

plans passed for Land Transfer; Native Lands, Crown Lands and Goldfields Departments; and the Greymouth Harbour endowment; it also embodies statement of other plans prepared, general plans of pastoral areas and Crown-grant record plans. The total number is 527, cost £122 1s. 6d., which cost is reduced by the fees received accruing to the department for preparation of the sundry leases, licenses, &c.—viz., £118 12s. 6d., to £3 9s. So that class of work was practically reproductive. Considerable deficit yet remains in sundry of the departmental and general plans required, such as the Crown-grant records, territorial, &c., maps; and it is much to be regretted that the late removals of the draughtsmen, Messrs. Pfeiffer and Covil, will still more retard their preparation. It is deemed advisable to call attention here to the extraordinary number of returns required to be prepared during the year, and necessitating an excessive amount of clerical work; also the charges of the various roads for maintenance and construction entails a very large amount of clerical and accountant's work. I append a statement of the ordinary routine returns involved under regulations and instructions existent; the total number given is actually doubled in fact, because it is imperative that office copies or duplicates must be kept or filed for reference when or if any particulars are again required. Beyond these (during the parliamentary sessions particularly) other returns are frequently demanded or necessitated.

JOHN STRAUCHON, Chief Surveyor.

### CANTERBURY.

*Minor Triangulation and Topographical Surveys.*—Mr. T. N. Brodrick continued his operations in the south-western part of the Canterbury Land District, and completed the trigonometrical and topographical survey of the Ahuriri and adjacent country, embracing about 145,000 acres; he also effected the topographical survey of the mountainous regions, which include the Great Southern Alps from near Mount Sefton, northward beyond Mont de la Bêche, eastward to the Liebig Range, and south to Mount Jukes, embracing Mount Cook itself, and the Great Tasman and Murchison Glaciers, the area being 151,000 acres. Mr. Brodrick's reports and plans are of such general and scientific interest that I forward them for your consideration, and, with your approval, for publication. The operations of the party were attended by considerable hardship and risk. As Mr. Brodrick has not yet forwarded particulars of his triangulation, I am not in a position to furnish you with comparisons with prior triangulations.

*Rural and Suburban Surveys.*—Mr. Welch's surveys comprised the Midland Railway Company's Blocks XLVI. and XLV. He completed the field and office work of an area of 28,929 acres, in ten large divisions, which cannot be classed as wholly sectional survey. It appears that the survey was impeded by reason of the altitude of the country and unfavourable weather; nevertheless a considerable amount of work was completed. Mr. Welch also partly surveyed Blocks L. and LIV., and defined two small sections. Mr. Brodrick surveyed 2,405 acres, being land applications in the Tasman and Pareora districts. Mr. McClure's out-turn of work under this head comprised about 15,500 acres, the bulk of it being on the Motunau and Greta Peaks Runs, the remainder scattered over North Canterbury. Mr. Mathias's 15,754 acres comprised surveys of applications in various parts of the Geraldine and Ashburton Counties, but principally at the Waitohi Hills.

*Road Surveys.*—The only surveys of this class are Mr. Brodrick's deviation road between Longslip Creek and Benmore Station, Otago; Mr. McClure's road through the Midland Railway Company's Block XLI., in the Rangiora district; and Mr. Mathias's Ashburton Gorge Road.

*Other Work.*—Under this head the only operations worth mentioning are the following: Determination of the magnetic declination at Timaru and Port Lyttelton, survey and observations at the Tasman and Mueller Glaciers, and the survey of plantations.

As I only took charge of the Canterbury Land and Survey Offices on the 10th June, 1891, my superintendence was practically confined to the Wellington Land District surveys and offices; consequently the foregoing report had to be compiled from a perusal of the records and data furnished by the Chief Draughtsman, Mr. Shanks, to whom I am also indebted for the following report:—

*Office-work.*—The office work during the past year has been varied and unsatisfactory, so far as overtaking arrears is concerned; the principal draughting work done has been the preparation of seven lithographic tracings: No. 22, Blocks VI., VII., VIII., Lake Ellesmere Reserve, not published; No. 24, conservation reserves, Rangitata Island, published; No. 25, Cannington Village Settlement, published; No. 26, village settlement, Lake Ellesmere, not published; No. 27, pastoral runs, west of Lake Ohau, published; No. 28, land for selection, Stonyhurst district, published; No. 29, Subdivision 36,297, near Mayfield, not published. Two of the foregoing, and also one prepared the previous year of Block V., Lake Ellesmere Reserve, are not yet published, the tracings being still in the office awaiting decision as to dealing with the land. The requisite plans were placed on 128 certificates of title, 111 run licenses (in duplicate), 108 perpetual leases and village-settlement leases (in triplicate), thirty-one Native Land Court titles, and nine pastoral-run leases (in duplicate), representing 754 diagrams in all, some of which, especially on the run licenses, were intricate. Selection maps of the Noble, Esk, and Katrine Survey Districts were prepared, with the new run boundaries marked thereon, and those districts previously done had the old run boundaries expunged and the new ones shown instead. The Four Peaks, Pareora, Patiti, Ophi, and Acland districts were charted up to date, and the Waimate County map and the Geraldine and Ashburton County maps partially done. Lithographic tracings were prepared of the Godley Glacier and Huxley Saddle for illustrating the annual report. A number of block-sheets were checked and revised, giving late surveys and other information. Tracings and descriptions of the several Midland Railway blocks were prepared; also tracings of Native subdivision surveys for the Native Land Court, and lithographic tracings of the Tasman, Murchison, and Mueller Glaciers for illustrating Mr. Mannering's work on the New Zealand Alpine Country. The Christchurch and Leeston districts were checked