expedition. In any site at all suitable from magnetic considerations of paramount importance in the neighbourhood of Christchurch, it is liable to be disturbed if the single-trolly system should be put in. On the other hand, there are several other systems which would not so disturb it. It is difficult to know what is to become of magnetic observatories in common with some other products of civilisation if the use of the earth as a return conducter for heavy electric currents is not restricted. With the great development of electric traction it is impossible to say how long any particular site may be unaffected by them. The cost of removing the Observatory would not be heavy, as, with the exception of the concrete cellar, the buildings are quite capable of removal—at least, so the contractor who built them informs me. But to find a site magnetically suitable and likely to be unaffected by stray currents for a long period of years may be difficult. In connection with the various expeditions which have set out, observatories have been erected at great expense in latitudes where permanent work is an impossibility, in order to act as base stations to the expeditions they are connected with. This has been done at Staaten Island and at Kerguelen Island, and even if it should be necessary to remove the Christchurch Observatory, its temporary erection on a site so suitable for expeditionary work as the present is certainly ample justification for putting it there.

In addition to the magnetic work, a continuous seismograph record has been kept throughout the year, with the exception of a few days, during which for various reasons the instrument was not recording. It may be a relief to know that an examination of this record indicates a distinctly more peaceful state of internal terrestrial affairs than was the case this time last year. The list of earthquakes tabulated below in accordance with the British association scheme of tabulation will show the increasing serenity. Most of these earthquakes had their origin at places far removed from New Zealand, and many of them have been recorded wherever there has been a seismograph. They have shaken the whole world, but, of course, imperceptibly to us without instrumental means of detection. In the case of most of them I do not know the origin; but of one or two I do, and these are stated in the margin of the table. The origin of an earthquake is not obtainable from one record, and for this reason the tabulation, with photographic prints of the principal seismograms, are sent to a central authority in England. They are there collected and printed, and our information of the interior condition and structure of the earth is in this way increasing. Owing to the kindness of Mr. Baracchi, the Government Astronomer for Victoria, and Mr. Cooke, the Government Astronomer for Western Australia, I am able to give, side by side, the records of one of these world-shaking earthquakes as obtained at Melbourne, Perth, and Christchurch. This earthquake took place in Turkestan, and killed a great number of persons in the City of Kashgar. (See Plate C.) During the year I have made an experimental examination of the effect of periodically loading the seismograph pillar in imitation of the effects of a series of east–west earth-waves passing under it. In consequence of this examination I have been led to somewhat different views as to the interpretation of one of these diagrams from those of Professor Milne. With a view to getting some discussion on the subject, I sent a paper to Dr. Chree, of Kew Observatory, who read it before the Physical Society, and I also read it before the Canterbury Philosophical Institute. Observations have also been made of the variations of electrical potential at a fixed point in the air. I had hoped to be able to take these regularly, as there is almost no information on this point as regards Australasia. During the time that I was without assistance, however, I was compelled to restrict the work to term days, when the potential was determined at intervals of ninety minutes throughout the day and night. Since the 1st March of the present year regular work has been carried on, measurements of potential being made at 9.30, 10.30, 12.30, 2.30, and 4.30 each day. Parallel with the term-day determinations of potential I also made a series of observations of the rate of dissipation of electric charges. No reduction of this work has yet been effected, but I hope to commence it soon. Complete meteorological data have been kept in connection with the above work, and we have also, in accordance with the wishes of the International Meteorological Co-operation, made certain observations at 11.30 p.m. for each night, corresponding to Greenwich noon.

That the work carried on here is appreciated is abundantly evident, and I have received requests from many parts of the world for information. Dr. Chree, the Superintendent of the Kew Observatory, has also written an article to *Nature*, and points out how much more than merely local importance the Observatory has. He says, *inter alia*, "The public spirit and appreciation of scientific aims shown by the New Zealand Government in providing the necessary funds for equipping and maintaining the Observatory is a happy augury. It shows that war is not the only department in which the colony is anxious to come to the front."

Appended is a report on the field-work of the magnetic survey by Mr. Skey.

FIELD-WORK OF THE MAGNETIC SURVEY.

By H. F. Skey, B.Sc.

Field-work in connection with the magnetic survey was recommenced in September, 1902, after having been in abeyance since March, 1901. The interval, something over eighteen months, has been occupied in installing the self-registering magnetographs at the Base Station, Christchurch Magnetic Observatory, and in work rendered necessary by the arrival of the National Antarctic Expedition in the "Discovery," for whose magnetic work Christchurch has been made the base. Early in September it was found possible to resume the survey of the North Island. Since then, up to the 9th April, 1903, this has been carried on as quickly as possible, and sixty new stations have been observed at. In making fresh stations the procedure was to first observe at a series of stations along the eastern coast of the Island, and subsequently to fill the interior with stations in suitable and accessible spots. The imperfect roading of the North Island has prevented the distribution of the stations from being uniform, but a glance at the map published herein will

show that a near approach to uniformity has been attained. Below is given a list of stations observed this year, with their latitudes and longitudes, and also tables showing the various values obtained for the secular variation of the magnetic inclination, horizontal force, and declination, as found from the seven repeated stations. These values will enable the results of observations made in 1901 and previously to be corrected for secular change, and so reduced to the epoch of the survey. The value (+ 1·91′ per annum) found for the secular change of inclination is in the same direction but slightly larger than that (+ 1·41′ per annum) found from the observations in various New Zealand ports made by Captain Stokes in the middle of last century. At Rotorua the change of magnetic declination has been remarkably small compared with that at the other stations. The mean resulting value for the annual change of declination in the North Island is approximately the same as that found for the South Island by observations at the Magnetic Observatory. Again, the value found for the secular change per annum of the horizontal magnetic force in the North Island is identical with that previously found in the South Island.

By the courtesy of the Telegraph Department we were enabled to receive telegraphic time-signals from Wellington Observatory at many stations, serving as valuable checks on the local observations.

That the value of the survey to science is recognised in scientific circles is shown by the following extract from a letter written by Dr. Glazebrook, Director of the British National Physical Laboratory, to the Agent-General for New Zealand. In it he says, "I have the honour to inform you that Mr. C. Coleridge Farr's statement of his work on the magnetic survey of New Zealand was laid before the Committee of the Laboratory at their last meeting, and I was instructed to convey to you for transmission to the proper quarter an expression of the high value which the Committee attach to Mr. Farr's work. It has been carried out with great care and skill, and at the present moment, when the antarctic expedition is at work in the extreme South, the results arrived at are of very real value to science. I gathered from a letter from Mr. Farr that he was anxious that the loan of the instruments should be continued beyond the period already fixed. In view of the value of the results, the Committee have great pleasure in continuing the loan on the same terms as heretofore for two years from June 30, 1902. The Committee would wish the instruments to be completely at Mr. Farr's disposal for the further period." Further on in the same letter Dr. Glazebrook suggests that when the work is completed the full report should be communicated to the Royal Society. It is hoped to observe at a number of stations in the interior of the South Island before July, 1904. When the field-work of the survey is completed, the reduction of the values obtained to the epoch of the survey will take a considerable time.

At the request of the Nautical Adviser to the Government, a copy of the report forwarded to Dr. Glazebrook has been sent to him also, and he is using the corrected values of the magnetic elements in the compilation of course instructions for navigators, for incorporation in the New Zealand Almanac.

In conclusion, it is a pleasure to acknowledge the unfailing courtesy and kindly interest invariably shown by officers of the Lands and Survey Department.

MAGNETIC STATIONS IN THE NORTH ISLAND, 1902–3.

Station.	Latitude S.	Longitude E.	Station.	Latitude S.	Longitude E.
	° ′ ″	° ′ ″		° ′ ″	° ′ ″
Featherston ...	41 06 45	175 19 45	Tahora	38 06 19	177 29 46
Masterton	40 57 05	175 40 04	Motu	38 15 27	177 33 06
Tenui	40 52 42	176 04 12	Poututu	38 25 38	177 44 28
Whakataki	40 52 01	176 13 14	Morere	38 59 14	177 48 15
Pahaoa	41 23 13	175 44 42	Wairoa	39 02 08	177 25 45
Cape Palliser ...	41 36 46	175 18 50	Waikaremoana ...	38 45 07	177 10 05
Eketahuna	40 38 47	175 43 01	Waikari	39 08 06	177 00 30
Woodville	40 20 15	175 52 07	Pohui	39 15 06	176 41 06
Dannevirke	40 12 23	176 07 29	Tarawera	39 02 29	176 34 37
Pahiatua	40 27 07	175 51 03	Rangitaiki	38 52 35	176 22 23
Makuri	40 31 43	176 03 53	Taupo	38 41 17	176 04 15
Takapau	40 01 47	176 21 50	Waiotapu	38 21 17	176 22 10
Waipawa	39 56 34	176 36 21	Galatea	38 27 22	176 41 58
Porangahau ...	40 18 08	176 37 24	Atiamuri	38 23 27	176 01 42
Pourerere	40 05 46	176 52 53	Waihora	38 41 47	175 47 21
Kereru	39 40 28	176 27 21	Tokaanu	38 58 20	175 46 22
Petane	39 26 30	176 54 12	Okahukura ...	39 05 05	175 33 09
Napier	39 28 45	176 55 11	Waiouru	39 28 43	175 40 05
Hastings	39 38 49	176 51 11	Ohakune	39 24 56	175 23 49
Kuripapanga ...	39 23 40	176 21 03	Taihape	39 40 41	176 48 12
Gisborne	38 39 43	178 01 19	Rangitikei	39 25 59	175 02 29
Tolago Bay	38 22 08	178 17 56	Apiti	39 59 41	175 52 26
Tokomaru Bay ...	38 07 54	178 18 57	Hunterville ...	39 56 15	175 33 58
Tuparoa	37 55 12	178 23 21	Wanganui	39 55 29	175 02 08
Port Awanui ...	37 49 46	178 27 01	Whangamomona ...	39 08 38	174 44 20
East Cape	37 40 59	178 32 13	Te Kuiti	38 20 16	175 10 05
Hick's Bay	37 35 22	178 17 42	Ongarue	38 43 12	175 16 52
Whangaparaoa ...	37 34 29	178 00 05	Taumaranui ...	38 53 13	175 15 31
Te Kaha	37 44 21	177 40 31	Pipiriki	39 28 38	175 02 30
Hawai	37 55 02	177 32 32	Foxton	40 27 28	175 16 10

TABLE SHOWING THE RATE OF SECULAR CHANGE AT SEVEN STATIONS IN THE NORTH ISLAND.

I. Inclination.

Station.	Date.	Inclination.	Interval, Years.	Total Change.	Rate of Change per Annum.
		° ′		′	′
Mount Victoria	1899·96 1902·69	65 26·88 65 32·45	2·73	+ 5·57	+ 2·04
Petone	1899·97 1902·69	65 22·73 65 26·67	2·72	+ 3·94	+ 1·44
Opotiki	1901·15 1903·00	62 06·18 62 08·36	1·85	+ 2·18	+ 1·18
Rotorua	1901·13 1903·11	62 32·47 62 35·25	1·98	+ 2·78	+ 1·41
Te Awamutu	1900·80 1903·21	62 28·05 62 31·52	2·41	+ 3·47	+ 1·44
Levin	1900·63 1903·26	64 48·25 64 55·43	2·63	+ 7·18	+ 2·73
Somes Island	1899·97 1903·27	65 23·47 65 32·05	3·30	+ 8·58	+ 2·61
Totals	...	...	17·62	+ 33·70	...

Deduced value of secular variation of inclination per annum, + 1·91′.

II. Horizontal Force.

Station.	Date.	Horizontal Force: C.g.s. Units.	Interval, Years.	Total Change.	Rate of Change per Annum: C.g.s. Units.
Mount Victoria ...	1899·96 1902·69	0·24210 0·24157	2·73	− 0·00053	− 0·00019
Petone	1899·97 1902·69	0·24265 0·24224	2·72	− 0·00041	− 0·00018
Opotiki	1901·15 1903·00	0·26225 0·26196	1·85	− 0·00029	− 0·00016
Rotorua	1901·13 1903·11	0·25898 0·25890	1·98	− 0·00008	− 0·00004
Te Awamutu	1900·80 1903·21	0·26098 0·26035	2·41	− 0·00063	− 0·00026
Levin	1900·63 1903·26	0·24634 0·24532	2·63	− 0·00102	− 0·00039
Somes Island	1899·97 1903·27	0·24241 0·24185	3·30	− 0·00056	− 0·00017
Totals	...	...	17·62	− 0·00352	...

Deduced value of secular variation of horizontal force, − 0·00020 c.g.s. units per annum.

III. Declination.

Station.	Date.	Declination.	Interval, Years.	Total Change.	Rate of Change per Annum.
		° ′		′	′
Mount Victoria	1899·96 1902·69	15 38·3 E. 15 46·6	2·73	+ 08·3	+ 3·0
Petone	1899·97 1902·69	15 35·8 15 48·2	2·72	+ 12·4	+ 4·6
Opotiki	1901·15 1903·00	14 44·3 14 48·0	1·85	+ 03·7	+ 2·0
Rotorua	1901·13 1903·11	14 19·0 14 21·1	1·98	+ 02·1	+ 1·0
Te Awamutu	1900·80 1903·21	14 58·8 15 08·2	2·41	+ 09·4	+ 3·9
Levin	1900·63 1903·26	15 29·5 15 37·6	2·63	+ 08·1	+ 3·1
Somes Island	1899·97 1903·27	15 35·3 15 45·7	3·30	+ 10·4	+ 3·2
Totals	...	...	17·62	+ 54·4	...

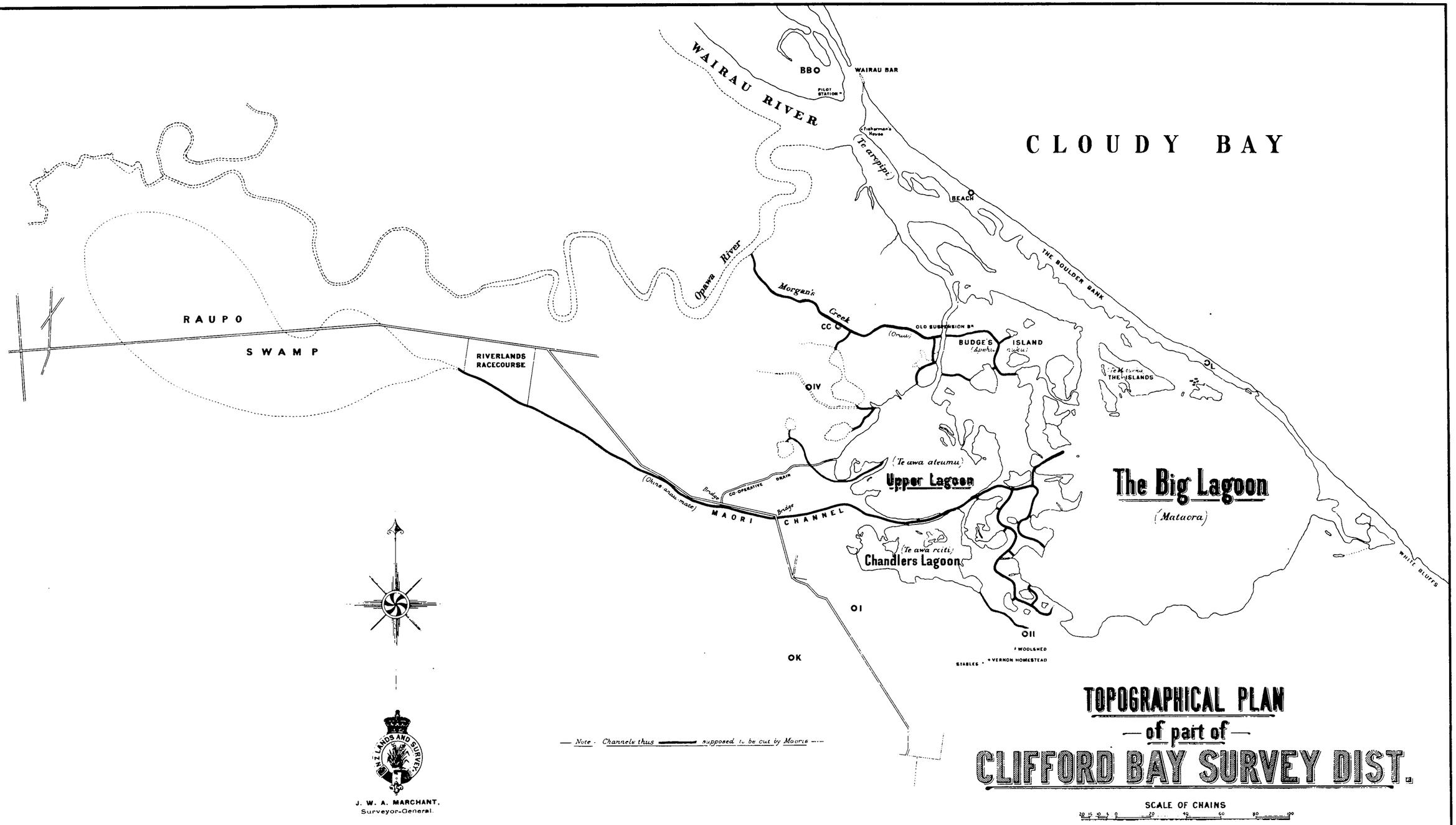
Deduced value of secular variation of magnetic declination, + 03·1′ per annum.

RECORDS OF MILNE SEISMOGRAPH No. 16, AT CHRISTCHURCH.

Latitude: 43° 31′ 50″ S. Longitude: 172° 37′ 18″ E. Time employed: Greenwich Mean Civil Time.

No. 1, 2, . . . for each month. Time: G.M.C.T., as stated above. P.T. = Preliminary tremors less than 2mm complete amplitude; A.T. = After-tremors less than 2mm. complete amplitude; B.E. = Beginning and end o vibrations not less than 2mm.; Amp. = Half range in millimetres; B.P. = Boom period.

Date.	P.T. from	B.	Maxima. From	Maxima. To	Amp.	E.	A.T. till	B.P.	Remarks.
					MARCH, 1902.				
	H. m.	H. m.	H. m.	H. m.	Mm.	H. m.	H. m.	Secs.	
28	14 53·8	15 03·4	15 23·3	..	4·2				
			15 24·7	..	4·0				
			15 29·2	..	3·1	15 38·7	18 11·0	17	
31	..	..	16 08·5	..	0·8	..	Indefinite	17	
					APRIL, 1902.				
1	..	..	09 11·0	..	0·2	..	Indefinite	16	
			09 12·7	..	0·2				
6	06 53·2	..	06 58·0	..	0·3	..	07 05·0	16	
7	02 31·0	..	02 34·2	..	0·3	..	02 54·0	16	
7	05 39·0	..	05 52·2	..	1·0	..	06 43·7	16	
7	08 02·2	..	08 07·5	..	0·2	..	Indefinite	16	
9	Indefinite	..	08 08·7	..	0·9	..	Indefinite	16	
10	14 43·7	..	14 51·0	..	0·2	..	..	16	
13	04 53·0	..	04 59·0	..	0·1	..	05 10·0	16	
14	22 24·7	..	22 37·5	..	0·1	..	22 43·0	16	
14	23 33·5	..	23 38·2	..	0·2	..	23 46·0	16	
17	17 22·0	..	17 24·0	..	0·1	..	17 30·0	16	
19	02 37·2	02 48·0	03 15·2	..	8·6	..	..	16	Origin Guatemala.
			03 19·2	..	12·0	04 21·0	05 56·0		
20	21 42·0	21 44·0	21 45·0	..	1·3	..	..	16	
			21 47·0	..	1·4	21 47·5	22 30·0		
21	15 10·0	..	15 31·0	..	0·2	..	15 46·5	16	
21	Indefinite	..	18 02·0	..	1·0	..	Indefinite	16	
22	10 48·0	..	10 50·5	..	0·1	..	..	16	
			10 55·2	..	0·1	..	11 02·5		
25	11 44·0	..	12 05·0	..	0·1	..	12 16·7	16	
27	..	..	04 52·7	..	0·4	..	..	16	Sudden tremor.
27	..	..	05 30·0	..	0·1	..	05 33·0	16	
28	..	..	18 15·2	..	0·4	..	..	16	Tremor storm in progress.
					MAY, 1902.				
2	11 55·0	..	12 17·7	..	0·2	..	13 01·0	16·7	
			12 31·0	..	0·1				
5	06 00·0	..	06 02·2	..	0·4	..	06 12·5	16·7	
7	03 43·0	..	03 49·2	..	0·1	..	03 53·0	16·7	
7	..	..	06 16·0	..	0·1	..	..	16·7	
8	02 55·0	..	03 12·0	..	0·2	..	03 40·0	16·7	
8	13 27·0	..	13 27·7	..	0·6	..	13 31·0	16·7	
21	12 53·5	..	12 54·0	..	0·1	..	..	16·7	
			12 56·2	..	0·1	..	13 02·2		
25	00 09·5	..	00 14·0	..	0·1	..	00 16·5	16·7	
31	05 08·7	..	05 20·0	..	0·2	..	05 27·2	16·7	
31	07 09·7	..	07 12·2	..	0·5	..	07 41·9	16·7	
..	..	..	07 18·2	..	0·6				
					JUNE 1902.				
7	20 40·5	..	21 32·0	..	0·2	..	22 13·0	16	
			21 48·2	..	0·2				
10	03 37·2	..	03 46·0	..	0·3	..	03 58·2	16	
18	00 17·2	..	00 28·2	..	0·2	..	00 52·9	16	
19	05 06·7	05 09·5	05 10·0	..	1·6	..	05 33·2	16	
19	12 28·0	12 30·7	12 31·0	..	1·9	..	13 03·7	16	
21	06 51·5	..	06 59·0	..	0·7	..	..	16	
22	02 02·2	..	02 08·2	..	0·5	..	02 20·2	16	
26	05 23·5	..	05 51·2	..	0·6	..	06 31·0	16	
					JULY, 1902.				
6	7 28·0	..	7 32·0	..	0·3	..	07 37·0	16·6	Elongated swelling.
6	8 49·0	..	8 55·0	..	0·2	..	09 12·0	16·6	Elongated swelling.
6	13 07·8	13 15·0	13 18·0	..	7·0	..			
			13 33·0	..	3·0	..			
			13 36·5	..	3·2	..	..	16·6	A.T. obscured by night
7	2 39·5	..	2 45·6	..	0·5	..	03 30·0±		tremors (N.T.).
					AUGUST, 1902.				
	H. m.	H. m.	H. m.	H. m.	Mm.	H. m.	M. m.	Secs.	
2	..	..	22 51·8	..	3·0	..	..	16·6	Origin Suva (?). Beginning and end obscured by N.T.
			22 56·0	..	2·5				
3	.	..	20 12·0	..	..	..	..	..	Swelling of Line.
9	..	..	14 44·3	..	2·1	..	..	..	Sudden. P.T. and A.T. obscured.
			14 46·4	..	2·1				
13	4 54·6	..	..	..	0·3	..	5 04·2	..	Elongated swelling.
16	8 11·8	8 24·0	8 25·6	..	8·0	8 36·3			
			8 27·1	..	7·2	..	10 08·8		
22	3 20·8	3 41·2	4 20·3	..	3·5				
			4 21·9	..	4·0	..	7 14·8	..	Origin Kashgar.
				4 34·6					



— Note - Channels thus ——— supposed to be cut by Maoris ---

J. W. A. MARCHANT,
Surveyor-General.

TOPOGRAPHICAL PLAN
— of part of —
CLIFFORD BAY SURVEY DIST.

SCALE OF CHAINS
20 10 0 20 40 60 80 100

C.W.Adams Asst Surveyor-Gen'l

2250 703 341

By Authority John Mackay, Government Printer.

Lands Office Department of Lands and Survey Wellington N.Z. P.W.Pierson Asst Draughtsman

RECORD OF MILNE SEISMOGRAPH No. 16, AT CHRISTCHURCH—*continued*.

Date.	P.T. from	B.	Maxima. From	Maxima. To	Amp.	E.	A.T. till	B.P.	Remarks.
				SEPTEMBER, 1902.					
10	12 07·9	..	..	..	..	..	12 12·0	..	Origin Cheviot.
11	03 00·6	..	..	..	..	..	3 20·4	..	Elongated swelling.
22	01 57·3	02 02·0	02 06·4	02 33·7	14·3	02 52·3	06 00·3		
23	Indefinite	20 44·7	21 07·6	21 28·3	18·0	21 51·6	25 03·4		
24	05 31·5	..	..	..	0·5	..	05 57·0	..	Look like repetitions. Similar elongated swellings.
24	08 25·2	..	..	..	0·8	..	08 50·7	..	
24	10 50·7	..	..	..	0·2	..	11 02·7	..	
				OCTOBER, 1902.					
12	08 33·9	..	..	..	0·4	..	08 53·0	..	Elongated swelling.
28	09 54·2	..	10 16·0	..	1·1	..	Indefinite		
				NOVEMBER, 1902.					
13	10 31·6	..	10 32·5	..	0·2	..	Indefinite		
20	20 31·8	20 35·4	20 42·0	..	6·5	20 49·3	22 33·7		
21	07 23·6	..	..	..	..	..	08 49·3	..	Prolonged but slight.
				DECEMBER, 1902.					
			Not in operation from 1st December to 25th December.						
25	05 32·7	05 36·8	05 39·3	..	1·7	5 41·9	6 33·0		
				JANUARY, 1903.					
4	5 12·1	[5 15·2	5 18·8	..	1·8				
			5 22·8	..	3·3				
			5 23·7	..	3·2				
			5 31·2	..	2·6				
			5 35·6	..	2·5	5 36·7	7 20·6		
9	1 46·9	2 01·9	2 02·9	..	1·5	2 04·9	2 28·3		
14	2 06·4	2 36·4	2 44·8	..	9·5	3 12·5	5 17·3	..	Origin probably north-east of Marquesas Islands.
17	12 53·0	16 58·1	17 02·1	..	5·0	17 07·7	19 43·0		
26	2 20·8	..	2 21·0	..	0·6	..	2 28·0		
				FEBRUARY, 1903.					
10	3 11·4	3 24·6	3 26·5	..	1·5	3 28·5			
21	..	..	8 09·3	..	0·1	..	..	..	Tremors lasting two to three minutes each.
			8 10·7	..	0·1				
			8 18·1	..	0·1				
			8 26·0	..	0·1				
			8 29·3	..	0·2				
			8 33·4	..	0·1				
			8 36·3	..	0·1				
26	5 57·9	..	6 04·0	..	0·3	..	6 24·2		
27	0 54·6	Indefinite	1 26·7	..	4·8	..	..		
			1 31·4	..	7·5				
				1 37·4	6·0	2 10·9	5 05·0		
				MARCH, 1903.					
26	8 54·7	..	9 06·2	..	2·0	..	9 37·0		
30	3 38·6	3 53·8	4 01·1	..	1·5	4 10·0	5 43·6		

APPENDIX VIII.

MAORI CANALS IN MARLBOROUGH.

By C. W. ADAMS, Chief Surveyor.

THESE canals or channels are a unique feature in the topography of the "Mud Flats" near the mouth of the Wairau River, and are about six miles from Blenheim, and average about two miles from the sea-shore. The canals are evidently the work of numerous bands of Maoris, who must have toiled for years in the excavation of the various waterways, as they are of an aggregate length exceeding twelve miles.

From inquiries I have made among the older Maoris at the Wairau Pa I learn that these channels were made with a double object—namely, to facilitate the catching of birds and also of fish. Of the former, ducks formed the chief part, and I believe that eels formed the bulk of the fish caught. Great "drives" were made of ducks and other birds about March in every year, which is the moulting-season, when they are unable to fly. The Maoris informed me that they used to catch immense quantities of birds in this way, as the birds of all kinds were not nearly so shy in the old times as they have become since the introduction of firearms.

The chief water-areas (as may be seen by inspection of the accompanying map of the Clifford Bay Survey District) consist of the "Big Lagoon," of about 2,000 acres; the Upper and Chandler's Lagoons, about 700 acres; and the Main Channel leading from the "Big Lagoon" to the mouth of

the Wairau River, about another 700 acres. The "Big Lagoon" and the Main Channel have been reserved as a sanctuary for water-fowl for the last two or three years. (See *New Zealand Gazette* No. 20, 19th March, 1903, p. 796.) To show the extent to which the water-fowl of various kinds resort to this sanctuary, I may say that when I visited a few days ago the "Maori Look-out" (a small eminence near the south-west corner of the "Big Lagoon," 138 ft. above sea-level) I estimated that there were about seventy thousand water-fowl in sight. This vast number was composed chiefly of ducks and black swans. As a contrast to this, I may remark that there were hardly any birds to be seen on the Upper and Chandler's Lagoons, but these lagoons are not protected, and the frequent use of firearms has scared nearly all the wild-fowl away.

The canals are still, for the most part, in a state of good repair, and navigable for small canoes. They have been constructed with great care, and many of them are 10 ft. or 12 ft. wide by 2 ft. or 3 ft. deep. One very large one, joining the Wairau River to the outlet of the Upper Lagoon, is known by the name of "Morgan's Creek," while another has a remarkable course, having been taken along a narrow ridge of land separating the Upper and Chandler's Lagoons, then it skirts another small lagoon and terminates at the point of a long narrow strip of land projecting into the "Big Lagoon."

Besides the canals there are many other evidences of the occupation of the adjacent country by large numbers of Maoris. Taking these evidences in order, beginning with those nearest Blenheim, there are, first, the remains of an old burial-ground, at a point along the railway-line 21 miles 32 chains from Picton. Here are to be found sandhills to the right of the railway-line going south, with numerous remains of human skeletons. Next, at Seventeen Valley (about $23\frac{3}{4}$ miles from Picton along the railway-line), about half a mile below the railway-line, or about half-way between the coach-road and the railway, on the right-hand bank of the stream, there are numerous excavations which are supposed to have been "pit-dwellings" of the ancient Maoris. Perhaps they are only kumara-pits. They are quite numerous, I should say some twenty or more, and they extend along the banks of the stream for a distance of a quarter of a mile. Then, above the railway-line, about a quarter of a mile from it, and on the left-hand bank of the stream, there are the remains of about twenty Maori ovens, scattered over a level stretch of alluvial deposit. Many of the stones show evidence of the action of fire, and heaps of cockle-shells, mussel-shells, and a few oyster-shells are to be seen. In the next large valley that the railway runs up, about the 26th-mile post, there are more evidences of ancient Maori occupation. Also, between Mr. John Greenfield's homestead "Vernon" and the White Bluff, there are the remains of Maori cultivations wherever the land was suitable, and even where not suitable great pains have been taken to render the ground fit for cultivation by collecting the stones, and forming enclosures or small walls to mark off or protect the cultivated land. The remains of these cultivated plots are very numerous, and still plainly to be seen.

I have to acknowledge my indebtedness to Mr. S. M. Neville, of Thurston, Blenheim, who first drew my attention to these interesting mementoes of ancient Maori occupation. Most of the pits and ovens are on Mr. Neville's land, and any student of ancient Maori history desirous of further investigating these matters will find Mr. Neville ever ready and anxious to afford all the information in his power, and to point out the localities where the Maori evidences are to be found.

Table 1.—Summary of Lands absolutely disposed of from the Foundation of the Colony, with Total Cash received to the 31st March, 1903.

District.	Total Area sold and held on Freehold.	Total Area granted or reserved under Acts.	Total Area sold or otherwise finally disposed of from the Foundation of the Colony.	Total Cash received to the 31st March, 1903, exclusive of Rents.	Total Area disposed of on Leasehold Tenures of a Permanent Character.	Total Area open for Selection on 31st March, 1903.	Total Area remaining for Future Disposal, exclusive of Area in preceding Column and of Native Lands.
	A. R. P.	A. R. P.	A. R. P.	£ s. d.	A. R. P.	A. R. P.	A. R. P.
Auckland	2,027,734 0 32	3,419,477 1 20	5,447,211 2 12	824,410 14 3	895,906 1 3	1,066,622 0 0	1,418,211 3 32
Hawke's Bay	1,409,389 2 38	376,986 0 13	1,786,375 3 11	707,043 2 10	488,164 2 39	47,892 3 30	194,080 0 22
Taranaki	427,542 3 11	664,590 1 32	1,092,133 1 3	845,060 18 11	288,655 1 32	99,648 2 0	423,565 0 0
Wellington	2,160,888 1 18	1,299,456 3 33	3,460,345 1 11	2,404,202 11 5	522,815 1 39	43,684 2 25	597,834 0 2
Nelson	478,870 2 37	840,405 3 15	1,319,276 2 12	443,204 7 7	126,765 2 18	263,985 0 0	3,080,785 0 0
Marlborough	852,372 3 8	214,270 2 17	1,066,643 1 25	341,564 4 1	373,405 3 34	5,646 0 0	140,000 0 0*
Westland	65,949 0 39	131,493 0 3	197,443 1 2	75,101 19 3	32,420 1 3	101,791 0 0	271,455 0 23
Canterbury	3,597,797 2 21	1,542,733 3 11	5,140,531 1 32	6,459,085 19 4	466,891 2 13	3,949 0 0	4,167,136 2 3†
Otago	2,121,410 0 17	697,584 1 19	2,818,994 1 36	2,202,551 19 3	873,275 1 10	96,767 3 32	5,391,761 3 11‡
Southland	1,588,679 0 21	591,485 1 10	2,180,164 1 31	1,891,019 6 9	246,600 0 22	1,227,517 0 0	518,230 0 0
Totals	14,730,634 3 2	9,778,483 3 13	24,509,119 2 15	16,193,245 3 8	4,314,900 3 13	2,957,504 0 7	16,203,059 2 13

* Includes about 100,000 acres of barren and worthless country. † Includes 3½ million acres of land held on pastoral license. ‡ Includes 782,500 acres of barren and worthless country, and 4½ million acres of land held on pastoral license.

Table 2.—Lands opened for Sale and Selection during the Year ended 31st March, 1903.

District.	Optional System.	Cash by Auction.	Lease by Auction and Application.	Village Allotments.	Pastoral Runs.	Small Grazing-runs.	S.G. Runs, Land for Settlements.	Lease in Perpetuity only.	Lease in Perpetuity, Land for Settlements.	Native Towns.	Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland	252,268	255	617	..	..	31,145	..	83,518	1,305	15	369,123
Hawke's Bay	10,646	..	254	..	..	7,498	..	..	13,626	..	32,024
Taranaki	64,359	117	..	32	..	2,113	..	20,427	593	..	87,641
Wellington	26,406	39	133	1,516	..	11,775	..	..	605	22	40,496
Nelson	..	21	..	..	..	11,501	..	..	..	..	11,522
Marlborough	..	342	3,115	..	264,444	45,101	6,980	380	4,715	..	325,077
Westland	..	..	..	..	61,770	..	..	41,819	1,948	..	105,537
Canterbury	255	39	2,526	..	500,512	9,584	14,372	..	18,770	..	546,058
Otago	14,163	339	31	..	143,809	22,296	..	169	6,630	..	187,437
Southland	10,109	41	7,780	151	117,328	..	..	492	..	..	135,901
Totals	378,206	1,193	14,456	1,699	1,087,863	141,013	21,352	146,805	48,192	37	1,840,816

Table 3 (Part I.).—Summary of Lands taken up during the Year ended 31st March, 1903 (exclusive of Pastoral Runs and Miscellaneous Leases).

For Details see	Tenures.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Total Area taken up during Year.
		A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Table 5	Cash lands	9,464 2 8	623 2 25	942 1 0	1,256 0 19	2,506 0 34	484 0 7	342 0 0	263 2 38	995 3 34	310 0 12	17,188 2 17
„ 6	Deferred payment	..	..	..	..	..	..	..	..	..	..	..
„ 7	Perpetual lease and small areas	..	..	..	..	..	..	..	..	..	..	..
„ 8	Occupation with right of purchase	65,547 1 5	10,175 3 35	17,314 3 20	6,391 2 0	2,203 2 1	205 0 0	933 39	10 0 0	9,258 3 16	6,516 0 10	118,556 3 6
9	Lease in perpetuity	70,760 2 17	1,428 1 30	17,216 1 14	1,493 2 0	6,527 2 11	549 0 0	817 3 23	1,155 3 0	6,030 1 36	2,085 3 22	108,065 1 33
„ 10	Agricultural leases	..	..	..	..	..	..	..	..	35 3 37	..	35 3 37
„ 11	Occupation lease under "Mining Districts Land Occupation Act, 1894"	963 0 0	..	..	..	..	..	..	..	1,033 2 26	436 3 19	2,433 2 5
12	Village settlement, cash	..	..	..	9 1 35	..	..	..	..	..	..	9 1 35
„ 12	Village settlement, deferred payment	..	..	..	..	..	..	..	..	..	..	..
„ 12	Village settlement, perpetual lease	..	..	..	..	..	..	..	..	..	..	..
„ 12	Village settlement, occupation with right of purchase	..	..	..	..	..	..	..	..	..	..	..
„ 12	Village settlement, lease in perpetuity	..	117 0 14	32 0 6	..	..	..	..	0 1 0	135 3 10	313 1 14	598 2 4
„ 12	Village-homestead special settlement	..	1 2 17	..	1,510 1 6	..	..	..	..	..	..	1,511 3 23
„ 14	Special-settlement associations	5,761 0 0	..	..	..	..	..	..	..	..	..	5,761 0 0
„ 32	Improved-farm special settlement	..	..	3,004 3 0	855 0 0	..	..	..	..	..	172 0 25	4,031 3 25
„ 15	Homestead	..	..	..	..	..	..	..	..	..	..	..
„ 16	Small grazing-runs	..	9,790 0 0	..	1,057 0 0	..	47,132 2 0	..	9,584 0 0	25,961 3 14	..	93,525 1 14
	Totals	152,496 1 30	22,136 3 1	38,510 1 0	12,572 3 20	11,237 1 6	48,370 2 7	2,093 2 22	11,013 2 38	43,452 2 13	9,834 1 22	351,718 1 39
	Cheviot Estate.											
Table 5	Cash lands	..	..	..	..	..	..	..	..	..	..	..
„ 9	Lease in perpetuity	..	..	..	..	..	..	..	34 1 0	..	..	34 1 0
„ 12	Village-homestead special settlement	..	..	..	..	..	..	..	..	..	..	..
„ 16	Grazing-farms	..	..	..	..	..	..	..	6 2 0	..	..	6 2 0
	Land for Settlements Acts.											
„ 5	Cash	..	3 0 0	..	..	..	..	..	2 0 32	..	..	5 0 32
„ 9	Lease in perpetuity	1,061 3 12	15,187 3 16	842 1 30	695 0 34	..	4,715 0 0	2,018 3 4	19,874 0 3	6,703 2 11	2,547 1 8	53,645 3 38
„ 12	Lease in perpetuity (village)	..	..	..	..	..	..	..	..	20 0 0	..	20 0 0
„ 14	Special-settlement associations	..	..	..	..	..	..	..	..	..	..	..
„ 16	Small grazing-runs	..	1,177 0 0	..	..	..	3,595 2 0	..	14,471 0 19	..	1,150 0 0	20,393 2 19
	Grand totals	153,558 1 2	38,504 2 17	39,352 2 30	13,268 0 14	11,237 1 6	56,681 0 7	4,112 1 26	45,401 3 12	50,176 0 24	13,531 2 30	425,824 0 8

Table 3 (Part II.).—Summary of Lands: Transactions up to the Year ended 31st March, 1903.

For Details see	Tenures.	Exchanges from other Tenures during the Year.	Area held at 31st March, 1902	Total Exchanges during the Year.	Total Forfeitures during the Year.	Total Surrenders during the Year.	Total Expiries during the Year.	Total Area held on 31st March, 1903: Past and Current Transactions.	Total Area made Freehold to Date.
	Ordinary Crown Lands.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Table 5	Cash lands	..	..	..	..	..	..	..	12,847,776 3 36
„ 6	Deferred payment	..	96,885 0 37	213 0 0	202 2 0	..	..	79,664 1 37	914,478 1 38
„ 7	Perpetual lease	..	204,841 2 5	3,104 1 7	1,862 1 12	277 2 29	..	161,578 0 11	705,622 1 36
„ 8	Occupation with right of purchase	..	935,286 3 1	..	31,250 2 27	2,927 3 24	..	1,016,626 1 31	3,470 1 7
„ 9	Lease in perpetuity	18,835 3 11	956,390 0 37	..	14,513 0 13	14,472 2 21	..	1,052,365 2 9	..
„ 10	Agricultural lease	..	528 3 5	..	..	..	9 1 5	555 1 37	140,895 3 23
„ 11	Occupation lease under "Mining Districts Land Occupation Act, 1894"	..	14,251 1 34	..	443 0 2	296 1 28	..	15,945 2 9	..
„ 12	Village settlement, cash	..	..	..	..	..	..	..	7,050 1 2
„ 12	Village settlement, deferred payment	..	477 3 6	..	..	..	..	443 1 36	12,068 2 37
„ 12	Village settlement, perpetual lease	..	2,730 1 29	..	18 3 27	..	..	2,427 1 37	1,953 0 8
„ 12	Village settlement, occupation with right of purchase	..	30 1 13	..	..	0 0 9	..	30 1 4	..
„ 12	Village settlement, lease in perpetuity	11 1 21	6,324 0 31	..	356 3 14	40 0 30	..	6,537 0 12	..
„ 12	Village-homestead special settlement	..	22,600 2 24	1,112 0 39	654 0 12	91 1 29	..	23,076 0 31	..
„ 14	Special-settlement associations	..	124,105 0 3	..	6,695 1 2	1,204 1 0	..	121,016 2 11	90,620 3 14
„ 32	Improved-farm special settlement	..	53,906 1 22	..	456 1 7	105 1 0	..	48,315 2 31	..
„ 15	Homestead	..	1,636 1 10	..	..	..	..	188 0 37	80,244 2 28
„ 16	Small grazing-runs	..	1,219,932 2 27	3,690 0 0	11,074 2 29	16,268 2 34	..	1,274,470 0 27	..
	Totals	18,847 0 32	3,639,977 3 4	8,119 2 6	67,527 2 25	35,684 2 4	9 1 5	3,803,240 3 0	14,804,181 2 29
	Cheviot Estate.								
Table 5	Cash lands	..	..	..	..	..	..	..	6,690 2 34
„ 9	Lease in perpetuity	..	24,410 1 9	..	..	41 1 0	..	24,403 1 9	..
„ 12	Village-homestead special settlements	..	2,480 1 0	..	..	..	..	2,480 1 0	..
	16—Grazing-farms	..	45,971 0 9	..	..	..	..	45,977 2 9	..
	Land for Settlements Acts.								
„ 9	Lease in perpetuity	..	294,242 1 5	..	2,592 0 23	532 1 17	..	346,146 2 14	7 0 32
„ 12	Lease in perpetuity (village)	..	429 1 12	..	0 3 16	..	..	448 1 36	..
„ 14	Special-settlement associations	..	2,114 1 9	..	..	..	..	2,114 1 9	..
„ 16	Small grazing-runs	..	69,695 3 37	..	..	..	..	90,089 2 16	..
	Grand totals	18,847 0 32	4,079,321 1 5	8,119 2 6	70,120 2 24	36,258 0 21	9 1 5	4,314,900 3 13	14,810,879 2 15

Table 4.—Analysis of Holdings taken up during the Year ended 31st March, 1903.

Tenure.	No. of Selectors.	Average Holdings 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.
Ordinary Crown Lands—							
Cash lands	371	131	189	27	12	10	2
Deferred payment	..	..	..	..	..	..	..
Perpetual lease	..	..	..	..	..	..	..
Occupation with right of purchase	403	..	49	196	92	49	17
Lease in perpetuity	285	..	33	104	73	60	15
Agricultural lease	3	..	3	..	..	..	..
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	52	..	32	20	..	..	..
Village settlement, cash	19	19	..	..	..	..	..
Village settlement, occupation with right of purchase	..	..	..	..	..	..	..
Village settlement, lease in perpetuity	39	1	38	..	..	..	..
Village-homestead special settlement	34	1	11	22	..	..	..
Special-settlement associations	29	..	..	24	5	..	..
Improved-farm special settlement	30	..	3	27	..	..	..
Small grazing-runs	35	..	..	..	6	10	19
Pastoral runs	129	..	31	20	9	5	64
Thermal springs, Rotorua	35	14	20	1	..	..	..
Miscellaneous leases and licenses	434	59	194	117	23	27	14
Total	1,898	225	603	558	220	161	131
Cheviot Estate—							
Cash lands	..	..	..	..	..	..	..
Lease in perpetuity	2	1	1	..	..	..	..
Village-homestead special settlement	..	..	..	..	..	..	..
Grazing-farms	1	..	1	..	..	..	..
Miscellaneous	2	..	2	..	..	..	..
Land for Settlements Acts—							
Cash lands	3	1	2	..	..	..	..
Lease in perpetuity	286	28	103	75	49	28	3
Lease in perpetuity, village	1	..	1	..	..	..	..
Small grazing-runs	9	..	..	1	..	..	8
Pastoral runs	..	..	..	..	..	..	..
Miscellaneous	45	1	33	6	2	1	2
Grand totals	2,247	256	746	640	271	190	144

Table 5.—Return of Crown Lands sold for Cash during the Year ended 31st March, 1903.

District.	Area disposed of.								Average Price per Acre.			Cash. received.
	Town.		Suburban.		Rural.		Total.					
	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Town.	Suburban.	Rural.	
		A. R. P.		A. R. P.		A. R. P.		A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Auckland	38	31 0 34	4	65 0 20	58	9,368 0 34	100	9,464 2 8	10 7 0	3 10 1	0 6 2* / 1 4 8	3,486 7 3
Hawke's Bay	..	..	..	..	2	623 2 25	2	623 2 25	..	..	0 15 0 / 1 0 0	477 0 0
Taranaki	15	31 3 2	2	10 1 20	8	900 0 18	25	942 1 0	17 4 5	4 0 0	2 15 9 / 18 1 10	1,110 19 0
Wellington	30	8 2 39	1	3 1 20	4	1,244 0 0	35	1,256 0 19	83 15 6	10 0 0	0 18 8·5 / 5 6 4·3	2,154 15 5†
Nelson	28	62 0 21	3	80 2 18	11	2,363 1 35	42	2,506 0 34	4 18 4	3 10 10	0 7 2 / 0 18 3	1,730 17 1
Marlborough	10	10 1 0	..	..	4	473 3 7	14	484 0 7	22 1 5	..	0 7 4	401 14 10
Westland	..	..	..	..	2	342 0 0	2	342 0 0	..	..	0 15 0	256 10 0
Canterbury	26	21 2 9	..	..	16	242 0 29	42	263 2 38	24 19 8·8	..	1 7 9·2 / 2 11 7·8	1,051 9 7
Otago	4	1 2 35	62	90 3 13	21	903 1 26	87	995 3 34	21 16 4·3	7 2 0·8	0 8 1·6 / 1 9 9·1	1,179 2 9
Southland	3	1 0 0	11	23 1 20	8	285 2 32	22	310 0 12	366 0 0	4 6 8·3	0 10 10·6 / 1 2 4	635 2 1
Totals	154	168 1 20	83	273 2 31	134	16,746 2 6	371	17,188 2 17	68 17 10·1	5 8 3·3	0 18 3·4 / 3 11 4·2	12,483 18 0†
Land for Settlements—												
Hawke's Bay	..	..	..	..	1	3 0 0	1	3 0 0	..	..	10 0 0	30 0 0
Canterbury	1	0 3 0	..	..	1	1 1 32	2	2 0 32	40 0 0	..	4 1 0·4	35 17 6
Totals	1	0 3 0	..	..	2	4 1 32	3	5 0 32	40 0 0	..	7 0 6·2	65 17 6

* Where two average prices are given, the first is for lands selected when an option was given to acquire them under other tenures, and the second when no such option was given.

† Inclusive of £29 in scrip.

Table 6.—Return of Deferred-payment Lands: Transactions during the Year ended 31st March, 1903.

District.	Forfeitures during the Year.			Exchanges during the Year.			Capitalised during the Year.			Net Area held on 31st March, 1903, including Capitalised Holdings.			Amount received during the Year ended 31st March, 1903.
	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments and Interest payable.	
		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.
Auckland	2	130 2 0	7 5 0	1	213 0 0	13 6 4	..	..	..	72	8,330 2 17	295 1 7	634 1 3
Hawke's Bay	..	..	..	..	..	..	..	..	..	3	2,140 1 13	87 10 2	63 15 6
Taranaki	..	..	..	..	..	..	1	112 0 0	0 10 8	17	2,516 0 0	162 9 11	984 15 5
Wellington	..	..	..	..	..	..	..	..	..	11	1,956 0 34	30 18 8	190 10 7
Nelson	..	..	..	..	..	..	..	..	..	255	26,370 1 28	1,423 2 11	1,861 0 4
Marlborough	..	..	..	..	..	..	..	..	..	6	342 2 26	28 4 9	33 10 8
Westland*	..	..	..	..	..	..	..	..	..	1	137 2 23	3 6 6	110 6 2
Canterbury	..	..	..	..	..	..	..	..	..	13	11,251 2 29	836 12 2	734 15 9
Otago	..	..	..	..	..	..	..	..	..	45	12,948 3 32	537 18 0	1,180 6 7
Southland	1	72 0 0	1 10 2	..	..	..	..	..	..	62	13,669 3 35	369 12 0	720 5 11
Totals	3	202 2 0	8 15 2	1	213 0 0	13 6 4	1	112 0 0	0 10 8	485	79,664 1 37	3,774 16 8	6,513 8 2

District.	Freehold acquired during the Year.		Made Freehold from Commencement of System to 31st March, 1903.			Selectors in Arrear on 31st March, 1903.		
	Number of Selectors.	Area.	Number of Selectors.	Area.	Total Amount realised, exclusive of Interest.	Number of Selectors.	Area.	Amount.
		A. R. P.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	33	3,911 3 12	270	32,999 3 32	21,950 14 9	14	1,663 1 18	45 7 9
Hawke's Bay	..	..	804	83,341 1 20	88,605 9 7	..	..	..
Taranaki	14	1,728 3 0	1,287	154,805 0 38	235,755 5 9	1	87 0 0	8 14 9
Wellington	3	395 2 34	644	135,244 1 19	149,383 11 10	2	981 0 22	37 1 4
Nelson	55	6,613 2 39	1,352	122,828 1 14	101,545 3 0	..	..	..
Marlborough	2	18 1 11	44	4,295 3 4	3,218 13 11	..	..	..
Westland	3	235 0 24	99	4,434 0 29	4,157 19 2	1	137 2 23	30 18 3
Canterbury	1	22 0 0	109	16,543 2 15	38,644 3 11	..	..	..
Otago	7	2,484 3 35	1,092	179,707 1 11	217,326 15 6	1	81 0 8	2 5 2
Southland	9	1,542 3 2	1,259	180,278 1 16	244,547 0 2	4	351 2 24	9 10 2
Totals	127	16,953 0 37	6,960	914,478 1 38	1,105,134 17 7	23	3,301 3 15	133 17 5

* One selector with 40 acres and 19 perches, yearly instalments payable £3, was transferred from Nelson.

Table 7.—Return of Perpetual-lease Lands: Transactions during the Year ended 31st March, 1903.

District.	Taken up during the Year.			Exchanges to other Tenures during the Year.			Forfeitures during the Year.			Surrenders during the Year.		
	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	..	..	..	7	1,637 0 28	36 12 0	..	..	..	1	65 0 16	1 12 6
Hawke's Bay	..	..	..	..	..	..	..	..	..	..	..	..
Taranaki	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	..	..	..	..	..	..	1	1,446 0 0	39 15 4	..	..	..
Nelson	..	..	..	..	..	..	..	..	..	..	..	..
Marlborough	..	..	..	..	..	..	..	..	..	..	..	..
Westland	..	..	..	..	..	..	..	..	..	..	..	..
Canterbury	..	..	..	1	58 0 0	8 14 0	..	..	..	..	..	..
Otago	..	..	..	5	1,201 3 19	52 8 0	1	135 2 1	3 8 0	1	212 2 13	6 13 2
Southland	..	..	..	2	207 1 0	10 7 10	3	280 3 11	12 4 4	..	..	..
Totals	..	..	..	15	3,104 1 7	108 1 10	5	1,862 1 12	55 7 8	2	277 2 29	8 5 8

District.	Freeholds acquired during the Year.		Made Freehold from Commencement of System to 31st March, 1903.			Net Area held on 31st March, 1903.			Amount received during the Year ended 31st March, 1903 (exclusive of Amount from Perpetual Leases made Freehold).	Selectors in Arrear, 31st March, 1903.		
	No. of Selectors.	Area.	No. of Selectors.	Area.	Total Amount realised, exclusive of Interest.	No. of Selectors.	Area.	Annual Rental.		No. of Selectors.	Area.	Amount.
		A. R. P.		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Auckland	66	19,411 1 39	413	132,344 0 17	62,114 15 3	314	61,998 3 32	1,662 7 3	2,025 14 1	35	6,339 0 10	138 14 11
Hawke's Bay	12	3,219 2 10	282	127,015 3 11	97,790 4 6	21	9,090 0 36	539 16 5	406 9 3	..	..	..
Taranaki	16	4,259 0 0	386	97,450 3 32	89,804 5 8	27	7,621 1 6	400 4 3	675 5 5	..	..	..
Wellington	14	6,255 2 34	751	294,420 2 35	263,898 2 5	52	8,266 3 5	759 4 2	806 12 11	6	2,012 0 0	85 15 7
Nelson	3	1,310 0 0	16	6,436 1 11	2,058 3 6	24	4,958 2 27	92 12 11	86 8 7	..	..	..
Marlborough	1	49 2 0	2	349 2 0	132 10 0	10	1,747 0 7	49 12 3	54 2 4	..	..	..
Westland	..	..	6	482 3 20	482 17 2	7	580 1 8	28 0 4	51 16 0	2	270 1 8	20 17 2
Canterbury	12	1,870 2 23	77	14,120 3 29	31,513 12 11	41	3,632 2 18	281 2 4	308 6 0	1	50 0 0	2 10 0
Otago	9	1,293 2 2	91	15,754 1 14	12,190 12 0	251	48,594 2 15	1,855 13 10	1,831 11 0	5	981 2 3	18 5 3
Southland	5	857 3 12	73	17,246 3 27	13,063 19 6	84	15,087 2 17	567 5 6	622 18 3	3	999 2 31	30 11 10
Totals	138	38,527 1 0	2097	705,622 1 36	563,049 2 11	831	161,578 0 11	6,235 19 3	6,869 3 10	52	10,652 2 12	296 14 9

Table 8.—Return of Occupation-with-right-of-purchase Lands taken up during the Year ended 31st March, 1903.

District.	Taken up during the Year.				Forfeitures during the Year.			Surrenders during the Year.		
	No. of Selectors.	Area.	Average Upset Rent per Acre.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.
		A. R. P.	s. d.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	226	65,547 1 5	0 5·18	1,415 10 10	49	15,040 1 7	378 18 8	7	1,286 2 6	28 15 10
Hawke's Bay	21	10,175 3 35	0 10·6	450 13 0	2	1,448 0 0	65 18 10	2	1,139 0 0	62 13 6
Taranaki	32	17,314 3 20	0 11·1	720 10 10	9	8,214 0 0	304 7 2	..	..	..
Wellington	23	6,391 2 0	1 2	371 5 8	15	5,073 2 0	197 10 2	..	..	..
Nelson	6	2,203 2 1	0 4·25	37 17 6	1	103 0 18	1 18 8	..	..	..
Marlborough	1	205 0 0	0 6	5 2 6	..	..	..	..	11 2 34	1 8 2
Westland	3	933 2 39	0 6·8	26 9 6	1	150 0 0	3 15 0	..	..	..
Canterbury	1	10 0 0	7 0	3 10 0	..	..	..	..	..	..
Otago	62	9,258 3 16	0 7·3	284 14 10	3	624 1 28	18 3 6	3	490 2 24	16 4 4
Southland	28	6,516 0 10	0 5·2	143 12 0	5	597 1 14	21 8 8	..	..	..
Totals	403	118,556 3 6	..	3,459 6 8	85	31,250 2 27	992 0 8	12	2,927 3 24	109 1 10

District.	Freeholds acquired during the Year.			Net Area held on 31st March, 1903.			Amount received during the Year ended 31st March, 1903.*			Selectors in Arrear, 31st March, 1903.		
	No.	Area.	Amount received.	No. of Selectors.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Total.	No. of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Auckland	7	825 1 7	359 4 0	1,814	453,019 3 14	12,017 2 4	631 6 4	10,886 11 10	11,517 18 2	155	38,196 2 19	1,086 15 5
Hawke's Bay	1	2,000 0 0	1,150 0 0	207	91,141 3 18	3,882 11 0	225 11 6	3,809 10 0	4,035 1 6	3	3,089 0 0	133 16 3
Taranaki	..	..	..	325	129,294 3 23	6,063 13 10	364 5 9	5,142 16 9	5,507 2 6	34	12,062 1 12	284 18 5
Wellington	2	570 0 0	863 15 0	618	182,898 0 15	10,553 8 10	192 7 10	9,470 4 4	9,662 12 2	35	12,335 0 0	591 3 8
Nelson	..	..	..	197	39,962 2 11	769 13 10	99 14 0	557 4 7	656 18 7	2	570 0 0	5 16 3
Marlborough	..	..	..	40	11,681 3 9	530 14 0	25 0 0	491 11 3	516 11 3	3	1,160 0 0	20 17 10
Westland	..	..	..	96	16,845 0 21	559 14 2	51 6 4	419 4 9	470 11 1	9	1,036 2 18	32 9 1
Canterbury	1	75 0 0	112 10 0	14	1,451 3 2	107 19 4	3 19 0	95 17 4	99 16 4	..	..	..
Otago	..	..	..	224	39,952 0 16	1,141 1 10	177 0 0	745 18 0	922 18 0	7	1,865 0 1	26 9 10
Southland	..	..	..	239	50,378 1 22	1,371 14 2	71 16 0	1,040 14 9	1,112 10 9	18	3,018 2 31	52 19 6
Totals	11	3,470 1 7	2,485 9 0	3,774	1,016,626 1 31	36,997 13 4	1,842 6 9	32,659 13 7	34,502 0 4	266	73,333 1 1	2,235 6 3

* Exclusive of amount paid for acquiring freehold.

Table 9.—Return of Lease-in-Perpetuity Lands, 31st March, 1903.

District.	Taken up during the Year.				Exchanges from other Tenures during the Year.			Forfeitures during the Year.		
	No. of Selectors.	Area.	Average Rental per Acre.	Annual Rental payable.	No. of Selectors.	Area.	Annual Rental payable.	No. of Selectors.	Area.	Annual Rental.
		A. R. P.	s. d.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Ordinary Crown Lands—										
Auckland	169	70,760 2 17	0 8·06	2,378 18 2	16	2,199 2 32	51 5 4	28	7,968 0 26	196 11 8
Hawke's Bay	3	1,428 1 30	0 6·9	41 3 6	..	..	..	2	572 1 0	14 11 4
Taranaki	50	17,216 1 14	0 10·4	752 4 0	..	..	..	1	126 2 0	6 10 2
Wellington	7	1,493 2 0	1 0	74 2 2	2	2,426 0 0	121 6 0	8	2,862 0 0	101 4 10
Nelson	10	6,527 2 11	0 3·5	94 19 0	..	..	..	..	..	..
Marlborough	2	549 0 0	2 10	78 10 8	15	12,743 0 0	200 7 0	..	..	..
Westland	6	817 3 23	0 5·4	18 8 8	..	..	..	..	..	..
Canterbury	3	1,155 3 0	0 9·4	45 12 10	1	58 0 0	6 19 2	..	..	..
Otago	22	6,030 1 36	0 5	127 10 10	4	1,201 3 19	41 18 6	8	1,427 1 39	26 8 2
Southland	13	2,085 3 22	0 4·9	43 2 2	2	207 1 0	8 6 2	4	1,556 2 28	49 2 4
Totals	285	108,065 1 33	..	3,654 12 0	40	18,835 3 11	430 2 2	51	14,513 0 13	394 8 6
Land for Settlements—										
Auckland	31	1,061 3 12	4 5·19	235 7 0	..	..	..	3	287 2 30	72 16 0
Hawke's Bay	50	15,187 3 16	6 4·8	4,868 7 10	..	..	..	3	125 3 18	98 1 2
Taranaki	9	842 1 30	20 9·6	876 1 6	..	..	..	..	..	..
Wellington	20	695 0 34	12 7·25	438 3 10	..	..	..	9	437 2 15	129 15 4
Nelson	..	..	..	..	..	..	..	..	..	..
Marlborough	4	4,715 0 0	1 0	243 6 10	..	..	..	..	..	..
Westland	8	2,018 3 4	2 9·5	282 10 10	..	..	..	5	1,333 1 30	174 0 0
Canterbury	100	19,874 0 3	4 11·08	4,892 14 10	..	..	..	3	46 0 2	42 7 0
Otago	53	6,703 2 11	8 2·5	2,753 13 10	..	..	..	1	10 0 0	53 4 0
Southland	11	2,547 1 8	4 5·8	571 15 10	..	..	..	1	351 2 8	48 6 10
Totals	286	53,645 3 38	..	15,162 2 4	..	..	..	25	2,592 0 23	618 10 4
Cheviot Estate	2	34 1 0	2 10·9	4 19 10	..	..	..	..	..	..
Ellesmere Endowment	2	62 0 30	2 4·8	7 9 4	..	..	..	..	..	..

Table 9.—Return of Lease-in-Perpetuity Lands, 31st March, 1903—*continued.*

District.	Surrenders during the Year.			Net Area held on 31st March, 1903.			Amount received during the Year ended 31st March, 1903.			Selectors in Arrear, 31st March, 1903.		
	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Total.	No. of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Ordinary Crown Lands—												
Auckland	13	6,572 1 16	168 13 4	1,088	251,892 2 25	6,478 0 5	1,163 18 0	4,923 19 8	6,087 17 8	126	24,878 3 35	753 17 3
Hawke's Bay	2	1,428 1 30	41 2 8	177	100,112 2 21	3,158 0 7	20 11 9	3,176 5 10	3,196 17 7	5	650 3 12	13 17 11
Taranaki	1	210 0 0	11 1 4	304	91,061 0 26	4,110 19 4	378 16 7	3,187 12 9	3,566 9 4	36	11,118 1 31	251 10 2
Wellington	..	..	..	459	132,666 3 12	5,734 17 7	43 9 2	5,120 9 5	5,163 18 7	33	9,593 0 0	385 10 0
Nelson	..	..	..	176	54,043 3 21	797 12 7	322 14 6	460 4 6	782 19 0	7	1,030 0 18	11 15 11
Marlborough	..	..	..	206	102,861 0 23	2,500 13 2	363 15 5	2,081 18 10	2,445 14 3	3	1,631 0 0	29 7 5
Westland	..	..	..	62	11,200 1 17	307 16 4	48 9 7	214 7 5	262 17 0	4	562 0 0	8 3 10
Canterbury	..	..	..	225	74,065 3 26	4,198 2 6	33 19 2	4,031 15 9	4,065 14 11	4	628 3 20	28 16 5
Otago	2	959 1 27	21 19 8	638	165,181 3 8	4,900 1 10	69 15 1	4,291 12 0	4,361 7 1	23	6,793 0 19	98 8 6
Southland	6	5,302 1 28	110 17 6	234	69,279 0 30	1,790 1 10	21 11 1	1,808 9 4	1,830 0 5	17	5,716 3 16	97 1 6
Totals	24	14,472 2 21	353 14 6	3,569	1,052,365 2 9	33,976 6 2	2,467 0 4	29,296 15 6	31,763 15 10	258	62,603 0 31	1,678 8 11
Land for Settlements—												
Auckland	3	9 3 11	13 17 10	177	33,729 1 9	5,035 16 11	117 13 6	4,993 8 8	5,111 2 2	15	3,536 2 24	485 10 8
Hawke's Bay	1	328 0 0	114 16 0	256	56,963 3 30	19,742 15 8	4,030 14 3	10,554 2 8	14,584 16 11	42	15,302 0 17	2,624 13 10
Taranaki	..	..	..	15	1,495 3 25	1,547 1 4	566 10 10	474 15 6	1,041 6 4	1	97 0 0	57 2 2
Wellington	..	..	..	194	14,395 1 0	6,409 18 10	298 17 11	6,653 4 11	6,952 2 10	7	157 0 0	119 15 0
Nelson	..	..	..	..	..	..	..	..	..	..	..	..
Marlborough	..	3 0 18	2 3 8	142	40,396 0 34	7,514 13 8	121 13 5	6,940 18 1	7,062 11 6	52	12,905 3 38	2,335 3 5
Westland	..	..	..	21	3,656 3 14	364 11 8	141 5 5	296 3 3	437 8 8	8	1,257 1 0	141 4 1
Canterbury	9	191 1 28	121 7 6	842	117,253 3 23	40,567 19 10	3,230 19 5	34,337 1 1	37,568 0 6	78	7,848 0 35	1,484 6 1
Otago	..	..	..	379	55,661 2 30	19,282 16 8	1,657 1 1	16,905 19 4	18,563 0 5	40	9,044 3 24	1,510 15 4
Southland	..	..	..	84	22,593 2 9	3,647 13 0	285 17 11	2,235 1 1	2,520 19 0	16	4,416 2 8	566 12 11
Totals	13	532 1 17	252 5 0	2,110	346,146 2 14	104,113 7 7	10,450 13 9	83,390 14 7	93,841 8 4	259	54,565 2 26	9,325 3 6
Cheviot Estate	1	41 1 0	6 0 0	119	24,403 1 9	6,456 5 0	0 2 3	6,222 2 9	6,222 5 0	6	1,391 3 26	189 18 0
Ellesmere Endowment	..	..	..	69	14,006 0 29	1,408 10 4	3 14 8	1,266 17 5	1,270 12 1	..	..	..

Table 10.—Return of Agricultural-lease Lands taken up during the Year ended 31st March, 1903.

District.	Taken up during the Year.				Expires during the Year.			Net Area held on 31st March, 1903.			Amounts received during the Year ended 31st March, 1903.		Made Freehold from Commencement of System to 31st March, 1903.			Selectors in Arrear on 31st March, 1903.		
	Number of Selectors.	Area taken up.	Average to each Selector.	Yearly Rental payable.	Number of Selectors.	Area.	Yearly Rental.	Number of Selectors.	Area.	Yearly Rental payable.	On the Year's Transactions.	On Past Transactions.	Number of Selectors.	Area.	Total Amount realised.	Number of Selectors.	Area.	Amount.
		A. R. P.	A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	..	..	..	..	..	..	..	1	20 2 0	..	..	..	67	2,750 0 0	590 5 0	..	..	..
Westland	..	..	..	..	..	..	..	..	..	..	..	..	32	279 0 15	..	..	..	..
Otago	3	35 3 37	11 3 28	1 11 9	3	9 1 5	0 18 9	16	534 3 37	30 19 3	0 15 11	16 10 7	1,326	131,296 2 3	131,580 12 6	1	6 0 0	0 1 3
Southland	..	..	..	..	..	..	..	..	..	..	..	..	50	6,570 1 5	6,570 5 0	..	..	..
Totals	3	35 3 37	11 3 28	1 11 9	3	9 1 5	0 18 9	17	555 1 37	30 19 3	0 15 11	16 10 7	1,475	140,895 3 23	138,741 2 6	1	6 0 0	0 1 3

Table 11.—Occupation Leases under "The Mining Districts Land Occupation Act, 1894," taken up during the Year ended 31st March, 1903.

District.	Taken up during the Year.			Forfeitures during the Year.			Net Area held on 31st March, 1903.			Amount received during the Year.		Selectors in Arrear on 31st March, 1903.		
	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Number of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Auckland	18	963 0 0	62 13 0	..	..	..	154	7,214 1 1	546 2 10	5 17 6	324 12 0	4	93 0 0	4 5 0
Nelson	..	..	..	..	..	..	8	342 0 11	13 0 2	..	9 12 10	..	..	..
Marlborough	..	..	..	..	..	..	19	1,161 0 0	31 4 4	..	31 10 10	..	..	..
Otago	26	1,033 2 26	36 10 0	4	389 2 2	10 5 9	158	5,612 0 5	215 17 0	153 4 6	182 3 7	1	66 1 0	1 13 6
Southland	8	436 3 19	22 14 10	4	349 3 28	10 12 10	44	1,616 0 32	134 4 0	11 7 5	193 2 1	..	..	..
Totals	52	2,433 2 5	121 17 10	8	739 1 30	20 18 7	383	15,945 2 9	940 8 4	170 9 5	741 1 4	5	159 1 0	5 18 6
Nelson Endowments	6	51 2 36	5 3 0	..	..	..	58	1,171 2 14	73 2 6	9 13 0	55 18 0	5	21 3 29	3 16 6

Table 12.—Return of Village Settlements during the Year ended 31st March, 1903.

District.	Tenure.	Taken up during the Year.			Exchanges to other Tenures during the Year.			Made Freehold during Year.			Made Freehold from Commencement.		
		Selectors.	Area.	Annual Rental.	Selectors.	Area.	Annual Rental.	Selectors.	Area.	Amount realised.	Selectors.	Area.	Total Cash received.
			A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	Village-homestead special settlement ..	..	..	..	8	349 2 4	22 0 0	..	..	..	..	..	..
Hawke's Bay	Cash	..	..	..	..	..	..	..	..	..	259	643 1 5	4,194 1 10
"	Deferred payment	..	..	..	..	..	..	..	..	..	110	1,192 2 2	2,706 18 1
"	Perpetual lease	..	..	..	..	..	..	..	..	..	9	146 3 1	293 18 1
"	Lease in perpetuity	8	117 0 14	6 13 8	..	..	..	..	..	..	..	..	..
"	Village-homestead special settlement ..	1	1 2 17	1 4 0	..	..	..	..	..	..	..	..	..
Taranaki	Cash	..	..	..	..	..	..	..	..	..	309	853 3 9	6,945 10 9
"	Deferred payment	..	..	..	..	..	..	..	..	..	120	2,289 2 36	10,907 12 11
"	Lease in perpetuity	4	32 0 6	5 16 6	..	..	..	..	..	..	..	..	..
Wellington	Cash	19	9 1 35	..	..	..	..	19	9 1 35	143 16 0	332	486 3 9	3,791 8 5
"	Deferred payment	..	..	..	..	..	..	..	..	..	109	970 2 36	3,789 5 4
"	Perpetual lease	..	..	..	..	..	..	..	..	..	27	311 3 22	998 3 11
"	Village-homestead special settlement ..	33	1,510 1 6	443 9 6	..	..	..	..	..	..	..	..	..
Marlborough	Cash	..	..	..	..	..	..	..	..	..	9	22 1 11	75 16 10
"	Deferred payment	..	..	..	..	..	..	..	..	..	3	22 3 0	18 15 0
"	Village-homestead special settlement ..	..	..	..	1	50 0 0	2 10 0	..	..	..	..	..	..
Canterbury	Cash	..	..	..	..	..	..	..	..	..	166	1,208 0 1	5,481 17 4
"	Deferred payment	..	..	..	..	..	..	..	..	..	519	2,527 1 5	21,283 1 11
"	Perpetual lease	..	..	..	..	..	..	4	124 0 36	198 9 0	22	536 1 33	1,080 14 5
"	Lease in perpetuity	1	0 1 0	0 6 6	..	..	..	..	..	..	..	..	..
"	Village-homestead special settlement ..	..	..	..	22	701 1 14	124 16 8	..	..	..	..	..	..
Otago	Cash	..	..	..	..	..	..	..	..	..	103	889 2 19	1,756 3 5
"	Deferred payment	..	..	..	..	..	..	..	..	..	102	1,100 0 34	2,796 0 7
"	Perpetual lease	..	..	..	..	..	..	3	51 0 10	103 0 0	24	563 3 9	1,185 0 0
"	Lease in perpetuity	9	135 3 10	6 13 2	..	..	..	..	..	..	..	..	..
Southland	Cash	..	..	..	..	..	..	..	..	..	579	2,946 1 28	9,230 10 3
"	Deferred payment	..	..	..	..	..	..	2	34 1 10	67 17 6	266	3,965 2 4	9,519 2 9
"	Perpetual lease	..	..	..	..	..	..	3	43 3 12	105 17 6	24	394 0 23	919 5 11
"	Lease in perpetuity	17	313 1 14	26 9 4	..	..	..	..	..	..	..	..	..
"	Village-homestead special settlement ..	..	..	..	1	11 1 21	2 17 6	..	..	..	..	..	..
	Totals	92	2,119 3 22	490 12 8	32	1,112 0 39	152 4 2	31	262 3 23	619 0 0	3,092	21,072 0 7	86,973 7 9
Land for Settlements Acts—													
Otago	Lease in perpetuity	1	20 0 0	18 3 4	..	..	..	..	..	..	..	..	..

Table 12.—Return of Village Settlements during the Year ended 31st March, 1903—*continued.*

District.	Tenure.	Amount received during the Year.	Forfeitures during the Year.			Surrenders during the Year.			Net Area held on 31st March, 1903.			Arrears on 31st March, 1903.		
			Selectors.	Area.	Annual Rental.	Selectors.	Area.	Annual Rental.	Selectors.	Area.	Total Annual Rental.	No.	Area.	Amount
		£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland ..	Village-homestead special settlement	251 7 11	2	94 2 34	5 11 8	1	48 0 22	3 4 0	50	1,859 3 10	154 0 8	12	467 0 11	104 10 7
Hawke's Bay ..	Occupation with right of purchase ..	1 17 6	..	..	..	..	..	..	8	6 2 8	2 0 0	..	..	..
" ..	Lease in perpetuity	49 16 11	1	7 3 15	0 19 4	..	..	..	43	493 2 11	55 13 6	..	..	..
" ..	Village-homestead special settlement	57 7 0	1	1 2 17	1 12 10	..	..	..	30	188 0 37	65 0 10	1	2 3 36	0 9 6
Taranaki ..	Occupation with right of purchase ..	4 0 3	..	..	..	..	..	..	16	13 0 0	3 18 0	1	0 3 0	0 2 3
" ..	Lease in perpetuity	8 5 9	..	..	..	..	..	..	12	97 0 19	12 14 4	4	35 1 6	1 16 10
Wellington ..	Cash	143 16 0	..	..	..	..	..	..	..	..	..	..	..	..
" ..	Perpetual lease	..	..	..	..	..	..	..	1	12 1 11	1 17 0	1	12 1 11	2 16 0
" ..	Village-homestead special settlement	1,753 7 9	11	457 3 1	45 1 7	..	..	..	572	10,520 0 27	1,780 0 11	47	608 0 0	198 0 0
Nelson * ..	Village-homestead special settlement	17 5 3	..	..	..	..	..	..	20	100 3 7	17 15 0	2	10 0 22	2 2 6
Marlborough ..	Deferred payment	2 11 6	..	..	..	..	..	..	2	20 2 20	2 11 6	..	..	..
" ..	Perpetual lease	1 17 6	..	..	..	..	..	..	1	10 0 0	1 5 0	..	..	..
" ..	Lease in perpetuity	21 19 4	..	..	..	..	..	..	8	152 2 35	21 19 4	..	..	..
" ..	Village-homestead special settlement	23 1 0	..	..	..	..	..	..	13	184 0 24	20 3 6	1	6 1 7	0 18 0
Canterbury ..	Perpetual lease made freehold ..	198 9 0	..	..	..	..	..	..	..	..	..	..	..	..
" ..	Deferred payment	17 6 1	..	..	..	..	..	..	8	87 0 39	20 7 8	..	..	..
" ..	Perpetual lease	173 12 1	..	..	..	..	..	..	33	646 0 7	153 0 8	3	70 0 0	16 2 6
" ..	Occupation with right of purchase ..	3 4 2	..	..	..	..	..	..	5	2 1 0	3 12 0	..	..	..
" ..	Lease in perpetuity	6 1 10	..	..	..	..	..	..	15	8 2 0	8 13 0	..	..	..
" ..	Village-homestead special settlement	984 1 0	1	100 0 0	5 3 4	..	..	..	232	8,540 2 14	995 14 0	6	310 0 0	22 15 0
Otago ..	Perpetual lease made freehold ..	103 0 0	..	..	..	..	..	..	..	..	..	..	..	..
" ..	Deferred payment	10 10 5	..	..	..	..	..	..	3	130 0 4	11 6 8	..	..	..
" ..	Perpetual lease	33 14 5	1	5 3 9	0 9 0	..	..	..	17	364 1 23	32 14 2	1	6 3 27	0 15 9
" ..	Occupation with right of purchase ..	0 12 0	..	..	..	..	0 0 9	..	5	4 1 12	0 18 0	..	..	..
" ..	Lease in perpetuity	143 3 5	11	237 1 30	12 3 0	1	20 3 0	1 1 0	119	1,733 0 15	149 6 2	2	54 2 36	1 17 9
" ..	Village-homestead special settlement	160 18 5	..	..	..	2	43 1 7	3 16 0	77	1,214 3 15	150 18 0	2	26 3 8	4 0 6
Southland ..	Perpetual lease made freehold ..	105 17 6	..	..	..	..	..	..	..	..	..	..	..	..
" ..	Deferred payment	72 14 11	..	..	..	..	..	..	10	205 2 13	10 10 0	..	..	..
" ..	Perpetual lease	209 10 10	1	13 0 18	2 13 0	..	..	..	101	1,394 2 36	181 2 10	5	119 2 19	6 12 3
" ..	Occupation with right of purchase ..	1 11 0	..	..	..	..	..	..	4	4 0 24	2 13 2	..	..	..
" ..	Lease in perpetuity	337 11 0	5	111 2 9	11 2 10	1	19 1 30	2 6 8	263	4,052 0 12	371 18 8	14	257 3 7	13 17 10
" ..	Village-homestead special settlement	166 7 4	..	..	..	..	..	..	53	568 1 24	135 18 0	2	12 1 32	1 5 0
	Totals	5,064 19 1	34	1,029 3 13	84 16 7	5	131 2 28	10 7 8	1,721	32,615 1 7	4,367 12 7	104	2,001 0 22	378 2 3
Cheviot Estate—														
Canterbury ..	Village-homestead special settlement	915 7 8	..	..	..	..	..	..	72	2,480 1 0	870 0 4	..	..	..
Land for Settlements—														
Hawke's Bay ..	Lease in perpetuity	29 11 0	2	0 3 16	0 18 0	..	..	..	16	35 1 32	23 18 0	..	..	..
Otago ..	"	397 12 10	..	..	..	..	..	..	30	413 0 4	317 3 10	2	20 0 2	9 1 10
	Totals ..	427 3 10	2	0 3 16	0 18 0	..	..	..	46	448 1 36	341 1 10	2	20 0 2	9 1 10
	Grand totals	6,407 10 7	36	1,030 2 29	85 14 7	5	131 2 28	10 7 8	1,839	35,544 0 3	5,578 14 9	106	2,021 0 24	387 4 1

* Endowment lands.

Table 13.—Summary of Position of Village Settlements at 31st March, 1903.

District.	Number of Settlers in Occupation.		Area occupied.	Area laid down in Pasture or cultivated.	Annual Rental or Instalments, including Interest on Advances.	Amounts advanced to Settlers up to 31st March, 1903.			Amount of Advances which have been repaid to 31st March, 1903.	Total Amount of Interest paid to 31st March, 1903.	Value of Improvements now on the Land.	Arrears of Interest on 31st March, 1903.
	Resident.	Non-resident.				For Houses.	For Bushfelling, Grassing, &c.	Total.				
			A. R. P.	A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	s. d.
Auckland ..	43	7	1,859 3 10	1,093 2 3	154 0 8	958 0 0	1,253 17 6	2,211 17 6	477 10 0	2,604 8 10	6,453 18 0	65 5 0
Hawke's Bay	65	32	723 3 8	396 0 0	146 12 4	580 0 0	296 15 9	876 15 9	354 9 0	530 4 11	7,093 0 0	0 9 6
Taranaki ..	9	15	110 0 19	78 0 0	16 12 4	..	..	..	..	..	718 0 0	..
Wellington ..	383	85*	10,532 1 38	6,817 0 0	2,011 8 2	2,944 0 0	3,670 19 11	6,614 19 11	2,024 16 5	3,576 4 4	66,212 0 0	74 10 0
Nelson† ..	15	5	100 3 7	78 0 0	17 15 0	70 0 0	..	70 0 0	30 0 0	21 0 0	1,081 0 0	1 15 0
Marlborough	18	6	367 1 39	274 0 0	45 19 4	85 0 0	18 15 0	103 15 0	15 0 0	68 4 4	2,510 0 0	..
Canterbury ..	335	81	13,184 0 23	10,766 0 1	2,333 14 2	2,590 0 0	..	2,590 0 0	757 10 0	1,633 9 3	44,508 1 4	2 10 0
Otago ..	158	93	3,859 2 33	1,930 0 0	662 6 10	1,101 5 0	440 0 0	1,541 5 0	115 2 6	929 1 11	14,181 0 0	2 11 10
Southland ..	178	253	6,224 3 29	3,275 0 0	702 2 8	756 0 0	350 2 2	1,106 2 2	142 1 3	711 3 1	25,284 0 0	..
Totals ..	1,204	577	36,963 1 6	24,707 2 4	6,090 11 6	9,084 5 0	6,030 10 4	15,114 15 4	3,916 9 2	10,073 16 8	168,040 19 4	147 1 4

* Exclusive of 105 not reported on. † Endowment lands.

Note.—The figures for the Auckland district are exclusive of 134 tenants, in occupation of 5,690 acres at an annual rental of £458 7s. 10d., who changed their holdings to lease-in-perpetuity tenure.

Table 14.—Return of Special-settlement Associations, under Section 163 of "The Land Act, 1885," and Part IV. of "The Land Act, 1892," to 31st March, 1903, not included in the Special Returns.

District.	Taken up during the Year.			Amount received during the Year.	Total Amount received on Current and Previous Transactions to 31st March, 1903.	Made Freehold.				No. of Selectors required to reside, and actually residing, and Area.		
						During the Year.		From Commencement of System to 31st March, 1903.				
	Number.	Area.	Capital Value per Acre.			No.	Area.	No.	Area.	No. required to reside.	Actually residing.	
											No.	Area.
		A. R. P.	£ s. d.	£ s. d.	£ s. d.		A. R. P.		A. R. P.			A. R. P.
Auckland	29	5,761 0 0	1 0 0	446 3 1	7,497 6 2	..	..	52	5,217 0 25	61	39	6,777 3 22
Hawke's Bay	..	..	..	70 14 0	466 9 5	..	..	54	4,809 3 12	11	2	400 0 0
Taranaki	..	..	..	915 0 3	6,993 17 2	..	..	..	..	72	69	15,720 1 0
Wellington	..	..	..	4,948 12 6	129,790 19 8	9	949 3 30	808	80,593 3 17	415	356	65,508 2 24
Canterbury	..	..	..	165 17 8	1,551 5 2	..	..	..	..	4	5	660 3 11
Otago	..	..	..	121 2 0	1,019 1 4	..	..	..	..	14	9	1,725 0 20
Totals	29	5,761 0 0	1 0 0	6,667 9 6	147,318 18 11	9	949 3 30	914	90,620 3 14	577	480	90,792 2 37
Under Land for Settlements Acts—												
Canterbury	..	..	..	182 8 5	1,216 0 2	..	..	..	..	..	1	232 0 0

District.	Forfeitures during the Year.			Surrenders during the Year.			Net Area held, 31st March, 1903.			Selectors in Arrear, 31st March, 1903.		
	No. of Selectors.	Area.	Amount.	No. of Selectors.	Area.	Amount.	No. of Selectors.	Area.	Annual Rental.	No. of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	31	5,824 1 2	148 0 6	1	200 1 0	4 0 0	90	15,406 1 38	378 17 8	3	500 0 0	8 6 0
Hawke's Bay	..	..	..	..	..	..	14	3,111 0 19	101 16 0	..	..	..
Taranaki	1	151 0 0	10 11 6	..	..	..	73	16,414 2 0	865 11 2	11	2,098 0 0	61 19 6
Wellington	3	720 0 0	32 11 2	5	1,004 0 0	52 2 0	446	80,780 0 5	4,568 17 1	31	6,050 0 0	497 0 0
Canterbury	..	..	..	..	..	..	30	2,539 0 17	164 5 10	1	150 2 0	5 3 6
Otago	..	..	..	..	..	..	14	2,765 1 12	121 2 4	..	..	..
Totals	35	6,695 1 2	191 3 2	6	1,204 1 0	56 2 0	667	121,016 2 11	6,200 10 1	46	8,798 2 0	572 9 0
Under Land for Settlements Acts—												
Canterbury	..	..	..	..	..	..	11	2,114 1 9	162 7 8	1	150 2 25	5 18 8

Table 15.—Return of Homestead Lands: Transactions during the Year ended 31st March, 1903.

District.	Net Area held on 31st March, 1903.		Made Freehold during the Year.		Made Freehold since Commencement of System to 31st March, 1903.	
	No. of Selectors.	Area.	No. of Selectors.	Area.	No. of Selectors.	Area.
		A. R. P.		A. R. P.		A. R. P.
Auckland	1	30 0 0	..	..	463	76,066 3 10
Westland	..	..	..	..	39	1,480 0 0
Otago	2	158 0 37	..	..	19	2,697 3 18
Totals	3	188 0 37	..	..	521	80,244 2 28

Table 16.—Return of Small Grazing-runs taken up during the Year ended 31st March, 1903.

District.	Taken up during the Year.					Forfeitures during the Year.			Surrenders during the Year.		
	Number of Holders.	Area.	Average Area.	Average Rent per Acre.	Annual Rent payable.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
		A. R. P.	A. R. P.	s. d.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland ..	..	..	..	..	..	..	..	..	1	986 0 0	24 13 0
Hawke's Bay	3	9,790 0 0	3,263 1 13	0 3·9	162 18 10	1	2,394 0 0	43 7 10	..	..	..
Taranaki ..	..	..	..	..	..	1	4,220 0 0	74 1 0	..	..	..
Wellington ..	3	1,057 0 0	352 1 13	1 0	52 17 0	1	1,300 0 0	14 19 4	..	..	..
Nelson ..	..	..	..	..	..	..	..	..	..	..	..
Marlborough	11	47,132 2 0	4,284 0 0	0 2·3	455 18 8	..	..	..	1	7,200 0 0	112 10 0
Westland ..	..	..	..	..	..	..	..	..	..	..	..
Canterbury ..	2	9,584 0 0	4,792 0 0	0 7·5	299 10 0	..	..	..	..	..	..
Otago ..	16	25,961 3 14	1,622 2 18	0 5·6	615 1 4	2	3,160 2 29	85 15 10	3	8,082 2 34	162 9 6
Southland ..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	35	93,525 1 14	2,672 0 24·4	0 4·07	1,586 5 10	5	11,074 2 29	218 4 0	5	16,268 2 34	299 12 6
Land for Settlements—											
Hawke's Bay	1	1,177 0 0	1,177 0 0	3 0	176 11 0	..	..	..	..	..	..
Marlborough	2	3,595 2 0	1,798 0 0	0 10·5	157 4 6	..	..	..	..	..	..
Canterbury ..	5	14,471 0 19	2,894 0 35·8	2 5·03	1,750 10 8	..	..	..	..	..	..
Southland ..	1	1,150 0 0	1,150 0 0	1 4	77 0 0	..	..	..	..	..	..
Totals ..	9	20,393 2 19	2,265 3 33	2 1·43	2,161 6 2	..	..	..	..	..	..
Cheviot Estate: Graz'g - farms	1	6 2 0	6 2 0	5 0 0	1 12 6	..	..	..	..	..	..

District.	Exchanges to other Tenures during the Year.			Net Area held on 31st March, 1903.		Annual Rental.	Amount received during the Year.		Arrears on 31st March, 1903.		
	No. of Holders.	Area.	Annual Rental.	Number.	Area.		On the Year's Transactions.	On Past Transactions.	Number.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Auckland ..	..	..	..	9	57,711 2 0	458 3 5	..	467 17 11	2	9,299 0 0	73 1 4
Hawke's Bay ..	..	..	..	71	211,316 1 14	2,169 6 4	81 9 5	2,076 3 0	..	..	..
Taranaki ..	..	..	..	23	25,310 0 0	338 4 7	..	377 4 3	1	1,547 3 20	38 14 0
Wellington ..	1	2,426 0 0	60 13 0	75	68,721 1 4	2,032 16 10	26 8 0	2,129 9 7	6	5,027 0 0	95 10 3
Nelson ..	..	..	..	1	1,088 0 0	10 0 0	..	7 0 0	..	..	..
Marlborough	2	1,264 0 0	15 16 0	111	195,106 0 16	2,553 2 9	232 1 2	2,156 10 0	6	16,765 0 0	105 5 3
Westland ..	..	..	..	..	..	..	..	..	..	..	..
Canterbury ..	..	..	..	50	119,585 1 25	5,331 2 0	149 15 0	5,186 4 2	5	17,748 3 17	251 12 4
Otago ..	..	..	..	266	534,338 1 35	12,461 7 4	296 3 8	11,892 9 0	36	65,230 2 13	834 5 0
Southland ..	..	..	..	18	61,293 0 13	716 4 10	..	709 11 5	1	1,053 0 0	8 4 7
Totals ..	3	3,690 0 0	76 9 0	624	1,274,470 0 27	26,070 8 1	785 17 3	25,002 9 4	57	116,671 1 10	1,406 12 9
Land for Settlements—											
Hawke's Bay ..	..	..	..	10	11,648 2 0	2,771 1 0	88 5 6	739 16 3	3	3,801 3 0	822 8 0
Wellington ..	..	..	..	1	1,030 0 0	171 13 4	..	171 13 4	..	..	..
Marlborough ..	..	..	..	7	19,742 2 0	1,712 13 6	78 12 3	1,194 12 5	..	..	..
Canterbury ..	..	..	..	32	52,851 0 26	7,193 18 2	1,038 3 9	7,238 0 1	3	1,853 0 36	181 18 10
Otago ..	..	..	..	3	3,667 1 30	401 18 10	..	405 3 5	1	1,214 2 23	129 1 0
Southland ..	..	..	..	1	1,150 0 0	77 0 0	28 15 0	..	..	..	..
Totals ..	..	..	..	54	90,089 2 16	12,328 4 10	1,233 16 6	9,749 5 6	7	6,869 2 19	1,133 7 10
Cheviot Estate: Grazing-farms	..	..	..	48	45,977 2 9	6,624 7 2	0 16 3	6,955 5 7	6	6,095 2 7	391 0 8

Table 17.—Number and Area of Pastoral Licenses for the Year ended 31st March, 1903.

District	Taken up during the Year.			Exchanges to other Tenures during the Year.		Forfeitures during the Year.		Expiries during the Year.		Surrenders during the Year.	
	No. of Holders.	Area.	Annual Rental.	No. of Holders.	Area.	Number.	Area.	Number.	Area.	No. of Holders.	Area.
		A. R. P.	£ s. d.		A. R. P.		A. R. P.		A. R. P.		A. R. P.
Auckland	1	5,030 0 0	12 0 0	..	..	..	..	..	..	..	..
Hawke's Bay	..	..	..	..	..	..	..	..	..	..	..
Taranaki	..	..	..	..	..	..	..	..	..	..	..
Wellington	..	..	..	..	..	..	..	..	..	1	3,000 0 0
Nelson	4	3,100 0 0	12 6 8	..	..	..	..	..	..	..	..
Marlborough	4	136,000 0 0	950 0 0	12	14,483 0 0	..	..	5	163,640 0 0	3	77,390 0 0
Westland	67	76,461 2 0	140 1 6	..	..	..	..	22	41,264 0 0	..	..
Canterbury	19	389,347 3 37	6,366 15 0	..	..	..	..	8	11,219 2 13	1	9,700 0 0
Otago	16	140,937 1 21	1,781 19 6	..	..	4	42,205 0 0	11	156,688 2 36	4	16,346 0 0
Southland	18	299,903 0 0	842 11 4	..	..	2	14,100 0 0	15	144,367 0 0	1	7,811 0 0
Totals	129	1,050,779 3 18	10,105 14 0	12	14,483 0 0	6	56,305 0 0	61	517,179 1 9	10	114,247 0 0

District.	Net Area held on 31st March, 1903.			Annual Rental.	Rent paid during the Year.	Holders in Arrear on 31st March, 1903.		
	Number of Holders.	Area, approximately.	Average Holdings.			Number.	Area.	Amount.
		A. R. P.	A. R. P.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Auckland	26	138,246 0 27	5,317 0 26	561 13 10	85 14 0	6	64,084 2 0	481 17 6
Hawke's Bay	17	134,991 2 0	7,940 2 32	713 3 0	825 2 4	..	..	..
Taranaki	..	..	..	..	..	..	..	..
Wellington	22	26,911 0 0	1,223 0 36	193 10 2	189 15 8	..	..	..
Nelson	77	317,060 0 0	4,117 0 0	786 1 6	640 13 6	..	..	..
Marlborough	77	825,485 0 0	10,720 0 0	4,100 9 8	4,175 5 0	1	712 0 0	8 5 0
Westland	126	612,835 2 0	4,863 3 3	730 7 6	709 13 9	17	47,639 0 0	148 0 0
Canterbury	147	3,519,448 3 34	23,941 3 12·7	33,873 19 4	38,158 8 0	..	..	..
Otago	237	4,519,101 1 16	19,067 2 22	28,832 4 2	30,246 17 8	..	..	..
Southland	92	1,416,532 1 0	15,397 0 14	3,657 9 4	3,669 7 11	..	..	..
Totals	821	11,510,611 2 37	14,020 0 37·3	73,448 18 6	78,700 17 10	24	112,435 2 0	638 2 6
Cheviot Estate—								
Canterbury	1	1,642 0 0	1,642 0 0	193 3 8	193 3 8	..	..	..
Land for Settlements—								
Otago (Earnscleugh)	2	953 2 38	476 3 19	121 13 0	122 2 9	..	..	..

Table 18.—Return of Miscellaneous Leases and Licenses, not otherwise enumerated, during the Year ended 31st March, 1903.

District.	Objects for which leased.												Total Area leased during the Year.	Total Annual Rental of the Lands leased during the Year.	Total Amount received during the Year.	Total Area in Occupation on 31st March, 1903.			Lessees in Arrear on 31st March, 1903.;		
	Coal and Mineral.			Timber-cutting, &c.			Flax-cutting.			Miscellaneous.											
	No.	Area.	Annual Rental.	No.	Area.	Amount received.	No.	Area.	Amount received.	No.	Area.	Annual Rental.				No.	Area.	Annual Rental.	No.	Area.	Amount.
		A. R. P.	£ s. d.		Acres.	£ s. d.		Acres.	£ s. d.		A. R. P.	£ s. d.	A. R. P.	£ s. d.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland ..	..	..	1,355 1 9*	..	..	7,040 1 10†	..	..	436 11 6‡	47	14,538 3 26	385 1 0	14,538 3 26	1,665 2 9	26,871 2 7	191	43,945 0 13	1,166 14 6	26	7,610 2 23	161 16 0
Hawke's Bay ..	..	..	..	..	..	..	..	..	..	11	8,590 1 22	135 2 10	8,590 1 22	135 2 10	1,117 3 7	77	52,710 1 10	984 16 3	4	417 1 22	90 5 0
Taranaki ..	..	..	..	..	..	..	..	..	..	7	52 0 19	14 4 6	52 0 19	14 4 6	310 10 10	85	1,148 2 10	398 10 6	6	34 3 38	20 19 11
Wellington ..	..	..	..	..	..	..	..	..	..	34	172 1 35	135 11 8	172 1 35	135 11 8	4,791 11 5	199	79,743 3 13	1,368 2 2	4	1 0 0	5 12 6
Nelson ..	..	..	..	22	3,237	89 3 8	7	300	2 5 0	23	1,211 0 8	23 15 0	4,748 0 8	137 18 8	670 12 11	285	28,586 1 3	746 11 0	..	..	..
Marlborough ..	..	..	..	..	..	..	1	200	6 5 0	11	25,220 0 24	196 15 0	25,420 0 24	196 15 0	1,424 3 6	89	35,472 1 30	864 14 2	3	74 1 0	25 9 2
Westland ..	..	..	..	..	..	..	18	11567	38 15 0	25	4,134 0 27	40 16 5	15,701 0 27	58 16 6	278 0 2	176	29,456 0 6	247 3 5	36	209 3 32	169 15 9
Canterbury ..	..	..	..	20	3,665	238 0 8	..	..	..	72	4,358 2 9	275 7 6	8,023 2 9	470 7 6	3,163 7 4	508	89,245 1 31	3,160 14 11	37	2,074 0 22	182 13 2
Otago ..	..	..	..	18	310	69 19 11	1	40	1 0 0	77	21,448 3 37	151 6 10	21,798 3 37	207 6 6	1,465 18 1	564	88,535 3 21	1,174 7 8	4	20 1 27	5 7 6
Southland ..	2	44 1 37	3 14 6	..	..	..	3	5,520	15 0 0	35	2,249 2 31	162 1 3	7,814 0 28	180 15 9	753 1 10	310	42,288 1 5	802 16 1	..	..	..
Totals ..	2	44 1 37	1,358 16 3	60	7,212	7,437 6 1	30	17627	499 16 6	342	81,976 1 38	1,520 2 1	106,859 3 35	3,202 1 8	40,845 12 3	2,484	491,132 0 22	10,914 10 8	120	10,442 3 4	661 19 0
Land for Settlements—																					
Auckland ..	..	..	..	..	..	5,882 1 8§	..	..	..	6	462 2 27	86 10 0	462 2 27	86 0 0	657 3 0	15	622 1 18	123 0 6	..	..	..
Hawke's Bay ..	..	..	..	..	..	..	..	..	..	4	157 1 17	44 1 4	157 1 17	44 1 4	315 12 8	6	358 2 27	105 18 4	..	..	..
Taranaki ..	..	..	..	..	..	..	..	..	..	1	2 2 32	3 7 6	2 2 32	3 7 6	3 7 6	1	2 2 32	3 7 6	..	..	..
Wellington ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8 6 3	2	44 0 0	8 4 8	..	..	..
Marlborough ..	..	..	..	..	..	..	2	400	98 0 0	4	2,716 0 0	50 7 10	3,116 0 0	50 7 10	539 10 2	15	3,041 1 0	101 2 4	1	100 0 0	7 10 0
Canterbury ..	..	..	..	..	..	..	..	..	..	20	379 1 37	152 14 10	379 1 37	152 14 10	284 18 1	32	947 3 17	226 0 6	1	4 1 15	10 0 6
Otago ..	..	..	..	..	..	..	..	..	..	3	83 2 27	16 5 0	83 2 27	6 5 0	129 7 1	48	762 1 11	71 4 4	8	69 3 27	5 18 9
Southland ..	..	..	..	..	..	..	..	..	..	5	1,688 2 33	61 1 10	1,688 2 33	61 1 10	414 15 1	9	3,076 0 39	113 15 3	..	..	..
Totals ..	..	..	..	..	..	5,882 1 8	2	400	98 0 0	43	5,490 2 13	414 8 4	5,890 2 13	403 18 4	2,352 19 10	128	8,855 1 24	752 13 5	10	174 1 2	23 9 3
Cheviot Estate ..	..	..	..	..	..	..	..	..	..	2	8 0 4	5 0 0	8 0 4	5 0 0	295 10 8	74	1,525 0 11	290 17 3	10	141 3 4	36 14 3

*Royalty on 104,548 tons. †Royalty on two trees and 7,650,915 ft. ‡Royalty on 3,515 tons. §Royalty on three trees, 300 puriri posts, 5 cords firewood, and 8,986,343 ft. timber.

Table 19.—Return of Gross Revenue received during the Year ended 31st March, 1903.

System.	Auckland.	Hawke's Bay	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
Ordinary Crown Lands.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cash lands	3,486 7 3	477 0 0	1,110 19 0	2,125 15 5	1,730 17 1	401 14 10	296 10 0	1,051 9 7	1,179 2 9	635 2 1	12,494 18 0
Perpetual lease made freehold	9,189 13 0	2,802 10 2	5,196 18 7	5,673 17 1	395 14 0	50 0 0	..	2,450 12 2	878 10 0	612 8 2	27,250 3 2
Village-settlement perpetual lease made freehold	..	..	..	..	..	..	..	198 9 0	103 0 0	105 17 6	407 6 6
Occupation with right of purchase made freehold	359 4 0	1,150 0 0	..	1,235 18 1	..	..	..	112 10 0	..	..	2,857 12 1
Deferred payment, rural	634 1 3	63 15 6	984 15 5	190 10 7	1,861 0 4	33 10 8	110 6 2	90 7 1	705 5 4	587 1 3	5,260 13 7
Deferred payment, pastoral	..	..	..	..	..	..	..	644 8 8	475 1 3	133 4 8	1,252 14 7
Perpetual lease and small areas	2,025 14 1	406 9 3	675 5 5	806 12 11	86 8 7	54 2 4	51 16 0	308 6 0	1,831 11 0	622 18 3	6,869 3 10
Occupation with right of purchase	11,517 18 2	4,035 1 6	5,507 2 6	9,662 12 2	656 18 7	516 11 3	470 11 1	99 16 4	922 18 0	1,112 10 9	34,502 0 4
Lease in perpetuity	6,087 17 8	3,196 17 7	3,566 9 4	5,163 18 7	782 19 0	2,445 14 3	262 17 0	4,065 14 11	4,361 7 1	1,830 0 5	31,763 15 10
Agricultural lease	..	..	..	..	..	..	..	..	17 6 6	..	17 6 6
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	330 9 6	..	..	..	9 12 10	31 10 10	..	..	335 8 1	204 9 6	911 10 9
Village settlement, cash	..	..	..	143 16 0	..	..	..	..	..	..	143 16 0
Village settlement, deferred payment	..	..	..	..	..	2 11 6	..	17 6 1	10 10 5	72 14 11	103 2 11
Village settlement, perpetual lease	..	..	..	..	..	1 17 6	..	173 12 1	33 14 5	209 10 10	418 14 10
Village settlement, occupation with right of purchase	..	1 17 6	4 0 3	..	..	..	..	3 4 2	0 12 0	1 11 0	11 4 11
Village settlement, lease in perpetuity	..	49 16 11	8 5 9	..	..	21 19 4	..	6 1 10	143 3 5	337 11 0	566 18 3
Village-homestead special settlement	251 7 11	57 7 0	..	1,753 7 9	..	23 1 0	..	984 1 0	160 18 5	166 7 4	3,396 10 5
Special-settlement association, deferred payment	..	..	..	245 15 3	..	..	..	..	..	..	245 15 3
Special-settlement association, perpetual lease	..	..	..	..	..	..	..	139 2 9	..	..	139 2 9
Special-settlement association, lease in perpetuity	446 3 1	70 14 0	915 0 3	4,702 17 3	..	..	..	26 14 11	121 2 0	..	6,282 11 6
Improved-farm special settlement	357 0 9	264 10 11	1,067 8 7	2,059 9 9	..	..	..	..	..	261 16 1	4,010 6 1
Small grazing-runs	467 17 11	2,157 12 5	377 4 3	2,155 17 7	7 0 0	2,388 11 2	..	5,335 19 2	12,188 12 8	709 11 5	25,788 6 7
Pastoral runs	85 14 0	825 2 4	..	189 15 8	640 13 6	4,175 5 0	709 13 9	38,152 8 0	30,246 17 8	3,669 7 11	78,694 17 10
Coal and mineral leases	1,490 1 9	..	..	..	147 2 0	..	..	50 13 4	269 13 11	52 10 2	2,010 1 2
Prospectors' mining leases	..	..	..	..	..	..	..	4 10 0	..	..	4 10 0
Timber licenses and other leases, and sale of timber	11,228 12 8	403 8 9	2 10 0	678 17 3	694 19 11	31 13 4	2,040 14 10	238 0 8	107 11 6	466 17 4	15,893 6 3
Flax-cutting	436 11 6	..	..	..	2 5 0	13 10 3	38 15 0	..	1 0 0	37 10 0	529 11 9
Miscellaneous leases	895 15 11	1,117 3 7	75 9 10	2,015 15 11	169 3 3	122 17 0	199 2 8	..	849 16 5	..	5,445 4 7
Transfer, lease, and license fees, &c.	689 1 0	163 3 0	171 11 0	265 8 0	103 17 6	109 16 0	134 14 0	324 4 0	335 12 6	152 3 0	2,449 10 0
Rents of reserves	134 6 6	..	235 1 0	532 4 3	262 19 0	729 12 4	40 2 6	2,711 4 0	124 4 11	663 1 8	5,432 16 2
Miscellaneous	923 19 3	65 9 11	62 5 10	1,094 13 8	34 4 0	19 5 6	50 16 11	416 0 0	256 0 8	298 0 1	3,220 15 10
Crown-grant fees	223 18 8	20 9 7	62 2 6	101 16 5	128 19 6	19 4 9	5 0 10	70 4 10	106 5 5	56 5 3	794 7 9
State forests	10,820 19 5	..	..	1,556 7 0	..	526 10 7	..	164 19 4	113 11 4	2,709 11 11	15,891 19 7
Survey liens on Native lands	..	24 7 4	..	127 2 0	..	..	..	..	..	..	151 9 4
Survey fees which do not form part payment of land	..	..	66 12 1	..	57 9 3	..	..	113 13 1	6 0 0	30 1 2	273 15 7
Survey fees which do form part payment of land	27 15 11	..	..	8 14 0	6 0 0	..	..	..	27 13 8	..	70 3 7
Carried forward	62,110 11 2	17,352 17 3	20,089 1 7	42,491 2 7	7,778 3 4	11,718 19 5	4,411 0 9	57,953 13 0	55,912 11 4	15,738 3 8	295,556 4 1

Table 19.—Return of Gross Revenue received during the Year ended 31st March, 1903—*continued.*

System.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	62,110 11 2	17,352 17 3	20,089 1 7	42,491 2 7	7,778 3 4	11,718 19 5	4,411 0 9	57,953 13 0	55,912 11 4	15,738 3 8	295,556 4 1
Land for Settlements.											
Cash	..	30 0 0	..	..	..	..	..	35 17 6	..	..	65 17 6
Lease in perpetuity	5,111 2 2	14,584 16 11	1,040 11 6	6,846 18 1	..	7,062 11 6	437 8 8	37,568 0 6	18,563 0 5	2,520 19 0	93,735 8 9
Lease in perpetuity, village	..	29 11 0	..	..	..	..	..	..	397 12 10	..	427 3 10
Special-settlement associations	..	..	..	..	..	..	..	182 8 5	..	..	182 8 5
Small grazing-runs	..	828 1 9	..	171 13 4	..	1,273 4 8	..	8,276 3 10	405 3 5	28 15 0	10,983 2 0
Pastoral runs..	..	..	..	..	..	..	..	..	122 2 9	..	122 2 9
Miscellaneous	654 0 11	279 2 2	..	8 6 3	..	620 9 9	..	1,973 14 8	1,028 17 0	551 14 8	5,116 5 5
Total	5,765 3 1	15,751 11 10	1,040 11 6	7,026 17 8	..	8,956 5 11	437 8 8	48,036 4 11	20,516 16 5	3,101 8 8	110,632 8 8
Cheviot Estate.											
Lease in perpetuity	..	..	..	..	..	..	..	6,222 5 0	..	..	6,222 5 0
Village homesteads	..	..	..	..	..	..	..	915 7 8	..	..	915 7 8
Grazing-farms	..	..	..	..	..	..	..	6,956 1 10	..	..	6,956 1 10
Pastoral runs..	..	..	..	..	..	..	..	193 3 8	..	..	193 3 8
Miscellaneous leases	..	..	..	..	..	..	..	295 10 8	..	..	295 10 8
Miscellaneous	..	..	..	..	..	..	..	27 0 11	..	..	27 0 11
Total	..	..	..	..	..	..	..	14,609 9 9	..	..	14,609 9 9
Endowment lands	1,435 7 8	414 18 6	401 11 9	1,075 15 3	14,007 7 4	..	22 10 0	1,810 8 10	1,062 18 9	1,550 11 2	21,781 9 3
Thermal-springs Districts Act: Rents	77 4 9	..	..	..	..	..	..	..	..	..	77 4 9
"Native Townships Act, 1895"	35 7 6	173 2 9	..	493 12 7	..	..	..	..	..	..	702 2 10
Rotorua Town Councils Act	1,846 2 0	..	..	..	..	..	..	..	..	..	1,846 2 0
Grand total	71,269 16 2	33,692 10 4	21,531 4 10	51,087 8 1	21,785 10 8	20,675 5 4	4,870 19 5	122,409 16 6	77,492 6 6	20,390 3 6	445,205 1 4

Table 20.—Return of Lands reserved and alienated under Acts, or for Scrip.

District.	During the Year ended 31st March, 1903.				Total Area reserved, granted under Acts, &c., from the Foundation of the Colony to the 31st March, 1903.
	Area reserved for various Purposes.	Area granted under Acts.	Area granted in Satisfaction of Scrip.	Total Area alienated during the Year.	
	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Auckland	13,495 0 39	301 3 3	..	13,797 0 2	3,419,477 1 20
Hawke's Bay ..	2,839 3 3	..	..	2,839 3 3	376,986 0 13
Taranaki	3,273 2 22	40 2 29	..	3,314 1 11	664,590 1 32
Wellington	924 3 17	74 3 17	1 1 0	1,000 3 34	1,299,456 3 33
Nelson	274 3 6	..	..	274 3 6	840,405 3 15
Marlborough ..	7,454 2 14	..	..	7,454 2 14	214,270 2 17
Westland	352 2 20	4,800 0 0	..	5,152 2 20	131,493 0 3
Canterbury	569 0 25	22,054 0 18	..	22,623 1 3	1,542,733 3 11
Otago	1,087 3 5	223 0 9	..	1,310 3 14	697,584 1 19
Southland	39 0 33	..	..	39 0 33	591,485 1 10
Totals	30,311 2 24	27,494 1 36	1 1 0	57,807 1 20	9,778,483 3 13

Table 21.—Forfeitures and Surrenders during the Year ending 31st March, 1903, showing under each Tenure the number of Selectors who have forfeited and surrendered their Holdings, and the Area and Rental of such Holdings.

Tenure.	Forfeitures.			Surrenders.		
	No.	Area.	Annual Rental.	No.	Area.	Annual Rental.
Ordinary Crown Lands.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Deferred payment	3	202 2 0	8 15 2	..	..	..
Perpetual lease	5	1,862 1 12	55 7 8	2	277 2 29	8 5 8
Occupation with right of purchase	85	31,250 2 27	992 0 8	12	2,927 3 24	109 1 10
Lease in perpetuity	51	14,513 0 13	394 8 6	24	14,472 2 21	353 14 6
Mining Districts Occupation Act ..	5	443 0 2	12 5 11	3	296 1 28	8 12 8
Village Settlement,—						
Perpetual lease	2	18 3 27	3 2 0	..	..	..
Occupation with right of purchase	..	..	..	..	0 0 9	..
Lease in perpetuity	17	356 3 14	24 5 2	2	40 0 30	3 7 8
Homestead special settlement ..	15	654 0 12	57 9 5	3	91 1 29	7 0 0
Special-settlement associations ..	35	6,695 1 2	191 3 2	6	1,204 1 0	56 2 0
Improved-farm special settlements	6	456 1 7	55 12 10	1	105 1 0	8 9 4
Small grazing-runs	5	11,074 2 29	218 4 0	5	16,268 2 34	299 12 6
Pastoral runs	6	56,305 0 0	169 19 2	10	114,247 0 0	934 5 10
Miscellaneous	48	6,310 3 27	173 0 0	16	10,318 2 2	97 11 11
Totals	283	130,143 2 12	2,355 13 8	84	160,250 0 6	1,886 3 11
Cheviot Estate.						
Lease in perpetuity .. .	..	..	..	1	41 1 0	6 0 0
Land for Settlements.						
Lease in perpetuity	25	2,592 0 23	618 10 4	13	532 1 17	252 5 0
Village lease in perpetuity ..	2	0 3 16	0 18 0	..	..	..
Miscellaneous	..	..	..	1	0 2 0	2 8 0
Totals	27	2,592 3 39	619 8 4	15	574 0 17	260 13 0
Thermal Springs	1	11 1 13	4 10 0	..	..	..
Grand Totals	311	132,747 3 24	2,979 12 0	99	160,824 0 23	2,146 16 11
Native townships	11	92 2 29	45 7 4	..	..	..
Endowments	1	10 0 0	2 16 0	..	..	..

Table 22.—Return of Land taken up during the Year ended 31st March, 1903, within the Thermal-springs District of Auckland.

Locality.	Taken up during the Year.			Net Area held on 31st March, 1903.			Amount received during the Year.	Selectors in Arrear on 31st March, 1903.		
	Number of Selectors.	Area.	Yearly Rent payable.	Number of Selectors.	Area.	Yearly Rent payable.		Number of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Rotorua	35	304 3 35	287 5 0	282	6,059 3 28	1,939 6 4	1,923 6 9	16	737 1 22	100 15 8

Table 23.—Return of Lands disposed of under "The Native Townships Act, 1895," for the Year ended 31st March, 1903.

Land District.	Name of Township.	Date of Proclamation.	Area of Township.		Date when opened for Sale.	Taken up during the Year.		
			Proclaimed.	Offered.		No.	Area.	Rent payable.
			A. R. P.	A. R. P.			A. R. P.	£ s. d.
Auckland ..	Kaimakau	14 July, 1897	190 0 0	17 0 9	14 Oct., 1898	..	..	..
" ..	Rotoiti ..	8 June, 1900	78 3 0	14 3 0	16 May, 1902	18	5 2 0	50 5 0
" ..	Parawai ..	29 June, 1900	485 0 0	..	Not offered ..	..	..	..
" ..	Puru ..	26 Sept., 1901	23 3 37	..	" ..	..	..	..
" ..	Karewa ..	16 Oct., 1902	55 0 19	..	" ..	..	..	..
Hawke's Bay ..	Te Puia ..	13 July, 1898	497 0 0	166 1 32	15 Feb., 1900	2	13 3 14	8 12 6
" ..	Te Araroa	4 Oct., 1899	383 0 0	206 0 1	14 Dec., 1900	1	5 2 5	3 0 0
" ..	Tuatini ..	14 Sept., 1899	90 0 0	39 0 29	16 Jan., 1901	3	4 2 22	11 7 6
" ..	Waipiro ..	25 Oct., 1900	497 1 0	..	Not offered ..	..	..	..
Wellington ..	Pipiriki ..	5 Aug., 1896	366 0 0	254 3 30	27 July, 1897	2	2 0 37	3 15 0
" ..	Tokaanu ..	11 Mar., 1897	490 0 0	198 0 0	17 June, 1898	1	11 3 22	4 0 0
" ..	Potaka ..	26 July, 1899	138 0 0	80 2 6	9 May, 1900	1	5 3 34	6 5 0
" ..	Parata	14 Aug., 1899 29 Aug., 1899	49 0 18	33 0 4	11 Sept., 1900	2	2 3 5	5 15 0
" ..	Hokio ..	1 Aug., 1902	39 3 30	19 2 25	11 Mar., 1903	7	2 3 30	3 16 0
Totals ..	..	..	..	..	..	37	55 1 9	96 16 0

Land District.	Name of Township.	Net Area held on 31st March, 1903.			Forfeitures during the Year.			Rent paid during Year.
		No.	Area.	Rent payable.	No.	Area.	Annual Rent.	
			A. R. P.	£ s. d.		A. R. P.	£ s. d.	£ s. d.
Auckland ..	Kaimakau	..	..	..	..	..	..	..
" ..	Rotoiti ..	18	5 2 0	50 5 0	..	..	..	35 7
" ..	Parawai ..	..	..	..	..	..	..	..
" ..	Puru ..	..	..	..	..	..	..	..
" ..	Karewa ..	..	..	..	..	..	..	..
Hawke's Bay ..	Te Puia ..	14	88 3 29	46 15 0	..	..	..	28 8 9
" ..	Te Araroa	24	106 2 19	69 15 6	..	..	..	71 0 3
" ..	Tuatini ..	12	25 2 22	79 7 6	..	..	..	73 13 7
" ..	Waipiro ..	..	..	..	..	..	..	..
Wellington ..	Pipiriki ..	45	163 0 36	156 6 2	4	74 2 11	18 10 0	148 3 0
" ..	Tokaanu ..	28	108 3 0	216 8 8	3	6 3 4	10 17 4	175 13 1
" ..	Potaka ..	25	55 0 18	82 5 6	2	7 1 5	6 10 0	73 5 3
" ..	Parata ..	16	27 0 13	81 4 0	2	4 0 9	9 10 0	94 9 3
" ..	Hokio ..	7	2 3 30	3 16 0	..	..	..	2 2 0
Totals ..	..	189	583 3 7	786 3 4	11	92 2 29	45 7 4	702 2 8

Table 24.—Return showing the Area of Bush felled on Lands sold or leased by the Crown from 1st April, 1895, to 31st March, 1903.

District.	Felled during the Year on Lands taken up during the Year 1901-1902.	Felled during the Year on Lands taken up in Previous Years.	Total felled at 31st March, 1902.	Total felled at 31st March, 1903.
	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Auckland	2,000 0 0	5,317 0 0	67,543 0 0	74,860 0 0
Hawke's Bay	410 0 0	8,614 0 0	88,124 0 0	97,148 0 0
Taranaki	780 0 0	1,500 0 0	25,545 0 0	27,825 0 0
Wellington	1,594 0 0	17,321 0 0	594,309 0 0	613,224 0 0
Marlborough	407 0 0	4,200 0 0	77,260 0 0	81,867 0 0
Westland	500 0 0	750 0 0	46,270 0 0	47,520 0 0
Otago..	25 0 0	245 0 0	22,248 0 0	22,518 0 0
Southland	50 0 0	50 0 0	5,693 0 0	5,793 0 0
Totals	5,766 0 0	37,997 0 0	926,992 0 0	970,755 0 0

Table 25.—Statement of the Number of Selectors on the Books of the Lands and Survey Department on 31st March, 1903.

District.	Deferred Payment.		Perpetual Lease.		Occupation with Right of Purchase.		Lease in Perpetuity.				Agricultural Lease.	Occupation Lease under "The Mining Districts Land Occupation Act, 1894."		Village Settlement, Deferred Payment.	Village Settlement, Perpetual Lease.	Village Settlement, Occupation with Right of Purchase.	Village Settlement, Lease in Perpetuity.		
	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Cheviot Estate.	Land for Settlements Acts.	Endowment Lands.		Crown Lands.	Endowment Lands.				Crown Lands.	Land for Settlements Acts.	Endowment Lands.
Auckland ..	72	..	314	3	1,814	5	1,088	..	177	22	1	154	..	..	..	..	..	..	..
Hawke's Bay ..	3	..	21	20	207	..	177	..	256	1	..	..	..	..	..	8	43	16	..
Taranaki ..	17	..	27	..	325	..	304	..	15	..	..	..	..	..	..	16	12	..	..
Wellington ..	11	..	52	..	618	..	459	..	194	..	..	..	..	..	..	1	..	..	..
Nelson ..	255	2	24	..	197	..	176	..	..	..	..	8	58	..	..	..	..	..	..
Marlborough ..	6	..	10	..	40	..	206	..	142	..	..	19	..	2	1	..	8	..	..
Westland ..	1	..	7	..	96	..	62	..	21	..	..	..	..	..	..	..	..	..	..
Canterbury ..	13	..	41	..	14	..	225	119	842	69	..	..	..	8	33	5	15	..	..
Otago ..	45	1	251	16	224	..	638	..	379	9	16	158	..	3	17	5	119	30	4
Southland ..	62	7	84	30	239	1	234	..	84	26	..	44	..	10	101	4	263	..	..
Totals ..	485	10	831	69	3,774	6	3,569	119	2,110	127	17	383	58	23	153	38	460	46	4

District.	Village-homestead Special Settlement.			Special-settlement Associations.		Improved-farm Special Settlements.		Small Grazing-runs.			Grazing-farms: Cheviot Estate.	Pastoral.				Miscellaneous.						Total.
	Crown Lands.	Cheviot Estate.	Endowment Lands.	Crown Lands.	Land for Settlements Acts.	Complete.	Not registered.	Crown Lands.	Land for Settlements Acts.	Endowment Lands.		Crown Lands.	Cheviot Estate.	Land for Settlements Acts.	Endowment Lands.	Homestead.	Crown Lands.	Cheviot Estate.	Land for Settlements Acts.	Endowment Lands.	Thermal Springs, Rotorua.	Native Towns.	
Auckland ..	50	..	..	90	..	49	..	9	..	12	..	26	..	..	..	1	191	..	15	4	282	18	4,397
Hawke's Bay	30	..	..	14	..	7	10	71	10	3	..	17	..	..	..	..	77	..	6	2	..	50	1,049
Taranaki ..	..	..	..	73	..	126	20	23	..	..	..	..	..	..	..	..	85	..	1	14	..	..	1,058
Wellington	572	..	..	446	..	168	28	75	1	1	..	22	..	..	..	..	199	..	2	5	..	121	2,975
Nelson ..	..	..	20	..	..	..	..	1	..	..	..	77	..	..	..	..	285	..	..	210	..	..	1,313
Marlborough	13	..	..	..	..	..	..	111	7	..	..	77	..	..	..	..	89	..	15	..	..	..	746
Westland ..	..	..	..	..	..	..	..	..	..	..	..	126	..	..	..	..	176	..	..	3	..	..	492
Canterbury	232	72	51	30	11	..	..	50	32	..	48	147	1	..	..	..	508	74	32	25	..	..	2,697
Otago ..	77	..	..	14	..	..	..	266	3	10	..	237	..	2	2	2	564	..	48	2	..	..	3,142
Southland	53	..	..	..	..	44	..	18	1	3	..	92	..	..	5	..	310	..	9	1	..	..	1,725
Totals ..	1027	72	71	667	11	394	58	624	54	29	48	821	1	2	7	3	2,484	74	128	266	282	189	19,594

Table 26.—Statement showing the Total Number of Crown Tenants, with Area selected or held, the Yearly Rent payable and Rent in Arrear on 31st March, 1903.

Tenure.	Total Number of Tenants.	Total Area held by such Tenants.	Total Yearly Rental or Instalment payable.	Total Amount of such Rents or Payments in Arrear.
		A. R. P.	£ s. d.	£ s. d.
Ordinary Crown Lands.				
Deferred payment	485	79,664 1 37	3,774 16 8	133 17 5
Perpetual lease	831	161,578 0 11	6,235 19 3	296 14 9
Occupation with right of purchase	3,774	1,016,626 1 31	36,997 13 4	2,235 6 3
Lease in perpetuity	3,569	1,052,365 2 9	33,976 6 2	1,678 8 11
Agricultural lease	17	555 1 37	30 19 3	0 1 3
Homestead	3	188 0 37	..	..
Mining Districts Land Occupation Act	383	15,945 2 9	940 8 4	5 18 6
Village settlements—				
Deferred payment	23	443 1 36	44 15 10	..
Perpetual lease	153	2,427 1 37	369 19 8	26 6 6
Occupation with right of purchase	38	30 1 4	13 1 2	0 2 3
Lease in perpetuity	460	6,537 0 12	620 5 0	17 12 5
Village-homestead special settlements—				
Perpetual lease	335	5,759 1 7	848 2 11	128 8 6
Lease in perpetuity	692	17,316 3 24	2,453 13 0	203 10 1
Special-settlement associations—				
Deferred payment	7	726 1 20	8 1 4	..
Perpetual lease	23	1,932 3 31	130 13 6	5 3 6
Lease in perpetuity	637	118,357 1 0	6,061 15 3	567 5 6
Improved-farm special settlements	452	48,315 2 31	3,206 2 8	1,188 8 11
Small grazing-runs	624	1,274,470 0 27	26,070 8 1	1,406 12 9
Pastoral runs	821	11,510,611 2 37	73,448 18 6	638 2 6
Miscellaneous leases	2,484	491,132 0 22	10,914 10 8	661 19 0
Totals	15,811	15,804,984 2 19	206,146 10 7	9,193 19 0
Cheviot Estate.				
Lease in perpetuity	119	24,403 1 9	6,456 5 0	189 18 0
Village-homestead special settlement	72	2,480 1 0	870 0 4	..
Grazing-farms	48	45,977 2 9	6,624 7 2	391 0 8
Pastoral runs	1	1,642 0 0	193 3 8	..
Miscellaneous	74	1,525 0 11	290 17 3	36 14 3
Totals	314	76,028 0 29	14,434 13 5	617 12 11
Land for Settlements Acts.				
Lease in perpetuity	2,110	346,146 2 14	104,113 7 7	9,325 3 6
Lease in perpetuity, village	46	448 1 36	341 1 10	9 1 10
Special-settlement associations	11	2,114 1 9	162 7 8	5 18 8
Small grazing-runs	54	90,089 2 16	12,328 4 10	1,133 7 10
Pastoral runs	2	953 2 38	121 13 0	..
Miscellaneous	128	8,855 1 24	752 13 5	23 9 3
Totals	2,351	448,608 0 17	117,819 8 4	10,497 1 1
Thermal Springs (Rotorua)	282	6,059 3 28	1,939 6 4	100 15 8
Grand totals	18,758	16,335,680 3 13	340,339 18 8	20,409 8 8
Endowments	647	164,860 2 34	8,107 3 8	428 18 11
Native townships	189	583 3 7	786 3 4	23 13 6

Table 27.—Endowments: Lands taken up during the Year ended 31st March, 1903.

District.	Nature of Endowments.	Cash Lands.			Small Grazing-runs.			Lease in Perpetuity.			Occupation Leases under Mining Districts Land Occupation Act.			Miscellaneous Leases.		
		Number of Purchasers.	Area.	Amount realised.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
			A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland	Franklin Agricultural Endowment ..	1	4 3 20	91 14 9	..	..	..	..	..	..	..	..	..	..	..	..
	Museum	5	1 2 0	10 3 0	..	..	..	..	..	..	..	..	..	..	..	..
	" *	1	76 3 0	69 6 0	..	..	..	..	..	..	..	..	..	..	..	..
	University	..	..	..	..	..	..	1	100 0 0	2 0 0	..	..	..	..	..	..
Hawke's Bay	Educational	..	..	..	..	..	..	..	..	..	..	..	..	2	246 1 14	48 10 0
Taranaki	University†	..	..	..	..	..	..	..	..	..	..	..	..	4	1,350 2 4	242 6 8
Wellington ..	Victoria College	..	..	..	1	1,780 0 0	44 10 0	..	..	..	..	..	..	..	..	..
	Wanganui Harbour Board	..	..	..	..	..	..	..	..	..	..	..	..	1	1 3 28	5 15 0
Nelson	..	..	..	..	..	..	..	..	..	..	6	51 2 36	5 3 0	..	..	..
Canterbury ..	Ellesmere	..	..	..	..	..	..	2	62 0 30	7 9 4	..	..	..	3	23 0 0	4 14 0
	University	..	..	..	..	..	..	..	..	..	..	..	..	1	1,480 2 8	195 0 0
Otago	Clutha Trust	..	..	..	1	861 3 6	16 3 4	..	..	..	..	..	..	1	309 2 13	3 17 6
Southland	Educational‡	..	..	..	..	..	..	3	930 3 9	43 16 4	..	..	..	..	..	..
Totals	..	7	83 0 20	171 3 9	2	2,641 3 6	60 13 4	6	1,092 3 39	53 5 8	6	51 2 36	5 3 0	12	3,411 3 27	500 3 2

* Perpetual lease acquired † Expired leases relet. ‡ Exchanged from perpetual lease.

Table 28.—ENDOWMENTS: RETURN OF REVENUE received during the Year ended 31st March, 1903.

Tenure.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cash lands	118 9 9	..	..	..	..	..	..	..	..	..	118 9 9
Perpetual lease made freehold	69 6 0	..	..	..	..	..	..	..	..	..	69 6 0
Deferred payments	..	..	..	1,067 8 3	9 8 5	..	..	..	12 5 6	302 7 5	1,391 9 7
Perpetual lease and small areas	27 11 2	226 5 9	..	..	..	..	..	..	154 10 1	503 19 1	912 6 1
Occupation with right of purchase	11 6 10	..	..	..	..	..	..	..	..	12 0 0	23 6 10
Lease in perpetuity	46 7 3	21 5 9	..	..	..	..	..	1,270 12 1	76 11 8	170 1 11	1,584 18 8
Village-homestead special settlement	..	..	..	..	17 5 3	..	..	252 10 9	..	..	269 16 0
Mining Districts Land Occupation Act	..	..	..	..	65 11 0	..	..	..	..	..	65 11 0
Village lease in perpetuity	..	..	..	..	..	..	..	..	16 1 0	..	16 1 0
Small grazing-runs	268 14 5	133 2 0	..	..	..	..	..	..	309 3 0	298 17 6	1,009 16 11
Pastoral runs	..	..	..	..	..	..	..	..	460 10 0	256 10 3	717 0 3
Coal and mineral leases	..	..	..	..	1,358 0 0	..	..	..	..	..	1,358 0 0
Timber and coal licenses and royalties	887 12 3	..	..	..	11,700 8 11	..	..	..	..	..	12,588 1 2
Miscellaneous leases	6 0 0	34 5 0	..	8 7 0	2 0 0	..	..	287 6 0	33 17 6	6 15 0	378 10 6
Rents of reserves	..	..	401 11 9	..	854 13 9	..	22 10 0	..	..	..	1,278 15 6
Totals	1,435 7 8	414 18 6	401 11 9	1,075 15 3	14,007 7 4	..	22 10 0	1,810 8 10	1,062 18 9	1,550 11 2	21,781 9 3

Table 29.—Summary of Cheviot Estate Receipts for the Financial Year ending 31st March, 1903.

	£ s. d.	£ s. d.
Rents, lease in perpetuity	6,222 5 0	
" " V.H.S.S.	915 7 8	
" grazing-farms	6,956 1 10	
" miscellaneous and pastoral leases	489 18 4	
		14,583 12 10
Timber-cutting royalties		6 19 5
Interest on advance to Cheviot Dairy Factory Company		..
Sale of firebricks		18 17 6
		£14,609 9 9

Table 30.—Cheviot Estate: Return of Outlay and Income at 31st March, 1903.

Dr.	Outlay.	£ s. d.
Purchase-money		260,220 0 0
Roads-construction		45,158 10 0
Surveys		6,411 9 11
Landing-service, administration, and contingencies to 31st March, 1902		12,048 9 8
" administration, and contingencies 1st April, 1902, to 31st March, 1903		170 10 0
Interest to 31st March, 1902		78,392 1 11
Interest, 1st April, 1902, to 31st March, 1903		8,866 2 6
Cheese-factory		900 0 0
Total		£412,167 4 0
Cr.	Income.	
Cash—		
Freehold disposed of		38,755 6 4
Rents and royalties to 31st March, 1902		118,730 2 10
" 1st April, 1902, to 31st March, 1903		14,609 9 9
Interest to 31st March, 1902		1,466 10 11
Interest, 1st April, 1902, to 31st March, 1903		..
Shipping and port charges		3,828 3 11
Rents and interest unpaid at 31st March, 1903		3,320 16 7
Balance		231,456 13 8
Total		£412,167 4 0

Table 31.—Summary of Arrears due to the Crown on 31st March, 1903.

Tenure.	Number of Selectors.	Area.	Amount in Arrear.
		A. R. P.	£ s. d.
Ordinary Crown Lands.			
Deferred payment	23	3,301 3 15	133 17 5
Perpetual lease	52	10,652 2 12	296 14 9
Occupation with right of purchase	266	73,333 1 1	2,235 6 3
Lease in perpetuity	258	62,603 0 31	1,678 8 11
Agricultural lease	1	6 0 0	0 1 3
Mining Districts Land Occupation Act	5	159 1 0	5 18 6
Village settlements on perpetual lease	10	208 3 17	26 6 6
Village settlements on occupation with right of purchase	1	0 3 0	0 2 3
Village settlements on lease in perpetuity	20	347 3 9	17 12 5
Village-homestead special settlements	71	1,433 2 36	331 18 7
Special-settlement associations	46	8,798 2 0	572 9 0
Improved farms	91	10,272 3 12	1,188 8 11
Small grazing-runs	57	116,671 1 10	1,406 12 9
Pastoral runs	24	112,435 2 0	638 2 6
Miscellaneous (not otherwise specified)	120	10,442 3 4	661 19 0
Total	1,045	410,668 0 27	9,193 19 0

Tenure.	Number of Selectors.	Area.	Amount in Arrear.
		A. R. P.	£ s. d.
Cheviot Estate.			
Lease in perpetuity	6	1,391 3 26	189 18 0
Grazing-farms	6	6,095 2 7	391 0 8
Miscellaneous	10	141 3 4	36 14 3
Total	22	7,629 0 37	617 12 11
Land for Settlements.			
Lease in perpetuity	259	54,565 2 26	9,325 3 6
Village lease in perpetuity	2	20 0 2	9 1 10
Small grazing-runs	7	6,869 2 19	1,133 7 10
Special-settlement associations	1	150 2 25	5 18 8
Miscellaneous	10	174 1 2	23 9 3
Total	279	61,780 0 34	10,497 1 1
Thermal Springs, Rotorua	16	737 1 22	100 15 8
Grand total	1,362	480,815 0 0	20,409 8 8
Native Townships	5	69 2 5	23 13 6

IMPROVED-FARM SETTLEMENTS.

Table 32.—RETURN showing POSITION and TRANSACTIONS in Improved-farm Settlements from their Commencement to 31st March, 1903.

Name of Settlement.	Areas.	Dates of *Gazette* Proclamation.	Number of Sections in each Settlement.	Number of Settlers remaining in Occupation on 31 Mar., '03.	Number of Persons resident.	Area occupied.	Area felled.	Areas grassed.	Number of Cattle on Allotments.	Roads felled and formed or partially formed during the Year.	Amount paid to Selectors for Improvements: Past and Present Transactions.			Rent and Interest paid by Selectors.		Value of Improvements now on the Land, including that paid for by Government.
											For Houses.	For Bush-felling and other Works.	Total Payments.	During the Year ending 31 Mar., '03.	From Commencement of System.	
Auckland—	Acres.					A. R. P.	Acres.	Acres.		Mls. ch.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rau-a-moa	1,410	1896, p. 655	10	10	39	1,424 2 32	821	765	206	..	237 16 2	1,661 15 5	1,899 11 7	114 17 9	401 13 11	2,236 9 0
Paemako	1,412	1897, p. 5	13	11	38	1,343 2 38	57	450	174	..	337 8 0	372 6 8	709 14 8	115 17 2	251 1 7	1,175 19 0
Mangatu	1,100	1895, p. 863	10	9	41	891 0 0	705	534	70	..	184 8 3	1,466 17 8	1,651 5 11	55 15 11	265 14 4	1,790 19 0
Awatuna	1,000	1895, p. 863	10	2	12	199 2 0	408	100	27	..	122 2 11	989 12 11	1,111 15 10	25 6 8	91 16 3	280 0 0
Katui	1,000	1895, p. 863	10	5	17	491 0 0	380	201	108	..	165 11 4	901 0 0	1,066 11 4	11 0 4	146 8 10	1,027 1 0
Rangatira	1,000	1895, p. 863	10	2	8	200 0 0	100	52	19	..	45 18 4	146 8 0	192 6 4	10 1 6	39 13 2	265 9 3
Tawai	411	1896, p. 1541	19	10	10	142 1 27	148	89	9	..	102 10 0	487 0 8	589 10 8	10 12 8	48 8 11	560 16 0
Totals ..	7,333	..	82	49	165	4,692 1 17	2,619	2,191	613	..	1,195 15 0	6,025 1 4	7,220 16 4	343 12 0	1,244 17 0	7,336 13 3
Hawke's Bay—																
Waikopiro	1,880	1895, p. 79	15	15	101	1,771 0 0	1,338	1,383	473	..	139 14 4	1,708 5 0	1,847 19 4	247 2 4	1,440 8 8	6,035 0 0
Akitio	145	1896, p. 655	2	2	..	145 0 0	145	145	..	..	20 0 0	152 4 5	172 4 5	17 8 7	78 10 2	..
Totals ..	2,025	..	17	17	101	1,916 0 0	1,483	1,528	473	..	159 14 4	1,860 9 5	2,020 3 9	264 10 11	1,518 18 10	6,035 0 0
Taranaki—																
Ngaire	170	7 Feb., 1895	16	15	41	159 2 30	166	166	117	..	262 10 0	311 7 9	573 17 9	42 3 4	267 5 5	1,243 17 9
Tongaporutu ..	2,500	4 Oct., 1894	16	4	29	452 2 0	529	529	108	..	200 0 0	922 13 11	1,122 13 11	49 8 10	284 12 0	1,626 13 11
Mangaere	482	10 Jan., 1895	13	10	44	444 0 2	460	460	210	..	132 10 0	574 2 0	706 12 0	55 0 1	319 2 3	1,931 12 0
Uruti	697	10 Jan., 1895	7	3	28	497 0 0	494	494	255	..	79 0 0	817 7 0	896 7 0	47 3 7	285 11 0	1,636 7 0
Taumatatahi ..	430	22 Oct., 1894	4	4	34	428 2 0	288	288	135	..	70 0 0	281 14 2	351 14 2	28 19 6	159 8 9	1,171 14 2
Whangamomona ..	10,543	30 Jan., 1896	111	56	190	7,463 1 11	5,205	5,205	1,489	..	827 10 0	6,859 3 5	7,686 13 5	609 19 10	2,232 11 7	16,265 18 5
Poti	108	4 July, 1895	8	8	27	108 0 0	106	106	74	..	120 0 0	173 15 3	293 15 3	39 19 5	199 17 9	1,047 5 3
Maata	30	4 July, 1895	3	2	2	30 0 0	27	27	30	..	50 0 0	58 1 8	108 1 8	7 18 10	40 17 5	192 1 8
Huiroa	668	29 Nov., 1894	9	7	30	571 3 16	522	522	270	..	93 10 0	587 3 0	680 13 0	56 6 4	259 12 10	1,754 13 0
Okau	1,889	5 Mar., 1896	19	4	20	388 2 14	506	506	75	0 68	137 10 0	1,010 1 6	1,147 11 6	22 4 3	115 17 8	1,377 11 6
Derwent	1,369	5 Mar., 1896	13	6	25	698 0 0	596	596	200	0 6	192 10 0	1,123 11 5	1,316 1 5	56 3 11	324 16 10	2,201 1 5
Nihoniho	3,190	15 Aug., 1895 27 Nov., 1902	23	23	16	3,190 3 0	173	173	130	..	..	203 1 11	203 1 11	13 16 8	71 15 2	437 1 11
Greenlands	603	17 Sept., 1896	6	2	6	199 1 20	236	236	60	1 26	50 0 0	629 0 3	679 0 3	16 16 10	106 17 0	756 5 3
Mangapoua	702	27 Oct., 1897	7	2	7	200 0 0	108	108	80	..	30 0 0	286 5 6	316 5 6	21 7 2	54 7 6	486 5 6
Totals ..	23,381	..	255	146	499	14,831 2 13	9,416	9,416	3,233	2 20	2,245 0 0	13,837 8 9	16,082 8 9	1067 8 7	4,722 13 2	32,128 8 9
Wellington—																
Pemberton	1,390	20 Dec., 1894 10 Sep., 1897 2 Feb., 1903	13	12	68	1,209 3 13	1,075	1,075	780	..	227 0 0	1,828 10 1	2,055 10 1	266 5 9	1,507 6 6	4,392 15 0
Kawatau	1,000	31 Oct., 1894	12	11	76	916 2 23	716	716	1,204	..	230 0 0	959 14 6	1,189 14 6	139 18 9	593 4 1	3,761 10 0
Hautapu	1,204	31 Oct., 1894	12	12	53	1,074 0 0	501	538	440	..	265 0 0	859 2 10	1,124 2 10	122 13 6	520 12 11	2,279 9 8
Masterton-Tenui ..	1,168	18 Sep., 1894 24 Sep., 1896	12	12	47	1,163 0 0	654	637	736	..	220 0 0	627 0 1	847 0 1	164 10 8	614 6 4	3,281 6 4
Akitio	4,880	20 Apr., 1896 21 Dec., 1896 20 Apr., 1898 23 Aug., 1898 24 May, 1899	44	36	119	3,810 2 0	2,638	2,586	3,584	..	569 0 0	2,998 18 5	3,567 18 5	358 10 5	1,196 13 2	7,585 3 2

IMPROVED-FARM SETTLEMENTS.

Table 32.—RETURN showing POSITION and TRANSACTIONS in Improved-farm Settlements from their Commencement to 31st March, 1903—*continued*.

Name of Settlement.	Areas.	Dates of *Gazette* Proclamation.	Number of Sections in each Settlement.	Number of Settlers remaining in Occupation on 31 Mar., '03.	Number of Persons resident.	Area occupied.	Area felled.	Areas grassed.	Number of Cattle on Allotments.	Roads felled and formed or partially formed during the Year.	Amount paid to Selectors for Improvements: Past and Present Transactions.			Rent and Interest paid by Selectors.		Value of Improvements now on the Land, including that paid for by Government.
											For Houses.	For Bush-felling and other Works.	Total Payments.	During the Year ending 31 Mar., '03.	From Commencement of System.	
Wellington—*continued*.	Acres.					A. R. P.	Acres.	Acres.		Mls. ch.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£. s. d.	£ s. d.
Horopito	2,000	2 Oct., 1894	12	3	4	300 0 0	103	103	87	..	60 0 0	317 6 4	377 6 4	21 0 7	94 15 5	576 0 0
Otaihape	200	19 Dec., 1894	10	10	53	204 1 10	197	197	135	..	259 0 0	405 12 0	664 12 0	52 2 4	294 0 9	1,475 3 3
Ohutu	2,881	7 Apr., 1896 27 Dec., 1899	34	29	123	2,319 3 26	1,750	1,613	930	..	277 0 0	1,578 10 11	1,855 10 11	244 19 8	815 10 10	6,927 2 7
Otuarei	1,500	7 Apr., 1896 16 Nov., 1897 7 Apr., 1898 2 Dec., 1898 27 Mar., 1900	11	7	29	1,372 2 0	185	215	1,904	..	110 0 0	286 4 5	396 4 5	61 17 11	225 4 2	900 2 10
Rongoiti	1,087	1 Sept., 1896 10 Nov., 1897 13 Dec., 1897 19 Mar., 1902	8	5	23	492 2 0	364	330	972	..	87 10 0	376 13 1	464 3 1	79 16 9	220 1 9	1,362 2 3
Mangatiti	5,506	21 Dec., 1896 14 Oct., 1897 15 Aug., 1898 19 Apr., 1899 17 Sept., 1901 28 Oct., 1901	37	22	75	2,984 3 38	1,921	1,712	714	..	196 15 0	2,803 14 6	3,000 9 6	428 14 11	989 1 1	5,280 11 6
Oraukura	1,819	24 May, 1899	10	8	54	1,412 1 0	443	443	174	..	141 0 0	335 17 2	476 17 2	107 1 0	137 16 8	1,704 3 2
Sommerville ..	1,600	24 May, 1899	8	1	39	200 0 0	206	223	250	..	101 0 0	164 17 3	265 17 3	11 17 6	47 0 0	1,169 10 3
Lands allotted but not registered on books.																
Pemberton ..	..	..	..	1	..	100 0 0	..	..	..	..	..	..	..	..	..	..
Taihape Extension	567	19 Sep., 1901	6	6	8	567 1 16	138	108	16	..	..	60 0 0	60 0 0	..	..	377 4 0
Ohutu	..	..	..	5	..	575 0 0	..	..	..	..	..	..	..	..	..	..
Mangatiti ..	..	..	..	6	..	859 0 0	..	..	..	..	..	..	..	..	..	..
Oraukura ..	..	..	..	2	..	406 3 0	..	..	..	..	..	..	..	..	..	..
Sommerville ..	..	..	..	7	..	1,400 0 0	..	..	..	..	..	..	..	..	..	..
Kauaekeke ..	200	19 Sept., 1901	1	1	..	200 0 0	..	..	..	..	..	..	..	..	..	..
Totals ..	27,002	..	230	196	771	21,568 2 6	10,891	10,496	11,926	..	2,743 5 0	13,602 1 7	16,345 6 7	2,059 9 9	7,255 13 8	41,072 4 0

IMPROVED-FARM SETTLEMENTS.

Table 32.—RETURN showing POSITION and TRANSACTIONS in Improved-farm Settlements from their Commencement to 31st March, 1903—*continued*.

Name of Settlement.	Areas.	Dates of *Gazette* Proclamation.	Number of Sections in each Settlement.	Number of Settlers remaining in Occupation on 31 Mar., '03.	Number of Persons resident.	Area occupied.	Area felled.	Areas grassed.	Number of Cattle on Allotments.	Roads felled and formed or partially formed during the Year.	Amount paid to Selectors for Improvements: Past and Present Transactions.			Rent and Interest paid by Selectors.		Value of Improvements now on the Land, including that paid for by Government.
											For Houses.	For Bush-felling and other Works.	Total Payments.	During the Year ending 31 Mar., '03.	From Commencement of System.	
Southland—						A. R. P.	Acres.	Acres.		Mls. ch.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Haldane	2,200	1895, p. 176	24	16	59	2,087 0 18	1,272	1,253	366	0 6	394 10 0	4,613 4 1	5,007 14 1	133 17 7	260 6 5	3,527 13 8
Waikawa	1,768	1891, p. 585; 1895, p. 1222; 1895, p. 1445	16	5	30	977 1 29	723	714	65	0 5½	229 12 0	3,581 4 2	3,810 16 2	16 1 9	42 9 9	1,470 2 3
Papatotara	1,480	1894, p. 1618	15	15	60	1,627 3 23	718	770	112	0 38¼	67 19 0	2,565 14 1	2,633 13 1	69 11 3	155 18 4	1,941 18 8
Moturimu	670	1895, p. 1526	14	8	46	614 3 5	172	174	36	1 40	210 0 0	395 11 10	605 11 10	42 5 6	87 6 10	1,003 0 0
Totals	6,118	..	69	44	195	5,307 0 35	2,885	2,911	579	2 9¾	902 1 0	11,155 14 2	12,057 15 2	261 16 1	546 1 4	7 942 14 7
Grand totals ..	65,859	..	653	452	1,731	48,315 2 31	27,294	26,542	16,824	4 29¾	7,245 15 4	46,480 15 3	53,726 10 7	3,996 17 4	15,288 4 0	94,515 0 7

Table 33 (Part I.).—RETURN of LANDS acquired and leased under the Land for Settlements Acts up to the Year which ended 31st March, 1903.

Name of Settlement.	Date when Land opened for Selection.	Area acquired, including ascertained Surplus or Deficiency.	Area occupied by Roads and Reserves unlet.	Area of Land unlet, including Land forfeited, surrendered, or resumed and not relet, and also Land not yet offered for Selection.	New Selections and Addition to Holdings during the Year.			Total Lands leased at Date.		
					No. of Selectors.	Area.	Annual Rent payable.	No. of Selectors.	Area.	Annual Rent now payable.
		A. R. P.	A. R. P.	A. R. P.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Auckland—										
Opouriao	Feb. 12, 1896..	7,604 0 0	433 2 20	629 2 0	5	283 1 0	9 11 2	64	6,540 3 20	1,323 9 2
Okauia	Feb. 21, 1898..	5,920 0 0	1,595 2 0	..	..	..	..	9	4,324 2 0	286 17 10
Rangiatea	June 22, 1898..	4,004 0 0	89 3 0	..	..	..	..	19	3,914 1 0	712 8 2
Karapiro	Oct. 21, 1898..	2,384 0 9	48 2 31	63 1 0	..	..	..	16	2,222 0 18	428 10 8
Fencourt	Mar. 12, 1900..	7,105 3 5	62 2 26	..	2	690 0 0	162 5 4	36	7,043 0 19	1,772 15 0
Whitehall	April 9, 1900..	8,959 0 0	5 0 0	..	..	..	..	8	8,954 0 0	383 14 6
Cradock Hamlet	April 22, 1902..	33 0 9	3 3 14	22 0 25	3	7 0 10	17 14 0	3	7 0 10	17 14 0
Hatana Hamlet	April 22, 1902..	451 1 34	42 3 9	377 1 6	7	31 1 19	14 5 4	7	31 1 19	14 5 4
Kitchener Hamlet ..	April 22, 1902..	26 3 35	4 0 21	20 3 14	1	2 0 0	5 12 0	1	2 0 0	5 12 0
Methuen Hamlet ..	April 22, 1902..	77 3 14	6 2 22	45 2 7	8	27 3 13	40 10 5	7	25 2 25	33 17 9
Plumer Hamlet	April 22, 1902..	74 0 0	6 2 1	54 2 12	5	20 2 10	17 15 4	3	12 3 27	10 10 2
Totals	..	36,590 0 26	2,299 0 24	1,213 0 24	31	1,062 0 12	267 13 7	173	33,077 3 18	4,989 14 7
Hawke's Bay—										
Raureka	May 6, 1896..	427 2 0	11 1 2	..	..	..	..	19	416 0 38	543 2 0
Elsthorpe	June 24, 1896..	9,740 0 0	144 2 11	1 3 16	2	47 2 9	7 0 0	46	9,593 2 13	2,313 19 0
Waimarie	Sept. 9, 1896..	430 2 10	4 2 16	..	..	..	..	18	425 3 34	463 0 0
Pouparae	April 21, 1897..	337 3 4	1 1 32	..	..	..	..	9	336 1 12	405 8 0
Tomoana	Mar. 3, 1898..	111 3 38	1 3 35	..	..	..	..	13	110 0 3	135 2 0
Mahora	Mar. 22, 1899..	1,133 3 0	21 1 5	17 2 18	..	..	..	32	1,094 3 17	1,606 11 2
Willows..	Mar. 22, 1899..	775 1 36	..	..	..	..	..	22	775 1 36	758 10 2
Hatuma	April 25, 1901..	26,522 3 20	649 1 2	..	2	709 2 0	212 17 0	62	25,873 2 18	7,841 10 10
Manga-a-toro	Jan. 21, 1902..	19,581 3 12	159 3 12	775 0 0	4	3,573 0 0	641 8 8	25	18,647 0 0	4,563 2 6
Kumeroa	May 12, 1902..	3,774 2 38	26 2 38	*726 0 0	14	3,019 0 0	1,425 9 10	14	3,019 0 0	1,425 9 10
Forest Gate	May 19, 1902..	8,822 0 13	26 0 2	81 2 13	29	8,756 3 38	2,602 10 8	28	8,714 1 38	2,587 17 6
Totals	..	71,658 2 11	1,046 3 35	1,602 0 7	51	16,106 0 7	4,889 6 2	288	69,006 2 9	22,643 13 0
Taranaki—										
Tokaora	Nov. 20, 1901..	1,505 2 8	6 3 31	..	9	845 0 22	879 9 0	15	1,498 2 17	879 9 0
Wellington—										
Paparangi	Feb. 28, 1898..	322 3 32	24 2 31	2 1 23	..	..	..	36	295 3 18	301 6 6
Ohakea	Dec. 27, 1899..	1,745 1 30	8 1 24	..	..	..	..	15	1,737 0 6	1,124 7 0
Te Matua	Dec. 27, 1899..	702 0 19	..	..	..	..	..	13	702 0 19	527 7 4
Aorangi	April 5, 1900..	1,785 0 0	31 3 29	..	..	..	..	37	1,753 0 11	1,342 16 10
Langdale	Mar. 19, 1901..	9,405 0 0	152 3 37	402 0 3	1	34 2 0	8 12 6	23	8,850 0 0	1,489 3 0
Mangawhata	May 14, 1901..	1,240 2 36	14 1 36	..	..	..	..	7	1,226 1 0	826 10 0
Epuni Hamlet	June 25, 1901..	100 3 14	6 2 26	5 3 39	2	4 0 0	22 4 8	41	88 0 29	462 7 2
Maungaraki	Dec. 29, 1901..	470 3 4	95 3 2	107 3 1	12	107 0 38	97 13 2	20	267 1 1	206 5 6
Linton	Sept. 17, 1902..	551 1 36	2 0 0	..	5	549 1 36	309 13 6	5	549 1 36	309 13 6
Totals	..	16,324 1 11	336 3 25	518 0 26	20	695 0 34	438 3 10	197	15,469 1 0	6,589 16 10
Marlborough—										
Blind River	Jan. 16, 1895..	5,507 0 0	272 0 15	5 2 25	..	..	..	19	5,229 1 0	882 8 4
Omaka	June 24, 1896..	3,898 0 0	69 1 0	..	..	..	..	13	3,828 3 0	586 19 4
Puhipuhi	Feb. 25, 1897..	320 0 0	..	..	..	..	..	2	320 0 0	24 10 0

Starborough	Mar. 13, 1899..	35,906	0	0	794	3	6	86	3	0	..	..			..			109	35,024	1	34	5,793	10	8
Richmond Brook ..	Aug. 18, 1899..	5,854	0	0	185	0	0	..			..	..			..			11	5,669	0	0	1,305	0	6
Waipapa	Mar. 19, 1901..	3,755	2	0	100	0	0	..			1	1,569	2	0	105	18	2	4	3,655	2	0	408	10	8
North Bank	April 1, 1901..	12,895	0	0	57	0	0	3,385	0	0	..	..			..			10	9,453	0	0	327	10	0
Totals	..	68,135	2	0	1,478	0	21	3,477	1	25	1	1,569	2	0	105	18	2	168	63,179	3	34	9,328	9	6
Westland—																								
Poerua	June 26, 1896..	3,230	1	6	101	3	6	87	0	0	1	157	0	0	14	14	4	18	3,041	2	0	263	13	10
Kokatahi	Nov. 4, 1902..	1,894	2	20	32	3	16	1,246	1	30	7	1,861	3	4	267	16	6	3	615	1	14	100	17	10
Totals	..	5,124	3	26	134	2	22	1,333	1	30	8	2,018	3	4	282	10	10	21	3,656	3	14	364	11	8
Canterbury—																								
Pareora..	Jan. 18, 1894..	620	2	13	8	2	38	..			..	..			..			28	611	3	15	396	18	6
Studholme Junction ..	Jan. 18, 1894..	109	0	7	4	1	39	..			..	..			..			4	104	2	8	73	4	6
Kapua	Mar. 24, 1894..	574	1	22	2	0	0	44	0	0	..	..			..			11	528	1	22	245	19	4
Rosebrook	June 26, 1895..	600	1	8	..			..			..	..			..			14	600	1	8	307	13	6
Otaio	June 26, 1895..	373	3	14	6	2	21	..			..	..			..			9	367	0	33	216	14	8
Patoa	Nov. 27, 1895..	4,535	3	14	17	3	26	..			..	..			..			4	4,517	3	28	170	16	6
The Peaks	Aug. 1, 1895..	2,811	0	9	12	0	0	..			..	..			..			12	2,799	0	9	196	12	6
Roimata	Aug. 14, 1895..	48	3	27	4	1	4	..			..	..			..			26	44	2	23	138	10	0
Kereta	Dec. 4, 1895..	105	2	29	..			..			..	..			..			4	105	2	29	82	18	0
Braco	Nov. 27, 1895..	27	2	4	..			..			..	..			..			14	27	2	4	72	8	4
Epworth	Nov. 27, 1895..	21	0	3	..			..			..	..			..			2	21	0	3	13	11	2
Ashley Gorge	Dec. 4, 1895..	1,165	3	6	4	2	4	..			..	..			..			10	1,161	1	2	258	1	0
Omihi Valley	June 28, 1899..	20	0	0	..			..			..	..			..			1	20	0	0	13	5	0
Orakipaoa	June 22, 1896..	384	0	31	..			..			..	..			..			27	384	0	31	397	10	8
Highbank	June 24, 1896..	9,121	3	8	87	3	30	172	0	10	2	50	0	0	17	1	10	75	8,861	3	8	2,983	15	8
Otarakaro	Mar. 24, 1897..	39	3	9	..			..			2	11	0	0	29	17	0	7	39	3	9	111	18	0
Wharenui	Mar. 24, 1897..	73	1	10	..			..			..	..			..			26	73	1	10	287	10	4
Rakitairi	Mar. 22, 1897..	3,526	1	26	3	3	22	..			..	..			..			22	3,522	2	4	1,061	19	2
Waiapi	Mar. 22, 1897..	1,124	2	36	..			..			..	..			..			15	1,124	2	36	518	19	10
Horsley Down	May 31, 1897..	3,982	3	35	38	2	16	..			1	..			0	0	2	26	3,944	1	19	1,071	16	8
Albury	April 12, 1897..	19,539	1	24	139	2	33	..			1	25	0	8	5	5	4	79	19,398	0	39	3,435	4	8
R.S. 1862	Oct. 21, 1897..	20	0	0	..			..			..	..			..			1	20	0	0	3	7	4
Pt. R.S. 2682	June 29, 1899..	6	2	4	..			..			..	..			..			1	6	2	4	11	11	10
R.S. 36469	June 29, 1899..	154	3	2	..			..			..	..			..			1	154	3	2	25	14	0
R.S. 36231	Dec. 14, 1899..	98	3	30	..			..			..	..			..			1	98	3	30	17	15	6
R.S. 36056 and 36057 ..	Dec. 30, 1899..	58	0	16	..			..			..	..			..			1	58	0	16	14	18	10
R.S. 36228	May 17, 1900..	100	3	23	..			..			..	..			..			1	100	3	23	12	11	4
R.S. 36278	Nov. 14, 1901..	618	2	0	..			..			..	..			..			1	618	2	0	25	1	8
Pt. R.S. 30791	April 23, 1902..	100	0	0	0	3	21	..			1	99	0	19	17	0	0	1	99	0	19	17	0	0
Pt. R.S. 36226	Oct. 16, 1902..	46	1	26	..			..			1	46	1	26	5	3	0	1	46	1	26	5	3	0
Marawiti	May 7, 1897..	2,028	2	33	2	0	0	50	0	0	..	..			..			12	1,976	2	33	727	10	10
Hekeao	Mar. 9, 1898..	2,254	2	11	53	1	26	..			1	15	0	0	4	10	0	16	2,201	0	25	630	10	2
Pawaho	April 5, 1898..	52	0	18	1	3	14	..			2	3	2	5	18	6	2	26	50	1	4	161	8	6
Waikakahi	Mar. 20, 1899..	48,262	2	34	157	3	18	1	0	0	18	337	2	38	124	12	10	184	48,101	0	16	16,760	12	8
Tamai	June 26, 1899..	41	0	28	3	2	32	0	2	0	..	..			0	1	3	39	36	3	36	226	10	2
Takitu	Mar. 1, 1900..	9,713	0	37	39	0	1	..			..	..			..			5	9,674	0	36	1,250	16	2
Pareora No. 2	Mar. 22, 1900..	8,132	0	31	54	0	14	..			..	..			..			33	8,078	0	17	3,700	0	8
Rautawiri	April 19, 1900..	113	0	7	..			..			..	..			..			6	113	0	7	132	17	8
Papaka	April 19, 1900..	1,561	2	25	7	2	0	..			..	..			..			9	1,554	0	25	947	6	0
Punaroa	April 19, 1900..	7,029	3	5	8	2	18	..			1	448	0	0	134	8	0	17	7,021	0	27	1,681	16	6
Carried forward ..	..	328,538	3	27	5,962	1	15	8,411	3	2	150	23,332	2	15	7,219	7	2	1,634	314,159	2	18	83,203	15	5

* Exclusive of 3 acres sold for cash.

Table 33 (Part I.).—RETURN of LANDS acquired and leased under the Land for Settlements Acts, &c.—*continued.*

Name of Settlement.	Date when Land opened for Selection.	Area acquired, including ascertained Surplus or Deficiency.	Area occupied by Roads and Reserves unlet.	Area of Land unlet, including Land forfeited, surrendered, or resumed and not relet, and also Land not yet offered for Selection.	New Selections and Addition to Holdings during the Year.			Total Lands leased at Date.		
					No. of Selectors.	Area.	Annual Rent payable.	No. of Selectors.	Area.	Annual Rent now payable.
		A. R. P.	A. R. P.	A. R. P.		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Brought forward ..	..	328,538 3 27	5,962 1 15	8,411 3 2	150	23,332 2 15	7,219 7 2	1,634	314,159 2 18	83,203 15 5
Canterbury—*continued.*										
Lyndon	Mar. 5, 1901..	4,243 3 28	37 0 0	..	..	..	..	9	4,206 3 28	849 19 2
Kohika	May 13, 1901..	3,864 1 10	35 1 25	..	..	..	..	17	3,828 3 25	1,450 4 2
Tarawahi	June 25, 1901..	31 3 0	4 1 16	6 2 37	4	4 0 30	34 0 4	16	20 2 27	156 6 0
Raincliff	June 25, 1901..	745 2 0	206 3 0	..	..	..	..	1	538 3 0	85 3 10
Puhuka	July 29, 1901..	39 2 7	2 3 3	..	1	14 0 0	15 0 6	7	36 3 4	51 9 10
Kaimahi	Oct. 15, 1901..	100 2 1	..	..	1	6 1 14	14 17 8	13	100 2 1	251 7 6
Kapuatohe	Oct. 15, 1901..	49 3 37	2 0 0	..	4	19 2 0	50 3 8	9	47 3 37	133 2 10
Rapuwai	Dec. 9, 1901..	2,247 2 11	2 0 0	..	..	..	..	5	2,245 2 11	480 16 8
Lyndon No. 2	April 21, 1902..	15,887 0 0	42 0 0	..	10	15,845 0 0	2,281 10 2	10	15,845 0 0	2,281 10 2
Maytown	April 28, 1902..	391 3 32	4 1 19	..	12	387 2 13	286 16 2	12	387 2 13	286 16 2
Eccleston	May 12, 1902..	1,246 1 5	0 3 19	..	4	1,245 1 26	569 11 2	4	1,245 1 26	569 11 2
Mead	Jan. 21, 1903..	5,914 3 17	8 1 1	..	21	5,906 2 16	975 18 0	21	5,906 2 16	975 18 0
Chamberlain	Mar. 9, 1903..	10,500 1 9	12 1 8	..	21	10,488 0 1	2,169 19 10	21	10,488 0 1	2,169 19 10
Totals	..	174,463 1 22	1,017 2 28	274 1 7	108	34,952 1 36	6,754 3 1	917	173,167 0 35	48,150 6 2
Otago—										
Pomahaka	Feb. 20, 1894..	7,478 2 2	222 3 39	3,180 3 18	2	369 1 0	56 12 4	19	4,074 2 25	690 15 8
Teanaraki	Feb. 7, 1894..	351 0 39	6 3 9	..	1	20 0 0	18 3 4	22	344 1 30	281 9 6
Tahawai	Aug. 21, 1895..	70 1 35	1 3 21	..	..	..	..	8	68 2 14	35 14 4
Maerewhenua	Sept. 10, 1895..	11,163 3 31	227 2 7	6 3 12	..	..	..	72	10,929 2 12	3,553 2 0
Puketapu	Mar. 18, 1896..	509 0 6	12 3 10	..	..	..	..	11	496 0 36	189 0 10
Ardgowan	May 12, 1896..	4,268 3 28	103 0 34	..	..	..	..	65	4,165 2 34	1,893 19 4
Makareao	June 26, 1896..	2,383 0 4	91 1 4	..	..	..	..	31	2,291 3 0	377 18 8
Makareao Extension ..	April 14, 1897..	2,589 2 12	19 0 3	..	..	..	..	3	2,570 2 9	296 15 4
Momona	May 10, 1897..	224 1 16	5 0 0	..	..	..	..	14	219 1 16	210 6 2
Tokarahi	May 11, 1899..	11,259 2 36	287 2 10	3 0 27	..	..	..	79	10,968 3 39	4,116 7 0
Janefield	Sept. 13, 1900..	147 0 2	3 1 5	10 0 0	..	..	..	20	133 2 27	222 13 0
Elderslie	Mar. 20, 1900..	11,618 2 4	111 2 26	..	..	..	..	33	11,506 3 18	4,126 19 4
Barnego	May 15, 1900..	7,078 2 1	24 1 31	1,006 0 5	..	..	..	21	6,048 0 5	1,316 5 6
Earnscleugh	Dec. 18, 1901..	1,269 3 5	45 2 34	..	1	2 1 11	0 5 0	11	1,224 0 11	170 8 6
Windsor Park	May 28, 1902..	3,821 2 16	6 3 21	..	38	3,814 2 35	1,655 8 2	38	3,814 2 35	1,655 8 2
Windsor Park No. 2 ..	Oct. 28, 1902..	2,179 2 17	2 0 6	..	10	2,177 2 11	875 16 8	10	2,177 2 11	875 16 8
Duncan..	Dec. 29, 1902..	633 2 3	..	210 0 22	5	423 1 21	181 16 8	5	423 1 21	181 16 8
Totals	..	67,047 1 17	1,172 0 20	4,417 0 4	57	6,807 0 38	2,788 2 2	462	61,458 0 23	20,194 16 8
Southland—										
Merrivale	Dec. 18, 1895..	9,998 0 0	523 2 20	..	..	..	..	47	9,474 1 20	1,416 12 10
Otahu	Nov. 4, 1897..	6,153 0 36	128 2 25	..	1	1,095 1 39	18 0 0	7	6,024 2 11	338 0 0
Beaumont	Jan. 26, 1898..	4,484 0 4	16 0 36	1,606 2 5	2	573 2 22	9 11 2	9	2,861 1 3	349 14 9
Ringway	Dec. 20, 1901..	2,253 2 8	22 1 30	..	..	..	..	7	2,231 0 18	460 9 0
Glenham	Mar. 24, 1902..	11,484 2 10	154 1 38	5,101 2 16	14	3,716 3 20	682 6 6	24	6,228 1 36	1,273 11 8
Totals	..	34,373 1 18	845 1 29	6,708 0 21	17	5,386 0 1	709 17 8	94	26,819 3 8	3,838 8 3
Grand Totals ..	..	475,223 0 19	8,337 3 35	19,543 2 24	302	69,442 1 34	17,115 4 6	2,335	447,334 0 38	116,979 5 8

Table 33 (Part II.).—RETURN of LANDS acquired and leased under the Land for Settlements Acts up to the Year which ended 31st March, 1903.

Name of Settlement.	Yearly Value of Unlet Land at 31st March, 1903.	Occupied Land.			Amount advanced to Selectors for Buildings, &c.			Arrears on 31st March, 1903.			Rent and other Payments received during the Year.	Total Receipts from Inception to 31st March, 1903.
		No. of Houses on Holdings.	No. of Souls resident on Holdings.	Value of Improvements.	During previous Years.	During Year.	Total.	No.	Area	Rent in Arrear.		
Auckland—	£ s. d.			£ s. d.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.
Opouriao	113 0 10	64	295	29,926 5 6	..	..	..	3	305 0 0	71 12 10	1,768 10 10	9,370 6 9
Okauia	..	7	13	1,809 0 0	..	..	..	4	1,560 0 0	138 8 6	187 8 11	765 16 11
Rangiatea	..	17	100	5,200 0 0	..	..	..	3	448 2 0	77 12 6	1,015 14 5	3,317 17 10
Karapiro	4 2 2	11	12	3,567 7 6	..	..	..	2	148 0 0	33 3 0	343 14 1	1,747 18 1
Fencourt	..	34	149	6,374 0 0	..	..	..	1	147 2 0	35 4 6	1,852 5 0	4,172 0 2
Whitehall	..	9	23	2,087 8 0	..	..	..	2	927 2 24	129 9 4	415 13 4	806 17 6
Cradock Hamlet.. ..	52 3 10	..	..	20 0 0	..	..	..	..	..	..	9 9 8	9 9 8
Hetana Hamlet	326 3 0	6	24	581 0 0	..	..	..	..	..	..	48 6 6	48 6 6
Kitchener Hamlet ..	53 16 4	..	..	..	..	..	..	..	..	..	7 16 0	7 16 0
Methuen Hamlet ..	166 5 5	3	16	639 0 0	..	50 0 0	50 0 0	..	..	..	99 5 11	99 5 11
Plumer Hamlet	48 9 4	..	..	10 0 0	..	..	..	..	..	..	16 18 5	16 18 5
Totals	764 0 11	151	632	50,214 1 0	..	50 0 0	50 0 0	15	3,536 2 24	485 10 8	5,765 3 1	20,362 13 9
Hawke's Bay—												
Raureka	..	18	92	2,857 10 0	..	..	..	..	..	..	557 13 6	3,625 4 5
Elsthorpe	2 10 0	27	124	11,112 18 0	..	..	..	..	..	..	2,369 11 9	15,439 5 3
Waimarie	..	16	58	2,201 0 0	..	..	..	1	21 0 31	12 11 0	456 8 9	2,736 19 3
Pouparae	..	9	42	2,212 11 0	..	..	..	..	..	..	363 5 9	2,105 10 3
Tomoana	..	12	55	2,385 15 0	..	..	..	..	..	..	134 2 3	657 10 3
Mahora	25 3 4	25	93	5,390 19 0	..	..	..	1	71 0 24	49 12 11	1,469 7 2	5,754 4 4
Willows..	..	17	81	3,427 4 0	..	..	..	1	35 0 2	12 11 4	805 1 8	2,793 7 10
Hatuma	..	53	172	18,103 18 0	..	..	..	42	18,976 2 0	3,372 6 7	4,547 7 4	8,886 5 11
Manga-a-toro	164 13 10	18	57	6,450 1 9	..	..	..	..	..	..	1,447 5 9	3,408 2 8
Kumeroa	263 3 7	10	48	2,118 9 6	..	..	..	..	..	..	1,025 0 10	1,025 0 10
Forest Gate	26 7 2	18	61	4,164 1 7	..	..	..	..	..	..	2,576 7 1	2,576 7 1
Totals	481 17 11	223	883	60,424 7 10	..	..	..	45	19,103 3 17	3,447 1 10	15,751 11 10	49,007 18 1
Taranaki—												
Tokaora	..	13	69	2,384 16 0	..	..	..	1	97 0 0	57 2 2	1,040 11 6	1,614 19 7
Wellington—												
Paparangi	5 15 0	35	140	4,541 19 9	514 0 0	..	514 0 0	4	14 0 0	23 19 0	486 12 9	1,926 6 8
Ohakea	..	15	60	5,645 14 6	..	..	..	1	93 0 0	59 10 0	1,102 7 1	3,526 1 1
Te Matua	..	12	43	2,703 0 6	..	..	..	..	..	..	540 17 11	1,867 4 1
Aorangi..	..	37	152	9,000 0 6	230 0 0	..	230 0 0	2	50 0 0	36 6 0	1,372 18 5	4,056 13 11
Langdale	88 2 4	17	40	3,114 16 6	..	..	..	..	..	..	1,591 0 2	3,145 11 1
Mangawhata	..	7	35	2,722 8 0	..	..	..	..	..	..	879 16 6	1,562 19 9
Epuni Hamlet	23 12 2	32	116	4,164 10 0	645 0 0	426 0 0	1,071 0 0	..	..	..	728 7 7	1,048 18 2
Maungaraki	6 11 7	12	28	1,112 10 0	..	..	..	..	..	..	110 17 5	174 0 0
Linton	..	4	19	2,012 3 0	..	..	..	..	..	..	213 19 10	213 19 10
Totals	124 1 1	171	633	35,017 2 9	1,389 0 0	426 0 0	1,815 0 0	7	157 0 0	119 15 0	7,026 17 8	17,515 14 7
Marlborough—												
Blind River	0 12 2	17	69	5,771 5 0	..	..	..	7	1,782 1 24	355 4 9	819 5 10	5,671 8 10
Omaka	..	12	47	4,792 8 0	..	..	..	3	980 3 26	91 15 11	608 6 5	3,874 10 11
Puhipuhi	..	1	..	210 0 0	..	..	..	..	..	..	20 10 0	112 0 0
Starborough	32 13 6	64	253	27,710 14 0	..	..	..	39	8,939 2 28	1,580 16 3	5,510 8 1	19,175 0 4
Carried forward ..	1,403 5 7	652	2,586	186,524 14 7	1,389 0 0	476 0 0	1,865 0 0	117	34,597 1 39	6,137 6 7	36,542 14 5	117,334 6 1

Table 33 (Part II.).—Return of Lands acquired and leased under the Land for Settlements Acts, &c.—*continued.*

Name of Settlement.	Yearly Value of Unlet Land at 31st March, 1903.	Occupied Land.			Amount advanced to Selectors for Buildings, &c.			Arrears on 31st March, 1903.			Rent and other Payments received during the Year.	Total Receipts from Inception to 31st March, 1903.
		No. of Houses on Holdings.	No. of Souls resident on Holdings.	Value of Improvements.	During previous Years.	During Year.	Total.	No.	Area.	Rent in Arrear.		
	£ s. d.			£ s. d.	£ s. d.	£ s. d.	£ s. d.		A. R. P.	£ s. d.	£ s. d.	£ s. d.
Brought forward ..	1,403 5 7	652	2,586	86,524 14 7	1,389 0 0	476 0 0	1,865 0 0	117	34,597 1 39	6,137 6 7	36,542 14 5	117,334 6 1
Marlborough—*continued.*												
Richmond Brook ..	..	9	28	4,036 4 6	..	..	..	3	1,203 0 0	307 6 6	1,071 17 9	3,928 0 5
Waipapa	..	3	18	1,687 8 6	..	..	..	..	..	..	413 6 11	818 15 3
North Bank	56 8 4	1	4	802 5 0	..	..	..	..	..	..	512 10 11	1,024 6 7
Totals	89 14 0	107	419	45,010 5 0	..	..	..	52	12,905 3 38	2,335 3 5	8,956 5 11	34,604 2 4
Westland—												
Poerua	7 1 4	14	49	3,850 7 6	..	..	..	8	1,257 1 0	141 4 1	303 10 5	1,368 18 1
Kokotahi	166 18 8	3	7	235 0 0	..	..	..	..	..	..	133 18 3	133 18 3
Totals	174 0 0	17	56	4,085 7 6	..	..	..	8	1,257 1 0	141 4 1	437 8 8	1,502 16 4
Canterbury—												
Pareora	..	28	89	2,376 14 6	..	..	..	7	195 2 32	63 16 7	375 7 0	3,325 8 10
Studholme Junction ..	..	3	13	444 8 0	..	..	..	..	..	..	65 18 4	640 15 1
Kapua	24 4 0	12	38	1,590 5 0	..	..	..	3	144 0 0	31 19 6	301 12 4	2,322 4 0
Rosebrook	..	13	66	2,172 13 6	..	..	..	5	230 2 4	50 18 10	297 1 0	2,281 17 11
Otaio	..	9	40	1,390 5 6	..	..	..	..	..	..	184 13 2	1,679 14 9
Patoa	..	2	10	1,154 0 0	..	..	..	..	..	..	155 14 5	1,175 4 4
The Peaks	..	..	..	1,518 0 0	..	..	..	1	150 2 25	5 18 8	176 3 9	1,352 13 5
Roimata	..	26	119	4,825 0 0	..	..	..	..	..	..	129 13 8	1,022 17 6
Kereta	..	4	24	684 17 6	..	..	..	2	55 1 29	22 13 9	66 1 0	568 9 3
Braco	..	14	51	1,847 0 0	10 0 0	..	10 0 0	..	..	..	71 7 9	510 16 1
Epworth	..	1	6	158 16 0	..	..	..	2	21 0 3	6 15 7	16 9 8	82 7 0
Ashley Gorge	..	12	54	4,083 0 0	..	..	..	..	115 2 2	5 15 6	250 13 0	1,888 4 1
Omihi Valley	..	..	..	..	..	..	..	..	..	..	13 5 0	46 7 6
Orakipaoa	..	20	94	2,000 19 0	..	..	..	5	80 2 13	52 12 5	302 6 1	2,596 17 7
Highbank	58 2 8	57	261	17,788 17 6	..	..	..	8	828 3 36	132 10 0	3,003 11 10	21,138 0 5
Otarakaro	..	7	28	1,325 0 0	..	..	..	2	12 2 31	45 3 11	93 15 10	570 9 10
Wharenui	..	26	94	4,274 0 0	230 0 0	..	230 0 0	..	..	..	289 1 2	1,632 15 7
Rakitairi	..	19	77	4,247 1 6	..	..	..	3	443 0 0	60 10 5	1,134 15 5	6,072 11 5
Waiapi	..	15	68	3,088 13 1	..	..	..	1	91 2 35	38 19 8	458 4 3	2,952 16 7
Horsley Down	..	23	84	10,872 0 0	..	..	..	..	..	..	973 4 3	6,566 12 10
Albury	..	63	301	19,649 19 6	..	..	..	11	1,515 1 5	144 15 9	3,426 7 6	19,387 6 3
R.S. 1862	..	1	1	165 0 0	..	..	..	..	..	..	3 0 8	17 13 8
Pt. R.S. 2682	..	..	..	..	..	..	..	..	..	..	17 5 9	46 3 4
R.S. 36469	..	..	..	81 4 0	..	..	..	..	..	..	23 2 8	96 7 8
R.S. 36231	..	1	3	162 11 0	..	..	..	1	98 3 30	8 17 9	8 17 9	44 8 9
R.S. 36056 and 36057 ..	..	..	..	..	..	..	..	..	..	..	13 9 0	48 11 4
R.S. 36228	..	1	2	363 19 0	..	..	..	..	..	..	11 6 4	36 9 0
R.S. 36278	..	..	..	..	..	..	..	..	..	..	35 2 4	35 2 4
Pt. R.S. 30791	..	..	..	..	..	..	..	..	..	..	16 3 0	16 3 0
Pt. R.S. 36226	..	1	3	466 6 0	..	..	..	..	..	..	3 5 0	3 5 0
Marawiti	21 5 0	12	67	3,751 9 6	..	..	..	1	160 0 0	60 1 0	813 13 6	4,190 11 5
Hekeao	..	13	52	3,451 12 6	..	..	..	..	..	..	710 7 0	3,039 6 3

Pawaho	..			21	74	2,897	0	0	204	0	0	85	0	0	289	0	0	2	4	0	39	4	19	9	152	8	4	571	10	0
Waikakahi	6	0	0	148	599	56,152	10	11	..			..			..			20	4,642	3	26	803	3	4	17,953	19	5	61,828	1	5
Tamai	2	8	0	35	132	3,633	0	0	366	0	0	47	10	0	413	10	0	2	2	0	24	24	16	3	225	19	6	667	6	8
Takitu	..			5	21	4,048	8	3	..			..			..			..	..			..			1,762	5	0	3,633	17	9
Pareora No. 2	..			32	171	11,095	17	3	..			..			..			2	507	1	2	41	6	1	3,442	9	2	10,099	17	1
Rautawiri	..			6	24	649	10	0	..			..			..			3	58	0	2	46	3	1	91	2	4	291	2	0
Papaka	..			9	30	2,887	18	0	..			..			..			..	..			..			865	5	6	2,669	8	11
Punaroa	..			17	66	5,973	11	1	..			..			..			..	..			..			1,550	8	0	4,561	16	2
Lyndon	..			6	33	4,272	0	0	..			..			..			1	324	0	0	4	4	9	727	8	11	1,535	5	7
Kohika	..			14	49	3,929	19	0	..			..			..			1	173	3	13	26	1	6	1,158	7	7	2,514	6	0
Tarawahi	45	0	8	14	51	2,075	0	0	75	0	0	75	0	0	150	0	0	..	..			..			177	6	7	260	13	10
Raincliff	..			1	4	440	11	1	..			..			..			..	..			..			889	3	6	994	7	4
Puhuka	..			5	17	1,032	18	9	..			45	0	0	45	0	0	..	..			..			32	15	4	53	14	0
Kaimahi	..			8	24	1,371	0	0	..			..			..			..	..			..			184	12	5	309	11	4
Kapuatohe	..			7	21	725	0	0	..			80	0	0	80	0	0	..	..			..			99	15	11	136	5	6
Rapuwai	..			4	6	1,274	11	7	..			..			..			..	..			..			410	10	7	690	17	2
Lyndon No. 2	..			6	13	3,703	0	0	..			..			..			..	..			..			1,698	13	10	1,698	13	10
Maytown	..			10	37	1,190	18	2	..			..			..			..	..			..			265	3	9	265	3	9
Eccleston	..			2	7	1,937	10	8	..			..			..			..	..			..			544	15	1	544	15	1
Mead	..			..	..	..			..			..			..			..	..			..			487	19	0	487	19	0
Chamberlain	..			..	..	..			..			..			..			..	..			..			1,874	15	9	1,874	15	9
Totals	157	0	4	733	3,024	203,223	17	4	885	0	0	332	10	0	1,217	10	0	83	9,856	1	31	1,682	4	1	48,036	4	11	181,078	0	2
Otago—																														
Pomahaka	502	7	8	13	40	4,328	0	0	..			..			..			8	2,190	1	6	179	14	8	698	1	5	6,588	8	8
Teanaraki	..			16	67	1,829	12	0	..			..			..			2	20	0	2	9	1	10	362	14	3	2,239	5	6
Tahawai	..			8	42	1,087	10	0	..			..			..			..	..			..			35	8	7	263	1	11
Maerewhenua	0	19	8	58	245	18,448	15	9	..			..			..			4	1,352	2	39	380	13	8	3,719	15	9	24,966	15	3
Puketapu	..			9	23	1,160	8	7	..			..			..			..	..			..			187	10	7	1,264	13	9
Ardgowan	..			29	116	12,267	4	1	..			..			..			4	235	1	8	55	5	8	1,781	18	1	12,818	9	1
Makareao	..			18	69	3,162	11	9	..			..			..			3	1,267	0	4	136	10	1	1,536	2	6	5,354	14	9
Makareao Extension ..	..			3	11	1,560	10	0	..			..			..			..	..			..								
Momona	..			14	54	1,990	2	6	..			..			..			1	23	1	7	9	18	0	204	9	1	1,175	11	0
Tokarahi	2	16	10	44	183	16,565	14	6	..			..			..			21	3,193	1	9	518	11	5	4,520	9	7	22,428	2	10
Janefield	35	13	2	19	92	3,485	7	0	..			..			..			1	10	0	0	8	5	0	220	11	4	765	13	11
Elderslie	..			20	75	7,811	0	10	..			..			..			6	1,523	3	9	303	9	3	4,315	5	5	10,617	11	7
Barnego	125	7	0	17	66	4,986	10	0	..			..			..			1	533	2	32	53	7	4	1,129	6	0	3,521	15	2
Earnscleugh	..			8	41	1,388	2	9	..			..			..			..	..			..			163	0	5	285	11	9
Windsor Park	..			17	57	2,409	17	2	..			..			..			..	..			..			1,118	8	10	1,118	8	10
Windsor Park No. 2 ..	..			5	10	519	19	3	..			..			..			..	..			..			437	16	3	437	16	3
Duncan	56	13	0	1	4	347	10	6	..			..			..			..	..			..			85	18	4	85	18	4
Totals	723	17	4	299	1,195	83,348	16	8	..			..			..			51	10,349	1	36	1,654	16	11	20,516	16	5	93,931	18	7
Southland—																														
Merrivale	..			39	155	8,302	0	0	..			..			..			11	1,926	2	20	343	17	8	1,061	14	10	9,690	3	1
Otahu	..			4	9	890	0	0	..			..			..			1	1,012	3	4	45	8	10	258	1	11	1,228	2	0
Beaumont	158	19	0	4	13	1,067	0	0	..			..			..			4	1,477	0	24	177	6	5	446	0	9	1,212	7	10
Ringway	..			8	15	1,122	0	0	..			..			..			..	..			..			347	4	7	705	9	1
Glenham	727	17	10	16	97	1,626	0	0	..			..			..			..	..			..			988	6	7	1,283	19	2
Totals	886	16	10	71	289	13,007	0	0	..			..			..			16	4,416	2	8	566	12	11	3,101	8	8	14,120	1	2
Grand totals ..	3,401	8	5	1,785	7,200	496,715	14	1	2,274	0	0	808	10	0	3,082	10	0	278	61,680	0	34	10,489	11	1	110,632	8	8	413,738	4	7

Table 34.—Statement showing Outlay and Income of Estates purchased under the Land for Settlements Acts.

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Studholme Junction	27 July, 1893	Purchase-money ..	1,291 5 6	Rents, &c., paid, to March 31, 1902	574 16 9
		Incidental expenses to March 31, 1902 ..	160 15 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	65 18 4
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	449 4 9	Balance	1,319 3 0
		Interest, April 1, 1902, to March 31, 1903 ..	58 12 2		
		Total	1,959 18 1	Total	1,959 18 1
Pareora ..	16 Aug., 1893	Purchase-money ..	7,198 14 10	Rents, &c., paid, to March 31, 1902	2,950 1 10
		Incidental expenses to March 31, 1902 ..	113 5 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	375 7 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	151 11 9
		Interest to March 31, 1902	2,312 1 10	Balance	6,441 6 1
		Interest, April 1, 1902, to March 31, 1903 ..	294 4 1		
		Total	9,918 6 8	Total	9,918 6 8
Pomahaka..	10 Oct., 1893	Purchase-money ..	18,656 17 10	Rents, &c., paid, to March 31, 1902	5,890 7 3
		Incidental expenses to March 31, 1902 ..	4,349 15 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	698 1 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	443 0 8
		Interest to March 31, 1902	7,305 9 4	Balance	24,305 16 0
		Interest, April 1, 1902, to March 31, 1903 ..	925 2 11		
		Total	31,337 5 4	Total	31,337 5 4
Kapua ..	11 Nov., 1893	Purchase-money ..	4,594 5 0	Rents, &c., paid, to March 31, 1902	2,020 11 8
		Incidental expenses to March, 31, 1902 ..	279 12 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	301 12 4
		Incidental expenses, April 1, 1902, to March 31, 1903	6 13 5	Rents, &c., unpaid at March 31, 1903 ..	65 2 4
		Interest to March 31, 1902	1,477 3 2	Balance	4,166 17 9
		Interest, April 1, 1902, to March 31, 1903 ..	196 10 4		
		Total	6,554 4 1	Total	6,554 4 1
Te Anaraki..	31 Jan., 1894	Purchase-money ..	5,044 0 6	Rents, &c., paid, to March 31, 1902	1,876 11 3
		Incidental expenses to March 31, 1902 ..	546 13 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	362 14 3
		Incidental expenses, April 1, 1902, to March 31, 1903	0 18 0	Rents, &c., unpaid at March 31, 1903 ..	110 8 9
		Interest to March 31, 1902	1,670 17 3	Balance	5,138 0 5
		Interest, April 1, 1902, to March 31, 1903 ..	225 5 0		
		Total	7,487 14 8	Total	7,487 14 8
Blind River	20 Aug., 1894	Purchase-money ..	14,806 5 3	Rents, &c., paid, to March 31, 1902	4,852 3 0
		Incidental expenses to March 31, 1902 ..	1,891 18 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	819 5 10
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	530 12 5
		Interest to March 31, 1902	4,695 16 8	Balance	15,884 1 11
		Interest, April 1, 1902, to March 31, 1903 ..	692 3 2		
		Total	22,086 3 2	Total	22,086 3 2
Rosebrook ..	15 Feb., 1895	Purchase-money ..	5,984 4 8	Rents, &c., paid, to March 31, 1902	1,984 16 11
		Incidental expenses to March 31, 1902 ..	74 0 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	297 1 0
		Incidental expenses, April 1, 1902, to March 31, 1903	0 5 0	Rents, &c., unpaid at March 31, 1903 ..	138 17 0
		Interest to March 31, 1902	1,569 1 5	Balance	5,458 9 0
		Interest, April 1, 1902, to March 31, 1903 ..	243 12 9		
		Total	7,871 3 11	Total	7,871 3 11

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Otaio ..	25 Feb., 1895	Purchase-money ..	4,143 11 3	Rents, &c., paid, to March 31, 1902	1,495 1 7
		Incidental expenses to March 31, 1902 ..	134 15 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	184 13 2
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	42 2 9
		Interest to March 31, 1902	1,088 19 2	Balance	3,817 14 10
		Interest, April 1, 1902, to March 31, 1903 ..	172 6 9		
		Total	5,539 12 4	Total	5,539 12 4
Merrivale ..	17 Apr., 1895	Purchase-money ..	24,995 0 0	Rents, &c., paid, to March 31, 1902	8,628 8 3
		Incidental expenses to March 31, 1902 ..	3,020 8 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,061 14 10
		Incidental expenses, April 1, 1902, to March 31, 1903	4 14 3	Rents, &c., unpaid at March 31, 1903 ..	929 3 8
		Interest to March 31, 1902	6,961 12 9	Balance	25,489 17 2
		Interest, April 1, 1902, to March 31, 1903 ..	1,127 8 3		
		Total	36,109 3 11	Total	36,109 3 11
Tahawai ..	25 Apr., 1895	Purchase-money ..	622 1 4	Rents, &c., paid, to March 31, 1902	227 13 4
		Incidental expenses to March 31, 1902 ..	10 19 4	Rents, &c., paid, April 1, 1902, to March 31, 1903	35 8 7
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	157 11 11	Balance	55 16 4
		Interest, April 1, 1902, to March 31, 1903 ..	26 5 8		
		Total	818 18 3	Total	818 18 3
Patoa, and Peak's Farm	3 May, 1895	Purchase-money ..	6,612 10 3	Rents, &c., paid, to March 31, 1902	2,195 19 7
		Incidental expenses to March 31, 1902 ..	250 5 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	331 18 2
		Incidental expenses, April 1, 1902, to March 31, 1903	93 4 0	Rents, &c., unpaid at March 31, 1903 ..	47 1 6
		Interest to March 31, 1902	1,732 15 2	Balance	6,393 1 0
		Interest, April 1, 1902, to March 31, 1903 ..	279 5 4		
		Total	8,968 0 3	Total	8,968 0 3
Roimata ..	29 June, 1895	Purchase-money ..	2,200 6 7	Rents, &c., paid, to March 31, 1902	893 3 10
		Incidental expenses to March 31, 1902 ..	624 9 4	Rents, &c., paid, April 1, 1902, to March 31, 1903	129 13 8
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	4 12 3
		Interest to March 31, 1902	668 4 2	Balance	2,579 5 10
		Interest, April 1, 1902, to March 31, 1903 ..	113 15 6		
		Total	3,606 15 7	Total	3,606 15 7
Kereta ..	29 June, 1895	Purchase-money ..	1,584 0 0	Rents, &c., paid, to March 31, 1902	502 8 3
		Incidental expenses to March 31, 1902 ..	31 16 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	66 1 0
		Incidental expenses, April 1, 1902, to March 31, 1903	0 13 6	Rents, &c., unpaid at March 31, 1903 ..	44 7 9
		Interest to March 31, 1902	388 0 2	Balance	1,457 2 9
		Interest, April 1, 1902, to March 31, 1903 ..	65 10 1		
		Total	2,069 19 9	Total	2,069 19 9
Maerewhenua	27 July, 1895	Purchase-money ..	66,905 17 0	Rents, &c., paid, to March 31, 1902	21,246 19 6
		Incidental expenses to March 31, 1902 ..	2,638 15 5	Rents, &c., paid, April 1, 1902, to March 31, 1903	3,719 15 9
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	1,467 8 7
		Interest to March 31, 1902	16,694 1 10	Balance	62,601 15 10
		Interest, April 1, 1902, to March 31, 1903 ..	2,797 5 5		
		Total	89,035 19 8	Total	89,035 19 8

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay.		Income.	
		Particulars.	Amount.	Particulars.	Amount.
			£ s. d.		£ s. d.
Braco ..	5 Aug., 1895	Purchase-money ..	1,375 0 0	Rents, &c., paid, to March 31, 1902	439 8 4
		Incidental expenses to March 31, 1902 ..	44 10 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	71 7 9
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	3 18 11
		Interest to March 31, 1902	339 15 3	Balance	1,301 19 9
		Interest, April 1, 1902, to March 31, 1903 ..	57 9 3		
		Total	1,816 14 9	Total	1,816 14 9
Ashley Gorge	9 Aug., 1895	Purchase-money ..	4,855 19 6	Rents, &c., paid, to March 31, 1902	1,637 11 1
		Incidental expenses to March 31, 1902 ..	265 8 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	250 13 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	12 4 1
		Interest to March 31, 1902	1,219 9 5	Balance	4,646 3 9
		Interest, April 1, 1902, to March 31, 1903 ..	205 14 3		
		Total	6,546 11 11	Total	6,546 11 11
Epworth ..	14 Aug., 1895	Purchase-money ..	252 4 6	Rents, &c., paid, to March 31, 1902	65 17 4
		Incidental expenses to March 31, 1902 ..	10 4 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	16 9 8
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	13 11 2
		Interest to March 31, 1902	63 2 6	Balance	240 1 6
		Interest, April 1, 1902, to March 31, 1903 ..	10 8 7		
		Total	335 19 8	Total	335 19 8
Puketapu ..	18 Nov., 1895	Purchase-money ..	3,308 14 10	Rents, &c., paid, to March 31, 1902	1,077 3 2
		Incidental expenses to March 31, 1902 ..	240 8 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	187 10 7
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	0 10 2
		Interest to March 31, 1902	819 16 11	Balance	3,247 6 9
		Interest, April 1, 1902, to March 31, 1903 ..	143 10 1		
		Total	4,512 10 8	Total	4,512 10 8
Omihi S.R.	16 Jan., 1896	Purchase-money ..	240 0 0	Rents, &c., paid, to March 31, 1902	33 2 6
		Incidental expenses to March 31, 1902 ..	25 6 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	13 5 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	6 12 6
		Interest to March 31, 1902	65 6 8	Balance	288 4 2
		Interest, April 1, 1902, to March 31, 1903 ..	10 10 9		
		Total	341 4 2	Total	341 4 2
Poerua ..	3 Feb., 1896	Purchase-money ..	3,634 1 6	Rents, &c., paid, to March 31, 1902	1,065 7 8
		Incidental expenses to March 31, 1902 ..	1,350 3 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	303 10 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	227 10 7
		Interest to March 31, 1902	1,070 9 9	Balance	4,658 5 2
		Interest, April 1, 1902, to March 31, 1903 ..	199 19 4		
		Total	6,254 13 10	Total	6,254 13 10
Raureka ..	9 Mar., 1896	Purchase-money ..	10,260 0 0	Rents, &c., paid, to March 31, 1902	3,067 10 11
		Incidental expenses to March 31, 1902 ..	229 8 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	557 13 6
		Incidental expenses, April 1, 1902, to March 31, 1903	15 5 0	Rents, &c., unpaid at March 31, 1903 ..	176 10 0
		Interest to March 31, 1902	2,268 3 5	Balance	9,394 0 5
		Interest, April 1, 1902, to March 31, 1903 ..	422 18 5		
		Total	13,195 14 10	Total	13,195 14 10

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Opouriao ..	20 Mar., 1896	Purchase-money ..	24,261 3 3	Rents, &c., paid, to March 31, 1902	7,601 15 11
		Incidental expenses to March 31, 1902 ..	1,692 9 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,768 10 10
		Incidental expenses, April 1, 1902, to March 31, 1903		Rents, &c., unpaid at March 31, 1903 ..	253 18 7
		Interest to March 31, 1902	5,479 18 8	Balance	22,852 16 0
		Interest, April 1, 1902, to March 31, 1903 ..	1,043 10 4		
		Total	32,477 1 4	Total	32,477 1 4
Orakipaoa ..	20 Mar., 1896	Purchase-money ..	7,683 17 6	Rents, &c., paid, to March 31, 1902	2,294 11 6
		Incidental expenses to March 31, 1902 ..	106 7 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	302 6 1
		Incidental expenses, April 1, 1902, to March 31, 1903	10 12 10	Rents, &c., unpaid at March 31, 1903 ..	107 1 3
		Interest to March 31, 1902	1,684 2 1	Balance	7,094 15 5
		Interest, April 1, 1902, to March 31, 1903 ..	313 14 10		
		Total	9,798 14 3	Total	9,798 14 3
Omaka ..	20 Apr., 1896	Purchase-money ..	10,865 13 6	Rents, &c., paid, to March 31, 1902	3,266 4 6
		Incidental expenses to March 31, 1902 ..	681 2 10	Rents, &c., paid, April 1, 1902, to March 1, 1903	608 6 5
		Incidental expenses April 1, 1902, to March 31, 1903	2 15 0	Rents, &c., unpaid at March 31, 1903 ..	184 0 2
		Interest to March 31, 1902	2,385 2 5	Balance	10,340 8 7
		Interest, April 1, 1902, to March 31, 1903 ..	464 5 11		
		Total	14,398 19 8	Total	14,398 19 8
Elsthorpe ..	21 Apr., 1896 27 Nov., 1896	Purchase-money ..	43,420 10 0	Rents, &c., paid, to March 31, 1902	13,069 13 6
		Incidental expenses to March 31, 1902 ..	1,761 2 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	2,369 11 9
		Incidental expenses, April 1, 1902, to March 31, 1903	165 17 1	Rents, &c., unpaid at March 31, 1903 ..	808 11 9
		Interest to March 31, 1902	9,486 5 6	Balance	40,409 15 0
		Interest, April 1, 1902, to March 31, 1903 ..	1,823 17 2		
		Total	56,657 12 0	Total	56,657 12 0
Makareao ..	12 May, 1896 14 Dec., 1896	Purchase-money ..	12,239 13 8	Rents, &c., paid, to March 31, 1902	3,818 12 3
		Incidental expenses to March 31, 1902 ..	20,270 1 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,536 2 6
		Incidental expenses, April 1, 1902, to March 31, 1903	1,723 16 11	Rents, &c., unpaid at March 31, 1903 ..	228 4 8
		Interest to March 31, 1902	4,744 7 9	Balance	34,788 16 6
		Interest, April 1, 1902, to March 31, 1903 ..	1,393 16 0		
		Total	40,371 15 11	Total	40,371 15 11
Highbank ..	18 May, 1896	Purchase-money ..	59,209 12 7	Rents, &c., paid, to March 31, 1902	18,134 8 7
		Incidental expenses to March 31, 1902 ..	1,272 9 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	3,003 11 10
		Incidental expenses, April 1, 1902, to March 31, 1903	1 12 6	Rents, &c., unpaid at March 31, 1903 ..	350 14 11
		Interest to March 31, 1902	12,454 7 2	Balance	53,902 5 7
		Interest, April 1, 1902, to March 31, 1903 ..	2,452 19 2		
		Total	75,391 0 11	Total	75,391 0 11
Ardgowan ..	23 May, 1896	Purchase-money ..	34,600 0 0	Rents, &c., paid, to March 31, 1902	11,036 11 0
		Incidental expenses to March 31, 1902 ..	4,252 19 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,781 18 1
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	326 13 4
		Interest to March 31, 1902	8,064 3 1	Balance	35,335 0 1
		Interest, April 1, 1902, to March 31, 1903 ..	1,562 19 7		
		Total	48,480 2 6	Total	48,480 2 6

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Waimarie ..	21 July, 1896	Purchase-money ..	8,608 15 0	Rents, &c., paid, to March 31, 1902	2,280 10 6
		Incidental expenses to March 31, 1902 ..	267 3 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	456 8 9
		Incidental expenses, April 1, 1902, to March 31, 1903	1 4 0	Rents, &c., unpaid at March 31, 1903 ..	88 19 6
		Interest to March 31, 1902	1,810 13 4	Balance	8,219 5 9
		Interest, April 1, 1902, to March 31, 1903 ..	357 8 3		
		Total	11,045 4 6	Total	11,045 4 6
Otarakaro ..	4 Sept., 1896	Purchase-money ..	1,990 6 3	Rents, &c., paid, to March 31, 1902	476 14 0
		Incidental expenses to March 31, 1902 ..	83 18 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	93 15 10
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	51 2 7
		Interest to March 31, 1902	422 6 6	Balance	1,958 17 1
		Interest, April 1, 1902, to March 31, 1903 ..	83 17 10		
		Total	2,580 9 6	Total	2,580 9 6
Wharenui ..	28 Oct., 1896	Purchase-money ..	4,765 6 3	Rents, &c., paid, to March 31, 1902	1,343 14 5
		Incidental expenses to March 31, 1902 ..	304 17 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	289 1 2
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	16 2 4
		Interest to March 31, 1902	980 2 3	Balance	4,604 16 9
		Interest, April 1, 1902, to March 31, 1903 ..	203 8 4		
		Total	6,253 14 8	Total	6,253 14 8
Tomoana ..	31 Dec., 1896	Purchase-money ..	2,458 0 0	Rents, &c., paid, to March 31, 1902	523 8 0
		Incidental expenses to March 31, 1902 ..	20 13 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	134 2 3
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	25 14 0
		Interest to March 31, 1902	484 18 3	Balance	2,380 6 10
		Interest, April 1, 1902, to March 31, 1903 ..	99 19 8		
		Total	3,063 11 1	Total	3,063 11 1
Horsley Down	1 Jan., 1897	Purchase-money ..	20,022 5 8	Rents, &c., paid, to March 31, 1902	5,593 8 7
		Incidental expenses to March 31, 1902 ..	512 15 4	Rents, &c., paid, April 1, 1902, to March 31, 1903	973 4 3
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	0 0 6
		Interest to March 31, 1902	3,830 5 11	Balance	18,624 19 9
		Interest, April 1, 1902, to March 31, 1903 ..	826 6 2		
		Total	25,191 13 1	Total	25,191 13 1
Pouparae ..	31 Jan., 1897	Purchase-money ..	7,768 16 6	Rents, &c., paid, to March 31, 1902	1,742 4 6
		Incidental expenses to March 31, 1902 ..	39 0 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	363 5 9
		Incidental expenses, April 1, 1902, to March 31, 1903	1 4 0	Rents, &c., unpaid at March 31, 1903 ..	177 8 0
		Interest to March 31, 1902	1,483 3 7	Balance	7,323 1 3
		Interest, April 1, 1902, to March 31, 1903 ..	313 14 10		
		Total	9,605 19 6	Total	9,605 19 6
Rakitairi ..	31 Mar., 1897	Purchase-money ..	19,362 7 6	Rents, &c., paid, to March 31, 1902	4,937 16 0
		Incidental expenses to March 31, 1902 ..	342 10 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,134 15 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	148 12 2
		Interest to March 31, 1902	3,116 12 8	Balance	17,393 6 9
		Interest, April 1, 1902, to March 31, 1903 ..	792 19 7		
		Total	23,614 10 4	Total	23,614 10 4

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Waiapi ..	31 Mar., 1897	Purchase-money ..	9,553 2 3	Rents, &c., paid, to March 31, 1902 ..	2,494 12 4
		Incidental expenses to March 31, 1902 ..	106 6 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	458 4 3
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	62 14 10
		Interest to March 31, 1902	1,725 6 3	Balance	8,757 12 1
		Interest, April 1, 1902, to March 31, 1903 ..	388 8 11		
		Total	11,773 3 6	Total	11,773 3 6
Albury ..	31 Mar., 1897	Purchase-money ..	65,294 11 8	Rents, &c., paid, to March 31, 1902	15,960 18 9
		Incidental expenses to March 31, 1902 ..	2,026 0 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	3,426 7 6
		Incidental expenses, April 1, 1902, to March 31, 1903	10 13 4	Rents, &c., unpaid at March 31, 1903 ..	446 18 6
		Interest to March 31, 1902	12,194 11 7	Balance	62,420 8 4
		Interest, April 1, 1902, to March 31, 1903 ..	2,728 15 7		
		Total	82,254 13 1	Total	82,254 13 1
Puhipuhi ..	14 Apr., 1897	Purchase-money ..	320 0 0	Rents, &c., paid, to March 31, 1902	91 10 0
		Incidental expenses to March 31, 1902 ..	3 16 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	20 10 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	12 5 0
		Interest to March 31, 1902	56 17 9	Balance	269 1 6
		Interest, April 1, 1902, to March 31, 1903 ..	12 12 9		
		Total	393 6 6	Total	393 6 6
Momona ..	26 Apr., 1897	Purchase-money ..	3,608 19 3	Rents, &c., paid, to March 31, 1902	971 1 11
		Incidental expenses to March 31, 1902 ..	77 10 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	204 9 1
		Incidental expenses, April 1, 1902, to March 31, 1903	0 13 4	Rents, &c., unpaid at March 31, 1903 ..	79 5 2
		Interest to March 31, 1902	644 18 6	Balance	3,225 10 0
		Interest, April 1, 1902, to March 31, 1903 ..	148 5 0		
		Total	4,480 6 2	Total	4,480 6 2
Tokarahi ..	26 Apr., 1897	Purchase-money ..	77,360 17 10	Rents, &c., paid, to March 31, 1902	17,907 13 3
		Incidental expenses to March 31, 1902 ..	1,894 17 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	4,520 9 7
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	2,034 13 3
		Interest to March 31, 1902	14,046 10 3	Balance	72,047 14 2
		Interest, April 1, 1902, to March 31, 1903 ..	3,208 4 6		
		Total	96,510 10 3	Total	96,510 10 3
Marawhiti..	26 Apr., 1897	Purchase-money ..	14,200 18 10	Rents, &c., paid, to March 31, 1902	3,376 17 11
		Incidental expenses to March 31, 1902 ..	272 16 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	813 13 6
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	198 2 9
		Interest to March 31, 1902	2,567 4 7	Balance	13,234 18 8
		Interest, April 1, 1902, to March 31, 1903 ..	582 13 4		
		Total	17,623 12 10	Total	17,623 12 10
Cannington (R.S., 1862)	5 June, 1897	Purchase-money ..	60 0 0	Rents, &c., paid, to March 31, 1902	14 13 0
		Incidental expenses to March 31, 1902 ..	4 3 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	3 0 8
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	11 3 9	Balance	59 19 0
		Interest, April 1, 1902, to March 31, 1903 ..	2 5 11		
		Total	77 12 8	Total	77 12 8

Table 34.—Statement showing Outlay and Income of Estates purchased, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Paparangi ..	23 July, 1897	Purchase-money ..	3,875 8 0	Rents, &c., paid, to March 31, 1902	1,433 13 11
		Incidental expenses to March 31, 1902 ..	2,958 13 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	486 12 9
		Incidental expenses, April 1, 1902, to March 31, 1903		Rents, &c., unpaid at March 31, 1903 ..	83 0 8
		Interest to March 31, 1902	1,100 19 5	Balance	6,206 7 4
		Interest, April 1, 1902, to March 31, 1903 ..	274 13 4		
		Total	8,209 14 8	Total	8,209 14 8
Otahu ..	4 Aug., 1897	Purchase-money ..	7,555 4 6	Rents, &c., paid, to March 31, 1902	970 0 1
		Incidental expenses to March 31, 1902 ..	752 15 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	258 1 11
		Incidental expenses, April 1, 1902, to March 31, 1903	24 14 1	Rents, &c., unpaid at March 31, 1903 ..	191 7 5
		Interest to March 31, 1902	1,454 8 4	Balance	8,723 4 7
		Interest, April 1, 1902, to March 31, 1903 ..	355 11 7		
		Total	10,142 14 0	Total	10,142 14 0
Beaumont..	9 Dec., 1897	Purchase-money ..	10,482 11 3	Rents, &c., paid, to March 31, 1902	766 7 1
		Incidental expenses to March 31, 1902 ..	83 9 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	446 0 9
		Incidental expenses, April 1, 1902, to March 31, 1903	3 18 10	Rents, &c., unpaid at March 31, 1903 ..	454 16 1
		Interest to March 31, 1902	1,733 15 8	Balance	11,081 16 2
		Interest, April 1, 1902, to March 31, 1903 ..	445 4 5		
		Total	12,749 0 1	Total	12,749 0 1
Pawaho ..	8 Mar., 1898	Purchase-money ..	1,823 12 6	Rents, &c., paid, to March 31, 1902	419 1 8
		Incidental expenses to March 31, 1902 ..	332 14 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	152 8 4
		Incidental expenses, April 1, 1902, to March 31, 1903	55 0 0	Rents, &c., unpaid at March 31, 1903 ..	11 3 9
		Interest to March 31, 1902	305 17 1	Balance	2,023 0 7
		Interest, April 1, 1902, to March 31, 1903 ..	88 9 10		
		Total	2,605 14 4	Total	2,605 14 4
Hekeao ..	8 Mar., 1898	Purchase-money ..	10,545 5 0	Rents, &c., paid, to March 31, 1902	2,328 19 3
		Incidental expenses to March 31, 1902 ..	1,081 19 4	Rents, &c., paid, April 1, 1902, to March 31, 1903	710 7 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	1 12 6
		Interest to March 31, 1902	1,714 13 5	Balance	10,768 13 10
		Interest, April 1, 1902, to March 31, 1903 ..	467 14 10		
		Total	13,809 12 7	Total	13,809 12 7
Okauia ..	23 Mar., 1898	Purchase-money ..	4,143 12 1	Rents, &c., paid, to March 31, 1902	578 8 0
		Incidental expenses to March 31, 1902 ..	685 5 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	187 8 11
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	373 5 9
		Interest to March 31, 1902	728 13 4	Balance	4,612 12 2
		Interest, April 1, 1902, to March 31, 1903 ..	194 4 5		
		Total	5,751 14 10	Total	5,751 14 10
Rangiatea ..	24 Mar., 1898	Purchase-money ..	14,014 0 0	Rents, &c., paid, to March 31, 1902	2,302 3 5
		Incidental expenses to March 31, 1902 ..	253 7 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,015 14 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	269 16 5
		Interest to March 31, 1902	2,142 13 10	Balance	13,395 16 11
		Interest, April 1, 1902, to March 31, 1903 ..	573 9 6		
		Total	16,983 11 2	Total	16,983 11 2

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Karapiro ..	27 Oct., 1898	Purchase-money ..	8,617 4 6	Rents, &c., paid, to March 31, 1902	1,404 4 0
		Incidental expenses to March 31, 1902 ..	133 15 5	Rents, &c., paid, April 1, 1902, to March 31, 1903	343 14 1
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	145 4 2
		Interest to March 31, 1902	1,066 7 11	Balance	8,276 18 11
		Interest, April 1, 1902, to March 31, 1903 ..	352 13 4		
		Total	10,170 1 2	Total	10,170 1 2
R.S. 2682 ..	18 Nov., 1898	Purchase-money ..	105 0 0	Rents, &c., paid, to March 31, 1902	28 17 7
		Incidental expenses to March 31, 1902 ..	4 13 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	17 5 9
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	12 17 6	Balance	80 19 1
		Interest, April 1, 1902, to March 31, 1903 ..	4 11 11		
		Total	127 2 5	Total	127 2 5
Starborough	27 Mar., 1899	Purchase-money ..	100,562 0 0	Rents, &c., paid, to March 31, 1902	13,664 12 3
	4 Oct., „	Incidental expenses to March 31, 1902 ..	8,152 10 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	5,510 8 1
		Incidental expenses, April 1, 1902, to March 31, 1903	34 5 9	Rents, &c., unpaid at March 31, 1903 ..	3,371 5 4
		Interest to March 31, 1902	12,012 12 6	Balance	102,589 4 2
		Interest, April 1, 1902, to March 31, 1903 ..	4,374 0 10		
		Total	125,135 9 10	Total	125,135 9 10
Waikakahi	27 Mar., 1899	Purchase-money ..	323,314 2 7	Rents, &c., paid, to March 31, 1902	43,874 2 0
		Incidental expenses to March 31, 1902 ..	3,183 5 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	17,953 19 5
		Incidental expenses, April 1, 1902, to March 31, 1903	98 13 1	Rents, &c., unpaid at March 31, 1903 ..	2,763 17 11
		Interest to March 31, 1902	36,663 17 8	Balance	311,805 1 5
		Interest, April 1, 1902, to March 31, 1903 ..	13,137 1 6		
		Total	376,397 0 9	Total	376,397 0 9
Mahora ..	27 Mar., 1899	Purchase-money ..	31,178 2 6	Rents, &c., paid, to March 31, 1902	4,284 17 2
		Incidental expenses to March 31, 1902 ..	718 12 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,469 7 2
		Incidental expenses, April 1, 1902, to March 31, 1903	44 6 6	Rents, &c., unpaid at March 31, 1903 ..	643 18 5
		Interest to March 31, 1902	3,544 10 2	Balance	30,372 6 1
		Interest, April 1, 1902, to March 31, 1903 ..	1,284 17 2		
		Total	36,770 8 10	Total	36,770 8 10
Willows ..	27 Mar., 1899	Purchase-money ..	14,734 10 0	Rents, &c., paid, to March 31, 1902	1,988 6 2
		Incidental expenses to March 31, 1902 ..	78 15 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	805 1 8
		Incidental expenses, April 1, 1902, to March 31, 1903	19 8 0	Rents, &c., unpaid at March 31, 1903 ..	85 3 5
		Interest to March 31, 1902	1,664 11 0	Balance	14,215 2 6
		Interest, April 1, 1902, to March 31, 1903 ..	596 9 2		
		Total	17,093 13 9	Total	17,093 13 9
Tamai ..	27 Mar., 1899	Purchase-money ..	2,662 11 3	Rents, &c., paid, to March 31, 1902	441 7 2
		Incidental expenses to March 31, 1902 ..	766 10 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	225 19 6
		Incidental expenses, April 1, 1902, to March 31, 1903	48 14 7	Rents, &c., unpaid at March 31, 1903 ..	66 11 1
		Interest to March 31, 1902	363 13 8	Balance	3,247 16 1
		Interest, April 1, 1902, to March 31, 1903 ..	140 4 2		
		Total	3,981 13 10	Total	3,981 13 10

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Richmond Brook	27 Mar., 1899	Purchase-money ..	23,890 7 0	Rents, &c., paid, to March 31, 1902 ..	2,856 2 8
	14 June, „	Incidental expenses to March 31, 1902 ..	1,418 19 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,071 17 9
		Incidental expenses, April 1, 1902, to March 31, 1903	3 9 9	Rents, &c., unpaid at March 31, 1903 ..	593 7 8
		Interest to March 31, 1902	2,831 13 4	Balance	24,661 6 7
		Interest, April 1, 1902, to March 31, 1903 ..	1,038 4 8		
		Total	29,182 14 8	Total	29,182 14 8
R.S. 36469..	26 Apr., 1899	Purchase-money ..	502 19 7	Rents, &c., paid, to March 31, 1902	73 5 0
		Incidental expenses to March 31, 1902 ..	4 4 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	23 2 8
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	55 18 4	Balance	487 7 11
		Interest, April 1, 1902, to March 31, 1903 ..	20 13 8		
		Total	583 15 7	Total	583 15 7
R.S. 36228 (Homestead)	24 July, 1899	Purchase-money ..	227 0 3	Rents, &c., paid, to March 31, 1902	25 2 8
		Incidental expenses to March 31, 1902 ..	13 0 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	11 6 4
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	25 2 9	Balance	237 18 6
		Interest, April 1, 1902, to March 31, 1903 ..	9 3 10		
		Total	274 7 6	Total	274 7 6
Janefield ..	27 July, 1899	Purchase-money ..	4,888 3 4	Rents, &c., paid, to March 31, 1902	545 2 7
		Incidental expenses to March 31, 1902 ..	168 9 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	220 11 4
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid to March 31, 1903 ..	142 13 7
		Interest to March 31, 1902	516 6 2	Balance	4,867 19 7
		Interest, April 1, 1902, to March 31, 1903 ..	203 8 4		
		Total	5,776 7 1	Total	5,776 7 1
R.S. 36231..	29 Sept., 1899	Purchase-money ..	346 5 7	Rents, &c., paid, to March 31, 1902	35 11 0
		Incidental expenses to March 31, 1902 ..	3 3 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	8 17 9
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	17 15 6
		Interest to March 31, 1902	35 1 0	Balance	336 1 1
		Interest, April 1, 1902, to March 31, 1903 ..	13 15 9		
		Total	398 5 4	Total	398 5 4
R.S. 36056/7	29 Sept., 1899	Purchase-money ..	290 10 0	Rents, &c., paid, to March 31, 1902	35 2 4
		Incidental expenses to March 31, 1902 ..	3 3 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	13 9 0
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	28 0 11	Balance	284 12 5
		Interest, April 1, 1902, to March 31, 1903 ..	11 9 10		
		Total	333 3 9	Total	333 3 9
Te Matua .	27 Dec., 1899	Purchase-money ..	10,531 15 8	Rents, &c., paid, to March 31, 1902	1,326 6 2
		Incidental expenses to March 31, 1902 ..	278 6 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	540 17 11
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	10 17 6
		Interest to March 31, 1902	930 13 1	Balance	10,297 1 11
		Interest, April 1, 1902, to March 31, 1903 ..	434 8 3		
		Total	12,175 3 6	Total	12,175 3 6

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Rautawiri ..	27 Dec., 1899	Purchase-money ..	2,560 7 2	Rents, &c., paid, to March 31, 1902	199 19 8
		Incidental expenses to March 31, 1902 ..	63 9 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	91 2 4
		Incidental expenses, April 1, 1902, to March 31, 1903	0 8 6	Rents, &c., unpaid at March 31, 1903 ..	100 11 9
		Interest to March 31, 1902	230 8 9	Balance	2,588 14 11
		Interest, April 1, 1902, to March 31, 1903 ..	125 14 7		
		Total	2,980 8 8	Total	2,980 8 8
Ohakea ..	13 Jan., 1900	Purchase-money ..	22,638 12 2	Rents, &c., paid, to March 31, 1902	2,423 14 0
		Incidental expenses to March 31, 1902 ..	218 5 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,102 7 1
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	176 12 7
		Interest to March 31, 1902	1,900 10 8	Balance	21,974 3 1
		Interest, April 1, 1902, to March 31, 1903 ..	919 8 0		
		Total	25,676 16 9	Total	25,676 16 9
Aorangi ..	26 Mar., 1900	Purchase-money ..	25,355 0 0	Rents, &c., paid, to March 31, 1902	2,683 15 6
		Incidental expenses to March 31, 1902 ..	1,609 16 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,372 18 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	100 7 5
		Interest to March 31, 1902	2,090 16 11	Balance	25,983 10 0
		Interest, April 1, 1902, to March 31, 1903 ..	1,084 17 10		
		Total	30,140 11 4	Total	30,140 11 4
Fencourt ..	26 Mar., 1900	Purchase-money ..	31,976 0 4	Rents, &c., paid, to March 31, 1902	2,319 15 2
		Incidental expenses to March 31, 1902 ..	764 16 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,852 5 0
		Incidental expenses, April 1, 1902, to March 31, 1903	44 7 8	Rents, &c., unpaid at March 31, 1903 ..	639 11 1
		Interest to March 31, 1902	2,556 12 7	Balance	31,848 17 8
		Interest, April 1, 1902, to March 31, 1903 ..	1,318 12 4		
		Total	36,660 8 11	Total	36,660 8 11
Whitehall ..	26 Mar., 1900	Purchase-money ..	6,734 16 3	Rents, &c., paid, to March 31, 1902	391 4 2
		Incidental expenses to March 31, 1902 ..	295 10 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	415 13 4
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	262 7 3
		Interest to March 31, 1902	553 12 10	Balance	6,797 8 7
		Interest, April 1, 1902, to March 31, 1903 ..	282 14 3		
		Total	7,866 13 4	Total	7,866 13 4
Takitu ..	26 Mar., 1900	Purchase-money ..	23,032 14 0	Rents, &c., paid, to March 31, 1902	1,871 12 9
		Incidental expenses to March 31, 1902 ..	538 8 5	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,762 5 0
		Incidental expenses, April 1, 1902, to March 31, 1903	55 17 6	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	1,830 3 11	Balance	22,793 14 8
		Interest, April 1, 1902, to March 31, 1903 ..	970 8 7		
		Total	26,427 12 5	Total	26,427 12 5
Pareora No. 2	6 Mar., 1900	Purchase-money ..	70,953 3 0	Rents, &c., paid, to March 31, 1902	6,657 7 11
		Incidental expenses to March 31, 1902 ..	880 12 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	3,442 9 2
		Incidental expenses, April 1, 1902, to March 31, 1903	16 19 10	Rents, &c., unpaid at March 31, 1903 ..	266 2 8
		Interest to March 31, 1902	5,573 18 11	Balance	70,351 6 9
		Interest, April 1, 1902, to March 31, 1903 ..	3,292 12 0		
		Total	80,717 6 6	Total	80,717 6 6

Table 34.—Statement showing Outlay and Income of Estates purchased, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Elderslie ..	26 Mar., 1900	Purchase-money ..	79,758 18 4	Rents, &c., paid, to March 31, 1902	6,302 6 2
		Incidental expenses to March 31, 1902 ..	1,779 0 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	4,315 5 5
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	1,281 14 10
		Interest to March 31, 1902	6,352 8 5	Balance	79,291 0 1
		Interest, April 1, 1902, to March 31, 1903 ..	3,299 19 2		
		Total	91,190 6 6	Total	91,190 6 6
Punaroa ..	26 Mar., 1900	Purchase-money ..	31,613 15 4	Rents, &c., paid, to March 31, 1902	3,011 8 2
		Incidental expenses to March 31, 1902 ..	538 12 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,550 8 0
		Incidental expenses, April 1, 1902, to March 31, 1903	10 0 0	Rents, &c., unpaid at March 31, 1903 ..	138 7 0
		Interest to March 31, 1902	2,520 18 7	Balance	31,276 1 0
		Interest, April 1, 1902, to March 31, 1903 ..	1,292 18 1		
		Total	35,976 4 2	Total	35,976 4 2
Papaka ..	26 Mar., 1900	Purchase-money ..	17,962 11 4	Rents, &c., paid, to March 31, 1902	1,804 3 5
		Incidental expenses to March 31, 1902 ..	189 7 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	865 5 6
		Incidental expenses, April 1, 1902, to March 31, 1903	1 11 0	Rents, &c., unpaid at March 31, 1903 ..	39 14 8
		Interest to March 31, 1902	1,424 11 7	Balance	17,598 13 7
		Interest, April 1, 1902, to March 31, 1903 ..	729 15 5		
		Total	20,307 17 2	Total	20,307 17 2
Barnego ..	26 Mar., 1900	Purchase-money ..	26,323 2 0	Rents, &c., paid, to March 31, 1902	2,392 9 2
		Incidental expenses to March 31, 1902 ..	917 14 11	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,129 6 0
		Incidental expenses, April 1, 1902, to March 31, 1903	28 6 11	Rents, &c., unpaid at March 31, 1903 ..	220 9 1
		Interest to March 31, 1902	2,137 12 2	Balance	26,760 19 5
		Interest, April 1, 1902, to March 31, 1903 ..	1,096 7 8		
		Total	30,503 3 8	Total	30,503 3 8
Earnscleugh	6 Nov., 1900	Purchase-money ..	3,100 0 0	Rents, &c., paid, to March 31, 1902	122 11 4
		Incidental expenses to March 31, 1902 ..	69 17 5	Rents, &c., paid, April 1, 1902, to March 31, 1903	163 0 5
		Incidental expenses, April 1, 1902, to March 31, 1903	8 10 0	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	178 1 4	Balance	3,199 8 3
		Interest, April 1, 1902, to March 31, 1903 ..	128 11 3		
		Total	3,485 0 0	Total	3,485 0 0
Maungaraki	6 Nov., 1900 23 Dec., 1901	Purchase-money ..	3,000 0 0	Rents, &c., paid, to March 31, 1903	63 2 7
		Incidental expenses to March 31, 1902 ..	592 16 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	110 17 5
		Incidental expenses, April 1, 1902, to March 31, 1903	804 7 6	Rents, &c., unpaid at March 31, 1903 ..	33 6 4
		Interest to March 31, 1902	191 7 4	Balance	4,558 4 11
		Interest, April 1, 1902, to March 31, 1903 ..	176 19 7		
		Total	4,765 11 3	Total	4,765 11 3
Waipapa ..	6 Mar., 1901	Purchase-money ..	8,250 0 0	Rents, &c., paid, to March 31, 1902	405 8 4
		Incidental expenses to March 31, 1902 ..	281 0 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	413 6 11
		Incidental expenses, April 1, 1902, to March 31, 1903	370 17 3	Rents, &c., unpaid at March 31, 1903 ..	174 19 8
		Interest to March 31, 1902	361 1 7	Balance	8,269 4 5
		Interest, April 1, 1902, to March 31, 1903 ..	9,262 19 4		
		Total		Total	9,262 19 4

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Tarawahi ..	26 Mar., 1901	Purchase-money ..	2,857 10 0	Rents, &c., paid, to March 31, 1902	83 7 3
		Incidental expenses to March 31, 1902 ..	131 19 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	177 6 7
		Incidental expenses, April 1, 1902, to March 31, 1903	704 14 2	Rents, &c., unpaid at March 31, 1903 ..	9 3 7
		Interest to March 31, 1902	123 12 4	Balance	3,689 5 1
		Interest, April 1, 1902, to March 31, 1903 ..	141 7 0		
		Total	3,959 2 6	Total	3,959 2 6
Northbank	26 Mar., 1901	Purchase-money ..	6,750 0 0	Rents, &c., paid, to March 31, 1902	511 15 8
		Incidental expenses to March 31, 1902 ..	256 17 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	512 10 11
		Incidental expenses, April 1, 1902, to March 31, 1903	158 0 7	Rents, &c., unpaid at March 31, 1903 ..	16 17 8
		Interest to March 31, 1902	289 15 9	Balance	6,701 18 6
		Interest, April 1, 1902, to March 31, 1903 ..	288 9 2		
		Total	7,743 2 9	Total	7,743 2 9
Lyndon ..	26 Mar., 1901	Purchase-money ..	15,750 0 0	Rents, &c., paid, to March 31, 1902	807 16 8
		Incidental expenses to March 31, 1902 ..	361 9 3	Rents, &c., paid, April 1, 1902, to March 31, 1903	727 8 11
		Incidental expenses, April 1, 1902, to March 31, 1903	819 7 9	Rents, &c., unpaid at March 31, 1903 ..	46 15 3
		Interest to March 31, 1902	649 1 11	Balance	16,690 8 2
		Interest, April 1, 1902, to March 31, 1903 ..	682 10 1		
		Total	18,262 9 0	Total	18,262 9 0
Hatuma ..	26 Mar., 1901	Purchase-money ..	141,393 5 3	Rents, &c., paid, to March 31, 1902	4,338 18 7
		Incidental expenses to March 31, 1902 ..	3,434 19 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	4,547 7 4
		Incidental expenses, April 1, 1902, to March 31, 1903	2,830 13 3	Rents, &c., unpaid at March 31, 1903 ..	6,810 5 1
		Interest to March 31, 1902	5,990 2 10	Balance	143,891 16 6
		Interest, April 1, 1902, to March 31, 1903 ..	5,939 6 5		
		Total	159,588 7 6	Total	159,588 7 6
Langdale ..	1 Apr., 1901	Purchase-money ..	30,669 10 0	Rents, &c., paid, to March 31, 1902	1,554 10 11
		Incidental expenses to March 31, 1902 ..	869 15 9	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,591 0 2
		Incidental expenses, April 1, 1902, to March 31, 1903	17 3 6	Rents, &c., unpaid at March 31, 1903 ..	87 2 8
		Interest to March 31, 1902	1,276 14 3	Balance	30,869 5 2
		Interest, April 1, 1902, to March 31, 1903 ..	1,268 15 5		
		Total	34,101 18 11	Total	34,101 18 11
Mangawhata	24 Apr., 1901	Purchase-money ..	16,129 8 6	Rents, &c., paid, to March 31, 1902	683 3 3
		Incidental expenses to March 31, 1902 ..	629 2 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	879 16 6
		Incidental expenses, April 1, 1902, to March 31, 1903	90 6 9	Rents, &c., unpaid at March 31, 1903 ..	0 1 3
		Interest to March 31, 1902	632 3 6	Balance	16,596 0 9
		Interest, April 1, 1902, to March 31, 1903 ..	678 1 0		
		Total	18,159 1 9	Total	18,159 1 9
Kohika ..	29 Apr., 1901	Purchase-money ..	28,093 4 3	Rents, &c., paid, to March 31, 1902	1,355 18 5
		Incidental expenses to March 31, 1902 ..	702 12 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,158 7 7
		Incidental expenses, April 1, 1902, to March 31, 1903	10 14 9	Rents, &c., unpaid at March 31, 1903 ..	212 9 10
		Interest to March 31, 1902	1,077 4 3	Balance	28,315 8 4
		Interest, April 1, 1902, to March 31, 1903 ..	1,158 8 10		
		Total	31,042 4 2	Total	31,042 4 2

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued*.

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Manga-a-toro	27 Mar., 1902	Purchase-money ..	88,118 4 3	Rents, &c., paid, to March 31, 1902	1,960 16 11
		Incidental expenses to March 31, 1902 ..	641 3 10	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,447 5 9
		Incidental expenses, April 1, 1902, to March 31, 1903	920 12 3	Rents, &c., unpaid at March 31, 1903 ..	1,105 7 9
		Interest to March 31, 1902	29 15 3	Balance	88,803 14 11
		Interest, April 1, 1902, to March 31, 1903 ..	3,607 9 9		
		Total	93,317 5 4	Total	93,317 5 4
Kaimahi ..	23 July, 1901	Purchase-money ..	4,700 0 0	Rents, &c., paid, to March 31, 1902	124 18 11
		Incidental expenses to March 31, 1902 ..	52 5 2	Rents, &c., paid, April 1, 1902, to March 31, 1903	184 12 5
		Incidental expenses, April 1, 1902, to March 31, 1903	8 7 1	Rents, &c., unpaid at March 31, 1903 ..	39 13 8
		Interest to March 31, 1902	133 8 7	Balance	4,736 14 2
		Interest, April 1, 1902, to March 31, 1903 ..	191 18 4		
		Total	5,085 19 2	Total	5,085 19 2
Kapuatohe..	26 Sept., 1901	Purchase-money ..	2,249 3 1	Rents, &c., paid, to March 31, 1902	36 9 7
		Incidental expenses to March 31, 1902 ..	44 15 7	Rents, &c., paid, April 1, 1902, to March 31, 1903	99 15 11
		Incidental expenses, April 1, 1902, to March 31, 1903	90 0 0	Rents, &c., unpaid at March 31, 1903 ..	10 8 3
		Interest to March 31, 1902	47 14 7	Balance	2,370 7 1
		Interest, April 1, 1902, to March 31, 1903 ..	95 7 7		
		Total	2,517 0 10	Total	2,517 0 10
Puhuka ..	28 June, 1901	Purchase-money ..	989 4 4	Rents, &c., paid, to March 31, 1902	20 18 8
		Incidental expenses to March 31, 1902 ..	99 15 6	Rents, &c., paid, April 1, 1902, to March 31, 1903	32 15 4
		Incidental expenses, April 1, 1902, to March 31, 1903	46 3 0	Rents, &c., unpaid at March 31, 1903 ..	3 3 3
		Interest to March 31, 1902	33 12 5	Balance	1,157 17 4
		Interest, April 1, 1902, to March 31, 1903 ..	45 19 4		
		Total	1,214 14 7	Total	1,214 14 7
Raincliff ..	21 May, 1901	Purchase-money ..	2,424 5 0	Rents, &c., paid, to March 31, 1902	105 3 10
		Incidental expenses to March 31, 1902 ..	64 18 0	Rents, &c., paid, April 1, 1902, to March 31, 1903	889 3 6
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	87 8 6	Balance	1,682 3 9
		Interest, April 1, 1902, to March 31, 1903 ..	99 19 7		
		Total	2,676 11 1	Total	2,676 11 1
Epuni ..	21 May, 1901	Purchase-money ..	9,146 12 6	Rents, &c., paid, to March 31, 1902	320 10 7
		Incidental expenses to March 31, 1902 ..	885 8 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	728 7 7
		Incidental expenses, April 1, 1902, to March 31, 1903	900 0 10	Rents, &c., unpaid at March 31, 1903 ..	43 1 8
		Interest to March 31, 1902	352 8 0	Balance	10,632 13 4
		Interest, April 1, 1902, to March 31, 1903 ..	440 3 2		
		Total	11,724 13 2	Total	11,724 13 2
Ringway ..	2 Aug., 1901	Purchase-money ..	8,000 0 0	Rents, &c., paid, to March 31, 1902	358 4 6
		Incidental expenses to March 31, 1902 ..	121 17 1	Rents, &c., paid, April 1, 1902, to March 31, 1903	347 4 7
		Incidental expenses, April 1, 1902, to 31 March, 1903	211 10 9	Rents, &c., unpaid at March 31, 1903 ..	82 13 3
		Interest to March 31, 1902	218 19 9	Balance	8,099 16 10
		Interest, April 1, 1902, to March 31, 1903 ..	335 11 7		
		Total	8,887 19 2	Total	8,887 19 2
Toka-ora ..	26 Sept., 1901	Purchase-money ..	31,616 11 0	Rents, &c., paid, to March 31, 1902	574 8 1
		Incidental expenses to March 31, 1902 ..	389 18 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	1,040 11 6
		Incidental expenses, April 1, 1902, to March 31, 1903	96 4 10	Rents, &c., unpaid at March 31, 1903 ..	455 9 6
		Interest to March 31, 1902	64 17 2	Balance	31,388 17 7
		Interest, April 1, 1902, to March 31, 1903 ..	1,291 15 0		
		Total	33,459 6 8	Total	33,459 6 8

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Glenham ..	27 Feb., 1902	Purchase-money ..	37,100 0 0	Rents, &c., paid, to March 31, 1902	295 12 7
		Incidental expenses to March 31, 1902 ..	412 13 4	Rents, &c., paid, April 1, 1902, to March 31, 1903	988 6 7
		Incidental expenses, April 1, 1902, to March 31, 1903	305 10 7	Rents, &c., unpaid at March 31, 1903 ..	80 3 9
		Interest to March 31, 1902	134 5 8	Balance	38,109 18 8
		Interest, April 1, 1902, to March 31, 1903 ..	1,521 12 0		
		Total	39,474 1 7	Total	39,474 1 7
Rapuwai ..	29 Oct., 1901	Purchase-money ..	8,990 5 6	Rents, &c., paid, to March 31, 1902	280 6 7
		Incidental expenses to March 31, 1902 ..	167 19 8	Rents, &c., paid, April 1, 1902, to March 31, 1903	410 10 7
		Incidental expenses, April 1, 1902, to March 31, 1903	210 9 0	Rents, &c., unpaid at March 31, 1903 ..	28 19 8
		Interest to March 31, 1902	156 14 11	Balance	9,182 11 3
		Interest, April 1, 1902, to March 31, 1903 ..	376 19 0		
		Total	9,902 8 1	Total	9,902 8 1
Forest Gate	27 Feb., 1902	Purchase-money ..	48,521 0 0	Rents, &c., paid, to March 31, 1903	2,576 7 1
		Incidental expenses to March 31, 1902 ..	688 1 6	Rents, &c., unpaid at March 31, 1903 ..	95 8 10
		Incidental expenses, April 1, 1902, to March 31, 1903	87 15 1	Balance	48,783 12 0
		Interest to March 31, 1902	176 2 4		
		Interest, April 1, 1902, to March 31, 1903 ..	1,982 9 0		
		Total	51,455 7 11	Total	51,455 7 11
Lyndon No. 2	27 Mar., 1902	Purchase-money ..	43,326 5 0	Rents, &c., paid, to March 31, 1903	1,698 13 10
		Incidental expenses to March 31, 1902 ..	542 9 0	Rents, &c., unpaid at March 31, 1903 ..	520 18 5
		Incidental expenses, April 1, 1902, to March 31, 1903	215 14 0	Balance	43,652 16 0
		Interest to March 31, 1902	14 14 6		
		Interest, April 1, 1902, to March 31, 1903 ..	1,773 5 9		
		Total	45,872 8 3	Total	45,872 8 3
Waari ..	14 Sept., 1901	Purchase-money ..	855 8 0	Balance	915 9 7
		Incidental expenses to March 31, 1902 ..	5 5 0		
		Incidental expenses, April 1, 1902, to March 31, 1903	1 5 9		
		Interest to March 31, 1902	19 1 6		
		Interest, April 1, 1902, to March 31, 1903 ..	34 9 4		
		Total	915 9 7	Total	915 9 7
Hetana ..	14 Sept., 1901	Purchase-money ..	4,898 14 3	Rents, &c., paid, to March 31, 1903	48 6 6
		Incidental expenses to March 31, 1902 ..	26 11 0	Rents, &c., unpaid at March 31, 1903 ..	0 12 0
		Incidental expenses, April 1, 1902, to March 31, 1903	29 14 6	Balance	5,213 19 3
		Interest to March 31, 1902	109 1 8		
		Interest, April 1, 1902, to March 31, 1903 ..	198 16 4		
		Total	5,262 17 9	Total	5,262 17 9
Kumeroa ..	26 Mar., 1902	Purchase-money ..	29,092 3 9	Rents, &c., paid, to March 31, 1903	1,025 0 10
		Incidental expenses to March 31, 1902 ..	459 4 3	Rents, &c., unpaid at March 31, 1903 ..	281 13 9
		Incidental expenses, April 1, 1902, to March 31, 1903	1,103 17 2	Balance	30,594 18 2
		Interest to March 31, 1902	13 4 10		
		Interest, April 1, 1902, to March 31, 1903 ..	1,233 2 9		
		Total	31,901 12 9	Total	31,901 12 9
Cradock ..	4 Feb., 1902	Purchase-money ..	1,000 0 0	Rents, &c., paid, to March 31, 1903	9 9 8
		Incidental expenses to March 31, 1903 ..	17 19 6	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	6 3 0	Balance	1,056 0 2
		Interest, April 1, 1902, to March 31, 1903 ..	41 7 4		
		Total	1,065 9 10	Total	1,065 9 10

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Kitchener ..	4 Feb., 1902	Purchase-money ..	876 9 8	Rents, &c., paid, to March 31, 1903	7 16 0
		Incidental expenses to March 31, 1903 ..	14 9 0	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1902	5 7 9	Balance	924 2 9
		Interest, April 1, 1902, to March 31, 1903 ..	35 12 4		
		Total	931 18 9	Total	931 18 9
Plumer ..	5 Feb., 1902	Purchase-money ..	888 0 0	Rents, &c., paid, to March 31, 1903	16 18 5
		Incidental expenses to March 31, 1903 ..	12 1 6	Rents, &c., unpaid at March 31, 1903 ..	3 12 7
		Interest to March 31, 1902	5 7 3	Balance	920 10 1
		Interest, April 1, 1902, to March 31, 1903 ..	35 12 4		
		Total	941 1 1	Total	941 1 1
Methuen ..	5 Feb., 1902	Purchase-money ..	3,528 16 10	Rents, &c., paid, to March 31, 1903	99 5 11
		Incidental expenses to March 31, 1903 ..	162 1 0	Rents, &c., unpaid at March 31, 1903 ..	6 4 9
		Interest to March 31, 1902	21 6 4	Balance	3,754 18 6
		Interest, April 1, 1902, to March 31, 1903 ..	148 5 0		
		Total	3,860 9 2	Total	3,860 9 2
R.S. 36278 ..	11 July, 1901	Purchase-money ..	483 17 9	Rents, &c., paid, at March 31, 1903	35 2 4
		Incidental expenses to March 31, 1902 ..	3 3 0	Rents, &c., unpaid at March 31, 1903 ..	..
		Incidental expenses, April 1, 1902, to March 31, 1903	..	Balance	485 15 6
		Interest to March 31, 1902	14 6 6		
		Interest, April 1, 1902, to March 31, 1903 ..	19 10 7		
		Total	520 17 10	Total	520 17 10
Maytown ..	26 Mar., 1902	Purchase-money ..	5,286 12 0	Rents, &c., paid, to March 31, 1903	265 3 9
		Incidental expenses to March 31, 1902 ..	20 16 0	Rents, &c., unpaid at March 31, 1903 ..	19 10 10
		Incidental expenses, April 1, 1902, to March 31, 1903	98 18 0	Balance	5,341 2 9
		Interest to March 31, 1902	2 7 4		
		Interest, April 1, 1902, to March 31, 1903 ..	217 4 0		
		Total	5,625 17 4	Total	5,625 17 4
Eccleston ..	16 Apr., 1902	Purchase-money ..	10,593 2 6	Rents, &c., paid, to March 31, 1903	544 15 1
		Incidental expenses to March 31, 1902 ..	37 15 3	Rents, &c., unpaid at March 31, 1903 ..	..
		Incidental expenses, April 1, 1902, to March 31, 1903	96 12 5	Balance	10,595 12 8
		Interest to March 31, 1903	412 17 7		
		Total	11,140 7 9	Total	11,140 7 9
Argyll ..	25 Apr., 1902 31 Mar., 1903	Purchase-money ..	158,024 10 0	Balance	159,400 15 1
		Incidental expenses to March 31, 1903 ..	769 9 1		
		Interest to March 31, 1903	606 16 0		
		Total	159,400 15 1	Total	159,400 15 1
Windsor Park	21 May, 1902 19 Sept., 1902	Purchase-money ..	31,528 4 1	Rents, &c., paid, to March 31, 1903	1,118 8 10
		Incidental expenses to March 31, 1903 ..	844 9 7	Rents, &c., unpaid at March 31, 1903 ..	536 19 4
		Interest to March 31, 1903	1,089 9 7	Balance	31,806 15 1
		Total	33,462 3 3	Total	33,462 3 3
Linton ..	3 May, 1902	Purchase-money ..	6,846 1 10	Rents, &c., paid, to March 31, 1903	213 19 10
		Incidental expenses to March 31, 1903 ..	39 18 0	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1903	251 13 7	Balance	6,923 13 7
		Total	7,137 13 5	Total	7,137 13 5
Mead ..	15 Jan., 1903	Purchase-money ..	18,319 2 5	Rents, &c., paid, to March 31, 1903	487 19 0
		Incidental expenses to March 31, 1903 ..	320 2 10	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1903	153 19 9	Balance	18,305 6 0
		Total	18,793 5 0	Total	18,793 5 0

Table 34.—STATEMENT showing OUTLAY and INCOME of ESTATES PURCHASED, &c.—*continued.*

Name of Estate.	Date of Purchase.	Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
			£ s. d.		£ s. d.
Windsor Park (No. 2) ..	26 Aug., 1902	Purchase-money ..	16,445 15 9	Rents, &c., paid, to March 31, 1903	437 16 3
		Incidental expenses to March 31, 1903 ..	548 2 0	Rents, &c., unpaid at March 31, 1903 ..	0 2 3
		Interest to March 31, 1903	406 16 7	Balance	16,962 15 10
		Total	17,400 14 4	Total	17,400 14 4
Duncan ..	29 Oct., 1902	Purchase-money ..	4,091 11 9	Rents, &c., paid, to March 31, 1903	85 18 4
		Incidental expenses to March 31, 1903 ..	97 4 6	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1903	70 0 2	Balance	4,172 18 1
		Total	4,258 16 5	Total	4,258 16 5
Kokatahi ..	8 Aug., 1902	Purchase-money ..	4,709 0 8	Rents, &c., paid, to March 31, 1903	133 18 3
		Incidental expenses to March 31, 1903 ..	72 2 6	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1903	124 2 2	Balance	4,771 7 1
		Total	4,905 5 4	Total	4,905 5 4
Normandale	25 Mar., 1903	Purchase-money (part) ..	4,000 0 0	Balance	4,002 5 9
		Interest to March 31, 1903	2 5 9		
		Total	4,002 5 9	Total	4,002 5 9
Chamberlain	21 Jan., 1903 25 Feb., 1903	Purchase-money ..	41,863 15 6	Rents, &c., paid, to March 31, 1903	1,874 15 9
		Incidental expenses to March 31, 1903 ..	482 19 0	Rents, &c., unpaid at March 31, 1903 ..	..
		Interest to March 31, 1903	157 8 9	Balance	40,629 7 6
		Total	42,504 3 3	Total	42,504 3 3
Tablelands	7 July, 1902	Purchase-money ..	25,349 0 0	Balance	26,128 9 2
		Incidental expenses to March 31, 1903 ..	32 9 0		
		Interest to March 31, 1903	747 0 2		
		Total	26,128 9 2	Total	26,128 9 2
Longbush ..	7 July, 1902	Purchase-money ..	16,388 0 0	Balance	16,870 17 7
		Interest to March 31, 1903	482 17 7		
		Total	16,870 17 7	Total	16,870 17 7
Spotswood ..	8 Jan., 1903 25 Mar., 1903	Purchase-money ..	15,201 6 2	Balance	15,389 10 4
		Incidental expenses to March 31, 1903 ..	77 17 10		
		Interest to March 31, 1903	110 6 4		
		Total	15,389 10 4	Total	15,389 10 4
Squire's Homestead	11 Aug., 1902	Purchase-money ..	92 16 6	Rents, &c., paid, to March 31, 1903	3 5 0
		Interest to March 31, 1903	2 5 9	Rents, &c., unpaid at March 31, 1903 ..	..
				Balance	91 17 8
		Total	95 2 3	Total	95 2 3

LAND FOR SETTLEMENTS ACCOUNT.

SUMMARY.

Outlay. Particulars.	Outlay. Amount.	Income. Particulars.	Income. Amount.
DR.	£ s. d.	CR.	£ s. d.
Purchase-moneys of estates acquired, to 31st March, 1903	2,470,966 1 5	Rents, &c., paid, to 31st March, 1903 ..	413,738 4 7
Roads, and incidental expenses of estates paid for, to 31st March, 1903.. ..	109,020 7 11	Interest from investment account ..	10,335 1 9
Lands exchanged	22 4 6	Miscellaneous credits	367 10 0
Incidental expenses of estates declined or not yet completed at 31st March, 1903, &c.	22,378 0 0	Rents, &c., unpaid at 31st March, 1903	33,173 10 5
Interest to 31st March, 1903 (including accrued interest)	344,903 16 7		
Expenses on issue of debentures ..	1,221 3 7	Balance	2,490,897 7 8
Total	2,948,511 14 0	Total	2,948,511 19 0

SELECTORS AND LAND SELECTED.

Table 35.—Comparative Statement of Selectors and Lands selected under Settlement Conditions for the Ten Years ended 31st March, 1903.

Year ending 31st March,	Cash.		Deferred Payment.		Perpetual Lease.		Lease in Perpetuity.		Occupation with Right of Purchase.		Agricultural Lease.		Occupation Leases.*	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.
1894†	497	34,998	96	12,669	17	3,854	612	179,993	461	108,133	5	365	..	..
1895†	392	38,694	47	5,453	3	1,263	372	91,799	398	75,477	2	44	..	..
1896†	476	26,574	6	456	7	1,427	696	122,350	431	84,968	3	36	69	2,931
1897†	388	28,485	..	..	19	9,106	659	104,927	277	59,648	2	13	48	2,817
1898†	272	22,525	..	..	2	651	599	117,938	380	81,414	5	258	23	1,285
1899†	534	37,400	1	13	1	640	675	159,415	458	109,950	2	114	31	1,449
1900†	491	23,936	..	..	2	624	656	153,531	395	117,771	3	70	64	2,295
1901†	362	58,703	..	..	3	2,499	489	144,205	673	262,729	1	23	53	2,123
1902†	489	27,290	1	52	1	10	501	116,125	447	128,893	1	28	71	2,507
1903†	374	17,194	..	..	..	..	573	161,745	403	118,557	3	36	52	2,434

Year ending 31st March,	Village Settlement: Cash.		Village Settlement: Occupation with Right of Purchase.		Village Settlement: Lease in Perpetuity.		Village-homestead Special Settlement.		Special-settlement Associations.		Improved Farms.		Small Grazing-runs and Grazing-farms.		Totals.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.
1894†	3	2	5	1	208	3,953	118	2,549	290	68,852	..	..	142	252,693	2,454	668,062
1895†	23	23	30	23	232	4,050	60	2,742	262	51,345	107	9,731	60	117,845	1,988	398,489
1896†	16	9	3	2	193	3,364	19	794	238	44,237	315	28,348	32	46,407	2,504	361,903
1897†	4	4	4	4	102	1,317	18	360	142	28,084	45	4,882	27	68,934	1,735	308,581
1898†	2	1	2	2	92	1,426	9	42	5	442	77	9,007	71	149,458	1,539	384,449
1899†	21	30	3	2	106	2,115	12	134	5	607	64	4,823	40	77,632	1,953	394,324
1900†	6	4	3	2	80	1,762	6	31	1	2	41	7,393	64	155,109	1,812	462,530
1901†	35	22	..	..	96	1,082	7	376	..	..	13	1,936	35	86,076	1,767	559,774
1902†	21	10	1	1	33	456	30	469	..	..	..	1,618	36	112,947	1,632	390,406
1903†	19	9	..	..	40	619	34	1,512	29	5,761	30	4,032	45	113,925	1,602	425,824

* "Mining Districts Land Occupation Act, 1894." † Inclusive of Cheviot Estate, and lands disposed of under the Land for Settlements Acts.

Table 36.—RETURN of Field-work executed by the Staff and Contract Surveyors, from 1st April, 1902, to 31st March, 1903.

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.	
LAND DISTRICT OF AUCKLAND.																			
Staff Surveyors.																			
L. Cussen. Hamilton, &c. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	461 18 11	929 3 5	Inspections and supervision, King-country surveys. Reports, Opotiki District. Reports, revision Auckland triangulation.
J. Baber. Tauranga	..	..	3,187	15	2·00	..	..	..	..	..	..	..	..	..	..	..	..	560 0 0	Open and swamp.
G. A. Martin. Whangarei, &c. ..	..	..	1,148	2	1·23	..	..	..	..	..	..	..	..	..	0·95	14·49	46 9 0	1,085 12 5	Broken forest country. "Other work" is rifle range, Whangarei; land reports, &c.
H. D. M. Haszard. Thames, &c. ..	34,500	1·80	1,833	3	0·42	..	..	..	..	..	..	..	..	..	25·65	11·20	108 1 7	1,009 4 4	Mostly open and swamp. "Other work" is reports and current work for Warden, inspections, &c. Cadet assisting.
T. K. Thompson. Kaeo.. ..	22,890	1·82	563	100	6·47	..	..	..	..	..	..	..	..	..	8·50	8·00	107 9 2	667 10 10	Heavy forest. "Suburban" includes Waari Hamlet (open). "Other work" is inspection of leases, &c.
R. S. Galbraith. Orahiri ..	..	..	3,703	26	1·15	..	..	..	..	..	..	..	..	..	10·30	16·45	60 0 0	1,035 2 1	Forest and open. "Other work" is road exploration, Kawa Swamp levels, &c. Cadet assisting.
D. I. Barron. Rotorua, &c. ..	80,000	0·87	..	..	..	..	..	..	..	..	..	..	..	..	..	..	333 0 0	1,017 15 3	Mostly forest. "Other work" is thirty miles lake traverse for Native Land Court purposes, and Native-school site.
H. F. Edgecumbe. Kawhia ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1·50	3·00	5 0 0	791 10 1	Forest; broken country. 16,382 acres section survey complete in field.
H. T. Mitchell. Rotorua, &c. ..	24,500	2·52	3,200	12	1·08	..	..	..	..	..	..	..	..	..	..	..	123 11 6	690 8 0	Mostly open scattered surveys. About 25,000 acres forest sections in progress. "Other work" is school and cemetery site, Kohanga, timber reports, &c.
Temporary Staff.																			
W. C. Spencer. Auckland, &c. ..	..	..	2,321	14	2·96	510	399	19·01	..	..	..	..	..	..	2·68	12·47	20 5 2	621 12 5	Mostly open. Defining old grants, &c. Town surveys are Parawai, Puru, and Karewa Native Townships, Kawhia.
J. B. Thompson. Hamilton, &c. ..	5,000	2·00	5,013	20	1·10	..	..	..	..	..	..	..	..	..	10·50	10·38	151 11 10	633 5 8	Heavy forest; broken country. "Other work" is inspection and reports, seven estates, land for settlements; plans, &c., Warenga and Ruakura Experimental Farms, &c.
E. P. Turner. Horohoro, &c. ..	16,300	0·24	57,248	12	0 23	..	..	..	10,977	5	3·34	..	..	..	5·00	8·40	54 10 0	729 10 6	Mostly open hilly country. "Other work" is Heruiwi reports, Koutu Block, Whakarewarewa Post-office site, &c.
A. Wilson. Otorohanga	..	..	10,172	34	1·05	..	..	..	..	..	..	..	..	..	6·75	8·00	..	899 14 2	Mostly forest.
A. A. Seaton. Marakopa ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	98 0 0	851 16 2	Heavy forest; broken country; access difficult. 18,777 acres in progress. Plans about June.

Table 36.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903—*continued.*

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Section.	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.	
Temporary Staff—continued.																			
A. J. Mountfort. Kawhia ..	..	..	6,840	42	1·70	..	..	..	..	..	..	..	..	..	19·00	20·00	28 7 2	823 17 1	Heavy forest; broken country.
A. G. Allom. Opotiki, Waiawa, &c.	21,000	0·56	..	..	..	..	..	..	..	..	..	..	..	..	16·00	25·80	181 17 7	850 15 7	Broken forest country. "Other work" is road-pegging, Kawhia; road explorations and inspections.
W. C. O'Neill. Mangonui ..	..	..	2,597	28	1·50	..	..	..	..	..	..	..	..	..	1·00	20·00	286 10 0	785 5 0	Forest and open. "Other work" is principally exploring and grading roads, Mangonui, Takahue, and Herekino Survey Districts.
H. M. Kensington. Punakitere ..	7,625	1·44	4,290	13	3·70	..	..	..	..	..	..	..	..	..	..	..	28 14 0	833 3 7	Mostly forest.
L. Jackson, Tutamoe ..	..	..	2,018	9	1·61	..	..	..	..	..	..	..	..	..	..	..	..	516 18 5	Open country. For landless Natives; detention caused by difficulty in getting Natives to agree upon fair tribal subdivision.
A. D. Newton. Waoku	9,200	2 85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	263 0 3	Forest.
F. J. Hosking. Whangape ..	..	..	2,726	4	1·82	..	..	..	..	..	..	..	..	..	..	..	..	248 1 3	Broken forest country.
V. I. Blake. Rangaunu.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	290 11 10	Broken forest country. 5,000 acres in progress.
C. Clayton. Waioeka	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	249 15 0	Broken forest country. Ten miles road and fifteen miles river traverse complete in field.
J. L. D'Arcy Irvine. Tauranga ..	3,862	7·00	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	230 17 10	Heavy forest; broken country.
J. Simms. Otorohanga	458	20·4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8 9 0	201 18 6	Open country. Topographical surveys of proposed townships, Otorohanga and Te Kuiti.
G. B. Beere. Hapuakohe ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	198 0 8	Mostly light forest. 8·5 miles road complete in field.
J. O. McCabe. Waioeka ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	224 18 0	Forest. 6 miles road and 21 miles stream traverse (compass) complete.
F. E. Byrne. Whareorino ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	207 14 8	Forest and open. 25,000 acres in progress.
E. J. Fairburn. Rotoma ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	138 8 4	Heavy forest; broken country. Road surveys, Rotorua, &c.
R. C. Jordan. Otanewainuku ..	5,556	5·40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	140 12 2	Forest country.
Totals	230,891	1·58	106,859	334	0·89	510	399	19·01	10,977	5	3·34	..	..	..	107·83	13·44	2,103 14 11	17,726 3 6	
Contract Surveyors.																			
E. F. Adams. Thames	..	..	209	5	3·99	..	..	..	..	..	..	966	14	3·03	..	..	..	188 4 11	Forest and open.
P. Bedlington. Whangarei ..	..	..	882	1	0·90	..	..	..	..	..	..	..	..	..	..	..	..	39 15 8	Open.
W. S. Charlsworth. Opotiki ..	..	..	1,150	3	1·82	..	..	..	..	..	..	..	..	..	..	..	..	104 12 4	Forest and open.
P. E. Cheal. Piako, Pakaumanu, &c.	..	..	1,387	2	1·10	..	..	..	116077	5	1·39	..	..	..	..	..	..	748 14 1	Forest; broken country.
O. M. Creagh. Rotorua, &c. ..	..	..	4,653	8	1·21	..	..	..	..	..	..	100	1	3·00	..	..	9 0 0	296 5 4	Forest. "Other work" is completion of plans for Urewera Commissioners.
M. R. Creagh. Mangaorongo ..	..	..	..	..	..	..	..	..	11,655	32	8·99	..	..	..	..	..	..	436 18 2	Forest and open.

R. Campbell. Kaeo	..	..	320	1	1·87	..	..	..	..	..	..	..	..	..	..	..	..	30	0	0	Open.
E. de C. Drury. Karioi, &c. ..	..	..	3,183	4	1·30	..	..	..	..	..	..	..	..	..	..	..	..	207	6	1	Forest and open.
E. Fairburn. Horohoro ..	..	..	298	1	1·12	..	..	..	..	..	..	..	..	..	..	..	..	16	13	0	Forest.
E. J. Fairburn. Horohoro ..	..	..	698	2	1·46	..	..	..	..	..	..	..	..	..	..	..	..	51	0	7	"
A. L. Foster. Puniu, Horohoro ..	..	..	1,200	2	1·02	..	..	..	..	..	..	100	1	2·40	..	..	..	73	2	1	Forest and open.
J. W. Harrison. Hukerenui ..	..	..	795	1	1·34	..	..	..	..	..	..	..	..	..	..	..	..	53	6	8	Mostly swamp.
N. F. J. Haszard. Waihi North ..	..	..	133	2	2·78	..	..	..	..	..	..	122	4	4·75	..	..	..	47	10	4	Forest and open. Also 145 acres river-dredging claims paid for privately.
M. F. Haszard. Ohinemuri ..	..	..	199	3	2·71	..	..	..	..	..	..	136	4	4·41	..	..	..	57	0	0	Forest and open.
J. Hannah. Waipu	..	..	3,225	12	1·58	..	..	..	..	..	..	..	..	..	..	..	..	254	19	5	Mostly forest.
R. C. Jordan. Wairere, &c. ..	..	..	343	1	1·46	..	..	..	..	..	..	..	..	..	..	..	..	25	0	0	Forest and open.
L. Jackson. Ohinemuri	..	..	..	..	..	..	..	..	..	..	..	108	3	6·86	..	..	..	37	0	9	"
N. Kenny and Son. Ohinemuri ..	..	..	267	5	3·32	..	..	..	..	..	..	..	..	..	..	..	..	44	6	0	
Kelly Bros. Horohoro ..	..	..	1,306	2	1·53	..	..	..	..	..	..	..	..	..	..	..	..	99	13	4	Forest.
T. J. Mountain. Thames, &c. ..	..	..	200	2	3·00	..	..	..	..	..	..	330	10	6·22	..	..	..	132	12	11	Forest and open.
H. Mitchell. Rotorua, &c. ..	..	..	1,094	5	1·87	..	..	..	..	..	..	..	..	..	..	..	..	102	10	10	"
A. B. Morrow. Opaheke, &c. ..	..	..	638	2	1·08	..	..	..	..	..	..	..	..	..	..	..	..	34	10	7	Open.
R. Neumann. Russell, &c. ..	..	..	367	4	3·02	..	..	..	3	1	480·00	..	..	..	..	..	..	61	8	9	Forest and open.
C. C. Otway. Rotorua	..	..	797	3	1·85	..	..	..	..	..	..	..	..	..	..	..	..	73	15	0	Forest.
A. O'N. O'Donahoo. Whakamaru, &c.	..	..	..	..	..	..	..	..	23,689	26	6·16	..	..	..	..	..	..	608	2	10	Forest and open.
J. Reilly. Coromandel	..	..	98	1	3·06	..	..	..	..	..	..		1	6·96	..	..	..	46	6	10	Mostly open.
F. B. Sewell. Waiawa ..	..	..	2,837	7	1·47	..	..	..	..	..	..	90	..	..	..	..	..	209	2	9	Forest.
A. B. Stubbing. Horohoro ..	..	..	541	1	1·23	..	..	..	..	..	..	..	..	..	..	..	..	33	6	8	"
D. Stubbing. Aroha, Tuhua ..	..	..	..	..	..	..	..	..	5,078	9	2·53	..	..	..	..	..	..	53	9	0	Forest and open.
L. Simpson. Maketu	..	..	4,177	6	1·25	..	..	..	..	..	..	..	..	..	..	..	..	260	8	8	Forest.
P. Ward. Otanake, &c. ..	..	..	..	..	..	..	..	..	183907	29	3·42	..	..	..	..	..	..	2,625	1	1	Forest and open.
H. M. Wilson. Waipu	..	..	233	1	1·26	..	..	..	..	..	..	..	..	..	..	..	..	14	14	0	Forest.
Means and totals	..	..	31,230	87	1·45	..	..	..	340409	102	3·11	1,952	38	4·13	..	..	9 0 0	7,066	16	8	
Grand means and totals ..	230,891	1·58	138,089	421	1·05	510	399	19·01	351386	107	3·11	1,952	38	4·13	107·83	13·44	2,112 14 11	24,793	0	2	

NOTE.—137 acres rural and suburban, 29,897 acres Native Land Court survey, and 184 acres gold-mining survey were paid for privately.

LAND DISTRICT OF HAWKE'S BAY.

Staff Surveyors.																				
F. S. Smith. Poverty Bay ..	6,095	1·33	..	..	..	..	..	..	..	..	..	..	..	..	4·00	25·17	686 19 4	821	11	2	District Surveyor and Land Officer, Gisborne. General Departmental work, field inspections, standard and road surveys.
James Hay. Hawke's Bay ..	9,300	1·30	6,210	26	1·03	0·44	2	46·50	..	..	..	..	..	..	..	..	184 2 3	724	13	6	£218 4s. 11d. from last year. "Other work" includes standard surveys, field inspections, &c. £339 7s. 7d. is carried forward for work, plans not completed.
P. A. Dalziell. Poverty Bay ..	..	..	2,000	2	1·03	..	..	..	..	..	..	..	..	..	5·75	17·10	235 2 8	964	13	1	"Other work" includes defining section-lines for Crown tenants, Motu. £233 17s. 4d. carried forward to next year against 47,000 acres in progress.
T. Brook. Hawke's Bay ..	7,500	1·11	9,198	3	0·44	..	..	..	..	..	..	..	..	..	3·12	14·60	297 19 11	671	8	0	£21 14s. 10d. brought from last year. "Other work" includes standard survey of Clyde Township. £108 5s. 6d. carried to next year against 8,900 acres part completed.
H. M. Smith. Hawke's Bay (C.L.R.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4·70	17·61	..	..			

Table 36.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903—*continued*.

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Section.	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
LAND DISTRICT OF HAWKE'S BAY—*coniinued*.																			
Temporary Staff.		d.			s.			s.			d.					£	£ s. d.	£ s. d.	
J. Roddick. Poverty Bay ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23·50	22·00	134 6 5	878 6 9	£183 19s. 1d. brought from last year. "Other work" includes defining 7·5 miles boundaries. £224 12s. 3d. carried to next year against 13,750 acres in hand.
E. H. Farnie. Poverty Bay ..	..	..	2,754	3	2·41	..	..	..	..	..	..	..	..	..	3·40	30·08	20 6 8	652 17 5	£298 18s. 1d. from last year. £143 3s. 10d. carried to next year against 16,350 acres in hand.
J. Stevenson. Hawke's Bay ..	..	..	..	..	..	13·83	2	42·17	..	..	..	..	..	..	0·13	22·37	107 1 6	114 4 0	Transferred to Wellington District 30th September, 1902. "Other work" was supervision of Hatuma Settlement roads for Department of Roads.
R. C. L. Reay. Poverty Bay ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	138 12 6	Joined 2nd February, 1903. £138 12s. 6d. carried to next year against work in hand.
Contract Surveyors.																			
J. A. Robertson	51,250	1·00	34,307	2	0·27	..	..	..	..	..	..	..	..	..	..	..	29 8 0	711 2 9	12,467 acres rural and suburban completed in field.
Kennedy Bros. and Morgan ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13,141 acres rural and suburban completed in field.
Means and totals	74,145	1·08	54,469	36	0·53	14·27	4	44·33	..	..	..	..	..	..	44·60	21·29	1,695 6 9	5,677 9 2	
LAND DISTRICT OF TARANAKI.																			
Staff Surveyors.																			
H. M. Skeet (District Surveyor) Waimate, Mimi, Upper Waitara, Paritutu Cape, Egmont, Ohura Aria, Totoro	..	..	3,138	14	1·250	..	..	..	..	..	..	..	..	..	2·143	16·80	411 8 8	900 5 0	Mr. Skeet's services have been utilised considerably for miscellaneous duties and reports, &c., and supervision of surveys in the Mokau–Ohura country. He has 27,500 acres of selection survey in hand.
G. H. Bullard (District Surveyor). Opaku, Hawera, Ngatimaru, and Mahoe	..	..	17,090	16	1·375	..	..	..	..	..	..	..	..	..	2·000	23·91	2 0 0	883 1 4	Chiefly revision surveys in broken forest country in the Opaku and Hawera districts. He has 24,000 acres of selection survey in hand.
J. F. Frith (Assistant Surveyor). Omona and Opaku	..	..	5,320	7	1·975	..	..	..	..	..	..	..	..	..	..	..	..	385 12 11	All in very broken forest country, and area consists chiefly of the completion of the late Mr. Oldfield's work. On leave of absence six months during the year.
W. T. Morpeth (Assistant Surveyor). Ohura, Eac	..	..	..	..	..	..	..	..	1,835	3	7·97	..	..	..	1·050	16·00	271 1 7	999 7 6	In forest country difficult of access. He has the selection survey of 19,500 acres well advanced.

R. W. Watson (Assistant Surveyor). Ohura	..	..	6,374	23	0·925	..	..	..	1,153	1	4·99	..	..	..	11·000	11·47	4 11		291		All heavy forest country. Has been on leave of absence for six months in South Africa, and has now resigned.
Additional Surveyors.																				
W. H. Murcott (temporary Surveyor). Aria and Ohura	..	..	4,635	25	2·625	..	..	..	589	1	31·50	..	..	..	0·125	32·00	63 19 0		853 3 0		All this work chiefly in forest country. Mr. Murcott has 10,776 acres of selection survey well advanced.
L. C. Sladden (temporary Surveyor). Waro and Mahoe	..	..	6,070	12	1·509	..	..	..	..	..	..	..	..	..	3·400	18·36	..		332 19 7		All broken forest country. Mr. Sladden resigned on the 30th September, 1902.
Wm. Laing (temporary Surveyor). Waro, Mimi, Upper Waitara, Pouatu	16,000	1·25	8,870	10	1·650	..	..	..	..	..	..	..	..	..	..	..	17 0 0		844 4 2		All exceedingly broken forest country difficult of access. Has 10,000 acres of selection survey in hand.
T. Oldfield (temporary Surveyor). Opaku	..	..	8,590	9	1·975	..	..	..	..	..	..	..	..	..	..	..	..		508 2 9		Mr. Oldfield died on the 20th October, 1902. He had the survey of 14,610 acres in hand, which, at his death, was continued by Messrs. Skeet and Frith.
B. C. Basstian (temporary Surveyor). Upper Waitara, Pouatu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		366 18 1		Mr. Basstian has the selection survey of 12,300 acres of forest country well advanced. He has been four months in the service.
Leslie Hunt (temporary Surveyor). Totoro	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		216 11 4		Mr. Hunt has the selection survey in hand of 13,500 acres of forest and scrub land in the Mokau–Ohura country. Has been three months in the service.
E. O. Weir (temporary Surveyor). Aria and Totoro	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		243 16 7		Has in hand the selection survey of 15,750 acres of forest and partially open land in the Mokau country. Has been three months in the service.
A. J. Paterson (temporary Surveyor). Aria and Totoro	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		289 11 0		Mr. Paterson has in hand the selection survey of 23,500 acres of forest and partially open land in the Mokau–Ohura country. Has been three months in the service.
L. C. Sladden (contract Surveyor). Paritutu (Spotswood Settlement)	..	..	306½	71	5·336	..	..	..	..	..	..	..	..	..	..	..	..		81 15 6		Subdivision of Spotswood Settlement.
Means and totals	16,000	1·25	60,393½	187	1·629	..	..	..	3,577	5	10·88	..	..	..	19·718	14·85	770 0 4		7,196 9 11		

LAND DISTRICT OF WELLINGTON.

Staff.																				
J. D. Climie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	643 19 9		643 19 9		Twenty-one field inspections and miscellaneous duties. A sum of £22 14s. 3d. is carried forward to next year against Masterton standard survey.
F. A. Thompson. Ngamatea and Mangawhero	..	..	4,215	3	2·50	..	..	..	1,402	4	30·000	..	..	..	..	..	91 1 11		1,000 0 11		A sum of £459 17s. 10d. is carried forward to next year against subdivisional surveys of Maraetaua, Ngapukewhakapu, and Taonui Blocks.
H. J. Lowe. Oroua, Ongo, and Manganui	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	47 2 4		1,084 9 4		Has 2,150,000 acres triangulation nearly complete. Now transferred to settlement surveys. Cost of triangulation and settlement carried forward, £1,531 15s. 6d.
W. J. Wheeler. Nukumaru and Momohaki	26,400	1	11199·25	7	0·52	95·75	73	14·70	10,774	5	6·200	..	..	..	21·00	24·000	46 13 0		1,024 12 5		Brought forward, £260 10s. 2d.; carried forward, £11 0s. 1d. Rangitatau Block; broken bush country Cadet assisting.

Table 36.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903—*continued*.

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Section.	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.	
LAND DISTRICT OF WELLINGTON—*continued*.																			
J. McKay. Maungakaretu and Huangarua	..		2,912·75 8,296·00	7 17	1·62 0·99	..	..	..	1,522	3	15·100	..	..	..	11·50	21·100	15 0 0 ..	741 13 9	Brought forward, £558 5s. 1d.; carried forward, £62 17s. 8d. Cadet assisting two months. Now on Normandale Land for Settlement Estate.
J. R. Strachan. Kaitieke and Retaruke	..	..	2,286·00	9	14·00	..	..	..	..	..	..	..	..	..	..	..	..	950 14 8	Has 19,477 acres, in nine sections, complete in field. £817 7s. 8d. carried forward. Cadet assisting two months. Rough bush country.
H. E. Girdlestone. Huangarua, Nukumaru, and Hautapu	..	..	* 1·15	* 1	1·62 76·45	..	..	..	..	..	..	..	..	..	5·75	40·000	9 19 3	553 15 2	* Assisting Mr. McKay with 2,912·75 acres, but cost separated. Rough bush country. £192 13s. 8d. carried forward.
E. A. Marchant. Mangawhero	..	..	2,630·00	2	2·61	..	..	..	1,361	2	15·000	..	..	..	..	..	..	687 18 1	Rough bush country. Ngapukewhakapu Block. £227 8s. 10d. is carried forward to next year.
Temporary Staff.																			
M. Carkeek. Moawhango, Ngamatea, and Huangarua	..	..	5520·00	10	0·53	1·15	5	21·20	..	..	..	..	..	..	12·10 *	9·000	38 18 0	791 12 2	Tablelands Estate (land for settlements). Rangipu-Waiu Small-grazing Runs. £355 12s. 2d. is carried forward on account of Ohotu Block subdivision under Maori Councils Act.
J. M. Morice. Ruahine	..	..	..	..	..	..	..	..	10,160	1	1·600	..	..	..	2·00	15·708	..	308 15 4	Resigned 31st October, 1902. £580 17s. 11d. carried forward to next year against Awarua 1B and 1A (now Mr. Greville's).
C. A. Mountfort. Otahoua and Tauakira	..	..	550·00	6	4·27	..	..	..	..	..	..	..	..	..	..	..	167 17 6	870 0 9	Has in hand, nearly completed, 35 miles standard survey, Masterton, at £15·775 per mile; £552 3s. Transferred to settlement survey, Te Tuhi, &c. £705 14s. carried forward.
H. J. Lewis. Piopiotea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	402 5 3	1,081 8 9	Has 10,460 acres rural survey complete in field. Cost, £679 3s. 6d., carried forward; and £357 5s. 7d., timber valuation, also carried forward.
R. P. Greville. Kapiti and Ruahine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19 2 7	408 10 7	Joined staff 1st October, 1902. Kapiti Island topo. survey. Took up block resigned by Mr. Morice. £321 7s. 9d. carried forward.
J. Stevenson. Huangarua, Ngamatea, and Tauakira	..	..	*	*	0·66	..	..	..	..	..	..	..	..	..	..	..	7 14 8	548 11 9	Joined staff 1st October, 1902. * Assisting Mr. Carkeek on Tablelands Estate. Cost separated. £189 19s. 8d. carried forward.
A. M. Roberts. Tauakira and Waipakura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9 15 0	135 4 7	Joined staff 2nd February, 1903. Te Tuhi, &c., Block. £125 9s. 7d. is carried forward to next year.

P. C. Frasi. Kaitieke and Manganui	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	138 3 4	Joined staff 2nd February, 1903. Kaitieke Block. Cost carried forward.
G. L. R. Scott. Kaitieke and Manganui	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	189 0 0	Joined staff 2nd February, 1903. Kaitieke Block. Cost carried forward.
T. W. Drew. Ngamatea and Tauakira	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	85 8 7	Joined staff 23rd February, 1903. Ohotu Block. Cost carried forward.
H. K. Hovell. Ngamatea and Tauakira	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52 11 3	Joined staff 7th March, 1903. Ohotu Block. Cost carried forward.
W. O. Beere. Ngamatea and Tauakira	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	86 5 9	Joined staff 21st February; resigned 31st March, 1903. Ohotu Block. Cost carried forward.
Authorised Surveyor.																				
A. O'N. O'Donahoo	..	..	..	..	..	..	..	..	18,197	24	11·800	..	..	..	..	..	..	..	896 0 0	Tauakira No. 2 Block, Tauakira and Ngamatea districts.
Means and totals	26,400	1	37610·15	62	1·27	96·90	78	15·08	43,416	39	8·864	..	..	..	52·35	21·549	1,499 9 3		†12,278 17 3	

LAND DISTRICT OF MARLBOROUGH.

Staff Surveyors.																				
D. W. Gillies. Arapawa and Linkwater	..	..	2,897	12	2·40	..	..	..	..	..	..	..	..	..	4·75	16·00	17 11 0		791 14 0	Settlement surveys in the Sounds; nearly all heavy bush; adjoining old surveys.
E. W. Buckeridge. Patriarch ..	77,750	1·32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		198 1 0	Triangulation of Patriarch District; mostly open country; and trig. stations were previously erected.
H. Maitland. Hodder, Blue Mountain, Patriarch, &c.	..	..	79,567	8	0·19	..	..	..	..	..	..	..	..	..	..	..	110 10 0		714 9 0	Mostly very high pastoral country, known as the Birch Hill Block, ranging to about 7,000 ft. Portions of this survey are only magnetic, and some of the higher boundaries are fixed by cross-shots. "Other work" consists mostly of boundaries surveyed on area returned by Mr. Hughes.
Temporary Surveyors.																				
C. W. McFarland. Cloudy Bay, Linkwater	..	..	6,924	16	1·50	..	..	..	..	..	..	..	..	..	..	..	9 0 0		528 6 0	Settlement surveys, Waikakaho and Kaituna Valleys; mostly heavy bush; adjoining old surveys.
A. Simpson. Tennyson, Linkwater, Arapawa	..	..	12,276	27	1·40	..	..	..	..	..	..	..	..	..	15·00	11·00	31 11 2		592 15 5	Broken country in the Sounds; nearly all heavy bush; adjoining old surveys. About 5,000 acres land for landless Natives at Tennyson Inlet. "Other work" consists of office-work and clearing and repairing trig. stations.
T. W. Hughes. Raglan, Leatham, Kaitarau	..	..	135,507	17	0·23	2·5	5	55	..	..	..	..	..	..	..	..	60 10 10		426 8 10	Mostly very high pastoral country, known as the Birch Hill Block, ranging to about 7,000 ft. Portions of this survey are only magnetic, and some of the higher boundaries are fixed by cross-shots. "Other work" consists of various small surveys near Kaikoura. Transferred to Nelson District in January.
J. L. D'Arcy Irvine. Mt. Olympus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6·50	5·00	..		32 10 0	Road survey through Hillersden Estate; all open country.
Means and totals	77,750	1·32	237,171	80	0·34	2·5	5	55	..	..	..	..	..	..	26·25	10·42	229 3 0		3,284 4 3	

† £7.192 15s. 7d. carried forward.

Table 36.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903—*continued*.

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.	
LAND DISTRICT OF NELSON.																			
Staff Surveyors.																			
J. A. Montgomerie. Mawhera-iti, &c.	..	..	1,169	19	2·59	..	..	..	..	..	..	..	..	..	..	..	785 7 10	937 1 2	
R. T. Sadd. Tadmor, Gordon, &c.	..	..	1,768	6	1·30	..	..	..	..	..	..	..	..	..	11½	9·64	534 11 3	990 1 3	10,500 acres selection survey.
J. Snodgrass. Kawatiri, &c. ..	..	..	1,717	26	4·76	..	..	..	..	..	..	..	..	..	..	..	407 3 10	816 12 2	
J. D. Thomson. Rintoul, Motueka, Kaiteriteri, &c.	..	..	7,615	36	1·58	..	..	..	..	..	..	..	..	..	..	..	88 11 0	928 19 0	12,000 acres selection survey.
A. G. Muir. Inangahua ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	72 6 0	72 6 0	This officer was transferred to Westland.
E. C. Robinson. Tutaki ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	121 9 0	121 9 0	Mr. Robinson left to join the Roads Department at Wellington.
W. McAlister. Mokihinui and Orikaka	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	578 15 2	812 8 2	Partly sectional surveys at Mokihinui; unfinished and topo. surveys in rough timbered country. 26,500 acres selection survey.
D. M. Wilson. Tutaki, &c. ..	32,000	0·24	2,022	16	2·35	..	..	..	..	..	..	..	..	..	35	7·71	83 2 10	813 7 0	Work all in very rough country; heavily timbered. The total cost of this was £456 18s. 8d., £186 19s. 8d. of which was incurred last year. 11,000 acres selection survey.
T. W. Hughes. Brighton ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	220 3 6	Very broken country; heavily timbered. 26,400 acres selection survey.
J. Spence. Kongahu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	142 8 1	142 8 1	Ditto.
T. H. Galbraith. Oparara ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	186 2 1	186 2 1	"
D. Macpherson. Otumahana ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	92 13 7	92 13 7	"
E. H. Beere. Matiri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	209 18 0	209 18 0	"
J. Cumine. Matiri and Hope ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	140 19 4	140 19 4	
Means and totals	32,000	0·24	14,291	103	2·12	..	..	..	..	..	..	..	..	..	46½	8·19	3,443 8 0	6,484 8 4	
Authorised Surveyors.																			
F. J. Ledger. Mt. Arthur ..	..	..	912	2	1·09	..	..	..	..	..	..	..	..	..	..	..	..	..	In rough mountainous country; timbered.
J. B. Saxon. Tutaki, &c. ..	..	..	..	..	..	..	..	..	..	..	..	128	2						
W. F. Robinson. Orikaka, &c. ..	..	..	..	..	..	..	..	..	..	..	..	118	2						Six sections paid for out of deposits. Total cost, £116 7s. 6d.
J. W. Spence. Mawhera-iti ..	..	..	..	..	..	..	..	..	..	..	..	30	1	..	..	..	..	..	
G. G. Sandison. Waitapu ..	..	..	..	..	..	..	..	..	..	..	..	50	1						
Means and totals	32,000	0·24	15,203	105	2·06	..	..	..	..	..	..	326	6	7·13	46½	8·19	3,443 8 0	6,484 8 4	Office fees, £42 11s. 6d.

LAND DISTRICT OF WESTLAND.

Staff.																				
W. Wilson (Assistant Surveyor). Otira, Kanieri, Totara, and Southern District	..	..	1,301	10	2·7	..	..	..	..	..	..	..	..	..	..	..	329 10 5	542 3 6	Chiefly spotting sections within goldfield. All bush country. "Other work" comprises surveys, reports, &c., for Roads and Mines Departments; also repairs to trig. stations.
A. G. Muir (Assistant Surveyor). Kanieri, Mahinapua, and Turiwhate	..	..	2,211	20	2·6	..	..	..	..	..	..	..	..	..	1·75	10·28	2 15 0	306 10 8	This officer left the service on 31st October. Represents seven months' work in heavy forest isolated sections. "Other work" embraces reports on land applications.
Temporary.																				
N. L. Falkiner. Totara and Waitaha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	248 0 6	Two and a half months' work; definition of densely timbered country, with view to subdivision. Work progressing satisfactorily.
A. N. Harrop. Kanieri, Waimea, and Turiwhate	..	..	2,421	23	2·4	..	..	..	..	..	..	..	..	..	..	..	170 6 7	485 4 7	Equals six months' work; mainly survey of isolated sections; densely timbered land; hindered by fixing adjoining old sections. "Other work" includes two months' sick-leave and two months' office-work when unwell, surveys for Mines Department, and reports.
C. H. Morrison. Wanganui, Poerua, and Wataroa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	128 10 4	Represents barely two months' preliminary work prior to cutting up block into sections. Heavily timbered country. Survey going on well.
J. Cunningham. Mahinapua, Kaneiri, and Toaroha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	91 18 3	Cost of traverses, &c., before subdividing block. Heavy bush, scrub, and swamp. Excellent progress made.
C. E. Douglas. Wataroa, Waitangi, and Okarito.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	171 16 0	Exploration and definition of coastal forest lands.
Contract.																				
J. C. Macfarlane	..	..	..	..	..	..	..	..	..	..	..	704	9	6·1	..	..	..	216 12 9	All these surveys in forest country, and more or less entangled with old defective work of adjacent freeholds.
J. O. McCabe	..	..	..	..	..	..	..	..	..	..	..	68	1	7·2	..	..	..	24 13 0	
J. W. Spence	..	..	..	..	..	..	..	..	..	..	..	144	2	6·4	..	..	..	46 13 0	
C. H. Morrison	..	..	..	..	..	..	..	..	..	..	..	100	1	6·9	..	..	..	34 12 0	
Means and totals	..	..	5,933	53	2·55	..	..	..	..	..	..	1,016	13	6·34	1·75	10·28	502 12 0	2,296 14 7	

LAND DISTRICT OF CANTERBURY.

Staff Surveyors.																				
T. N. Brodrick. Arowhenua, Opawa, Pareora, Waitaki, Hall, and Selwyn	..	..	8,508	46	0·74	..	..	..	..	..	..	..	..	..	..	..	393 10 9	626 4 0	Flat and undulating country; 8,275 acres being portions of the Mead, Waikakahi, and Chamberlain Settlements; the balance, 233 acres, sketch survey of river-bed lands. "Other work": Standard traverse survey, inspections, and several small surveys, work connected with runs, and major triangulations, &c.
G. H. M. McClure. Christchurch, Selwyn, and Lyndon	..	..	3,281	35	1·04	12½	17	41·18	..	..	..	..	..	..	..	..	116 19 11	694 9 7	Level lands, comprising the Kaiwahi and part of the Mead Settlement, town sections at Hanmer Springs, and transfer survey in Christchurch. "Other work": Completing Lyndon plans, reporting on runs, inspections, and miscellaneous surveys.

Table 36.—RETURN of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903—*continued.*

Surveyor and District.	Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Surveys.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.	Remarks.
	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No of Sections	Cost per Acre.	Miles.	Cost per Mile.	Cost.		
LAND DISTRICT OF CANTERBURY—*continued.*																			
		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.	
L. O. Mathias. Lyndon	..	..	5,980	7	0·95	..	..	..	..	..	..	..	..	..	..	..	202 8 8	234 11 1	Open hilly country, ranging from 1,500 ft. to 3,380 ft. above sea-level; 5,918 acres being the small grazing-runs portion of Lyndon No. 2 Settlement; balance coal leases Mount Somers. "Other work": Miscellaneous surveys, inspections, work connected with proposed major triangulations, and general office-work. Transferred to Southland 1st October, 1902.
Temporary Staff.																			
Leslie Hunt. Mackenzie and Opawa	..	..	9,584	2	0·24	..	..	..	..	..	..	..	..	..	..	..	..	114 6 5	Rough open mountainous country, varying from 1,500 ft. to 4,880 ft. above sea-level, being the run portion of the Chamberlain Settlement. Engaged from 11th November, 1902, to 15th January, 1903.
Means and totals	..	..	27,353	90	0·65	12½	17	41·18	..	..	..	..	..	..	..	..	712 19 4	1,669 11 1	
LAND DISTRICT OF OTAGO.																			
E. H. Wilmot. Earnslaw, Skipper's Creek, Shotover, Nevis, Kawarau, Cardrona, Wanaka, Tarris, Wakefield, Lower Hawea, Cromwell, Bannockburn, Leaning Rock, Blackstone, Benger, Crookston, Tuapeka East, Waitahuna West, and Awamoka	..	..	3,079	52	3·17	..	..	..	..	..	..	215	3	4·41	..	..	244 5 6	779 17 5	Work scattered over a very wide area, and involved a lot of travelling. Of the amount charged to "other work" £176 is returned as the cost of unfinished surveys, the balance is for work for the Mines Department, laying off tourists track, correspondence, &c.
D. M. Calder. Poolburn, Blackstone, Tiger Hill, Upper Taieri, Gimmerburn, St. Bathan's, Tuapeka East, Dunedin and East Taieri, Otakia, and Naseby	..	..	14,547	34	0·79	2	4	50	..	..	..	..	..	..	2·5	7·95	213 11 7	815 2 2	Rural surveys include subdivisions of Duncan Settlement and Highfield Small Grazing-runs. In "other work" £143 14s. is the cost of unfinished work on Run 226, St. Bathan's District, the balance is for work for the Mines Department and office-work.
W. T. Neill. Otago Heads, Awamoko, and Patearoa	..	..	4,217	36	1·43	..	..	..	2,009	20	37·14	..	..	..	..	..	449 19 9	987 14 8	Native Land Court survey is revision of Papanui Native Reserve, the cost includes £74 6s. 4d. brought forward from last year. Rural survey is subdivision of Windsor Park Settlement. The cost of field-work of which plans are not yet finished is £444 11s.
G. Mackenzie. Kawarau ..	..	..	157	1	1·50	..	..	..	..	..	..	..	..	..	..	..	..	11 15 0	
Totals	..	..	22,000	123	1·25	2	4	50	2,009	20	37·14	215	3	4·41	2·5	7·95	907 16 10	2,594 9 3	

Mining Surveys made by Private Surveyors for Fees deposited by the Applicants.																						
John Edie													786	29	5·04							
John Cumine													412	11	5·71							
L. D. Macgeorge													212	4	3·46							
L. O. Beal													185	6	3·86							
John Spence													116	1	3·36							
N. M. Kirkcaldy													100	1	4·50							
T. C. Dennison													30	1	7·10							
Total													1,841	53	4·79							

LAND DISTRICT OF SOUTHLAND.

Staff.																						
L. O. Mathias (District Surveyor). Waiau and Longwood																		299 5 1		299 5 1		Report on triangulation. Provisional survey of 3,000 acres, Block XIII., Waiau; forest country; work in hand. Transferred from Canterbury in October.
A. Hodgkinson (Assistant Surveyor). Longwood, Waiau, and Jacob's River			2,955	10	2·70													448 6 11		854 14 6		Blocks XVII. and XIX., Longwood. "Other work" represents provisional survey of 6,700 acres in Block XIV., Waiau; forest country; work in hand. Also tramway reserve and partial survey of islands in Waiau River.
Temporary.																						
T. G. Lilliecrona. Rowallan			3,605	2	0·02													..		75 11 6		Blocks I. and V., Rowallan; forest country. Left the Department in June.
C. Otway. Waitutu																		896 10 8		896 10 8		Block for landless Natives; forest country; field-work completed, 116 sections, 31,000 acres. Work much retarded by constant rain. Cost to date, £2,714 17s. 9d.
Authorised.																						
T. S. Miller. Oteramika, Longwood			1,150	6	1·70													..		99 1 3		Sawmill-areas under fee system.
J. Blaikie. Gore, Wendon			12	1	11·50													..		..		Suburban sections, Town of Gore.
Waikaia, Chatton			..	..	..								282	5	4·7			..		74 0 0		Includes 4 acres coal-lease area, fee system.
H. R. Dundas. Jacob's River			1,651	12	2·20													..		..		Fee system, 9 sections represent sawmill-areas.
Oteramika, Longwood, Paterson			..	..	..								10	1	41·1			..		199 4 0		Fee system, special claims.
Means and totals			9,373	31	1·63								292	6	6·0			1,644 2 8		2,498 7 0		

Table 36.—SUMMARY OF RETURNS of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS, from 1st April, 1902, to 31st March, 1903.

District.	Topographical Survey.		Minor Triangulation and Topographical Survey.		Rural and Suburban.			Town Section Survey.			Native Land Court Survey.			Gold-mining Survey.			Roads, Railways, and Water-races.		Other Work.	Total Cost of Surveyor and Party from 1st April, 1902, to 31st March, 1903.
	Acres.	Cost per Acre.	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Miles.	Cost per Mile.	Cost.	
		d.		d.			s.			s.			d.			s.		£	£ s. d.	£ s. d.
Auckland	..	..	230,891	1·58	138,089	421	1·05	510·0	399	19·01	351,386	107	3·11	1,952	38	4·13	107·83	13·44	2,112 14 11	24,793 0 2
Hawke's Bay	114,745	1·73	74,145	1·08	54,469	36	0·53	14·27	4	44·33	..	..	..	..	..	..	44·60	21·29	1,695 6 9	5,677 9 2
Taranaki	1,284	6·00	16,000	1·25	60,393·5	187	1·629	..	..	..	3,577	5	10·88	..	..	..	19·718	14·85	770 0 4	7,196 9 11
Wellington	4,720	3·45	26,400	1·00	37,610·15	62	1·27	96·9	78	15·08	43,416	39	8·86	..	..	..	52·35	21·549	1,499 9 3	12,278 17 3
Marlborough	..	..	77,750	1·32	*22,097	55	1·56	2·5	5	55·00	..	..	..	..	..	..	26·25	10·42	229 3 0	3,284 4 3
Nelson	86,400	3·08	32,000	0·24	15,203	105	2·06	..	..	..	..	..	..	326	6	7·13	46·5	8·19	3,443 8 0	6,484 8 4
Westland	44,750	1·27	..	..	5,933	53	2·55	..	..	..	..	..	..	1,016	13	6·34	1·75	10·28	502 12 0	2,296 14 7
Canterbury	..	..	..	..	27,353	90	0·65	12·5	17	41·18	..	..	..	..	..	..	..	..	712 19 4	1,669 11 1
Otago	..	..	..	..	22,000	123	1·25	2·0	4	50·00	2,009	20	37·14	215	3	4·41	2·5	7·95	907 16 10	2,594 9 3
Southland	..	..	..	..	9,373	31	1·63	..	..	..	..	..	..	292	6	6·00	..	..	1,644 2 8	2,498 7 0
Means and totals	251,899	2·17	457,186	1·31	392,520·65	1,163	1·16	638·17	507	19·94	400,388	171	3·97	3,801	66	5·14	301·498	15·29	13,517 13 1	68,773 11 0

In addition to this area there were 215,074 acres of pastoral runs surveyed, at a cost of 0·21s. per acre; total cost, £2,314 4s. 4d.

Table 37.—Crown Grants, Certificates of Title, Leases, and other Instruments of Title from the Crown prepared, from 1st April, 1902, to 31st March, 1903.

District.	Number.					Cost.		
	Singly.	In Duplicate.	In Triplicate.	In Quadruplicate	Total Copies.	£	s.	d.
Auckland	205	60	250	210	1,915	95	15	0
Hawke's Bay ..	..	21	80	151	886	138	12	0
Taranaki	24	1	40	58	378	4	16	9
Wellington	10	35	197	128	1,183	124	6	0
Nelson	3	105	60	4	409	81	16	0
Marlborough ..	1	20	15	20	166	12	10	0
Westland	..	20	20	25	200	15	0	0
Canterbury	36	170	9	127	911	68	6	6
Otago	..	107	277	..	1,045	52	5	0
Southland	..	52	49	63	503	40	0	0
Totals	279	591	997	786	7,596	633	7	3

Table 38.—Plans placed on Crown Grants and other Instruments of Title from the Crown, from 1st April, 1902, to 31st March, 1903.

District.	Number.					Cost.		
	Singly.	In Duplicate.	In Triplicate.	In Quadruplicate	Total Copies.	£	s.	d.
Auckland	7	286	424	174	2,547	160	12	0
Hawke's Bay ..	..	128	79	144	1,069	80	3	6
Taranaki	60	..	48	88	556	38	15	6
Wellington	224	35	197	128	1,397	73	16	0
Nelson	3	213	181	16	1,036	104	8	9
Marlborough ..	29	42	14	23	247	51	12	0
Westland	1	65	23	25	300	77	15	1
Canterbury	122	170	9	180	1,209	136	8	6
Otago	..	107	328	..	1,198	170	0	0
Southland	..	..	176	..	528	52	12	0
Totals	446	1,046	1,479	778	10,087	946	3	4

Table 39.—Work done under the Land Transfer Act, &c., from 1st April, 1902, to 31st March, 1903.

District.	No. of Plans passed.	Deeds and other Instruments passed.	Number of Plans placed on Certificates of Title.				Miscellaneous Plans, &c.	Cost.		
			Singly.	In Duplicate.	In Triplicate.	In Quadruplicate		£	s.	d.
Auckland	227	..	..	..	..	..	..	731	18	0
Hawke's Bay	125	..	..	520	55	6	..	279	11	4
Taranaki	207	1	2	630	40	..	..	455	7	11
Wellington	322	2,234	20	1,812	..	..	20	1,079	6	6
Nelson	60	133	..	175	..	..	..	172	11	6
Marlborough	18	..	..	32	..	..	..	21	6	6
Westland	11	..	1	45	3	..	..	62	15	1
Canterbury	311	1,573	34	1,659	108	..	10*	922	6	8
Otago	78	4,055	..	609	..	..	..	289	16	4
Southland	69	31	..	457	34	..	..	258	0	0
Totals	1,428	8,027	57	5,939	240	6	30	4,272	19	10

* Also 263 tracings made for Land-tax Department.

Table 40.—Lithographs and Photographs printed and sold, from 1st April, 1902, to 31st March, 1903.

District.	Number of Lithographs printed.	Number of Photographs printed.	Amount of Fees received from Sale of Maps and Lithographs.
			£ s. d.
Auckland	1,900	..	106 9 7
Hawke's Bay	..	..	7 5 6
Taranaki	..	..	66 9 7
Wellington	..	..	35 11 5
Nelson	..	..	8 17 0
Marlborough	..	..	3 11 6
Westland	..	..	7 8 6
Canterbury	..	..	16 13 6
Otago	1,225	36	27 3 7
Southland	..	..	30 12 4
Totals	3,125	36	310 2 6

Table 41.—Summary showing Payments to Local Bodies during the Twelve Months ended 31st March, 1903, from "Thirds" of Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, and Lease-in-perpetuity Lands, and "Fourths" of Small Grazing-runs.

District.	For Details see Statements Nos.	"Thirds," Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, and Lease-in-perpetuity Lands.	"Fourths," Small Grazing-runs.	Total Payments.	Length, Locality, Description, and Particulars of Work authorised by Land Board.						
					Bush-clearing.	Scrub-clearing.	Formation.	Bridges.	Culverts.	Maintenance.	
		£ s. d.	£ s. d.	£ s. d.	Ch.	Ch.	Ch.	£ s. d.	£ s. d.	£ s. d.	
Auckland ..	1	4,789 11 11	94 9 4	4,884 1 3	647	1,617	2,284	112 17 6	204 11 5	1,078 8 9	
Hawke's Bay ..	2	5,856 9 10	431 11 11	6,288 1 9	137	241	3,440	157 18 6	39 3 0	1,337 11 4	
Taranaki ..	3	1,060 16 5	26 15 6	1,087 11 11	30	..	120¾	51 16 10	33 2 3	365 10 4	
Wellington ..	4	7,825 4 1	292 0 2	8,117 4 3	103	25	1,052½	393 7 4	9 17 6	2,941 8 11	
Nelson	5	1,361 9 11	7 0 0	1,368 9 11	452	30	501½	26 17 6	18 9 6	624 15 7	
Marlborough ..	6	253 9 11	305 3 5	558 13 4	10	12	184	..	7 1 1	357 19 2	
Westland ..	7	167 7 9	..	167 7 9	..	..	..	..	..	167 7 9	
Canterbury ..	8	2,018 15 7	1,367 19 3	3,386 14 10	..	..	1,023	75 19 0	104 16 6	1,655 0 8	
Otago	9	2,872 3 10	2,339 16 1	5,211 19 11	..	19	3,230¼	25 6 2	236 10 6	4,219 17 9	
Southland ..	10	1,744 17 5	158 3 2	1,903 0 7	71	55	817	50 0 0	61 4 2	619 10 3	
Totals		27,950 6 8	5,022 18 10	32,973 5 6	1450	1,999	12,653	894 2 10	714 15 11	13,367 10 6	

Table 41. — STATEMENT showing PAYMENTS to LOCAL BODIES during the Twelve Months ended 31st March, 1903, from "Thirds" of Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, and Lease-in-perpetuity Lands, and "Fourths" of Small Grazing-runs.

Local Bodies.	"Thirds," Deferred-payment, Perpetual-lease, Occupation-with-right-of purchase, and Lease-in-per-petuity Lands.	"Fourths," Small Grazing-runs.	Total Payments.	Length, Locality, Description, and Particulars of Work authorised by Land Board.					
				Bush-clearing.	Scrub-clearing.	For-mation.	Bridges.	Culverts.	Main-tenance.
STATEMENT No. 1.—AUCKLAND.									
	£ s. d.	£ s. d.	£ s. d.	Ch.	Ch.	Ch.	£ s. d.	£ s. d.	£ s. d.
Ahuroa R.B. ..	27 16 4	..	27 16 4	2	20	6	..	4 8 2	19 11 2
Awitu R.B. ..	30 2 5	..	30 2 5	7	12	12	..	..	21 14 2
Bay of Islands C.C.	128 12 3	..	128 12 3	..	73	34	4 10 5	..	87 15 7
Coromandel C.C. ..	56 0 2	..	56 0 2	3	200	11	..	16 9 10	4 17 9
East Taupo County	4 0 4	15 18 8	19 19 0*	..	..	..	..	..	..
Great Barrier Island	11 19 7	..	11 19 7	..	..	15	..	..	..
Hikurangi R.B. ..	1 12 7	..	1 12 7	..	5	1	..	..	..
Huntly R.B. ..	91 17 9	..	91 17 9	..	..	55	..	11 3 0	..
Hunua R.B. ..	13 8 2	..	13 8 2	..	..	..	5 9 0	5 18 2	2 1 0
Karaka R.B. ..	12 15 4	..	12 15 4	..	..	24	..	6 0 0	..
Katikati R.B. ..	5 6 11	..	5 6 11	..	..	..	0 16 8	0 17 5	3 12 10
Kirikiriroa R.B. ..	12 14 3	..	12 14 3	..	..	..	..	..	12 14 3
Kawhia County ..	1,377 9 0	54 15 4	1,432 4 4†	..	..	..	..	..	..
Mangonui C.C. ..	188 19 7	..	188 19 7	..	174	246	..	20 16 1	44 17 7
Manukau C.C. ..	131 4 0	..	131 4 0	130	10	51	..	11 10 0	45 0 0
Mangawai R.B. ..	16 6 1	..	16 6 1	..	54	29	..	..	2 1 0
Matakohe R.B. ..	52 8 4	..	52 8 4	..	25	45	..	..	16 7 0
Matakana West R.B.	18 12 5	..	18 12 5	..	..	2	..	2 0 0	8 14 7
Mauku R.B. ..	28 4 3	..	28 4 3	..	..	5	..	5 5 0	..
Marua R.B. ..	69 4 9	..	69 4 9	..	..	51	..	1 7 9	4 2 9
Maungakaramea R.B.	3 4 1	..	3 4 1	14	2	11	..	..	..
Maungatawhiri R.B.	4 13 0	..	4 13 0	..	..	..	..	..	4 13 0
Omaha R.B. ..	60 7 1	..	60 7 1	..	8	55	11 3 9	1 13 10	15 18 6
Onewhero R.B. ..	12 0 11	..	12 0 11	..	..	..	..	..	12 0 11
Opotiki C.C. ..	75 1 0	..	75 1 0	..	60	41	..	..	66 16 0
Otamatea C.C. ..	339 9 11	..	339 9 11	..	662	307	..	2 15 0	54 13 3
Otonga R.B. ..	6 8 2	..	6 8 2	..	11	1	..	0 10 6	2 18 4
Parua R.B. ..	10 11 7	..	10 11 7	..	121	11	..	..	..
Pollok Settlement R.B.	0 7 4	..	0 7 4	..	..	..	..	..	0 7 4
Puhoi R.B. ..	28 10 3	..	28 10 3	..	40	..	..	..	25 0 7
Pukeatua R.B. ..	3 12 11	..	3 12 11	..	3	..	..	..	1 15 2
Piako C.C. ..	37 4 9	..	37 4 9	45	..	45	..	0 15 0	4 0 0
Raglan C.C. ..	636 5 2	..	636 5 2	283	5	641	19 4 8	27 15 8	65 1 11
Rodney C.C. ..	85 2 0	..	85 2 0	2	40	184	3 12 10	15 1 9	35 19 4
Rotorua County ..	98 8 10	3 17 4	102 6 2*	..	..	..	..	..	..
Ruarangi R.B. ..	7 18 2	..	7 18 2	10	..	16	..	..	0 9 10
Tamaki East R.B...	1 11 8	..	1 11 8	..	..	..	..	..	1 11 8
Tauhoa R.B. ..	61 9 10	..	61 9 10	..	24	26	..	..	33 3 9
Tauranga C.C. ..	82 9 8	10 1 3	92 10 11	..	15	15	13 2 5	..	71 9 1
Te Puke R.B. ..	64 13 10	..	64 13 10	..	..	39	..	..	40 18 5
Thames C.C. ..	45 6 6	..	45 6 6	..	14	14	8 0 0	3 10 0	4 0 0
Waitoa R.B. ..	38 19 2	..	38 19 2	..	..	2	..	2 0 0	38 19 2
Waitemata C.C. ..	80 13 5	..	80 13 5	..	..	34	1 12 6	1 4 8	64 15 5
Waipipi R.B. ..	11 9 7	..	11 9 7	..	..	..	0 10 4	0 16 11	10 2 4
Waipu North R.B.	32 7 11	..	32 7 11	15	..	37	..	..	..
Wairoa R B. ..	36 10 1	..	36 10 1	13	..	9	5 18 0	1 10 0	7 16 7
Waiuku R.B. ..	78 12 9	..	78 12 9	..	..	8	..	..	77 6 6
West Taupo County	27 12 4	..	27 12 4†	..	..	..	..	..	..
Whakatane C.C. ..	101 6 8	9 16 9	111 3 5	..	..	92	..	7 10 0	50 11 10
Whangaroa C.C. ..	14 0 8	..	14 0 8	..	..	2	..	..	7 0 11
Wharebine R.B. ..	0 6 2	..	0 6 2	..	..	..	..	..	0 6 2
Whangamarino R.B.	76 17 10	..	76 17 10	5	25	31	..	33 16 8	5 6 0
Whangarei C.C. ..	347 4 2	..	347 4 2	118	14	76	38 16 11	19 16 0	101 17 1
Totals ..	4,789 11 11	94 9 4	4,884 1 3	647	1617	2284	112 17 6	204 11 5	1,078 8 9

* Expended by Captain Turner; no particulars furnished. † Expended by Mr. Burd; no particulars furnished.

Table 41.—Showing Payments to Local Bodies, &c.—*continued.*

Local Bodies.	"Thirds," Deferred-payment, Perpetual-lease, Occupation-with-right-of purchase, and Lease-in-perpetuity Lands.	"Fourths," Small Grazing-runs.	Total Payments.	Length, Locality, Description, and Particulars of Work authorised by Lands Board.						
				Bush-clearing.	Scrub-clearing.	Formation.	Bridges.	Culverts.	Maintenance.	
STATEMENT No. 2.—HAWKE'S BAY.										
	£ s. d.	£ s. d.	£ s. d.	Ch.	Ch.	Ch.	£ s. d.	£ s. d.	£ s. d.	
Cook C.C.	279 9 10	109 7 3	388 17 1	40	45	120	12 4 7	7 16 0	167 0 11	
Hawke's Bay C.C. ..	81 15 7	10 15 0	92 10 7	21	..	69	4 11 9	3 4 2	3 5 9	
Waiapu C.C. ..	243 1 9	64 11 7	307 13 4	..	170	376	..	..	..	
Waipawa C.C. ..	3,488 3 11	11 7 1	3,499 11 0	24	..	566	60 10 6	1 7 4	989 18 11	
Wairoa C.C. ..	485 18 1	178 2 4	664 0 5	..	..	312	77 7 1	2 11 3	96 19 10	
Weber R.B. ..	128 5 6	35 3 4	163 8 10	15	..	102	..	17 6 9	35 9 0	
Woodville R.B. ..	336 7 8	..	336 7 8	..	..	55	..	..	10 19 11	
Ngatapa R.B. ..	634 9 4	..	634 9 4	..	..	1840	..	..	..	
Norsewood R.B. ..	77 1 5	..	77 1 5	37	26	..	3 4 7	6 17 6	25 13 1	
Patutahi R.B. ..	4 18 0	..	4 18 0	..	..	..	..	..	4 18 0	
Te Arai R.B. ..	96 18 9	..	96 18 9	..	..	..	..	..	..	
Waikohu R.B. ..	..	6 6 6	6 6 6	..	..	..	..	..	3 5 11	
Waimata R.B. ..	..	15 18 10	15 18 10	..	..	..	..	..	..	
Totals ..	5,856 9 10	431 11 11	6,288 1 9	137	241	3440	157 18 6	39 3 0	1,337 11 4	
Also, interest on loans, £936 18s. 4d.										
STATEMENT No. 3.—TARANAKI.										
Egmont R.B. ..	2 2 5	..	2 2 5	..	..	..	..	..	2 2 5	
Hawera C.C. ..	156 0 3	..	156 0 3	10	..	21	..	18 19 2	20 18 1	
Manganui R.B. ..	110 4 8	..	110 4 8	..	..	..	..	..	..	
Moa R.B. ..	130 1 8	..	130 1 8	..	..	18¾	..	5 11 5	29 7 7	
Motoroa R.B. ..	5 16 1	..	5 16 1	..	..	..	..	..	5 16 1	
Oakura R.B. ..	30 15 1	..	30 15 1	..	..	40	..	..	..	
Patea C.C. ..	79 13 10	..	79 13 10	..	..	..	51 16 10	..	27 17 0	
Patea East R.B. ..	4 10 6	26 15 6	31 6 0	..	..	..	..	..	31 6 0	
Stratford C.C. ..	283 15 4	..	283 15 4	..	..	..	..	8 11 8	183 5 7	
Waimate R.B. ..	146 0 5	..	146 0 5	8	..	21	..	..	1 0 9	
Wairoa R.B. ..	53 4 4	..	53 4 4	..	..	..	..	..	53 4 4	
Waiwakaiho R.B. ..	58 11 10	..	58 11 10	12	..	20	..	..	10 12 6	
Totals ..	1,060 16 5	26 15 6	1,087 11 11	30	..	120¾	51 16 10	33 2 3	365 10 4	
Also, interest on loans, £346 6s. 8d.										
STATEMENT No. 4.—WELLINGTON.										
Akitio C.C. ..	961 17 10	11 13 5	973 11 3	..	..	9	..	..	962 15 10	
Eketahuna C.C. ..	654 2 10	..	654 2 10	..	..	30	15 17 11	..	228 16 3	
Kiwitea C.C. ..	1,971 18 2	1 8 7	1,973 6 9	..	..	85	..	..	574 8 0	
Mangawhero R.B. ..	14 9 1	..	14 9 1	..	..	5	..	..	..	
Masterton C.C. ..	134 15 8	..	134 15 8	..	..	26½	..	..	..	
Mauriceville C.C. ..	78 13 6	2 17 9	81 11 3	..	..	1½	..	..	..	
Pahiatua C.C. ..	795 4 5	..	795 4 5	..	..	18½	..	..	486 4 2	
Patea C.C. ..	4 7 3	..	4 7 3	..	..	..	..	..	..	
Petone B.C. ..	38 10 1	..	38 10 1	..	..	..	..	..	38 10 1	
Pohangina C.C. ..	507 18 7	13 11 6	521 10 1	..	..	..	..	..	..	
Rangitikei C.C. ..	1,758 5 2	33 12 3	1,791 17 5	..	..	620	178 5 0	..	378 8 11	
Taratahi - Carterton R.B.	332 7 5	52 3 11	384 11 4	72	25	97	5 10 0	7 7 6	122 18 8	
Te Horo R.B. ..	21 10 8	..	21 10 8	..	..	..	..	..	21 10 8	
Upper Wangaehu R.B.	371 9 6	78 12 1	450 1 7	20	..	90	193 14 5	2 10 0	16 12 4	
Waitot'ra-Momohaki R.B.	81 9 0	..	81 9 0	..	..	..	..	..	71 3 5	
Waitotara C.C. ..	..	98 0 8	98 0 8	..	..	56	..	..	3 18 2	
Wirokino C.C. ..	98 4 11	..	98 4 11	11	..	14	..	..	36 2 5	
Totals ..	7,825 4 1	292 0 2	8,117 4 3	103	25	1052½	393 7 4	9 17 6	2,941 8 11	
NOTE.—Amounts paid under hypothecation for relief from special rates under loans and under certificates as Ordinary Revenue are included in the total payments.										
STATEMENT No. 5.—NELSON.										
Waimea C.C. ..	792 13 10	..	792 13 10	292	30	181	24 12 2	7 6 1	331 10 6	
Suburban North R.B.	22 12 11	7 0 0	29 12 11	..	..	..	..	..	7 10 11	
Dovedale R.B. ..	45 9 5	..	45 9 5	..	..	4	2 5 4	..	22 13 10	
Riwaka R.B. ..	67 16 5	..	67 16 5	2	..	92	..	..	10 13 2	
Waimea West R.B.	9 4 0	..	9 4 0	..	..	..	..	..	9 4 0	
Stoke R.B. ..	30 17 9	..	30 17 9	..	..	39	..	..	..	
Buller C.C. ..	45 19 3	..	45 19 3	..	..	..	..	..	45 19 3	
Inangahua C.C. ..	26 7 10	..	26 7 10	..	..	..	..	..	26 7 10	
Collingwood C.C. ..	179 7 6	..	179 7 6	22	..	78	..	11 3 5	110 16 3	
Collingwood R.B. ..	106 0 6	..	106 0 6	136	..	46½	..	..	51 17 5	
Upper Moutere R.B.	35 0 6	..	35 0 6	..	..	61	..	..	8 2 5	
Totals ..	1,361 9 11	7 0 0	1,368 9 11	452	30	501½	26 17 6	18 9 6	624 15 7	

Table 41.—Showing Payments to Local Bodies, &c.—*continued.*

Local Bodies.	"Thirds," Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, and Lease-in-perpetuity Lands.	"Fourths," Small Grazing-runs.	Total Payments.	Length, Locality, Description, and Particulars of Work authorised by Land Board.					
				Bush-clearing.	Scrub-clearing.	Formation.	Bridges.	Culverts.	Maintenance.
STATEMENT No. 6.—MARLBOROUGH.									
	£ s. d.	£ s. d.	£ s. d.	Ch.	Ch.	Ch.	£ s. d.	£ s. d.	£ s. d.
Wairau R.B. ..	30 11 11	58 12 8	89 4 7	..	..	..	..	..	89 4 7
Pelorus R.B. ..	105 14 0	20 11 10	126 5 10	10	12	45	..	..	72 0 0
Picton R.B. ..	..	..	..	..	..	..	..	..	..
Awatere R.B. ..	..	130 4 2	130 4 2	..	..	100	..	..	10 0 0
Kaikoura C.C. ..	117 4 0	95 14 9	212 18 9	..	..	39	..	7 1 1	186 14 7
Totals ..	253 9 11	305 3 5	558 13 4	10	12	184	..	7 1 1	357 19 2
STATEMENT No. 7.—WESTLAND.									
Westland C.C. ..	156 19 0	..	156 19 0	..	..	..	..	..	156 19 0
Grey C.C. ..	10 8 9	..	10 8 9	..	..	..	..	..	10 8 9
Totals ..	167 7 9	..	167 7 9	..	..	..	..	..	167 7 9
STATEMENT No. 8.—CANTERBURY.									
Anama R.B. ..	29 17 6	24 4 8	54 2 2	..	..	..	..	..	..
Cheviot C.C. ..	3 11 6	..	3 11 6	..	..	..	..	..	..
Coldstream R.B. ..	55 8 5	..	55 8 5	..	..	..	..	..	..
Ellesmere R.B. ..	5 8 9	..	5 8 9	..	..	..	..	..	4 4 0
Geraldine R.B. ..	255 19 7	..	255 19 7	..	..	31	..	..	178 4 6
Geraldine T.B. ..	0 15 1	..	0 15 1	..	..	..	..	..	0 15 1
Hampstead T.B. ..	3 1 2	..	3 1 2	..	..	..	..	..	..
Kowai R.B. ..	0 16 10	..	0 16 10	..	..	..	..	..	0 16 10
Levels C.C. ..	45 4 1	..	45 4 1	..	..	..	..	33 5 9	52 19 2
Longbeach R.B. ..	0 14 9	..	0 14 9	..	..	..	..	..	0 14 9
Mandeville and Rangiora	0 13 4	..	0 13 4	..	..	..	..	..	1 0 0
Mackenzie C.C. ..	363 12 0	133 17 8	497 9 8	..	..	41	..	..	163 17 11
Mount Hutt R.B. ..	24 15 8	..	24 15 8	..	..	..	9 0 0	..	22 14 3
Mount Peel R.B. ..	177 8 6	..	177 8 6	..	..	25	66 19 0	..	31 17 11
Mount Somers R.B.	2 19 6	20 3 6	23 3 0	..	..	12	..	..	47 5 2
Oxford R.B. ..	20 11 3	41 13 2	62 4 5	..	..	..	..	..	20 10 0
Port Levy R.B. ..	0 14 6	..	0 14 6	..	..	..	..	..	..
Rakaia R.B. ..	24 16 9	..	24 16 9*	..	..	..	..	..	..
Rangitata R.B. ..	353 16 10	..	353 16 10	..	..	..	..	6 15 0	537 10 6
South Rakaia R.B.	9 11 1	..	9 11 1	..	..	466	..	..	1 15 0
Springs R.B. ..	3 13 4	..	3 13 4	..	..	..	..	..	4 17 0
Temuka R.B. ..	69 12 10	..	69 12 10	..	..	..	..	..	..
Temuka B.C. ..	13 7 8	..	13 7 8	..	..	..	..	..	13 8 0
Upper Ashburton R.B.	133 13 6	..	133 13 6	..	..	..	..	..	10 0 0
Waimate C.C. ..	300 1 7	799 0 10	1,099 2 5	..	..	183	..	64 15 9	419 1 10
Waipara R.B. ..	58 10 3	348 19 5	407 9 8	..	..	110	..	..	124 11 9
Wakanui R.B. ..	59 19 4	..	59 19 4	..	..	155	..	..	18 17 0
Totals ..	2,018 15 7	1,367 19 3	3,386 14 10	..	..	1023	75 19 0	104 16 6	1,655 0 8

* Amount applied towards repayment of the Board's advances.

STATEMENT No. 9.—OTAGO.									
Taieri C.C. ..	209 13 4	658 14 9	868 8 1	..	..	56	..	..	481 19 9
Maniototo C.C. ..	970 1 9	454 12 9	1,424 14 6	..	3	2540	14 0 0	206 16 9	1,207 0 0
Vincent C.C. ..	322 2 8	182 2 3	504 4 11	..	..	289¼	..	..	497 4 6
Waitaki C.C. ..	134 18 5	184 2 9	319 1 2	..	..	78	..	..	319 1 2
Waihemo C.C. ..	110 5 6	319 1 0	429 6 6	..	..	..	..	..	429 6 6
Waikouaiti C.C. ..	1 7 11	307 5 10	308 13 9	..	..	178	6 7 6	17 8 6	284 17 9
Clutha C.C. ..	822 8 1	19 18 10	842 6 11	..	..	12	..	..	502 7 11
Bruce C.C. ..	25 13 6	11 18 7	37 12 1	..	16	22	2 11 6	2 15 11	32 4 8
Tuapeka C.C. ..	218 7 10	200 12 8	419 0 6	..	..	55	..	4 10 6	414 10 0
Lake C.C. ..	56 4 9	..	56 4 9	..	..	..	2 7 2	4 18 10	48 18 9
Mount Stuart R.B.	1 0 1	1 6 8	2 6 9	..	..	..	..	..	2 6 9
Totals ..	2,872 3 10	2,339 16 1	5,211 19 11	..	19	3230¼	25 6 2	236 10 6	4,219 17 9
STATEMENT No. 10.—SOUTHLAND.									
Southland C.C. ..	631 16 10	5 2 0	636 18 10	25	7	314	..	..	295 8 1
Wallace C.C. ..	560 3 10	153 1 2	713 5 0	16	16	390	..	25 4 7	158 6 3
Lake C.C. ..	48 19 10	..	48 19 10	..	..	10	..	2 11 4	40 11 10
Stewart Island C.C.	22 15 8	..	22 15 8	..	..	..	..	..	22 15 8
Oteramika R.B. ..	330 1 7	..	330 1 7	30	..	60	50 0 0	30 1 7	..
Knapdale R.B. ..	45 10 0	..	45 10 0	..	..	3	..	3 6 8	39 8 3
Gore B C. ..	28 13 2	..	28 13 2	..	..	..	..	..	28 13 2
Invercargill R.B. ..	76 16 6	..	76 16 6	..	32	40	..	..	34 7 0
Totals ..	1,744 17 5	158 3 2	1,903 0 7	71	55	817	50 0 0	61 4 2	619 10 3

Table 42.—Summary showing Amounts to the Credit of Local Bodies in the Deposit Account on 31st March, 1903, in respect to "Thirds" of Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, and Lease-in-perpetuity Lands, and "Fourths" of Small Grazing-runs.

Land District.	Amount.
	£ s. d.
Auckland	7,283 18 8
Hawke's Bay...	2,586 0 2
Taranaki	6,071 0 1
Wellington	19,625 12 0
Nelson	592 15 9
Marlborough	821 8 2
Westland	196 11 8
Canterbury	687 10 7
Otago	2,145 17 10
Southland	1,199 18 2
Total	£41,210 13 10

Table 43.—Showing Surveyors employed and the Work on Hand on 31st March, 1903.

Chief Surveyors.	Surveyors employed.		Work on Hand.						
	Staff.	Temporary.	District.	Trig.	Settlement.	Native Blocks, &c.	Roads, &c.	Town.	Mining and Mineral Leases.
				Sq. Ml.	Acres.	Acres.	Miles.	Acres.	Acres.
G. Mueller ..	8	21	Auckland ..	..	359,336	..	146	..	..
E. C. Gold Smith	4	3	Hawke's Bay	..	185,356	13,164	2	..	..
Jas. Mackenzie ..	4	9	Taranaki ..	312½	210,031	244	66	200	..
John Strauchon ..	9	10	Wellington ..	3,359	283,690	100,621	184	100	..
W. G. Murray ..	5	7	Nelson ..	..	157,100	..	..	..	..
C. W. Adams ..	2	2	Marlborough	..	51,650	..	31	..	..
G. J. Roberts ..	1	4	Westland ..	..	25,000	..	..	100	..
Thos. Humphries	2	..	Canterbury ..	..	66,752	..	5 5/16	..	..
D. Barron ..	3	..	Otago ..	110	59,950	4,840	..	1	250
J. Hay	2	1	Southland ..	..	10,200	31,000	..	..	..
Totals ..	40	57	..	3,781½	1,409,065	149,869	434 5/16	401	250

Table 44.—Summary of Work done for other Departments and for Local Bodies during the Year ended 31st March, 1903.

District in which Work was executed.	Cost.	District in which Work was executed.	Cost.
	£ s. d.		£ s. d.
Auckland	2,721 15 7	Brought forward ..	8,663 2 10
Hawke's Bay	633 19 6	Marlborough	98 7 4
Taranaki	874 1 7	Westland	838 11 6
Wellington	3,470 10 2	Canterbury	1,682 12 3
Nelson	962 16 0	Otago	1,052 15 10
		Southland	371 8 3
Carried forward ..	8,663 2 10	Total	12,706 18 0

Table 45.—STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," and "The Local Bodies' Loans Act, 1901," and 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 on the Moneys expended in respect of such Blocks out of Moneys borrowed under the said Acts.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1902. *	From April 1, 1902, to March 31, 1903.	Total to March 31, 1903.
1891–92.	Acres.				£		£	£	£ s. d.	£ s. d.
Ahuroa	4,000	23	479	18 Mar., 1892	2,500	Road-works	500	497	..	497 2 5
East Puketoi	83,500	"	"	" "	83,500	"	19,375	19,375	..	19,375 0 0
Mangamingi	6,000	15	336	18 Feb., "	9,040	"	4,286	4,286	..	4,286 0 0
Manganuiowae	5,000	23	479	18 Mar., "	2,500	"	500	500	..	500 0 0
Mareretu	5,000	"	"	" "	2,500	"	395	395	..	395 0 0
Maruwhenua	36,090	"	"	" "	49,200	"	2,000	2,000	..	2,000 0 0
Maruwhenua (part)	13,000	15	336	18 Feb., "	10,000	"	5,000	5,000	..	5,000 0 0
Maungataniwha	4,000	23	479	18 Mar., "	1,500	"	500	488	..	488 6 6
Motatau	5,803	23	479	18 Mar., "	2,349		600	599	..	598 10 7
		24	885	2 April, 1903						
Motu	33,000	23	479	18 Mar., 1892	14,025	"	2,475	2,475	..	2,475 0 0
Mount Baker	9,200	15	336	18 Feb., "	9,600	"	2,487	2,487	..	2,487 0 0
North-east Puketoi	13,300	"	"	" "	16,455	"	3,990	3,990	..	3,990 0 0
Oroua-Coal Creek	6,000	"	"	" "	6,440	"	1,050	1,050	..	1,050 0 0
Takahue	1,900	23	479	18 Mar., "	712	"	300	300	..	300 0 0
Tauhoa, Sections 184 to 201	4,069	15	336	18 Feb., "	1,675	"	449	380	..	380 0 0
Waimarino	20,900	"	"	" "	16,880	"	7,837	7,834	1 2 11	7,835 10 6
Waoku	22,804	74	1298	22 Sept., "	10,000	"	2,000	2,000	..	2,000 0 0
		17	301	9 Mar., 1893						
Woodlands, Blocks II., V., VI., VIII.	13,400	15	336	18 Feb., 1892	11,225	"	4,950	4,950	..	4,950 0 0
1892–93.										
Akaaka Swamp	2,935	72	1273	15 Sept., 1892	2,093	Drainage	920	917	..	916 12 1
Glenomaru, Blocks III., IV., V., VII., IX., X.	1,495	95	1606	8 Dec., "	946	Road-works	237	237	..	237 0 0
		13	246	23 Feb., 1893						
Hautapu-Ruahine	19,804	74	1297	22 Sept., 1892	22,154	"	6,931	6,932	..	6,931 12 3
Huiroa	6,433	72	1273	15 Sept., "	5,318	"	2,093	2,093	..	2,093 0 0
Kaimanuka	9,987	"	"	" "	5,350	"	2,665	2,665	..	2,665 0 0
Kakariki	5,000	23	413	30 Mar., 1893	5,786	"	1,562	1,562	..	1,562 0 0
Liberal	2,800	83	1388	20 Oct., 1892	2,900	"	400	400	..	400 0 0
Lillburn, Monowai, and Alton	30,745	83	1389	" "	23,059	"	8,000	8,000	..	8,000 0 0
Longwood, Blocks XVI. and I.	5,659	90	1529	11 Nov., "	2,829	"	1,400	1,400	..	1,400 0 0
Maioro Swamp	722	80	1365	13 Oct., "	451	Drainage	225	225	..	225 0 0
Mangaehu	492	72	1273	15 Sept., "	604	Road-works	301	301	..	301 0 0
Milsom	6,686	21	374	23 Mar., 1893	6,237	"	1,750	1,750	..	1,750 0 0
Mokoreta	7,400	23	411	30 Mar., "	3,700	"	1,850	493	..	492 13 2
Momohaki	526	72	1274	15 Sept., 1892	440	"	156	156	..	156 0 0
Ngatimaru, Blocks V., IX.	4,910	23	412	30 Mar., 1893	4,745	"	1,940	1,940	..	1,940 0 0
Nuhaka North	9,549	80	1365	13 Oct., 1892	4,632	"	568	568	..	568 0 0
Opuawhanga No. 1	5,000	23	412	30 Mar., 1893	1,875	"	500	483	13 0 0	495 13 10
Otau	18,510	71	1255	8 Sept., 1892	6,941	"	2,350	2,350	..	2,350 0 0
Oxford	4,000	4	23	12 Jan., 1893	3,550	"	1,200	1,200	..	1,200 0 0
Paterson, Block I.	633	23	411	30 Mar., "	316	"	158	158	..	158 0 0
Rankleburn, Block VI.	544	13	246	23 Feb., "	409	"	136	136	..	136 0 0
		102	1744	29 Dec., 1892						
Ruapekapeka	11,900	77	1345	6 Oct., "	4,462	"	500	495	..	494 13 4
Tanner	5,200	78	1361	10 Oct., "	5,950	"	1,780	1,780	..	1,780 0 0
Tautuku, Block I.	3,850	77	1346	6 Oct., "	2,800	"	555	555	..	555 0 0
Tuapeka West, Blocks I., II., III., IV., VII., VIII.	2,545	13	246	23 Feb., 1893	1,681	"	367	367	..	367 0 0
		102	1742	29 Dec., 1892						
		"	1745	" "						
Upper Waitara	840	13	240	23 Feb. 1893	1,914	"	126	126	..	126 0 0
Waiau	8,831	23	412	30 Mar., "	5,621	"	1,405	837	..	837 4 6
Waikawa	6,000	"	"	" "	3,000	"	1,500	1,500	..	1,500 0 0
Waikawa-Otara	31,000	"	411	" "	15,500	"	7,750	7,750	..	7,749 12 5
Waimate Reserve No. 1126	634	72	1273	15 Sept., 1892	6,269	"	300	300	..	300 0 0
Waimate Reserve No. 1128	516	"	"	" "	7,268	"	25	25	..	25 0 0
Waimate Reserve No. 1178	157	"	"	" "	2,193	"	25	25	..	25 0 0
Waiwera	3,900	23	413	30 Mar., 1893	4,101	"	1,460	1,460	..	1,460 0 0
Woodlands, Blocks VII., X., XI.	1,693	74	1297	22 Sept., 1892	1,384	"	307	307	..	307 0 0
1893–94.										
Autawa	4,725	21	393	23 Mar., 1893	4,276	Road-works	1,153	1,052	..	1,052 4 0
Catlin's, Block II.	196	13	246	23 Feb., "	196	"	50	50	..	50 0 0
Glenomaru, Block VI.	25	62	1211	10 Aug., "	80	"	25	25	..	25 0 0
Hautapu, Blocks XI., XIV., XV.	6,188	92	1567	24 Nov., 1892	5,469	"	1,573	1,567	..	1,567 0 0
Kaimarama	3,182	71	1372	21 Sept., 1893	1,580	"	318	318	..	318 0 0
Lepperton	2,775	83	1383	20 Oct., 1892	2,998	"	966	966	..	966 0 0
Mangaere	7,432	30	526	27 April, 1893	12,845	"	4,144	4,144	..	4,144 0 0
Mangaokahu	2,325	54	1047	6 July, "	1,163	"	233	232	..	232 0 0
Carried forward	534,710	..	..	..	445,186	..	118,598	116,453	14 2 11	116,465 15 7

* The figures give the totals to the nearest pound for the year ending 31st March, 1901.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," and "The Local Bodies' Loans Act, 1901," &c.—*continued.*

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1902.	From April 1, 1902, to March 31, 1903.	Total to March 31, 1903
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward ..	534,710	..	..	..	445,186	..	118,598	116,453	14 2 11	116,465 15 7
1893–94—*continued.*										
Mangoira-Coal Creek ..	6,500	74	1297	22 Sept., 1892	8,204	Road-works	2,031	2,030	..	2,030 0 0
Nuhaka No. 2	777	68	1324	7 Sept., 1893	485	"	58	58	..	58 0 0
Omahine, Block I.	455	8	152	2 Feb., 1893	341	"	114	114	..	114 0 0
Opaku-Kapara	18,620	4	26	12 Jan., "	10,455	"	2,793	2,793	..	2,793 0 0
Opuawhanga-Whangarei No. 1	4,600	34	571	1 May, "	2,300	"	500	490	1 10 0	491 13 6
Oteramika	6,253	71	1377	21 Sept., "	2,631	"	625	120	..	120 1 0
Pohui	4,306	90	1521	11 Nov., 1892	3,655	"	538	538	..	538 0 0
Stirling	4,770	28	539	31 Mar., "	6,678	"	1,193	1,192	..	1,192 0 0
Swinburn	1,790	40	656	18 May, 1893	1,610	"	288	200	52 19 6	252 19 6
Tahaukupu	2,817	13	245	23 Feb., "	2,256	"	675	675	..	675 0
Tararua	3,993	19	340	16 Mar., "	4,592	"	998	998	..	998 0 0
Tauhoa-Komokoriki.. ..	2,650	35	573	4 May, "	1,000	"	325	325	..	325 0 0
Taupiri	9,200	45	860	8 June, "	3,910	"	920	562	..	562 8 1
Tauwharetoi	9,404	68	1324	7 Sept., "	4,975	"	1,175	1,169	..	1,169 0 0
Umutaoroa..	1,461	49	939	22 June, "	956	"	100	28	..	28 7 1
Waipoua	58,200	74	1419	5 Oct., "	29,100	"	5,800	5,799	..	5,799 5 5
Wellington Fruit-growers' Association	2,608	72	1274	15 Sept., 1892	8,543	"	1,313	1,313	..	1,313 0 0
Woodville	254	49	939	22 June, 1893	286	"	25	25	..	25 0 0
1894–95.										
Egmont, Block VI.	1,683	57	1163	26 July, 1894	1,721	Road-works	421	421	..	421 0 0
Gimmerburn	8,682	24	481	29 Mar., "	6,152	"	1,032	885	129 0 0	1,013 10 5
Hall	3,175	19	340	16 Mar., 1893	4,871	"	794	794	..	794 0 0
Hautapu No. 2	6,856	65	1272	24 Aug., 1894	8,860	"	1,714	1,714	..	1,713 15 10
Invercargill Hundred ..	1,403	72	1273	15 Sept., 1892	1,840	"	400	322	..	321 16 9
Kaitangiwhenua Special Settlement	7,747	19	340	16 Mar., 1893	4,209	"	1,375	1,375	..	1,375 0 0
Lauder-Blackstone	3,809	24	481	29 Mar., 1894	3,608	"	476	476	..	476 0 0
Lauder-Tiger Hill	28,723	"	"	" "	22,112	"	1,000	600	400 0 0	1,000 0 0
Lower Wanaka	3,368	34	714	10 May, "	1,250	"	101	101	..	101 0 0
Maniototo	277	24	481	29 Mar., "	245	"	104	100	..	100 0 0
Mecalickstone	6,010	19	339	16 Mar., 1893	4,954	"	1,503	1,503	..	1,503 0 0
Momahaki Village Settlement	824	7	131	25 Jan., 1894	6,311	"	1,360	1,360	..	1,360 0 0
Okoke	13,893	51	1049	5 July, "	9,577	"	2,369	2,367	..	2,366 11 1
Pakiri	2,950	21	387	23 Mar., 1893	1,106	"	369	369	..	369 0 0
Palmerston North Knights of Labour	10,995	28	539	31 Mar., 1892	12,222	"	2,749	2,749	..	2,749 0 0
Pohonuiatane	27,754	19	340	16 Mar., 1893	26,476	"	6,959	6,283	401 12 8	6,690 9 2
Ruahine	4,800	61	1291	16 Aug., 1894	2,225	"	840	824	..	824 1 9
Salisbury and Delaware ..	13,399	28	539	31 Mar., 1892	14,272	"	3,348	3,348	..	3,348 0 0
Sommerville	8,566	"	"	" "	9,085	"	2,142	2,142	..	2,142 0 0
Waiotahi	6,050	57	1162	26 July, 1894	2,269	"	756	751	..	750 13 9
Wanganui	6,222	19	340	16 Mar., 1893	6,046	"	1,556	1,556	..	1,556 0 0
1895–96.										
Ackers	351	68	1327	7 Sept., 1893	702	Road-works	220	217	..	216 16 3
Avoca	3,668	24	482	29 Mar., 1894	1,834	"	458	458	..	458 0 0
Blackstone-Gimmerburn ..	22,535	10	233	7 Feb., 1895	24,748	"	500	500	..	500 0 0
Clifton No. 1	4,650	28	539	31 Mar., 1892	4,081	"	1,163	1,163	..	1,163 0 0
Dannevirke Centennial ..	11,041	19	340	16 Mar., 1893	5,233	"	2,494	1,780	187 12 7	1,967 5 10
Eltham	3,200	"	"	" "	3,150	"	800	800	..	800 0 0
Gatton	3,800	"	"	" "	3,860	"	950	950	..	950 0 0
Hikurangi No. 2	4,148	82	1663	16 Nov., 1894	3,240	"	520	497	..	497 5 5
Hokonui	3,223	18 7	459 149	7 Mar., 1895 30 Jan., 1896	1,607	"	603	85	..	85 7 10
Kaiparoro	9,392	60	1245	15 Aug., 1895	6,414	"	1,174	1,174	..	1,174 0 0
Kaitangata..	7,105	89	1863	5 Dec., "	4,215	"	884	656	..	656 0 0
Kaitangiwhenua No. 2 ..	33,032	27	510	5 April, 1894	13,819	"	5,756	5,756	..	5,756 0 0
Kaitieke	45,500	12	283	14 Feb., 1895	41,700	"	11,375	5,592	100 9 0	5,692 13 11
Karioi-Alexandra	13,300	10	269 270	13 Feb., 1896	4,987	"	1,662	1,662	..	1,661 14 6
Kaupokonui	230	62	1215	10 Aug., 1893	230	"	58	58	..	58 0 0
Kawhatau	5,700	94	1951	21 Dec., 1894	6,588	"	1,425	1,384	40 14 10	1,425 0 0
Llewellyn	4,594	15	397	9 Mar., 1896	3,445	"	862	313	217 6 4	530 11 5
Malton Farm Homestead ..	1,200	80	1637	8 Oct., 1894	944	"	302	302	..	302 0 0
Manganui and Ruapehu ..	7,350	46	958	21 June, "	6,337	"	1,838	1,721	117 6 0	1,838 0 0
Manganui-Egmont	2,833	72	1510	4 Oct., "	3,597	"	894	894	..	894 0 0
Maniototo No. 2	6,916	10	233	7 Feb., 1895	5,911	"	907	500	..	500 0 0
Maniototo No. 3	6,295	12	284	14 Feb., "	6,001	"	300	..	132 12 6	132 12 6
Naseby, No. 2	2,444	10	234	7 Feb., "	2,038	"	313	..	291 9 10	291 9 10
Carried forward ..	1,043,061	..	..	..	841,255	..	204,895	191,384	2,086 16 2	193,475 6 5

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," and "The Local Bodies' Loans Act, 1901," &c.—*continued.*

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1902.	From April 1, 1902, to March 31, 1903.	Total to March 31, 1903.
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward ..	1,043,061	..	..	..	841,255	..	204,895	191,384	2,086 16 2	193,475 6 5
1895–96—*continued.*										
Ngunguru	6,125	46	973	20 June, 1895	3,210	Road-works	772	751	..	750 12 1
Pohangina	4,722	28	539	31 Mar., 1892	4,250	"	1,181	1,181	..	1,181 0 0
Puketoi-Aohanga	1,277	92	1933	19 Dec., 1895	1,027	"	319	319	..	319 0 0
Puniwhakau	10,695	19	340	16 Mar., 1893	7,604	"	1,926	1,926	..	1,926 0 0
Rangiwhakaoma	13,650	72	1501	4 Oct., 1894	5,487	"	1,421	1,421	..	1,421 0 0
Ross	1,912	34	760	9 May, 1895	2,564	"	478	438	38 3 6	476 2 6
Ruakituri	4,855	46	939 955	21 June, 1894	4,624	"	364	354	..	353 15 2
Marlborough	4,670	46	939	" "	2,043	"	467	..	..	..
Ruapuna	847	80	1640	8 Nov., "	1,270	"	106	75	..	75 0 0
Takahue and Whangape ..	12,200	89	1864	5 Dec., 1895	4,270	"	1,800	1,800	..	1,800 0 0
Terrace End	11,118	60	1245	15 Aug., "	8,950		2,173	2,173	..	2,173 0 0
Umutoi	2,200	28	539	31 Mar., 1892	1,675	"	550	550	..	550 0 0
Waiawa	20,000	5	94	27 Jan., 1896	8,000	"	2,500	1,953	339 11 7	2,292 10 9
Waimana	15,986	46	973	20 June, 1895	5,994	"	2,000	2,000	..	2,000 0 0
Whakarara, Section 14, Block XII.	508	16	342	1 Mar., 1894	406	"	38	..	..	..
1896–97.										
Auckland Special Settlement	8,995	78	1665	24 Oct., 1895	3,698	Road-works	899	898	..	898 0 1
Catlin's, Blocks IV., V., VI., VII.	8,580	68	1426	12 Sept., "	4,228	"	1,057	975	23 5 0	998 1 10
Gladstone	7,597	24	482	28 Mar., 1894	5,822	"	1,899	1,772	67 6 8	1,839 12 3
Karioi Parish	550	33	665	3 May, "	206	"	55	55	..	55 0 0
Mangataniwha No. 2 ..	1,220	47	955	18 June, 1896	487	"	120	73	29 17 0	103 6 9
Maropiu	5,350	24	667	11 Mar., 1897	2,675	"	535	368	28 3 0	397 18 2
Ohinewairua	7,462	11	242	28 Jan., "	7,491	"	1,865	1,864	..	1,864 1 3
Patua	9,692	24	667	11 Mar., "	6,542	"	1,636	1,627	..	1,627 0 0
Rawhitiroa	32,746	1	5	7 Jan., "	8,186	"	46	4	23 1 0	26 12 11
Te Mara	3,549 of 18,700	56	1092	13 July, 1893	2,384	"	436	428	..	427 16 3
Te Ngaue	1,470	54	1106	16 July, 1896	1,286	"	367	339	5 9 6	344 13 6
Whenuakura	10,927	19 4	340 57	16 Mar., 1893 10 Jan., 1901	5,652	"	1,690	733	183 19 1	917 3 8
1897–98.										
Hundalee	38,329	30 97	773 2081	1 April, 1897 18 Nov., "	25,704	Road-works	12,852	7,500	..	7,500 0 0
Huiarua	7,750	90	1901 1902	21 Oct., "	2,695	"	1,000	..	..	..
Kaiparoro No. 2	400	30	773	1 April, "	150	"	50	50	..	50 0 0
Makahu	6,551	66	1361	27 Aug., 1896	6,180	"	1,468	1,149	91 8 3	1,240 11 6
Maungaru	4,368	20	494	24 Mar., 1898	2,184	"	460	373	16 9 0	389 2 11
Paekotare	890	"	"	" "	356	"	80	76	..	75 14 6
Taumata	3,423	"	495	" "	2,188	"	428	428	..	428 0 0
Waikawa, Block II.	307	90	1901	21 Oct., 1897	746	"	186	..	..	..
Waikiekie	600	78	1698	15 Oct., 1896	788	"	150	150	..	150 0 0
1898–99.										
Awaroa No. 2	4,050	20	495	24 Mar., 1898	2,775	Road-works	400	120	108 8 0	228 6 8
Hautapu-Ruahine No. 2 ..	17,170	87	1841	28 Nov., 1895	11,382	"	4,192	1,823	207 16 11	2,030 18 9
Hauturu	72,331	1 31	1 750	5 Jan., 1899 28 Mar., 1901	37,540	"	10,000	10,000	..	9,999 12 7
Hurimoana	3,190	79	1774	3 Nov., 1898	2,981	"	797	797	..	797 0 0
Kaipikari	4,273	"	1775	" "	2,136	"	582	582	..	582 0 0
Kauaeranga	3,556	91	2021	20 Dec., "	1,770	"	445	..	..	..
Kawhia	4,927	70	1498	22 Sept., "	2,819	"	616	426	7 0 0	432 17 0
Kaikokopu	7,397	16	435	23 Feb., 1899	2,774	"	739	297	79 7 8	376 5 3
Kohuratahi	3,548	79	1774	3 Nov., 1898	3,019	"	738	738	..	738 0 0
Kohumaru	4,880	83	1846	17 Nov., "	1,700	"	600	146	..	146 9 1
Mamaku	7,684	24	564	7 April, "	3,842	"	700	680	19 18 0	700 0 0
Mangakahia	10,223	20	495	24 Mar., "	4,548	"	2,000	1,936	*1154 4 10	781 12 7
Mareikura No. 1	950	77	1716	27 Oct., "	493	"	120	120	..	120 0 0
Mareikura No. 2	584	79	1773	3 Nov., "	292	"	70	43	27 6 7	70 0 0
Makotuku, Block III. ..	1,550	28	539	31 Mar., 1892	1,768	"	350	367	..	366 15 9
Marco	6,467	13	382	16 Feb., 1899	4,040	"	1,027	1,027	..	1,027 0 0
Marton No. 3	8,816	19	340	16 Mar., 1893	7,788	"	2,204	2,185	19 8 10	2,204 0 0
Naseby, Maniototo, and Gimmerburn	5,277	79	1774	3 Nov., 1898	3,677	"	910	300	93 8 2	393 8 2
Carried forward ..	1,481,455	..	..	..	1,087,621	..	274,759	246,774	2,341 19 1	249,120 8 4

* This item of £1,154 4s. 10d. represents a credit amount, it being the difference between the actual expenditure (£12 6s. 1d.) and credit of £1,166 10s. 11d

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," and "The Local Bodies' Loans Act, 1901," &c.—*continued.*

Name of Block.	Area of Block.	Gazetted. No.	Page.	Date.	Surveyor-General's Report. Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	Expenditure. To Mar. 31, 1902.	From April 1, 1902, to March 31, 1903.	Total to March 31, 1903.
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward ..	1,481,455	..	..	..	1,087,621	..	274,759	246,774	2,341 19 1	249,120 8 4
1898-99—*continued.*										
Ngapaeruru	37,599	86	1914	1 Dec., 1898	18,799	Road-works	8,000	10954	..	10,954 9 6
Ngapaeruru No. 2	10,440	20	548	15 Mar., 1900	18,000	"	3,000			
Okohiriki	15,500	91	2021	20 Dec., 1898	6,200	"	1,550	568	180 14 6	749 0 6
Onslow	2,405	34	640	28 April, 1892	1,327	"	601	576	23 19 9	600 0 0
Otukai	10,000	83	1845	17 Nov., 1898	3,360	"	1,000	196	..	196 3 11
		70	1856	4 Sept., 1902						
Opanake	2,508	24	563	7 April, 1898	1,254	"	100	99	..	99 1 0
Opuatea No. 1	5,720	9	254	2 Feb., 1899	2,288	"	858	654	203 13 5	858 0 0
Opuatea No. 2	8,030	83	1847	17 Nov., 1898	2,735	"	1,000	521	70 5 6	591 13 10
Opuatea No. 3	4,337	"	1846	" "	1,976	"	600	469	90 4 10	558 17 5
Puhipuhi	24,860	91	2022	20 Dec., "	16,675	"	4,169	4,169	..	4,169 0 0
Puriri	1,856	"	"	" "	791	"	186	..	..	..
Pukeokahu	11,379	87	1841	28 Nov., 1895	11,957	"	2,844	1,434	507 18 2	1,941 10 2
		10	283	13 Feb., 1896						
Rimuputa	5,609	77	1715	27 Oct., 1898	3,228	"	799	799	..	799 0 0
Te Puroa	8,600	83	1846	17 Nov., "	3,440	"	1,000	640	10 2 6	649 16 5
Tokatoka	12,096	38	911	26 May, "	20,826	Drains and roads	7,189	5,837	1,344 2 0	7,181 5 11
"	4,090 of 12,096	"	"	" "	10,226	Tramway and road-works	1,200	..		
Upper Makohine	14,201	24	564	7 April, "	15,851	Road-works	3,087	3,087	..	3,087 0 0
Umurua	4,866	"	"	" "	2,433	"	480	479	..	478 14 11
Waimatanui	20,000	20	496	24 Mar., "	8,000	"	3,000	2,391	9 8 6	2,399 19 9
Waipu	6,350	65	1398	1 Sept., "	2,540	"	790	665	44 9 3	709 16 5
1899-1900.										
Kaitao	9,436	30	729	6 April, 1899	8,175	Road-works	2,500	2,000	..	2,000 0 0
Kinohaku West	73,795	100	2198	1 Dec., "	55,346	"	19,224	9,964	36 3 0	9,999 15 4
Kuraiti	4,465	14	360	15 Feb., 1900	1,855	"	617	249	..	249 6 5
Mataro	1,486	42	953	18 May, 1899	668	"	330	..	..	..
Mauku	1,893	91	2031	2 Nov., "	1,135	"	284	191	75 5 7	266 12 7
Mangakahia No. 2	1,108	"	2032	" "	670	"	111	13	17 3 0	30 3 0
Mangorewa-Kaharoa ..	24,100	"	"	" "	6,200	"	2,800	1,213	327 14 6	1,540 14 6
Oraukura	4,456	78	1803	21 Sept., "	6,691	"	1,114	725	247 4 6	972 2 10
Pakeho	9,969	91	2032	2 Nov., "	3,988	"	1,800	1,485	266 16 11	1,752 0 5
Piko	10,276	43	1009	25 May, "	6,928	"	1,784	1,782	..	1,782 7 9
Pine Valley	19,744	68	1477	10 Aug., 1899	7,452	"	1,863	699	70 6 0	769 0 5
Pirongia West	17,625	14	361	15 Feb., 1900	11,308	"	2,203	1,652	229 3 3	1,881 2 8
Poarangi	3,835	"	"	" "	2,419	"	550	15	469 4 9	484 8 9
Putikituna	4,229	"	360	" "	2,663	"	789	789	..	789 0 0
Puketarata	5,347	1	1	4 Jan., "	2,177	"	535	533	..	532 11 7
Puketarata No. 2	3,026	104	2261	14 Dec., 1899	1,486	"	378	320	..	320 5 11
Putiki	6,595	64	1358	27 July, "	3,620	"	1,144	1,135	7 18 3	1,143 7 2
Tangihua	4,650	104	2261	14 Dec., "	2,106	"	466	247	149 10 9	396 12 8
1900-1.										
Kaiwaka, Blocks IV., VIII., XI.	4,789	4	56	10 Jan., 1901	1,768	Road-works	598	..	228 5 2	228 5 2
Makino	8,608	24	521	28 Feb., "	3,787	"	1,860	..	..	..
Mangapoike	14,672	"	"	" "	8,293	"	1,834	..	3 12 0	3 12 0
Mangatoro, Block I.	1,700	38	857	3 May, 1900	1,329	"	425	..	113 10 0	113 10 0
Moki	8,734	99	2178	6 Dec., "	4,708	"	1,822	1,035	684 2 4	1,718 16 5
Ngamatea-Maungakaretu ..	8,315	4	55	10 Jan., 1901	6,491	"	2,078	1,049	844 13 6	1,893 9 4
Ngaurukehu	1,092	"	55	" "	1,092	"	409	50	352 2 2	402 11 2
Nuhaka No. 3	4,138	24	522	28 Feb., "	5,351	"	1,034	..	223 16 10	223 16 10
Ohinewairua, Block XIII ..	876	4	55-6	10 Jan., "	2,734	"	481	324	157 6 1	481 0 0
Ohinewairua-Pukeokahu ..	9,785	"	56	" "	9,330	"	2,935	184	402 0 10	585 13 0
Tauakira	20,736	72	1522	16 Aug., 1900	16,551	"	2,592	1,072	851 8 3	1,923 0 11
Te Ruanui	1,545	4	55	10 Jan., 1901	4,256	"	386	259	108 10 8	367 1 0
Tiriraukawa-Hautapu ..	5,622	"	56	" "	5,250	"	1,686	225	935 15 11	1,161 3 9
Waikekeho	590	72	1522	16 Aug., 1900	1,178	"	419	200	..	199 18 4
Waingarara	1,634	78	1666	6 Sept., "	1,111	"	373	14	86 7 0	100 0 0
Wharepuhunga	31,700	18	335	7 Feb., 1901	8,907	"	2,828	..	..	..
Whatitiri No. 1	5,628	51	1113	14 June, 1900	4,830	"	844	608	234 19 6	843 6 2
1901-2.										
Kinohaku West No. 2 ..	24,367	72	1572	1 Aug., 1901	19,494	Road-works	6,187	1,937	2,093 11 1	4,030 11 3
Mangatawa	6,804	2	3	9 Jan., 1902	3,796	"	1,270	..	232 13 0	232 13 0
Mahoenui	6,624	73	1602	8 Aug., 1901	3,960	"	990	48	545 15 2	593 6 2
Owai	3,400	"	1602	" "	1,020	"	340	..	160 19 0	160 19 0
Pakanae	992	"	1601	" "	291	"	124	..	25 5 0	25 5 0
Parahaki	1,935	"	"	" "	569	"	193	5	5 13 0	10 15 0
Stag and Spey	12,246	34	821	4 April, "	11,148	"	2,787	2,558	228 13 7	2,787 0 0
Tahora	2,311	90	1977	17 Oct., "	1,422	"	471	25	292 11 7	317 16 7
Tahora No. 2 South	43,037	24	522	28 Feb., "	16,139	"	4,304	..	..	..
Carried forward ..	2,129,756	..	..	..	1,509,219	..	393,974	312,917	15,534 19 8	328,457 0 2

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Government Loans to Local Bodies Act Amendment Act, 1891," and "The Local Bodies' Loans Act, 1901," &c.—*continued.*

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1902.	From April 1, 1902, to March 31, 1903.	Total to March 31, 1903.
	Acres.	..	..	..	£	..	£	£	£ s. d.	£ s. d.
Brought forward ..	2,129,756	..	..	..	1,509,219	..	393,974	312,917	15,534 19 8	328,457 0 2
1901-2—*continued.*										
Tangitu	11,805	90	1977	17 Oct., 1901	7,463	Road-works	2,140	..	59 2 3	59 2 3
Te Kuiti	3,566	70	1498	25 July, "	3,107	"	777	..	712 15 0	712 15 0
Tokatoka No. 2	1,966	73	1601	8 Aug., "	3,441	"	1,474	..	..	..
Waipapa	49,410	2	4	9 Jan., 1902	17,662	"	1,766	..	279 6 1	279 6 1
Waitaha	4,270	52	1160	23 May, 1901	5,362	"	1,341	944	397 11 4	1,341 10 6
Whangaingatakupu	975	73	1602	8 Aug., "	342	"	170	75	41 18 0	116 18 4
Wharekopae-Tahora No. 2 ..	14,401	24	522	28 Feb., "	11,869	"	1,440	305	719 19 7	1,025 5 10
Whareorino	20,583	73	1602	8 Aug., "	12,349	"	5,776	..	293 11 3	293 11 3
1902-3.										
Eao	18,000	77	2191	2 Oct., 1902	13,500	Road-works	4,500	..	..	..
Kiokio	4,356	66	1726	21 Aug., "	3,812	"	545	..	..	..
Mangaowata	10,700	77	2191	2 Oct., "	5,885	"	2,140	..	30 8 6	30 8 6
Mangaroa	6,022	"	2192	" "	4,853	Roads and bridges	1,415	..	33 15 0	33 15 0
Mowhanau Village Settlement	380	7	255	29 Jan., 1903	5,320	Road-works	380	..	..	..
Pareokawa	7,645	96	2148	7 Nov., 1901	3,557	"	950	..	101 0 2	101 0 2
Patupuremu	17,966	77	2190-1	2 Oct., 1902	8,160	"	3,580	..	23 14 8	23 14 8
Puketarata No. 3	2,370	65	1702	14 Aug., "	2,371	"	296	..	..	..
Rerekapa-Moanatairi ..	21,375	77	2189	2 Oct., "	12,182	Roads and bridges	5,835	..	184 12 0	184 12 0
Taurangi	21,700	"	2191	" "	11,935	Ditto ..	4,340	..	..	..
Tinline	1,650	18	527	6 Mar., "	805	Road-works	201	..	57 10 9	57 10 9
Tirangi	8,098	77	2192	2 Oct., "	3,563	"	1,620	..	..	..
Tumu-Kaituna	3,187	12	495	19 Feb., 1903	2,550	Drainage-works and bridges over drains	1,275	..	..	..
Vera	2,575	77	2189	2 Oct., 1902	1,573	Road-works	320	..	79 16 0	79 16 0
Waikaka	4,016	"	2190	" "	3,254	Roads and bridges	960	..	14 5 0	14 5 0
Waitangata	10,628	"	"	" "	8,683	Road-works	2,575	..	14 5 0	14 5 0
Totals	2,377,400	..	..	..	1,662,817	..	439,790	314,241	18,578 10	332,824 16 6

By Authority: JOHN MACKAY, Government Printer, Wellington.—1903.

Price 5d.]

NORTH ISLAND
TE IKA-A-MAUI

NEW ZEALAND

Showing Land Transactions, 1902-03.

Scale of English Miles

Reference

Cities
Boroughs
Towns
Railways
Roads
Boundaries of Land Districts
Projection—Rectangular Tangential

RAOUL or SUNDAY I.
MACAULEY I.
CURTIS I.
L'ESPERANCE Rk.
KERMADEC ISLANDS
COOK ISLANDS

TASMAN SEA

Denham Bay
Bay of Plenty
South Taranaki Bight
Hawke Bay
South Latitude
Golden Bay
Tasman Bay
Kuramea Bight
MIDDLE ISLAND
SOUTH PACIFIC OCEAN
TE MOANA-NUI-A-KIWA

172° 173° 174° 175° East Longitude 176° 177° 178°

By Authority: John Mackay, Government Printer.

MIDDLE ISLAND
(TE WAI-POUNAMU)

NEW ZEALAND

Showing Land Transactions, 1902-03.

Scale of English Miles

Reference

Cities
Boroughs
Towns and villages
Railways and stations
Roads
Boundaries of Land Districts
Projection - Rectangular Tangential

ESTATES PURCHASED UNDER THE LAND FOR SETTLEMENTS ACTS UP TO 31st MARCH, 1903

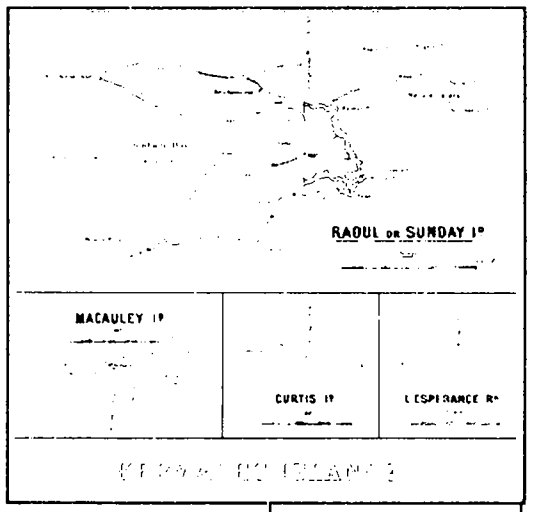
INSET SETTLEMENTS - MIDDLE ISLAND

Karamea Bight
Tasman Bay
Cook Strait
Pegasus Bay
Banks Peninsula
Canterbury Bight
South Latitude
Stewart Island
TASMAN SEA
SOUTH PACIFIC OCEAN
(TE MOANA-NUI-A-KIWA)

AUCKLAND I^GP
CAMPBELL I^GP
(REKOHU or WHARE-KAURI)
CHATHAM ISLANDS

167 168 169 170 East Longitude 171 172 173 174

By Authority: John Mackay, Government Printer



J. W. A. MARCHANT

NORTH ISLAND

TE IKA-A-MAUI

NEW ZEALAND

SHOWING THE LAND-TENURE, 1902-03.

Scale of English Miles

Reference.

Land sold or otherwise disposed of by Grant, or as Reserves, Endowments, or in any other manner, shown thus

Pastoral or Small Grazing Runs and other Pastoral Licenses shown thus

State Forests shown thus

Crown Lands undisposed of shown thus

Native Lands passed the Court and still in the hands of the Natives shown thus

Native Lands not passed the Court shown thus

MIDDLE ISLAND

Mokau

Bay of Plenty

South Taranaki Bight

South Taranaki Bight

Hawke Bay

South Latitude

Golden Bay

Tasman Bay

Karamea Bight

SOUTH PACIFIC OCEAN

TE MOANA-NUI-A-KIWA

172 173 174 175 East Longitude 176 177 178

MIDDLE ISLAND

(TE WAI-POUNAMU)

NEW ZEALAND

SHOWING THE LAND-TENURE, 1902-03.

Scale of English Miles

Reference.

Limits of Provinces, Districts, or Counties, as at Registries, Endowments, or in any other manner, shown thus

Portions of Small Grazing Runs and other Pastoral Occupations thus

State Forests shown thus

Crown Lands unexpired of shown thus

Stewart Island

TE WAI-POUNAMU

167 168 169 170 East Longitude 171 172 173 174

NORTH ISLAND

TE IKA-A-MAUI

NEW ZEALAND

SHOWING THE

STATE OF THE PUBLIC SURVEYS, 1903.

Scale of English Miles

Reference

RAOUL or SUNDAY I.

MACAULEY I.

CURTIS I.

L'ESPERANCE R.

KERMADEC ISLANDS

Bay of Plenty

South Taranaki Bight

Hawke Bay

Golden Bay

Durville I.

Tasman Bay

Karamea Bight

MIDDLE ISLAND

SOUTH PACIFIC OCEAN

TE MOANA-NUI-A-KIWA

South Latitude

172 173 174 175 East Longitude 176 177 178

MIDDLE ISLAND

(TE WAI-POUNAMU)

NEW ZEALAND

SHOWING THE STATE OF THE PUBLIC SURVEYS, 1903.

Scale of English Miles

Reference

- Cities
- Boroughs
- Towns and villages
- Railways and stations
- Roads
- Boundaries of Land Districts
- Projection – Rectangular Tangential
- Standard survey
- Minor triangulation
- Section survey under check
- Section survey built

TASMAN SEA

SOUTH PACIFIC OCEAN

(TE MOANA-NUI-A-KIWA)

Farewell Spit

Tasman Bay

Pegasus Bay

Banks Peninsula

Canterbury Bight

Stewart Island

South Latitude

East Longitude

167 168 169 170 171 172 173 174

41 42 43 44 45 46 47

AUCKLAND 1ST

CAMPBELL 3RD

REKOHU or WHARE-KAURI

CHATHAM ISLANDS

By Authority: John Mackay, Government Printer.