

an acre this year against $\frac{3}{4}$ d. per acre for last year. The principal work consisted in Mr. L. Cussen's triangulation of the country round Tongariro, which was necessary to fill in blanks in the map of that part of the colony, and which work will form the basis of maps to be published for the benefit of the tourist traffic which is expected to follow the opening of the roads now in course of formation. An interesting report by Mr. Cussen will be found in the Appendix. Mr. P. E. Cheal's survey of Piako, undertaken in the interests of Native Land Court surveys, and Mr. Hay's survey of part of Stewart Island, to obtain information as to the suitability of new country for settlement, together with Mr. Broderick's triangulation of part of the Southern Alps, to fill in the topography of that part, are the principal items which go to make up the total. The latter gentleman found time to make some interesting observations on the movements of some of the best known glaciers, as described in his report attached, which will have a permanent value and prove of the deepest interest for comparison in future years.

It is to be regretted that the results of the topographical survey of the colony cannot be made more easily available to the public by publication as is done in most of the countries where a Government survey staff is kept up; but the urgent needs of settlement at present take up the whole time of the small staff of draughtsmen who could otherwise be made available for this purpose. It is probable that New Zealand stands first in the Australian Colonies with respect to the amount and completeness of topographical information buried in its various survey offices, and which is not, as it should be, available for the settler, the miner, the engineer, the traveller, or the local authorities.

SETTLEMENT SURVEYS.

Surveys for "Selection before Survey."—A total area of 207,830 acres was prepared for this kind of selection last year, being about 56,000 acres less than for the previous period. A full description of the methods and results of this class of work was given in the last annual report, which it will be unnecessary to repeat here, other than in brief form. The object is to so lay out roads and delineate ridges, &c., for boundary-lines that the selector can gain an intelligent idea of the land he wishes to select by an inspection of the published maps. The roads are run to standard grades with great care, but the actual survey of them does not partake of final accuracy, this being left to the complete survey which follows, when the area of each selection is known and the marking of the boundaries takes place. The cost per acre for the past period has been about $4\frac{1}{4}$ d. for the survey and plans. Without some such system as this, selection before survey presents great difficulties, and has led in this and other countries to considerable abuses. The greatest colonising state in the world, America, admits of no such system: survey before sale is the universal rule there, and where this can be carried out with expedition it is allowed to be the best and most economical system.

Ordinary Section Survey.—This work embraces the secondary process described above, and includes also all surveys of land prior to sale or selection, the defining of reserves, and everything necessary to the complete record of the divisions into which the country is partitioned prior to the issue of the titles, and the final reduction of the angular measures to the true meridian of the circuit in which the lands lie. The output last year was 424,761 acres, and the cost 1s. 0.22d. per acre. Nearly the whole of this area lies under forest, and a great part of it is of a broken nature, requiring great care and skill in the definition of the road-lines, all of which are on the standard grades laid down by law. In all cases the work is checked and controlled by the district triangulations, and the results—due in a great measure to the modern appliances for chaining—are such that little fear of conflicts as to boundaries may be anticipated in the future. The number of sections surveyed was 2,283, with an average area of 185 acres, or 11 acres less than the average of last year. The largest area in any one district (114,564 acres) was in Wellington, with an average-sized section of 363 acres, whilst the largest number of sections surveyed was in Auckland, where the average size of holding was 121 acres. Nelson seems to favour the smallest holdings of any part of the colony, where the average for last year was 81 acres.

The department has still on its hands a considerable amount of work in the definition of back boundaries of sections disposed of during previous years; but it is a decreasing quantity. Some of the staff are constantly kept at this class of work, so that there are chances of this liability being worked off within a reasonable time. The demand for lands for settlement shows no sign of abating, and therefore, with your approval, it is proposed to obtain some extra help during the summer months to keep the surveys up with the demand. Much of the back forest country, which a few years ago would not be thought of for settlement, is now inquired for, and, with the construction of roads giving access to it, would be readily selected. The North Island must be looked to to supply the demand, for here alone is there any extent of Crown land left of a quality suitable for close settlement, and that quantity is limited. The acquisition of more lands for settlement, and the necessary "roading" to make them accessible, are the two works which will most tend to the prosperity of the colony at the present time.

NATIVE LAND COURT SURVEYS.

The surveys undertaken by the department, or for which the department advanced the cost, employing the authorised surveyors to do the work, amounted to 1,091,510 acres, the greater part of which lies in the King-country. This area is in 213 blocks or divisions of varying size, and the cost amounted to 0.11s. per acre. This does not, however, represent so much new country for the first time prepared for the operations of the Court, but includes within it the subdivisions of blocks the tribal or communal titles to which had formerly been decided, and which during the year came in for further division, as it, or part of it, may do again before it is finally individualised or transferred to Government or European hands. In addition, the authorised surveyors surveyed 367 blocks or divisions, containing 328,126 acres, at the cost of the Native applicants, or of the European purchasers from them, all of which work is done under the direction of the department in