

PAPERS RELATIVE TO THE

No. 15.

Dr. HECTOR to Mr. KNOWLES.

Geological Survey,
Wellington, 4th May, 1871.

SIR,—

I have the honor to acknowledge the receipt of your letter of the 22nd ult., requesting me, in conjunction with Mr. Blackett, to make careful enquiries, and after personal inspection, to report on the best course of a railway to connect the coal mines on the Grey River with a shipping port; and, in reply, I beg to inform you that I will confer with Mr. Blackett on the subject immediately on his return, with the view of making the required report with the least possible delay.

I would suggest that it is desirable that we should be furnished with copies of plans and sections of the different lines which have already been proposed and surveyed.

I have, &c.,

The Under Secretary,
Public Works Department.

JAMES HECTOR.

No. 16.

The Hon. W. GISBORNE to His Honor W. RÖLLESTON.

Colonial Secretary's Office,
Wellington, 1st May, 1871.

SIR,—

I have the honor to inform you that Mr. Blackett and Dr. Hector have been appointed personally to inspect and report on the best course of a railway to connect the coal mines on the Grey River with a shipping port; and to request that, with a view to facilitate their enquiries, any surveys or other information in the possession of your Honor's Government, may be forwarded to this office for the use of those gentlemen at your early convenience.

I have, &c.,

His Honor the Superintendent, Canterbury.

W. GISBORNE.

NOTE—Similar letters were written to the Superintendent of Nelson and the Chairman County Council, Westland.

No. 17.

Messrs. BLACKETT and HECTOR to Hon. W. GISBORNE.

Wellington, 21st July, 1871.

SIR,—

We have the honor to make the following report, in compliance with your instructions of 22nd April, "That we should, after careful enquiries and personal inspection, report on the best course for a railway, to connect the coal mines on the Grey River with a shipping port, with a view to promoting public interests to the greatest extent, and to securing the greatest development of the coal field, and the best paying line."

We arrived at Greymouth on 22nd May, and spent six days in making the necessary investigations, in which we were cordially and ably assisted by Mr. O'Connor, Chief Engineer, and Mr. Muller, Chief Surveyor, for the County of Westland, who had been directed by the County Chairman to furnish us with all the information relative to the south side of the river, required from their respective departments, and by Mr. A. D. Dobson, Provincial Engineer, who, in like manner, represented the Province of Nelson.

The distance of the coal mines from the coast is only about 6 miles; but the full consideration of the subject required that we should extend our examination for a distance of 25 miles up the valley of the River Grey, and also northwards along the coast, for about 10 miles.

PORT CURTIS.

The latter trip was for the purpose of judging of the capabilities of the Bay north of Point Elizabeth, for the construction of an artificial port, a suggestion that has been frequently made, and was even favorably reported on by the late Mr. Balfour (Report of the Marine Department, 1868). Mr. Balfour's opinion, however, appears to have been founded upon a report and chart, furnished by the Marine Surveyor (hereto appended), which contemplates rather the construction of a harbour of refuge, capable of holding 3 or 4 vessels, than a port adapted for trading purposes.

Point Elizabeth is a promontory composed of limestone rocks, and is prolonged by a chain of rocky islets and a reef, in a northerly direction, for about a mile, whilst the general trend of the coast is about 20 degrees to the east of north. A shallow bay is thus enclosed, having a shelving, sandy beach quite open to the heavy sea that frequently rolls in from the north and west. There is no doubt that with a large expenditure it would be possible to close the gaps between the islands by a sea-wall, and, by carrying it forward in a curve, afford a certain amount of protection from the above directions; or, what might be still better, to construct an independent wall within the shelter of the natural reef, and by this means form a harbour of limited extent. The objections to the formation of such works, however, would be, in the first place, the enormous expense. This would be greatly increased by the want of proper material, there being no stone within reach at all adapted for the construction of marine works, that would be exposed to heavy seas. The limestone at the point, which has been suggested as available, is totally unsuitable; its resistance to the encroachment of the sea at that place being entirely due to the manner in which the strata are naturally placed, presenting a hard surface, dipping at an angle of 37 degrees to the westward, from which direction the heaviest swell rolls in. Secondly, the construction of a sea-wall between, or within, the islands and reef would not fail, in a short time, to