

discrepancies exist in some of the geographical values hitherto assigned to important maritime positions on the West Coast, on which I have previously reported. Mr. C. Lewis has done 13,350 acres in the Collingwood District in connection with sectional surveys. The following tabulation shows the closing errors:—

Survey District.	Lines.	Survey by	Survey by	Difference.	Error per Mile.
Cobden	B-SP	F. Smith— 52,722·8	Westland Trig.— 52,717·0	5·8	0·9
Mawheranui	B-F	44,207·7	44,203·6	4·1	0·7
Brighton	Q-Y	34,888·5	H. Hiller— 34,883·0	5·5	1·26
Mawheraiti	GL-I	65,356·5	J. Montgomerie— 65,355·6	0·9	0·1
	ST-J	55,789·9	55,784·3	4·4	0·6
Tutaki	N-LL	J. Snodgrass— 63,811·2	T. Sadd— 63,815·3	4·1	0·5
Inangahua	R-H	45,438·0	J. Montgomerie— 45,441·0	3·0	0·5
Ngakawau	D-E	36,397·6	H. Hiller— 36,392·7	4·9	1·07
Kawatiri	I-D	22,980·8	22,977·6	3·2	1·11
	C-D	36,221·7	36,217·3	4·4	1·0
Alma	A-B	H. Ellison— 19,463·6	Measured— 19,469·5	5·9	2·4
	T-D	33,981·7	33,990·5	8·8	2·4
Howard	...	T. Sadd— 15,987·4	Measured— 15,985·6	1·8	0·9
Mangatapu	KH-P	27,313·2	Marlborough— 27,302·2	11·0	3·1

Mean error per mile of the above = 0·36 links.

Sectional Surveys.—Of these, 395 sections have been surveyed, amounting to 31,349 acres, at a cost of 2s. 8½d. per acre. The average size of the sections is 79 acres, the smallness of which, with the scattered positions in bush and adjoining old magnetic surveys requiring revision, have tended to increase the cost. Four officers have been chiefly engaged in extending necessary triangulation and keeping up current mining-work also, so that less sectional work is returned by them during the year. During last year surveys made in the Amuri District, where the cost was small, tended to reduce the average cost of work in the district to a much lower figure. This year I have not been able to place an officer in that part.

Mining Surveys.—Under this head 1,017 acres have been laid off, consisting of 87 sections, at a cost of 15s. 10d. per acre. Fees have been paid on these to the amount of £670 14s. 6d. These surveys are always very expensive, being without exception in the roughest parts of the district, in scattered localities, and much loss of time is involved in travelling distances from 40 to 60 miles, many localities being only accessible by foot- or pack-tracks through heavy bush.

Arrears of Survey.—The arrears on the 1st July, 1880, amounted to 114,024 acres, and on the 30th June, 1881, to 102,353, in 611 applications: 395 sections have been surveyed during the year, and, if the new applications alone had to be dealt with, the arrears could soon be overtaken and kept in hand. In most cases they adjoin the old defective surveys, which must be revised in order to prevent encroaching with the new, thus necessitating constantly three or four times an amount of work other than the application to be laid off. The sections held under lease are on the old magnetic survey, and are constantly being made freehold by purchase: these must be revised before a certificate of title can be issued, so that the most economical plan of working has been found to be that of revising all the old leasehold sections that are in the locality of new applications when the surveyor is once on the ground; and it will take some years of patient work to get these surveys into order. I propose placing Mr. F. Smith and another surveyor, if obtainable, in the Amuri District, to work off arrears amounting to 48,000 acres, which should be completed next season, the high altitude of the country not admitting work during the winter. More assistance is much required in the Nelson District to take in hand the surveys required in the bays and inlets of the sea-coast, which are only accessible by water. Assistance is also required for the surveys in the valley of the Upper Buller and on the tributaries of that river. During the year two visits have been made to the West Coast districts, including inspection of four offices, two check bases of triangulation measured, and various surveys of staff and contract surveyors inspected and checked.

Office-work.—During the year we have lost the services by death of Mr. W. G. Sealey, draughtsman, and several of the surveyors have been ill owing to continuous work in the wet bush of the West Coast districts. Mr. F. Bryne was engaged temporarily as assistant-draughtsman, but his services terminated on the 31st May. During the year 68 Crown grants and 263 leases and licenses have been prepared; 14 new Crown-grant record maps have been compiled or constructed; 14 district and 42 block plans have been prepared, and sectional work laid down on the latter. A large amount of extra work has been done by the draughtsmen for the Crown Lands and other departments in supplying necessary information and tracings.

Land Transfer Work.—During the year 107 plans have been examined and passed, 298 plans placed on certificates of title. Standard surveys are required in the Townships of West-