

SECTIONAL SURVEYS.

The total area surveyed during the year amounts to 83,776 acres, at an average cost of 1s. 5½d. per acre. The cost has been reduced by averaging the larger surveys in the Amuri District with the small section surveys in other districts. The high rate of the latter class of surveys is caused by the difficulties to be contended with in this district (Nelson), which, with a portion of the Amuri only excepted, is rugged, mountainous, heavily-timbered, with dense undergrowth, and along the West Coast exceptionally rainy. The bulk of applications to be surveyed are in isolated sections or in small groups, entailing much loss of time in moving camp, and in many parts only accessible by rough bush pack-tracks. Several of the staff have been hindered during the year in their work by illness.

GOLD-MINING SURVEYS.

Six hundred and twenty-two acres, in small areas, have been surveyed, at a cost of 17s. 0½d. per acre, the total cost of which has been recouped to the Government by the fees paid in to Public Account.

ROADS.

One hundred and forty-seven and a half miles of roads have been surveyed, at a cost of £8 16s. per mile, mostly in bush. This includes traverse and pegging-out of several partially-constructed roads. Some of the lines in hilly bush localities, to give access to new applications, have been intricate, and costly to grade.

Mr. J. Snodgrass has completed the survey of 32 miles of main road in the Upper Buller Valley, principally through gorge and heavily-timbered, surveying applications on the small flats and hill-sides along that distance, and bringing up arrears there to date.

OTHER DUTIES.

Under this head is comprised the various surveys incidental to gold-fields work other than mining leases, such as reconnaissance surveys, underground surveys, encroachments, reports, &c. ; also surveys and reports required by Commissioner of Crown Lands relating to old sectional and lease surveys. There is a large amount of work in progress by the staff not returnable this year, of which the largest item is 312 square miles of triangulation, the field work being nearly completed.

Mr. F. S. Smith has in hand 125 square miles, from Greymouth along the coast to Brighton, connecting the Grey and Buller Circuits. This is probably as broken and difficult a tract of country as would be found anywhere, yet spotted with mining and other surveys.

Mr. J. Montgomerie has in hand 102 square miles, connecting the Reefton and Lyell mining districts, and Mr. J. Snodgrass 85 square miles, from the Matiri junction of the Upper Buller, connecting the Lyell, Reefton, and Buller Districts. There will thus be only a distance of 25 miles to be executed to connect the Nelson District with the West Coast.

The above work, when completed, will enable the various lines of auriferous reefs and leads of gold already known to be accurately laid down relatively to each other ; and, with the topographical information now being collected, will afford most useful and reliable data to the practical part of the mining community, which is constantly sought for in the district offices.

The necessity of establishing these fixed points to which surface boundaries can be accurately referred, was fully proved in a case of underground encroachment between the Energetic and Independent Companies at Reefton. The hillside had slipped, carrying away an original peg ; and, although several surveyors were employed, they could not agree as to its original position : and the Court ruled that mining lessees had no *locus standi* until their properties were so connected, which has now been done.

The officers mentioned above have been very persevering in their efforts to complete this work ; but the continuous bad weather for the last two months has retarded progress. Many of the stations lie at high altitudes, as mining surveys in several localities are 3,000 and 4,000 feet above sea-level, and generally in bush on rugged mountain-sides.

ARREARS OF SURVEYS.

The arrears of applications not dealt with, on 1st July, 1879, were 130,454 acres, and on 30th June, 1880, 113,024 acres. As stated in last year's report, these arrears are a very uncertain quantity, as nearly all applications are recorded for survey or report, and many are ultimately refused, especially applications to lease areas in mining districts. There are now under consideration by the Waste Lands Board and Warden of the district, applications to the extent of several thousand acres, on account of a petition from miners in one district, supported by the County Council. Also, sections leased under the old defective surveys are continually becoming forfeited and reapplied for, necessitating resurvey before they can be accurately marked on the plans, and fresh leases issued.

OFFICE WORK.

The general work of the office has been receiving and recording applications for land, checking plans, traverse reductions, &c., and plotting them on the working plans. Five Crown-grant record-maps have been recompiled, involving a large amount of work, the old ones formerly in use being nearly worn out. The posting-up of county maps to date has occupied considerable time, as many sections held under lease have been cancelled, and are opened again for application.

The district offices have complete sets of application maps, which are kept up to date by the several officers, and enable the Receivers of Revenue in the West Coast districts to receive applications and locate them on the plans at once, which formerly had to be forwarded to the Nelson office with deposit remittances. As these officers are now empowered to receive rents also, a great saving has been effected to the public, and much cause of complaint has been removed.

During the past year sixty-four plans of districts and twelve towns have been lithographed at the Head office, making, with last year, a total of seventy-five districts and twenty-three towns now published and supplied to the public at a small cost. These have proved most useful and a great saving in preparing county maps, and also for Road Board, land-tax, and General Government purposes.