## 1893. NEW ZEALAND.

# THE GOLDFIELDS OF NEW ZEALAND:

REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING.

Presented to both Houses of the General Assembly by Command of His Excellency.

Mr. H. A. GORDON, F.G.S., Inspecting Engineer, to the Hon. R. J. SEDDON, Minister of Mines. Mines Department, Wellington, 8th June, 1893.

I have the honour to submit my annual report, for the year ending the 31st March last, on the different works undertaken and constructed either by the Mines Department or by subsidies paid to local bodies; also, on Schools of Mines; water-races controlled by the department, and generally

to local bodies; also, on Schools of Mines; water-races controlled by the department, and generally on the development of the mining industry throughout the colony.

The different subjects are classified under the following heads: "Subsidised Roads and Tracks;" "Roads Constructed by direct Grants;" "Prospecting;" "Schools of Mines;" Water-races;" "Goldmining;" "Quartz Workings;" "Geological Formation of Kuaotunu, by J. Park, F.G.S.;" "Alluvial Workings, including Hydraulic Sluicing, Dredging;" "Geological Exploration in Westland, by A. McKay, F.G.S.;" "Metalliferous Workings;" "Mining Machinery;" "Variations in Milling Gold-ores;" "Different Methods of Extracting Gold from Ores;" "Amalgamation Appliances;" "Chemistry, and use of the Cyanide Process;" "Coal;" "Continental Method of Making Coke;" "Examination Papers recently used in Mine-managers' Examination;" "Statistical Tables showing the Value of Works Constructed;" and "List of Mine-managers holding Certificates."

### SUBSIDISED ROADS AND TRACKS (NORTH ISLAND).

#### BAY OF ISLANDS COUNTY.

Road, Tamarere to Puhipuhi.—A subsidy to the extent of £241 was authorised for this road some two years ago, and out of this £146 has been paid, leaving a balance of £95 still as a liability should the County proceed with the work; but as there is little or no mining being carried on at Puhipuhi, very little work has been done on this road last year, the total expenditure for the year being £72, of which amount a subsidy of £36 was paid.

#### COROMANDEL COUNTY.

Road, Sea Beach to Kuaotunu.—This road has been in a bad state every winter since it was constructed. During last winter the road became impassable for drays, and a special grant of £500 was given towards metalling the road; but it took the whole of the grant to keep the road open for traffic, and any metal put on it quickly disappeared into the quagmire. The total cost of the road up to the end of the year was £900: of this amount, £700 was paid in subsidies and grants; and at the end of March there was a liability of £450. Since then the whole of this money has been paid.

Road, Coromandel to Kuaotunu.—There is a considerable amount of horse-traffic on this road.

A portion of it is constructed, but there still remains some bad hills, which can be avoided by constructing a road round the foot of them, and through a swamp. The estimated cost of this work

is £300, of which amount a subsidy has been authorised to the extent of £150.

Road, Just-in-Time Extension.—This is the extension of a road which was constructed some years ago to the Just-in-Time Mine. The extension is required to allow machinery to be got to Blagrove's Freehold, where the Kapanga Company have been sinking a shaft, and cannot proceed further until pumping machinery is erected. The estimated cost of this extension is £300, of which amount a subsidy to the extent of £150 was authorised, and out of this £75 has been paid.

#### THAMES COUNTY.

There has been very little paid as subsidies to this county for roads during the last year, as it could not find its portion of the money. A subsidy has been authorised for a horse-track up the Upper Taruru Creek to the extent of £150, but no work has yet been done.