

ning southerly, and by which in effect he pledged the Government to agree to the Calgary and Kicking Horse route.

Mr. POPE. No.

Mr. BLAKE. Let the hon. gentleman contrast the Order in Council and the reports of Mr. Schreiber and Sir Charles Tupper with his own Order in Council and reports, and he will be unable to say "no" without conflicting with those reports. Already the route was authorised towards the Kicking Horse before he had the proof that a line within the conditions and terms on the contract was practicable by that route. They adopted that route in excess of their powers. They were authorised to approve a location within the contract, and, in the earlier Orders in Council and reports approving the section of the location of the line, the grades and curves are shown to be within the standard of the Canadian Pacific contract, and upon those reports the Government approved of those locations. But on this occasion they have acted in excess of their powers, because they have approved of grades and curves which are in excess of the standard of the Canadian Pacific Railway. The hon. gentleman declared the other day, with a view of escaping from that statement, that the maximum grade on the Union Pacific was 116 and the minimum curve 11 degrees. The hon. gentleman is entirely mistaken in that statement. Some years ago I put the question to his predecessor, or the then Minister of Railways—because the hon. gentleman is not yet Minister of Railways—whether the maximum grade of the Union Pacific was 90, and he told me across the House that it was 90. But in anticipation of some questions arising on the subject, and being aware that sometimes grades and curves which occur not on the line of the Union Pacific but on some branches or extensions, are referred to as being those of the Union Pacific, I took occasion to get an official statement from the proper authorities of what the grades and curves on the Union Pacific were. The hon. member for North Norfolk (Mr. Charlton) wrote at my request to the Commissioner of Railway at Washington a letter in March, and this is the reply to that letter:

"DEPARTMENT OF THE INTERIOR,
"OFFICE OF COMMISSIONER OF RAILROADS,
"WASHINGTON, D. C., March 12th, 1885.

"HON. JOHN CHARLTON, Ottawa, Canada.

"DEAR SIR,—In reply to your enquiries about the grades, curvature and character of bridges upon the Union Pacific Railway, I have the honor to make the following statements:

"(a) As to maximum grades, number of miles of same, &c. The maximum grade is 89.76 feet per mile, and total length of same is 16.32 miles; the aggregate length of all lesser grades is 833.18 miles; the average grade is 24.33 feet per mile; length of level is 188.18 miles.

"(b) As to the curves upon the road, radius of each, &c. The total curvature is 22,508.43°, giving an average per mile of 119.37° or 2.26° per 100 feet chord, the shortest radius is 942 feet. There are no means in this office for ascertaining the length of curves that occur upon grades.

"The total length of curved line is 183.56 miles, being about 18 per cent. of the whole length of road.

"(c) As to material, class and character of bridges, &c. More than three-fourths of the whole length of trussed bridging is constructed of iron, of excellent design and abundant strength; all the other bridge structures are of wood, in excellent condition, and fully able to bear a heavy traffic.

"Yours very respectfully,
"W. H. ARMSTRONG,
"Commissioner."

You will find in numerous printed documents and in official reports to which I have had access, and I speak after having read them, confirmatory statements, although there is one report dealing not with the Union Pacific proper, but with some branches and extensions—

Mr. POPE. That was putting the Central with it.

Mr. BLAKE. We discussed both the Union and the Central when we had the Canadian Pacific Railway contract

before us; and we were told that it was the Union Pacific which was to be the standard, not the Central Pacific. The hon. gentleman takes the Union and the Central, and the whole system of those two lines, and joins them together for the purpose of his argument, because he finds on the Central a 10 or 11 degree curve and 117 feet grade, and he says that is the standard to which we agreed.

Mr. POPE. It is part of the Union.

Mr. BLAKE. It is not part of the Union Pacific. It was not part of the Union Pacific at the time the Canadian Pacific contract was made. Their standards are different, and it was the standard of the Union Pacific and not the standard of the Central we adopted. Compare the grades. You have a maximum grade on the Union Pacific of under 90, and there are only 16.32 miles of that maximum grade. On the Canadian Pacific there is a maximum grade on the intended permanent line of 116 or 117, and over 52 miles of that. But you have got also on the temporary line, to be used for a long time, a grade of 237. On the Union Pacific there is a minimum curve of 6 degrees, and on the intended permanent line of the Canadian Pacific Railway the curves are even in excess of 10 degrees, for there is one of 10.40 on the intended permanent line. But on the temporary line there is a curve of 11.30 degrees. What is the curvature of the Canadian line? On the line of the Canadian Pacific Railway there are, apart from the temporary line and leaving out the 11.30 curve, 142 curves of 10 degrees 62 of 9 degrees, 338 of 8 degrees, 114 of 7 degrees, 39 over 6 degrees, or 687 curves in excess of the minimum curve on the standard line. What as to the total number of curves? There are no less than 4,258 curves of 6 degrees and under, or no less than 4,945 curves in all. The total curvature of the line is 900 miles, or 35 per cent. of the whole length of the line. On the Union Pacific the total curvature is only equal to 18 per cent. of the length of the line. So you have about double the curve mileage on the Canadian Pacific Railway which there is on the standard line, and no less than 206 double curves, and I suppose everybody knows what a double curve means in railway works. This much was gleaned from answers to questions put to the Minister, and from imperfect information supplied by him. No proper table of grades and curves divided into mileage sections has ever been laid before this House, or has been prepared. When my hon. friend (Mr. Mackenzie) was engaged in the task of finding a location for the line of the Canadian Pacific Railway he took the proper and usual precautions, and you will find in the Blue Books tables of the engineers divided into mileage sections, giving information in that form, and showing the grades and curves and the alignment of that line. When the hon. gentleman was bringing down his statements with reference to the comparative merits of the lines to form the short line from Montreal to Halifax, he brought down in his Blue Book these tables of grades and curves. He knew you could not tell what the line meant without them, and they are down here on the Table before you, forming an element in your decision. But, Sir, the Government has never caused the company to prepare, it has never itself prepared, it has not now in its possession—or had not the other day, for when I asked the question I was told that the tables were only in course of preparation—analogue tables with reference to the Canadian Pacific Railway, which has been under construction for four or five years, so that the essential, the usual preliminaries, even to a final location, have not been taken. Although the final location has passed, although construction is advanced and almost completed, although the country has paid for the road, the Government has not caused to be prepared those tables of grades and curves which were necessary to a proper determination to themselves, and necessary to the