

NATIVE SURVEYS.

During the year staff surveyors completed the survey of 38,178 acres, while 218,147 acres was surveyed by private surveyors. Table B shows the total area surveyed in each land district.

GOLD-MINING SURVEYS.

The area surveyed under this heading was 2,842 acres, the whole being surveyed by private surveyors and the fees being paid by applicants. More than half the area surveyed was in Westland.

INSPECTIONS.

Owing to the depletion of the field-survey staff in consequence of the war it has not been practicable to fill the vacancies caused by deaths and retirements. Sufficient inspection-work has, therefore, not been done, and most of that undertaken has been done by Chief Draughtsmen and District Surveyors. As in the past, inspections show that generally good work is being done, but there is no doubt that the fact of inspection-work being somewhat in abeyance has had a tendency to induce carelessness in some surveyors, the more so as these are handicapped by having at present often to employ inefficient field hands.

PROPOSED OPERATIONS FOR 1917-18.

Triangulation.—This work must still remain in abeyance, and only such as is absolutely necessary in connection with settlement surveys will be undertaken. This is much to be regretted, seeing that in some districts, more especially Hawke's Bay, the minor triangulation, owing to its low grade and the differences of standards used for the bases, is not suitable for the control of settlement surveys, for which purpose it must as soon as possible be revised and extended.

Standard Surveys.—This work will be continued in Auckland, Napier, Hastings, and Dunedin. Rural standard traverse will be undertaken over the country between Napier and Hastings and near Feilding.

Settlement Surveys.—At the close of the year there were in the hands of the staff and temporary surveys 592,631 acres of settlement lands and 61,879 of Native lands, while in the hands of private surveyors there were 8,627 acres and 367,829 acres respectively. The distribution of these areas into the several land districts will be found in Table 3. As is always the case, the field-work of a large amount of this has been completed, and the mapping will be finished during the months of July and August, when most of the surveyors are called in from the field to the office. There was also on hand, but unallocated, an area of about 17,000 acres. This work now in hand, together with the survey of estates that will be acquired during the coming year for discharged soldiers and ordinary settlement, and of Crown lands that it may be decided to put into the market, will occupy the staff surveyors fully for the year 1917-18 and give work to a large number of contract surveyors.

HEAD OFFICE DRAUGHTING STAFF.

The work of the year has been chiefly routine. The maps for the census of 1916 were prepared and put through. The new map of the City of Wellington was printed and published, and also Coleridge Farr's magnetic survey report. The year's work has shown the effect of present conditions very noticeably. In respect of economy and as to the production of our publications for sale certain reforms are in contemplation, but nothing new can well be attempted, nor any changes of importance, although the need for bringing the general publications more into line with public demand is every day emphasized. In connection with this I may say that in the preparation of new county maps greater attention is now paid to certain details than formerly. New four-mile maps of the South Island are in preparation, and a long-delayed new map of the whole Dominion on a ten-mile scale, showing all counties, &c., will soon be issued.

SURVEYORS' BOARD.

The chief feature of the Board's work for the year was the preparation of the papers for the examination held in March, 1917, which fell to it in rotation. At the examination in September, 1916, eight candidates sat and three passed; at that in March, 1917, two sat and one passed.

DRAUGHTMEN'S EXAMINATIONS.

With a view to raising the standard of draughting and computing, the Public Service Commissioner framed regulations providing for an examination to be held each year, and that certificates of proficiency should be issued in connection therewith. Owing to short notice there were not many candidates, and no certificates were granted. It was found that it would be better to divide the examination into two parts, and to issue certificates for draughtsmanship and for computing separately. Fresh regulations and a syllabus are being prepared, and an examination will probably be held about August next, when it is hoped that a considerable number will present themselves for examination.

TIDAL WORK.

For some years past, under arrangement with the Marine Department, Survey officers under the direction of the Chief Computer, Dr. Adams, have computed the predictions of tides for the ports of Auckland and Wellington. During the past year the officers engaged on the work were Messrs. Gillespie and Hay, Dr. Adams himself being occupied in respect to this work with a reinvestigation of the processes of analysis and prediction as now carried out. This became necessary on account of certain differences being found to exist between the United States predictions and the New Zealand predictions for the two ports mentioned. At the close of the year the investigation was not far enough advanced to give any clue to the cause of the differences, which it may be said are not of a serious nature. The work proposed for next year is the predictions for the year 1919 and the completion of a new analysis (commenced this year) for the Port of Auckland to form the basis of the predictions for that port for the succeeding five or six years.