

Name of Mountain Peak.	Altitude (mean result).	Number of Trig. Stations.	Greatest Difference in Determinations.
	Feet.		Feet.
Mount Tasman ... ..	11,475.38	18	11.4
Gordon Peaks—			
East Peak ... ..	10,058.0	3	7.8
West Peak ... ..	10,021.6	4	12.9
Glacier Peak ... ..	10,107.2	6	10.0
Mount Sefton ... ..	10,101.27	4	11.8
Gable Peak ... ..	10,359.22	4	19.2
Mount Haidinger Peaks—			
East Peak ... ..	10,199.7	8	18.5
West Peak ... ..	10,021.62	5	18.8
Mount Aspiring ... ..	9,960.2	4	6.5
Castor ... ..	8,286.1	7	11.3
Pollux ... ..	8,341.0	6	21.1

*Topographical and Trigonometrical Surveys.*—Area completed, 118,980 acres, at 1d. per acre. Three-fourths of it (90,000 acres) is situated south of Jackson's Bay, and is the work of Mr. Roberts; the remainder consists of detached traverse circuit surveys executed by the other officers. The cost of the latter is necessarily high, ranging as it does from 1.9d. to 5.7d. per acre. The closures of the circuit traverse surveys are satisfactory: summarized, their results are as under:—

Name of Surveyor.	Length of Traverse in Miles.	Total Error in Links.	Error per Mile in Links.	Total Number of Traverse Lines.	Number of Traverse Lines per Mile.
W. G. Murray ... ..	6.9	14.4	2.1	66	9.5
E. I. Lord ... ..	11.0	23.5	2.1	131	11.9
J. N. Smyth ... ..	42.7	69.0	1.6	362	8.4
R. Wither ... ..	34.3	40.8	1.2	165	4.8
Totals for districts... ..	94.9	147.7	1.5	724	7.6

*Rural and Suburban Section Surveys.*—At 1s. 7d. per acre, 19,742 acres. During the previous year the cost of section surveys was nearly double that noted above. The explanation is that the former surveys comprised small scattered holdings only, whereas the latter includes the survey of several large endowment reserves, which help to reduce the cost of survey of the small sections very considerably.

*Town Section Surveys.*—In the Township of Dobson, 138 allotments, at £1 1s. 6d. per allotment. The whole of the ground is densely timbered, and the survey involved a great deal of heavy bush-cutting.

*Gold-mining Surveys.*—At 17s. per acre, 406 acres. Most of these surveys were quartz-mining leases in the Totara District. The receipts by way of fees during the year amounted to £263 4s.

*Road, Railway, and Water-race Surveys.*—At £8 6s. 5d. per mile, 40½ miles. These surveys, as usual, comprise exploring for and laying off new road-lines, preparing plans and specifications for contract, as well as survey of constructed roads. Most of the former kind of surveys were executed for the County Council, and for the cost of them (£142 15s.) the Government has been reimbursed by the county.

*Office Work.*—The block and triangulation district maps, though not yet up to date with all the field-work completed, are well advanced; but the Crown grant record-maps are still greatly in arrear: the pressure of other work more necessary than these maps made it impossible to do any thing toward their completion.

*General.*—The field-work of the surveyors has, as usual, been checked by me on the ground. All the parties I have visited twice, and some of them three times during the year. Road-construction also had my personal supervision as occasion required; and during January and February I completed the reconnaissance survey of the Upper Arawata and Waitoto country. A separate report on the work is accompanying this.

*Proposed Operations during 1885–86.*—If at all possible the Westland triangulation should be extended to Martin's Bay, to connect with the Otago triangulation there. This would complete the coast-line survey, and rectify the errors in the Admiralty charts to which I drew attention in my last annual report. The erection of the trig. stations to two miles south of the Hope River is already completed, and that work will have to be done over again if the triangulation is delayed beyond the ensuing season. Besides this, the triangulation, or a simple Ray Trace survey, will require to be taken up the Kokatahi and Arahura rivers to Browning's Pass, where a number of quartz-mining leases have lately been applied for. The reefs on the Wilberforce side of the pass were discovered many months ago; but it is only lately they were traced across the boundary into Westland District. The settlement surveys in arrear will probably be overtaken during the year,