

1879.
NEW ZEALAND.

AMERICAN AND ENGLISH LOCOMOTIVES

(CORRESPONDENCE RESPECTING THE RELATIVE MERITS OF).

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

No. 1.

The AGENT-GENERAL, London, to the Hon. the COLONIAL SECRETARY, Wellington.

SIR,—

7, Westminster Chambers, London, S.W., 6th November, 1878.

I have the honor to enclose, for the information of the Government, copy of a communication by Mr. R. M. Brereton on the subject of the superior working results of American locomotives as compared with English railway experience, together with an extract from a letter written by Mr. W. W. Evans to Mr. Higinbotham, Engineer-in-Chief in Victoria, relating to American engines.

I have, &c.,

JULIUS VOGEL,
Agent-General.

The Hon. the Colonial Secretary.

Enclosure 1 in No. 1.

Mr. BRERETON to the AGENT-GENERAL, London.

DEAR SIR,—

I have the pleasure to send you the following statements in reference to the superior working results obtained from American locomotives as compared with our English railway experience. I can guarantee the correctness of the statements, as they have been a source of careful observation and study by me during the past eight years.

During the past twenty-six years I have spent fourteen years in India in the construction and working of one of the principal guaranteed railways, besides four years in this country, and nearly eight in the United States, so that I am able to compare the working results in each country from the standpoint of experience. I have come to the conclusion that we can and ought to construct, equip, and work our railway system in India, in our several colonies, and in this country too, in a far more economical manner than past experience *here* has shown to be possible, or our consulting engineers, managing directors, and agents (who have not had the opportunity of studying the working of the 77,470 miles of railway of the United States) have hitherto believed to be possible.

In regard to locomotives, the Americans certainly obtain from 8,000 to 10,000 train-miles greater duty per annum than we can in this country or in India, and this too under the following drawbacks: inferior roadbeds, steeper gradients, sharper curves, more severe climate, heavier loads hauled, and less speed in running.

The greater duty obtained cannot be due to better workmanship and superior materials, because it is well known that the English mechanic in skill of hand cannot be excelled, and the very best materials are employed by our English builders, and the hours of work in both countries are nearly the same. Hence, I argue that the greater duty done by the American motor is due to the better design and the better system of working the locomotives. The American builder excels in the system of framing and counterbalancing, and in the designs of the crank, axles, &c., so that the engine may run remarkably easily and without jar round sharp curves, and work not only the light roads, but also diminish the wear and tear on the solid roads, and, at the same time, increase the effective tractive force.

The English engine is a very heavy affair, and, in running, it not only wears and tears itself very rapidly, but also the roadway, and it greatly, by its unsteadiness and jar, fatigues the drivers and