

PROCEEDINGS OF THE COMMITTEE, AND EVIDENCE.

FRIDAY, 13TH SEPTEMBER, 1867.

PRESENT :

Mr. Moorhouse.
Mr. Curtis.

Mr. Macandrew.
Mr. McNeill.

Mr. Burns.

THE Order of Reference read.

Mr. Burns was appointed Chairman.

The Committee then adjourned to Monday, 16th September, 1867, at 11 a.m.

MONDAY, 16TH SEPTEMBER, 1867.

PRESENT :

Mr. Curtis.
Mr. McNeill.

Mr. Tancred.
Hon. J. Hall.

Mr. Burns in the Chair.

The Committee was then adjourned until Tuesday, 17th September, 1867, at 11 a.m.

TUESDAY, 17TH SEPTEMBER, 1867.

PRESENT :

Hon. J. Hall.
Mr. McNeill.
Mr. Curtis.

Hon. J. C. Richmond.
Mr. Tancred.
Mr. Macandrew.

Major Heaphy, V.C.

Mr. Burns in the Chair.

Minutes of previous meeting read and confirmed.

Resolved, That evidence be taken.

Resolved, That the evidence relative to gauges, taken before the Commission appointed by the Provincial Government of Otago, "on Roads and their construction," be read.

Extracts from that evidence were read accordingly.

The Clerk was directed to write and request Mr. Wrigg, Mr. W. Weaver, C.E., Dr. Hector, F.R.S., Major Heaphy, V.C., and Mr. Balfour, C.E., and the Hon. J. C. Richmond, to attend the next meeting of the Committee.

The Committee then adjourned to 11 a.m., the 18th September, 1867.

WEDNESDAY, 18TH SEPTEMBER, 1867.

PRESENT :

Hon. J. Hall.
Mr. Tancred.
Mr. McNeill.
Mr. Taylor.

Hon. J. C. Richmond.
Major Heaphy, V.C.
Mr. Moorhouse.
Mr. Macandrew.

Mr. Burns in the Chair.

Minutes of previous meeting read and confirmed.

Mr. Wrigg, C.E., called in and examined.

I am a Civil Engineer by profession, and have had considerable experience in construction of roads. I have not much knowledge of this country, but have had considerable engineering practice. I consider the proper suitable gauge for a trunk line in this country would be 4 feet 8½ inches. With that gauge you would easily obtain a speed of forty miles per hour, when the curves are moderate, and it is highly probable that the curves in this country would of necessity be sharper than those adopted in England, and the speed would consequently have to be diminished. High speeds would entail the necessity of heavier construction of the permanent way, a larger class of locomotives, and the working expenses are necessarily much higher than in moderate speeds. A larger gauge than 4 feet 8½ inches would be attended by enormously increased cost in construction of works. Upon a gauge much narrower than that higher speed would not be safe; say a gauge 3 feet 6 inches might attain a safe speed of fifteen miles per hour, with curves of favourable construction. So far as the construction is concerned with regard to viaducts, there would be very little difference in the cost, but in tunnels and earthworks an increase nearly in proportion to the gauge—in round numbers, about a third more. In constructing carriages on the overhanging principle, you seriously disturb the centre of gravity, thereby increasing the danger of travelling. In my opinion the gauge to be adopted on trunk lines should be 4 feet 8½ inches, because by adopting that gauge you would hereafter attain a higher rate of speed when the circumstances of the country required it. It must be borne in mind that alterations