

tional work has been placed on a large number of the block-sheets in the survey districts of the Waimate County, but no new ones have been constructed. One town and five new district record-maps have been constructed, 151 plans have been checked by the computers, 147 have been recorded on the Crown grant record-maps, and the certificates of title and Crown grants issued during the year have been duly recorded in the usual way.

Reduction Office.—Mr. McCardell reports that the Akaroa County map was traced for the Wellington office, eleven district maps on the scale of forty chains to an inch have been constructed, and three traced for use in the public map-room, and that there have been traced for photo-lithography maps of the Waimate Borough, reserves 642 and 1644, Timaru standard work, map of runs offered for sale, and minor triangulation of the Strachey and Pukaki West survey districts. In addition to this a great deal of general work for other departments has been done during the year.

Crown Grants.—Ten Crown grants, 1,103 certificates of title, embracing 2,010 sections or allotments, covering 173,842 acres, have been prepared and delivered to the Land Transfer Department, and, to enable the amounts due for excess area to be collected, or the sums for deficient area refunded, 1,162 area certificates have been made out and forwarded to the Crown Lands Department.

Reductions in the Staff.—In compliance with the instructions of the Government which from time to time you have conveyed to me, the field and office staff has been considerably reduced during the past year. Four field officers and their parties, costing £2,674 per annum, have been dispensed with; also the officer hitherto in charge of the Timaru office, and six draughtsmen in the Christchurch office, making a further reduction of £1,454 per annum; to which has to be added two temporary draughtsmen, £282, one-half of my salary as Chief Surveyor, now charged to Crown Lands, I performing the duties of Chief Commissioner without additional salary, and £100 of the Inspector of Surveys' salary, also charged to that department, this officer having undertaken the duties of Crown Lands Ranger as well as that of survey inspection: thus showing that the expenditure of this branch of the Survey Department has been reduced by at least £4,800 per annum.

Proposed Operations, 1885-86.—The field staff having, as already noticed, been reduced by four parties, its present strength will not permit it to do more than keep pace with the current work—namely, the completion of the arrears, amounting to 398 sections, containing 16,979 acres; nearly 7,000 acres which require resurvey, and 421 square miles of minor triangulation and topographical survey in the Upper Waimakariri country and the north-west corner of this provincial district; also, in all probability, some subdivisions of land for village settlements or for lease under the perpetual-leasing system. But it must be borne in mind that the present run-leases expire in 1890, so that within the next few years it will be necessary to undertake a great many surveys in order to obtain the actual boundaries of these, as it is well known that the present areas, calculated from the boundaries as originally laid down by arbitrary lines, are only approximately accurate.

JOHN H. BAKER, Chief Surveyor.

OTAGO.

I HAVE had nine staff surveyors and four cadets at work in the field, also three private surveyors; while the office assistants were twelve, with two cadets; three temporary draughtsmen and two draughtsmen in the country offices.

Exploration Survey.—Mr. Strauchon, district surveyor, has been engaged from the beginning of February to the end of May exploring the bush country which lies between Waikawa Harbour and Catlin's River, and commonly known as the Tautuku Bush. The object is to determine the capabilities of this region for settlement, by ascertaining the practicability of road-lines and of harbours and rivers, and the quality of the soil, bush, &c. Owing to the exceptionally wet season, it having rained half the time, the preliminary work is only half-done. Still, all that could be done has been effected, fifty thousand acres of bush land intersected by rivers having been explored, and the soil, rocks, and bush examined. Besides this, a horse-track 6ft. wide has been cut and surveyed from the top of the open branch valley two miles due east of Mr. McRae's woolshed, on the Waikawa River, through the bush all the way to Tautuku River. The extent of the track within the bush is about seventeen miles from the Tautuku to where it emerges in above valley, and which lies immediately south of Bush Cone. From the preliminary or provisional reports received from Mr. Strauchon from time to time, it appears the country, although generally low-lying, is intersected by ridges, which run from the main range surrounding Tautuku Bush on the north in a south-easterly direction to the south coast of Otago, where they terminate in high rocky bluffs. Rivers flowing into the same coast-line separate these ridges. There is a considerable amount of good land in the valleys, but all covered with bush excepting a few patches of grassed land alongside the rivers, which next the coast are somewhat swampy. As regards timber, I cannot do better than quote Mr. Strauchon's words: "The principal timbers are birch, red pine, ironwood, and here and there a few black pines and miro; also a few totaras, but not many, except about the centre of Taupupu Valley, where there are a good many splendid black pines, and totaras very large. Among the smaller timbers are two or three different kinds of the broad-leaved gum, which grows abundantly, and of which the wild cattle are very fond. I do not think I ever was in a bush where the cattle-feed was so plentiful. The cattle are all in prime condition towards the coast; but up at Black Horn, where most of them are, they are not in very good condition, the feed not being so good or plentiful." As to access from the seaboard by the rivers, and further details, these I must leave to Mr. Strauchon's enclosed report and map to explain. I would only add that the Waikawa Harbour is a good one, with deep water at the entrance, and no bar. Mullet and flat-fish are plentiful in Waikawa Harbour, and the open roadstead outside has groper, red and blue cod, and other common coast fishes. Considerable difficulty in conveying provisions to the party was a great drawback, as these had to be carried by the men for many miles on their backs. This, with the bad weather