

the Inspector, with a base of verification measured by himself (Mr. Adams) at Castle Hill, on line A. B.B., in the Harper survey district, gives a difference of only .32 of a link in 12,946 links, showing the extreme accuracy of this officer's work even over difficult country. The closures made by Mr. Brodrick, and tabulated in the usual way, also exhibit very satisfactory results, giving a mean error of but little over one link per mile.

TABLE CLOSURES.

Survey District.	Lines.	Survey by.	Survey by.	Difference.	Error per Mile.	Mean Error per Mile.
Mairaki and Mount Thomas	19-22	T. N. Brodrick,	T. N. Brodrick,			
	19-22	Grey Base—	Oxford Base—			
	19-22	27,204.5	27,208.8	4.3	1.24	
	22-15	27,157.2	27,162.	4.8	1.41	
	15-6	18,156.7	18,161.4	4.7	2.07	1.82
"	6-5	25,080.	25,088.	8.	2.55	
Oxford	32-34	T. Maben—	T. N. Brodrick—			
	32-34	18,642.2	18,642.	0.2	0.09	
	34-35	18,804.3	18,802.1	2.2	0.94	
	35-36	22,255.5	22,256.3	0.8	0.29	0.65
	36-37	14,544.6	14,541.4	3.2	1.76	
	37-38	22,635.6	22,635.1	0.5	0.18	
Oxford and Mairaki	38 48	T. N. Brodrick,	T. N. Brodrick,			
		Oxford & Kowai Base—	Oxford Base—			
		41,250.3	41,243.5	6.8	1.32	1.32

Mean error per mile = 1.185 links.

Sectional Work.—During the year there have been surveyed 1,220 sections containing 94,403 acres, purchased under the Canterbury free selection land laws, giving an average of but 77 acres to each section. Of these 959 sections, containing 78,000 acres, are new work and 261 sections—16,403 acres are surveys which had to be revised before the Crown grants or certificates of title could issue. 24 sections = 40,055 acres have been surveyed under the pastoral deferred payment clauses of "The Land Act, 1877," and 222 sections aggregating 1,603 acres laid out under as Village Settlements. 46 sections, embracing 4,067 acres, have been surveyed for suburban and deferred payment blocks, and 450 town allotments = 134 acres, surveyed in the Waimate, Rangitata, and other townships. The Peninsula surveys upon which five of the fourteen staff officers have been engaged have, as in former years, been more costly than the others. However, the greater portion of the bush surveys is now completed, and most of the intricate and difficult coast-line traversed, therefore, though the unsurveyed sections and the necessary revisions will, I am afraid, take some time to finish, it is to be trusted that the end of the current year will show a marked decrease in the cost per acre. Of the character of the work, you will observe that the 378 sections, containing 22,598 acres, surveyed there this season, average only 60 acres each, and, I may add, has entailed the traverse of 207 miles of road or river, the ranging and chaining of 92½ miles of boundary-lines, and the ranging only of 84½ miles. Of this 56½ miles have been cut through bush and 3,563 pegs driven, proving that, though but a small area can be credited to them, and the cost per acre has been comparatively high, the officers engaged have been by no means idle. Two of the most energetic surveyors on the Peninsula, Messrs. Welch and Hay, though partly working in open ground, have not been able to bring down the cost below 2s. 6d. and 2s. 11d. per acre respectively. Of pastoral deferred payment land, 40,055 acres have been surveyed by Messrs. Pickett (of the staff) and Adam (on the temporary list) at the rate of about 5d. per acre. These officers having thus got through a commendable quantity of work during the season. 243 sections, = 12,956 acres, have been completed in the Christchurch and Timaru offices at a very small cost, most of them sections or pre-emptive rights now purchased, and being hemmed in by prior surveys, required but little field work to complete them.

Inspection.—The Inspector of Surveys has measured two base lines for the minor triangulation executed this year, and has visited and inspected the work of 12 staff, 2 temporary, and 5 land transfer surveyors, making 33 inspections, reports and diagrams of which have been duly forwarded to you, besides attending to, and reporting upon, various matters in connection with the department. I deem it most desirable that the land transfer surveys should be put to the same test as the Government surveys, for it is quite as essential that care equal to that devoted to the original surveys on which the Crown titles are founded should be exercised in checking the subsequent surveys on which the land transfer titles are based.

Mapping.—During the year 69 large and 123 small plans, in addition to the trigonometrical and topographical maps, have been received from the field officers; 241 plans have been checked and are ready for the issue of the certificates of title; 205 were entered on the Crown grant record maps, and 180 duplicated on the block sheets of the various survey districts. 48 new block sheets have been constructed in the Christchurch office and 12 in the Timaru office. 10 new district and 1 town Crown grant record maps have been made, and are ready for recording the surveys as soon as the work can be overtaken. Mr. Shanks, the officer in charge, reports that only 120 plans yet remain to be checked. The recording of these plans is, however, considerably in arrear, 588 having to be entered on the Crown grant maps and 773 on the district block sheets. The computers' work, however, being nearly overtaken, I hope during the current twelve months to make greater progress towards the completion of the record maps.

Provincial Surveys.—During the past year some reduction has been made in the arrears of un-plotted work, which are being gradually overtaken. In this office 54 sections (4,206 acres) have been plotted, and in Timaru office Mr. Wright has done 82 sections, = 8,884 acres. Area certificates have been forwarded to the Chief Commissioner, and titles can issue. This is now done as part of