

NATIVE LAND COURT SURVEYS.

These are blocks generally of large size, which the Native owners applied to have the cost of surveys advanced by Government under the "Native Land Act, 1873," and the expenditure on which is secured by lien on the lands themselves. The cost of these surveys is proving heavier each year. As the Maoris find their patrimony departing from them they are induced to contest every inch of land in the Courts, and to obstruct the surveyors in the prosecution of their work, as an assertion of title. This is daily shown at the Courts, where blocks of land which would have been passed formerly without any trouble are now disputed sometimes for weeks. A total area of 59,410 acres, in 26 blocks, was surveyed by the Department during the year, but this does not represent the whole quantity as surveyed for purposes of the Court. In addition there have been 82 blocks, containing 216,809 acres, surveyed by surveyors authorised in each instance by this office, but paid for by private individuals, the checking and computation of which forms an important part of the office work.

LAND PURCHASE SURVEYS.

Under this head is included the survey of blocks of land under negotiation for purchase by the Crown, and also the Native Reserves cut off the blocks by order of the Commissioners, these latter amount to 19,096 acres, in 25 sections. The cost of these surveys is always heavy on account of the time lost in attempting to reconcile the conflicting interests of those to whom they are awarded. The area of work on hand for the Land Purchase Department is very large, and is likely to be increased.

GOLD FIELDS SURVEYS

In this district are not numerous, and as far as the Department is concerned, are all undertaken by Mr. McLaren at the Thames, whose duties, however, as Mining Inspector do not admit of his doing much. The value of his work under this head for the past season he puts at £50.

ROAD SURVEYS.

The greater part of the 263 miles of road surveyed, has been in exercise of the rights of the Crown under the Native Land Act and Crown Grants Acts, and in lines to open up lands for settlement. The larger portion has been so done that the data for preparing specifications for contracts was obtained at the same time, the cost therefore is greater than under ordinary circumstances, in one case it amounted to £30 per mile in a very rough forest country, but an excellent line was obtained which is now in course of construction. One fact has been brought out strongly with respect to the survey of road lines in bush country during the past season, and that is, that where the roads are to be made immediately, it is a great mistake to make a scientific survey at the same time as that for engineering purposes. When the road has once been cleared, the proper traverse and pegging of it, can be made at a quarter the cost, and with more accuracy.

The issue of Circular No. 59 from the General Office, which makes it imperative that main roads shall be run to a grade of 1 in 15, and district roads to 1 in 10 has produced, and will produce, greater benefits to the public than anything on the subject that I am acquainted with. The manner in which the road lines, as a rule, have been laid out in this part of the colony hitherto, is simply disgraceful to the profession, and is now proving a constant source of expense to the Highway Boards, who have in, innumerable cases, to abandon the surveyors roads and purchase fresh lines through private property. A "surveyors road" is now a bye word and a reproach. The cause of all this is not far to seek; it is contained in the fact that surveyors were invariably paid by the mile, at the same rate they received for boundary lines, and as a consequence, quantity rather than quality was the end sought. The result of this system of payment as an educating influence on the surveyors themselves, acting for a number of years, has had a most pernicious effect; for not one man in ten has any idea of what a road should be. There are a few exceptions, however, and I congratulate myself in having some gentlemen on the staff of this district whose works will compare favourably with any in the colony. Fairburn's Great North Road and Palmer's Raglan Whatawhata Road, surveyed and constructed under the supervision of those gentlemen, show what can be accomplished by skill properly directed, in difficult country.

The engineering work undertaken by the office during the past season has been considerable, but it is premature to speak of results until the contracts under weigh are completed. One principle has guided us in these works, which is, I believe, the right one, viz.: that whatever is done shall be done once for all, on the future permanent lines, so that however great the traffic may be, it will be only necessary to widen, not to alter, the roads. We are at the same time educating our young men in a system which will, I trust, prevent their own work from having the stigma attached of "surveyors' roads."

Of the other heads of field work in the accompanying returns, it is unnecessary to speak, more than to say that under "other work" is included the cost of inspection and occasional assistance to the Native Land Courts in subdivision surveys, supervision of contracts, &c.

Upon reviewing the work of the past season, there is nothing that calls for especial mention. The general character of the work is on the whole, better; and of a higher standard, though there have been some exceptions. In four cases have surveyors been obliged to do over again, at their own expense, work which upon being tested was found not to be up to the standard; and in one case I have accepted a group of surveys on a magnetic meridian, which were required at once by the Land Purchase Department, before the meridian could be carried up to them. I would mention as surveys of the highest character, the subdivision of Te Aroha by District Surveyor Cussen and assistants, which, by the aid of the new steel tapes, has been made to equal in accuracy the majority of town surveys.

The past period of two and a half years must be looked upon as one of education, in which an entirely new system of surveys has been introduced, and during which a large number of surveyors have had their ideas of surveying a good deal modified, and are beginning to appreciate accuracy and system for their own sakes. Those who cannot or will not learn, are getting gradually crowded out by young men who have nothing to unlearn. It was a serious undertaking to entirely alter the professional traditions of some forty or fifty men, and has entailed a large amount of wearying and incessant work, which could