

III.

LETTER OF ROBERT STEPHENSON, ESQ., M.P., TO THE DIRECTORS OF THE GRAND TRUNK RAILWAY, ON THE DESIGN FOR THE VICTORIA BRIDGE.

To the Chairman and Directors of the Grand Trunk Railway of Canada Company.

GENTLEMEN,

Having learnt that some doubts have been expressed respecting the fitness of the design for the Victoria Bridge across the St. Lawrence at Montreal,—that it is more costly than necessary, and that other systems of structure less expensive, yet equally efficient, might with propriety be adopted,—I feel called upon to lay before you in some detail, the considerations which influenced me in recommending the adoption of the design which is now being carried out. In doing so I beg to assure you that the subject was approached in the outset, both by Mr. Alexander Ross, your engineer in Canada, and myself, with a thorough consciousness of the enormous expense which must inevitably be involved, whatever description of structure might be adopted, also of the large proportion which this cost must bear to the entire outlay of the undertaking of the Grand Trunk Railway of Canada. We were, therefore, fully alive to the imperative necessity of studying the utmost economy in every part of the work, consistent with our notions of efficiency and permanency.

It will be my endeavour, in the following remarks, to satisfy you and those interested in the undertaking that these objects have been steadfastly kept in view.

It would evidently be unreasonable to expect that amongst professional men an absolute identity of opinion should exist, either in reference to the general design or in many of the details of a work, intended to meet such unusually formidable natural difficulties, as are to be contended with in the construction of a bridge across the St. Lawrence.

You will remember, that at the time I first entered upon the consideration of the subject, these difficulties were deemed by many well acquainted with the locality, and publicly stated by them, to be, if not insurmountable, at all events of so serious a character as to render the undertaking a very precarious one.

The information I received respecting these obstacles, when my attention was first drawn to this project, was so striking, that I reserved forming an opinion until I had visited the spot, had well considered all the detailed information which Mr. Alexander Ross had collected during several months' previous residence in the country, and had heard the opinion of many intelligent residents regarding the forces exhibited by the movements of the huge masses of ice during the opening of the river in spring.

The facts gathered from these sources fully convinced me, that although the undertaking was