

the same manner as the Government surveys. There was thus a total area of 1,419,637 acres prepared for dealing with by the Court, or which had been so dealt with, and made ready for the issue of titles.

Owing to causes over which the department has no control, the arrears of surveys to carry out the orders of the Court made during the course of many years past are very heavy, and are a constantly-increasing quantity. The Maoris themselves are very ready to apply to the Court for the subdivisions of their lands, but on having attained their wishes in this respect are very frequently unable to find the means to carry out the surveys, which should follow at once. Hence, subdivision orders frequently remain for years in a state of incompleteness, and still go on accumulating, so much so that the date of final issue of all the titles is a matter of great uncertainty.

#### GOLD AND OTHER MINING SURVEYS.

There is a noticeable decrease in the area of these surveys made by the department during the past period, the figures being—1890, 21,467 acres, in 608 divisions; 1891, 13,821 acres, in 355 divisions. This decrease is pretty generally spread through the mining districts. In all cases the fees are deposited by the applicants before survey; and the work is sometimes undertaken by the staff and sometimes by the authorised surveyors specially engaged. It is generally expensive work, due to the fact of the scattered localities in which the claims lie, and to the intermittent nature of the applications, which frequently involve lengthy journeys for the sake of marking out a single claim.

#### ROAD AND RAILWAY SURVEYS.

The mileage of roads surveyed during the past year has increased a good deal, being 519 miles, as against 408 for 1890, and the cost is somewhat greater also. These surveys represent cases in which the rights under the grants had to be exercised, or the taking of roads through Native lands, legalising old roads, and the laying out of roads not included in the section surveys. In many cases information is also obtained for the preparation of specifications for actual construction, so that the mean cost per mile for the year—£11 ls. 5d.—cannot be looked on as high. Great care is taken in locating these roads in the best places in the public interest, so as to secure workable grades and the most advantageous lines of communication. The difficulties the surveyors have in securing these *desiderata* are very considerable, and an inspection of any of the modern survey plans will show at once that the country we now have to deal with is anything but suitable for long straight lines.

#### MISCELLANEOUS WORK.

Grouped under this heading are the numerous and necessary surveys carried out by the department which do not admit of a tabular classification. They consist of explorations, reports on new country, field inspection, all kinds of odd surveys and other duties performed, equally important with the other work of the department, but not making so great a show. Included within this class of work is the cost of obtaining reliable results as to the variation of the needle in different parts of the colony, which had not been observed in any comprehensive manner since the Admiralty survey, ending about 1851. The results, however, are not ready for publication this year.

#### CONSTRUCTIVE WORKS, ROADS, BRIDGES, ETC.

A very large amount of the constructive works of the department are under the immediate direction of the Chief Surveyors, aided by inspectors or overseers, and occasionally assisted by the surveyors. In addition, there is a special staff of six road surveyors, whose work is of a more general character, and whose duties are directed by the Head Office. The works consist generally of the construction of roads, either dray-roads or bridle-roads, to open up the Crown lands prior to sale, the formation of main lines of communication (especially in the North Island), and the maintenance of several of the main roads which lie outside the operations of the County Councils. In many cases where the County Councils have engineers of their own the department is glad to avail itself of their help in any of the above works, and a considerable amount of work has been done under the counties during the past year, the plans and specifications, as a rule, having been first passed by the department.

The following is a summary of the works completed out of the votes under the charge of the department during the year, details of which will be found in the attached reports for each district:—

	Miles.
Roads graded, not included in the items below	227·55
Dray-roads formed	100·56
Bridle-roads formed	76·14
Dray-roads improved	71·58
Bridle-roads improved	33·77
Dray-roads maintained	571·32
Bridle-roads maintained	186·0
Total length of bridges formed, 1,804ft.	

It will thus be seen that 182 miles of road have been formed, nearly all of it bush country; and that the maintenance covered 757 miles, in which are included some very important lines of communication in different parts of the country. During the year the Tongariro Bridge was completed, which is a fine structure built over the Upper Waikato River, near Tokaanu, and on a line of road which, within a year or so, will become one of the most popular in the North Island. The Public Works Department supplied the design.

In addition to the works enumerated above, nearly all of which tend to open the Crown lands for settlement, may be added the works undertaken by the local bodies with the same view, the