

## THE NORTHERN COLONIZATION RAILWAY.

*(Extracts from Report dated January 20th, 1875.)*

" I now proceed to notice the grading of the road, by which is meant all matters connected with the arrangement of the gradients, including the construction of the earth-works, and ballasting. In this arrangement I cannot altogether concur, and I regret it the more, as all other matters were so entirely satisfactory.

" The earth-works, in my opinion, are two feet too narrow, and the grades in many places laid too low. In fact, economy has been rather too closely studied in this one particular, for the railway to be as economically and regularly worked in this climate, as it should be ; or to be in keeping with all its other really first-class appointments.

" Were but a thousand dollars a mile more spent on this item, in raising the rail level more above the snow line, it would have a great and permanent effect in reducing working expenses." \* \* \* \*

" The embankments are intended to be fifteen feet wide at formation level, and the cuttings twenty feet. I have already expressed an opinion in a former report that these widths should not be less than seventeen feet, and twenty-four feet respectively, for a first-class railway. The proposed widths in cuttings are too narrow to afford that ample drainage required in this climate, and the embankments are not sufficiently wide to support the requisite quantities of ballast to prevent the road heaving up by the frost ; and at the same time steady the track, (especially around curves) at the high velocities, that from the general directness of this road, might otherwise be safely maintained." \* \*