## 1886. NEW ZEALAND.

## EXPLORATION OF COUNTRY:

## NAPIER, GISBORNE, EAST CAPE, OPOTIKI

(REPORT ON).

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

The Engineer-in-Chief to the Hon. the Minister for Public Works.

SIR,-

I have the honour to forward herewith a full report by the Inspecting Engineer on exploration of the country between Napier, Gisborne, East Cape, and Opotiki. Two maps accompany this report.

I have, &c.,

JOHN BLACKETT,

The Hon. the Minister for Public Works.

Engineer-in-Chief.

## Mr. Knorpp to the Engineer-in-Chief.

Sir,— Wellington, 9th April, 1886.

I have the honour to report that I have examined the country round Gisborne, from Napier to Kawakawa Roadstead, beyond the East Cape, and from Gisborne across the Te Uriwera

Ranges to Opotiki.

1. Napier to Gisborne.—The routes followed by the present road-lines are quite unsuitable as railway-routes, as they run over a succession of narrow ridges and valleys, the ridges in some cases being 2,000ft. high. Proceeding northwards from Napier, the present road crosses a great number of rivers—viz., the Esk, Te Ngaru, Waipatiki, Waipapa, Moeangiangi, Waitaria, Whitiangi, Waikare, Waitaha, Ponui, Mohaka, Waihua, Ohinepara, and Wairoa—at or near sealevel, whilst the ridges to be crossed between these streams rise to from 600ft. to 1,300ft. A better route was sought for between Napier and the Wairoa (Clyde) in 1874 by Mr. James Rochfort, who selected what may be called an inland line, lying generally on a higher level, and which for road purposes might be considered an improvement on the present track; still, the country is so broken that the cost of constructing a railway would be very great, and might really prohibit the execution of such a work. A recourse to tunnelling on an extensive scale might be the means of obtaining better grades, but the cost would probably be considerably increased. Northwards of the Wairoa River a part of the line examined would be very expensive, particularly in the Mangapoike Valley, where it would run through a steep limestone gorge, and a range at the head of the valley at least 2,000ft. high would have to be surmounted, as it is not favourable for tunnelling. Thence to the Waipaoa, a large river in the Gisborne Plain, is some very broken and difficult country, which would require the most careful surveys to secure a practicable line. From the Waipaoa to Gisborne is level country, favourable for road or railway. The total distance between Napier and Gisborne would be about a hundred miles; and the cost of a railway through this country would probably average complete £11,000 per mile.

2. Gisborne to Kawakawa Roadstead. — Starting from Gisborne, the line for a railway would practically follow the present inland road to Ormond, about twelve miles, thence along the left bank of the Waipaoa, cross the Waihora, along the left bank of the Waihora and Motumata streams, crossing the watershed between the Waiapu and Tolago basins, along this watershed to the east of Puketiti trig. station, whence it would descend on the right bank of the Makarika stream into the Waiapu Flat, cross this river below its junction with the Tapuraeroa River, along the left bank of the Waiapu to its junction with the Maraehara, along this river, and then along the Awatere stream to the Kawakawa Roadstead. From Gisborne northward to a few miles beyond Ormond a railway could be cheaply constructed; this may also be said of that portion lying in the Waiapu Valley: but at intermediate places the country is very broken, and