TRAVERSE CLOSURES.

Surveyor.	District.	Number of Closures.	Number of Traverse Lines.	Total Length of Closed Traverse Lines.	Mean Ratio of Error per Mile.		Class of Country.
					Mer.	Perp.	
					Links.	Links.	
J. Annabell..	Ikitara, Waipakura, Nuku-maru, Rangitoto	17	315	25·7	1·7	2·0	Hilly bush and open country.
J. R. Annabell	Momahaki, Taranaki	9	400*	23·2	2·3	2·5	Broken bush.
A. E. Ashcroft	Waipakura	9	277	23·75	0·7	1·4	Hilly bush and open country.
J. D. Climie	Wellington City..	5	80	5·5	1·6	1·2	Formed roads.
C. A. M. Crombie	Wainuioru	2	232	6·2	2·5	3·1	Hilly bush and open country.
R. P. Greville	Mangaone	33	622	20·2	3·5	2·7	Hilly bush. All closing on old traverses.
H. J. Lowe	Kopuaranga	2	28	3·0	0·5	1·7	Open swampy land.
L. Smith	Kopuaranga	3	36	8·8	1·2	1·6	Hilly bush and open country.

* Approximate number.

NELSON.

Minor Triangulation without Topography.—Of this class of work an area of 101,445 acres has been executed, at a cost of 1½d. per acre, principally in extension of triangles in connection with section work.

Trigonometrical and Topographical.—During the year an area of 327,740 acres has been done, at a cost of 1½d. per acre. Of this area 209,490 acres, at a cost of a little over 1d. per acre, has been made by Mr. G. H. Bullard, in the Reefton, Lewis, Rahu, and Burnett districts, for the purpose of sectionizing a 10,000-acre block in the Maruia Valley. A check base was measured in the valley on side F–G, the calculated mean length of which from sides A–P and Y–F of the Reefton triangulation, brought up from the Totara Base, was 23,699·6 links, the measured length being 23,695·8 links, showing a difference of 3·8 links, or 1·2 link per mile. The average summation of eighteen triangles was 6″, the greatest being 16″ and the least ·1″. The average close of four polygons was ·4 link to the mile, the greatest difference 1·3, and least ·1 link. Seven stations were over 5,000ft. above the sea, and at most of the stations the bush-felling was heavy. Work was much hindered by fog and rain. Messrs. Smith and Thompson completed 130,845 acres at a cost of less than 1d. per acre, of which 60,845 was without topography, covering old sectional surveys. These areas extended through the Maling, Dillon, and Hawkeswood districts. They have now in hand about forty thousand acres of trigonometrical extension not plotted, and about forty thousand acres covered by stations erected but not observed, and about twenty thousand acres of lease surveys. As the working season on the back ranges extends nearly to the end of the departmental year, the 30th June, it has been found advisable to work as long as fine weather lasts, and plot up the work done during the winter months ; consequently a large amount done during the year is only returned as in hand. It became necessary during the past season to extend triangulation north of Westport to the Mokihinui reefing district, in order to locate mining surveys not connected. For this purpose an area of 48,250 acres was executed, at a cost of 2½d. per acre. Rain and fog rendered the cost of this work higher than usual. On most of the stations the bush-clearing was heavy, and the altitudes ranged from 2,000ft. to 4,500ft. above the sea. Mr. Snodgrass reports that in this area there are about sixteen thousand acres of coal formation, containing valuable seams, one outcrop being 16ft. in thickness. The remainder of this portion of country, excepting the granite peaks, is of slate formation, intersected by quartz veins, and more or less auriferous. The soil is generally poor in quality and timbered throughout, the flats growing red and white pine, the ranges silver birch, and the lower country silver pine. This work is not closed, and requires further extension to connect Karamea Circuit. Mr. Murray covered 18,750 acres in connection with his survey of the Whakapuaka Block for the purposes of the Native Land Court, and is extending work to the bays and sounds of the north-eastern part of the district.

Sectional Surveys.—During the year 420 sections have been laid off, containing 33,336 acres, averaging 81¾ acres, at a cost of 3s. 2d. per acre. These consist principally of old applications in arrear of years' standing, scattered through the district, involving constant shifting of camps; hence their higher cost. There has been surveyed in the Whakapuaka Block 17,739 acres, at a cost of 5·4d. per acre. This would bring the total acreage surveyed up to 51,075 acres, at an average cost of 2s. 3d. per acre. Owing to the quietness of the past year in the mining work an opportunity has been given us to overtake arrears in those districts, and we have there only in hand surveys of current applications for settlement and mining purposes. At the beginning of the year the arrears of work was 411 sections, containing 72,922 acres; and at the end, on the 30th June, they amounted to 310 sections and 66,903 acres. Thus, in the year's work we have kept up with current applications made during the year, and also reduced the arrears by 101 sections and 6,019 acres. The bulk of the unsurveyed applications still remain in the Nelson and Amuri districts, consisting in those parts of 138 sections, with an area of 54,090 acres. These will still take some time to work off, owing to isolated positions in the bays and sounds of the former district, and in the latter the necessity of first marking on the ground the boundaries from office-plans of leases held under purchasing-clauses before other applications can be located. To do this triangulation is necessary first. Mr. G. H. Bullard has in hand a block of 10,000 acres in the Maruia Valley to sectionize, having completed