## **REVIEW BY THE CHIEF ENGINEER**

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Having had a somewhat extended experience in operating Railways, during the winter months, in the United States, particularly through the heart of the Rocky Mountains, during the construction of the Union Pacific Railway; and having located the line, arranged the grades, and prepared the specifications and plans for this Railway, with particular reference to avoiding difficulties from this source, so far as it could be done under the present contract, and with the available means of the Company, I thought it desirable, first, to ascertain from some reliable and practical source, whether my own theory upon this question, as based upon the experience above referred to, could be relied upon, as applying to this climate, and to the circumstances connected with this particular road.

I therefore addressed a letter upon this subject, to Mr. A. L. Smith, of this City, whom I knew to be a very reliable man, as well as a practical Locomotive Engineer, who had had a large experience in meeting and overcoming snow difficulties upon the worst roads in North Western New York; and I also knew him to be entirely familiar with the climate and snow-fall of the country traversed by this road, as well as with the characteristics of the road, so far as they could be affected by this question. I also requested Mr. Smith, to confer with the Locomotive Engineers running upon that portion of the Grand Trunk Railway, between River du Loup and Richmond, and to ascertain whether their experiences coincided with his own.

The following are copies of my letter to Mr. Smith and his reply thereto :

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