

Enclosure 2 in No. 17.

(Copy of Cablegram received.) Wellington, 26th August, 1884.
 AXLES—English Engineers responsible specification, want thoroughly good axles.
 The Agent-General, London. R. STOUT.

Enclosure 3 in No. 17.

The CONSULTING ENGINEERS, to the AGENT-GENERAL.
 9, Great Queen Street, Westminster, S.W., 21st August, 1884.
 SIR,— In reference to the unfortunate matter of inferior axles which have been sent to New Zealand, we are of opinion that the untrustworthy method of constructing them out of scrap iron should be discontinued for the future, and that, pending the settlement of negotiations with the makers, which will almost certainly be tedious, it would be well to get a certain number, say 500, made by the Patent Shaft and Axletree Company, by their patented process of faggotted bars. It will be seen from the analysis of tenders just received for fifty pairs of wheels and axles, ordered under Memorandum W.R./184, that the Patent Shaft Company's tender is the lowest, and we recommend that that company be invited to modify their tender by substituting their patent axles for the scrap axles called for in the specification; at the same time the company to be asked to submit a tender for 500 extra axles, to the same drawings and templates. We enclose a specification of the new axles. Our report on the defective axles is awaiting further information from the Lancaster Wagon Company, and the result of tests now being made by Professor Kennedy.

We have, &c.,

JOHN CARRUTHERS

(For Consulting Engineers).

The Agent-General for New Zealand, 7, Westminster Chambers, S.W.

No. 18.

The AGENT-GENERAL to the HON. the MINISTER for PUBLIC WORKS.
 (Memorandum No. 101-84.) 7, Westminster Chambers, London, S.W., 17th, October 1884.
 REFERRING to my memorandum, No. 89, of the 18th September, relating to the defective axles, I herewith transmit copies of correspondence which has taken place since that date respecting the matter.

In accordance with the instructions contained in the Under-Secretary's memorandum, No. 34-84, of the 27th August, I have ordered, of the Patent Shaft and Axletree Company, 547 axles, in addition to the 500 already contracted for by that company.

The Hon. the Minister for Public Works, Wellington.

F. D. BELL.

Enclosure in No. 18.

The CONSULTING ENGINEERS, to the AGENT-GENERAL.
 9, Great Queen Street, Westminster, 15th October, 1884.
 SIR,— *Re* condemned axles. In explanation of our not having reported fully on the above, we beg to state that we have now sent to Professor Kennedy one-half of each of the axles sent from New Zealand, so that he may report thereon. The other halves of the axles we have had rolled into bars, samples of which have also been sent to Professor Kennedy. As soon as the tests have been made, we will report to you.

We have, &c.,

JOHN CARRUTHERS

(For Consulting Engineers).

The Agent-General, London.

No. 19.

The AGENT-GENERAL to the HON. the MINISTER for PUBLIC WORKS.
 7, Westminster Chambers, London, S.W., 12th November, 1884.
 SIR,— The letters which I have recently sent you on the subject of the defective axles will have kept you informed of what has hitherto been done here. I now transmit copy of a report I have received from the Consulting Engineers, containing an account of the tests to which samples of the axles had been submitted under Professor Kennedy. I trust you will be pleased to inform me of the view you take of the Engineers' explanations, and of the course they recommend. The most important point seems to be their proposal to abandon altogether in future the use of hammer-worked scrap, and adopt the more reliable, though costlier, material of rolled bars, welded under the hammer. I propose to recover from the Lancaster Wagon Company, as recommended by the Engineers, 30s. each upon all the axles made by the Midland Iron Company; and from the Staffordshire Wheel and Axle Company, the whole price of 30s each. The sample which you sent Home by the s.s. "Ionic," as mentioned in your memorandum of