

realize the difference between building a road such as he contemplates, and one to be built gradually as settlement required, into that region which is described as so valuable by our friends opposite, in the northern part of Quebec and Ontario, and which would accomplish all the purposes for which it is needed and would cost far less. The scheme of the right hon. gentleman simply means an expenditure four or five times that necessary to carry out the proposition of the leader of the opposition. What are the probabilities? I have shown that it will be impossible to build any road from Winnipeg to Quebec with modern gradients at a cost that is within the means of this country. The right hon. gentleman asks why, instead of acquiring from the Canadian Pacific Railway that portion of its line between North Bay and Port Arthur, not build another line which will open up a beautiful agricultural section of the country. I wonder where the right hon. gentleman gets his information. From Winnipeg east, as far as the prairie extends the country is flat, but once you strike the Laurentian ranges and go eastward towards Lake Nepigon, it is a costly country through which to build a railway, not nearly as favourable as the country from Port Arthur to Winnipeg by the north of the Lake of the Woods. From Wabigoon to the prairie country east of Winnipeg is full of granite ridges and morasses. Hon. gentlemen will find it described in the report of Sir Sandford Fleming, made in 1877, and to which reference is made in pages 103, 104 and 105 of the government blue-book, and that reference is the only valuable information given in this book on the National Transcontinental Railway. This report of Sir Sandford Fleming deals with the surveys and preliminary operations on the Canadian Pacific Railway from 1871 up to 1877, made by order of the Canadian government. They cover that section of the country from the north side of Lake Nepigon westward to Sturgeon lake. On page 206 of Sir Sandford Fleming's work will be found a report on the exploratory survey made from the River Pic to the River Nepigon, along the northern coast of Lake Superior and on other surveys made in the year 1874 by Thomas Jefferson Thompson. Let me remind the House that in 1873 and 1874 there was a survey made westward towards Winnipeg. There was a survey made by Sir Sandford Fleming from Winnipeg down to Lake Superior. In his report here he says: 'We have found an excellent route along the whole line of the road from Winnipeg down to Lake Superior.' Speaking of the gradients running eastward he says that in no case do they exceed 26 feet to the mile. That is a fact. We have a road now between Winnipeg and the head of Lake Superior with gradients, none of which are in excess of 26 feet to the mile, and the Canadian Pacific Railway are at present, as was stated by

my hon. friend from East Grey (Mr. Sproule), doubling their tracks and reducing the gradients on that road to four-tenths per cent, or in other words to 20 feet per mile. There can be no better line of road got. It is at least equal to the Northern Railway which runs from Winnipeg to the head of Lake Superior, and you can get no road from Winnipeg to Lake Superior with gradients better than that. But at what expense to the people was that got? For about 37 miles on that road, on section 15, built by Mr. Whitehead, some of it cost \$250,000 per mile on account of the filling. On Cross Lake 1,000,000 yards of earth were put in at a cost of 28 cents per cubic yard. At Lake Deception there were over 500,000 yards and at another lake, Darlingford Bay, over 500,000 yards put in at 28 cents per yard. They managed to get a good road that way, but at an enormous cost; and according to the reports of the engineers who surveyed that section, Sir Sandford Fleming and the engineers under him, they got a most favourable line of road from Winnipeg down to Lake Superior. But it was only at an enormous cost. On section B there was an enormous expenditure. Let me tell the right hon. gentleman that Sir Sandford Fleming advised that the most feasible line of road for the purpose of connecting the eastern section of the province was from Port Arthur up to Lake Nepigon and thence down by the route at present taken by the Canadian Pacific Railway. Let me quote from the report, to be accurate, what work had to be done on 117 miles of that road:

The following are the approximate quantities in cubic yards of banks and cuttings for the distance of 117 miles from Peninsula harbour to Red Rock, also lineal yards of tunnels:—

Embankments, cubic yards, 3,443,860, per mile equal to 29,434.

Cuttings, cubic yards, 2,779,350 per mile equal to 23,755.

Lineal yards of tunnel, 13,350, equal to 7½ miles.

And then there are the bridges. And after obtaining all this, the surveyor who was upon that section of the road says that in order to obtain a road such as he has shown you with the amount of excavation, the amount of earth to be removed, the amount of tunnelling that ought to be done in that section of the country, the only difficulty in railway construction along this valley would be in obtaining practical gradients. He says: 'my opinion is that seventy or eighty feet to the mile could be obtained. Now, grades of seventy or eighty feet to the mile are simply of no use for a modern railway competing for traffic with a rail and water route. The hon. gentleman says that we shall have two main lines of railway which will be occupied in the winter, when the lakes are frozen, carrying the produce of the west to the Atlantic seaboard. Does the right hon. gentleman not know that to move freight in that country in winter costs about 40 per cent more than