

INSPECTIONS OF SURVEYS.

The system of inspections has been thoroughly carried out during the year, and has proved that the work now being done is, with a few exceptions, of a high class. As might be expected, in the case of one or two private surveyors, out of the very large number in private practice, faulty work was discovered, but, taken as a whole, the quality of the surveys executed both by staff and private surveyors is excellent.

The good record of the staff officers has been maintained, the average error in closures, including surveys in rough forest country, being less than 2 links per mile; and, with the exceptions mentioned above, the Land Transfer survey work done by licensed surveyors is also of a highly creditable character.

MAGNETIC SURVEY.

During the year Mr. Skey has taken thirty-three sets of magnetic observations in Otago and South Canterbury, which completes the field-work of the magnetic survey. In all, observations have been taken at about three hundred positions, which are, generally speaking, from twenty to thirty miles apart. In order to make this work of value it is now necessary to reduce the observations to a common epoch, by the aid of the magnetic curves obtained at Christchurch, and the subsequent preparation of isomagnetic maps, all of which will need very careful calculation, besides involving a large amount of clerical work. This will now be undertaken by Mr. Skey and his assistant, in conjunction with the usual routine work of the observatory, which consists of magnetic, seismological, and meteorological observations. Mr. Skey's interesting report on the year's operations will be found in Appendix III.

SURVEYORS' BOARD.

During the year the Board held eighteen meetings, and in conjunction with the Australian Boards conducted examinations in March and September. At the first examination ten candidates presented themselves, six of whom passed, and at the second there were fifteen candidates, seven of whom passed.

The Board issued in favour of one surveyor a letter of recommendation to the surveying authorities in South Africa, and a similar one to the New South Wales Board. Thirteen certificates of competency and fourteen licenses were also issued.

A conference of the Surveyors' Board was held in Melbourne on the 27th April, 1905, at which the Board was represented by Messrs. Richardson and Ward, when important matters affecting both the public and the profession were dealt with.

STANDARD SURVEYS.

Mention of the necessity for an extension of this class of survey is made in an earlier part of this report, and it will be seen that several of the Chief Surveyors in their reports refer to it also, and urge its prosecution, recognising the risk run through so many Land Transfer surveys, which define the boundaries of properties, especially in rising townships, being at the present time unconnected with properly established permanent reference-marks.

Standard surveys are now being made of the City of Wellington and part of the Borough of Timaru, the local bodies paying portion of the cost, but in both instances the work needs to be extended into the suburbs. In other parts of the colony, however, standard surveys have been temporarily suspended on account of the necessity for opening up large areas of country to meet the demand for land for settlement and the security of surveyors. It is to be hoped, however, that before long opportunity will be afforded to resume this very important and necessary work.

PROPOSED OPERATIONS FOR 1906-7.

With the surveys actually in progress at the present time, those for which instructions are issued but not yet commenced, and others in prospect, there is every indication that the coming year will be a very busy one for the Department. The number of surveyors engaged at the beginning of the year is thirty-five staff and thirty-eight temporarily employed, a total of seventy-three, which will need to be largely augmented if expectations regarding additional fresh work are realised. The extent of the survey-work already allotted to the various surveyors and partly in progress comprises 1,091 square miles of trig. and topography; 687,359 acres of settlement-work, consisting of provisional and final sectional surveys, two-thirds of which is in the North Island, more particularly in the Auckland and Taranaki Districts; 59,147 acres of Native blocks; 532 miles of road-surveys; and the sectioning of 176 acres of town land.

It is not intended to execute this year more triangulation-work than will be necessary to control the settlement surveys that have to be undertaken, although a considerable amount will be required to accomplish this. In addition to the area of required settlement surveys mentioned above, there is the work of sectioning 35,900 acres in Southland and Stewart Island that has been apportioned to landless Natives. This, however, is not very urgent, and will possibly have to stand over for the present in favour of more pressing work. The road-surveys, which in a large degree represent the survey of roads that have at different times been taken by the local bodies or Roads Department, but never defined or legalised, though important, must, until surveyors are specially employed for that purpose, be made in some degree subservient to urgent new-settlement work.

Besides the foregoing, there will doubtless be further and heavy demands made on the Department for sectional surveys of estates acquired under the Land for Settlements Act, and for even more extensive surveys in connection with dealings in Native land by the Councils and Boards constituted under "The Maori Lands Administration Act, 1900," and "The Maori Land Settlement Act, 1905."

Appended are reports in detail by the Chief Surveyors of the operations in their several districts, and also interesting and valuable reports by Mr. District Surveyor T. N. Brodrick on the movements of the Tasman and Mueller Glaciers during the past seventeen years, and Mr. Henry F. Skey, B.Sc., who is in charge of the Magnetic Observatory at Hagley Park, Christchurch.

In conclusion, I regret not being in a position to give a more exhaustive review of the operations of the Department during the past year, which is due to the fact of my having only very recently assumed the duties of my present position.