

SETTLEMENT SURVEYS.

The settlement surveys comprise Crown land and land for settlements. The bulk appears in Table A under the head of "Rural," the acreage shown being 143,888, while the remainder includes village and suburban and town lands, totalling 953 acres. The area surveyed in each land district is given in Table B, and further particulars of each block or settlement is set out in the reports by the Chief Surveyors.

NATIVE-LAND SURVEYS.

An area of 139,369 acres was completed by staff and contract surveyors during the year. A reference to Table A shows that, of the total area, 50,078 acres were surveyed by the staff surveyors, and 89,291 acres by contract surveyors. The area surveyed in each land district is given in Table B, and particulars of the various blocks are contained in the reports by the Chief Surveyors.

GEODETIC TRIANGULATION.

One field-party in charge of Mr. H. M. Ross, staff surveyor, has been engaged on this work during the year, and good progress has been made both with the observations and reconnaissance work, including the clearing of the stations of bush and the erection of signals. The closures obtained by the summation of the angles in each triangle are, on the whole, within the limits of error determined upon for this class of work. Forty-one triangles in the Auckland and Gisborne districts have been closed with an average error of 1.40". Further details of the surveys will be published in the "Records of the Survey."

STANDARD SURVEYS.

Satisfactory progress has been made with the standard surveys during the year under review and the high degree of accuracy essential in such work has been maintained, as shown by the traverse closures of 0.06 link per mile.

Mr. H. M. Kensington, staff surveyor, reports having completed the field work of Whangarei Borough, and the survey of new streets in Remuera, Auckland City, and a small amount of reinstatements and repairs to standard block in various parts of the city.

At New Plymouth Mr. A. C. Haase has re-aligned the whole of the central area covered by an original standard survey requiring revision. The survey has also been extended over the suburbs of Westown and Moturoa, and a total of 30 miles of streets has been measured during the year.

Mr. Otway, District Surveyor, is making good progress with the survey of Invercargill and suburbs.

The standard survey of Blenheim was commenced by Mr. J. D. Clapperton, staff surveyor, in July last, but, owing to Mr. Clapperton's services being required to assist in connection with settlement surveys in the Hutt Valley, work at Blenheim was discontinued in January last.

The work executed during the year comprised also the capping adjustment and reinstatement of blocks in Auckland City, Levin Borough, Wellington City, and in the neighbourhood of Christchurch, the particulars of which will be published in the "Records of the Survey."

TOPOGRAPHICAL SURVEY.

On this survey Mr. G. I. Martin, staff surveyor, and two assistants, working separately, have been engaged in the thermal-springs region near Rotorua for the past year. An area of 498 square miles in the field, principally by plane tabling methods, has been completed. The work has been retarded by the high growth of scrub and bracken covering the area under survey, and the cost of £6 per square mile is in excess of the estimate.

A similar survey was commenced in the Taranaki District by Mr. B. C. A. McCabe, staff surveyor, in Parituti and Egmont Survey Districts, and the field-work of 62 square miles has been finished. In connection with these surveys, lines of levelling on the main roads have been run and bench-marks established by means of concrete blocks. Further details of the work will be given in the "Records of the Survey." In addition to the above, an area of 15,596 acres of sketched topography has been returned for the year in North Auckland and Wellington, which was undertaken for the preparation of settlement schemes.

FIELD INSPECTIONS.

It is necessary to make inspections of subdivisional surveys under the Land Transfer Act to ensure that the accuracy of measurement and ground marking is in accordance with the Survey Regulations. In most cases where inspections have been made the work has been found to be satisfactory; several cases, however, showed that sufficient care had not been taken in the performance of the field operations, and revisions of the work at the cost of the defaulting parties were called for.

The question of making more inspections is becoming more pressing each year, in order to ensure that an adequate check is being maintained on the field operations of surveyors in private practice or on contract surveys.

TIDAL SURVEY.

The work for the past year comprised the completion of the analysis for the Port of New Plymouth for 1918, also the completion of the analysis for the Port of Wellington for 1924, together with a complete fresh analysis for the ports of New Plymouth (1919) and Dunedin (1924), also a portion of the analysis for the Port of Lyttelton for 1924. The constants derived therefrom, combined with previous determined values, are contained in Table C on the following page.