

CORRESPONDENCE

RELATIVE TO THE CONSTRUCTION OF LIGHT RAILWAYS.

No. 1.

The NEW ZEALAND COMMISSIONERS to the Hon. W. GISBORNE.

(No. 25.)

SIR,—

London, 20th May, 1870.

We have the honor to forward herewith a letter just received from Messrs. Sir Charles Fox and Sons, Railway Engineers, on the subject of cheap lines of railway. There is no time to do more than send the letter, but we hope before next mail to be able to supplement it by further information.

We have, &c.

The Hon. Wm. Gisborne.

F. D. BELL,
I. E. FEATHERSTON, } Commissioners.

Enclosure 1 in No. 1.

Sir CHARLES FOX and SONS to the NEW ZEALAND COMMISSIONERS.

GENTLEMEN,—

Spring Gardens, S.W., 19th May, 1870.

Herewith we beg to hand you a formal letter upon the subject of railway extension; and should the Government desire to go further into the matter, it will afford us much pleasure to act for them as their Consulting Engineers or Engineering Agents on this side, in concert either with Colonial Engineers or with an Engineer to be sent from here, if necessary.

We believe that from our now extended experience of light railway construction, we can suggest many ways of effecting economy in carrying out the proposed extensions.

If you can spare the time to examine our drawings and samples, we shall be happy to place ourselves at your disposal for the purpose.

We must apologize for the drawings being rather hastily prepared, but the time is rather short.

We have, &c.,

CHARLES FOX AND SONS.

P.S.—The drawings above referred to, shall follow to-morrow.
The New Zealand Commissioners.

Enclosure 2 in No. 1.

Sir CHARLES FOX and SONS to the NEW ZEALAND COMMISSIONERS.

(No. 2173.)

GENTLEMEN,—

Spring Gardens, S.W., 19th May, 1870.

Understanding that the Government of New Zealand and the Provincial Governments are again entertaining the question of railway extension, we have the honor to enclose herewith some copies of memoranda, and also two drawings and a photograph of a locomotive, descriptive of the system of light railways, with which we have for some years been identified.

Its main features are so fully described in the memoranda, that we need hardly dwell at length upon them.

We attribute the great success which has attended the system, both on our lines, and on those of the Norwegian Government,—of which Mr. Carl Pihl is the Engineer,—to the fact that the rolling loads and the speeds having been once determined upon, every detail has been specially designed to suit those conditions,—the earthworks, bridges, permanent way on the one hand, and the locomotives and the rolling stock on the other, being properly adapted to each other.

The result has been, that on the railway from Arconum to Conjeveram, in India, which has now been at work for five years, and where, on a gauge of 3' 6", iron rails weighing 35½ lbs. to the yard are used for locomotives weighing 14 tons on six wheels, and rolling loads not exceeding 3½ tons on a wheel, it has been found (see the official Reports of the Company) that the line can be safely used up to forty miles an hour, including stoppages, whilst the working speed is only fifteen miles an hour. It has also been found that the permanent way, in consequence of the reduced rolling loads, costs very little to maintain, and the Company have not had to replace any rails since the line was opened. Although the traffic is small generally, during certain festival days in the year as many as 22,000 persons have travelled over the railway. The traffic has been worked cheaply and without accident.

The cost of this line constructed by the Company's officers was £3,200 per mile, including telegraph and stations, or £3,900 per mile including all management and rolling stock.

The Queensland railways, though from the difficult nature of portions of the country and the high price of labour they were more costly, have been equally successful in their working.