

eastward no more than twenty-six feet to the mile, as the heavy traffic would be towards the east. These grades have been adopted as far as Selkirk, but west of that point the hon. gentleman determined to adopt a line on which he could not by any possibility get these grades, without an expenditure that would be far in excess of anything he would think of making for the construction of the road. The hon. gentleman, however, seemed to complain last night, or he implied a complaint, that we had spent too much time in surveying—that we had been five years in office and had not left a single mile of road constructed. But I remember, and I have no doubt hon. gentlemen around me will remember, that in the last Session of the last Parliament, that is in 1878, the hon. gentleman and his leader both complained that we were not giving attention enough to surveying the Pine River Pass nor the Peace River district; and one of the first things the hon. gentleman himself did after his accession to office, was to send a strong party to survey the country afresh from Fort Simpson on the Pacific up the Pine River Pass, and thence eastward towards Fort à la Corne. My hon. friend behind me, states that he also determined upon the selection of a route without waiting for the report of these parties. My recollection is that he stated to the House he had a telegraphic report, which gave some information though it was not a full report on which he acted. In the meantime, we had, in 1876 and 1877, various schemes for reaching the Pacific through Yellow Head Pass. We had our choice of three routes—one by the Nechaco Valley and the Salmon River, one to Bute Inlet, and one to the present terminus at Port Moody. We determined at one time, so favorable were the features of the country, principally towards Bute Inlet, to locate the line as far as Fort George, at the great bend of the Fraser, and we hoped without any doubt by the next season to obtain such favorable intelligence as would enable us to locate the line westward from that point, either to Dean Channel or to Bute Inlet. The information we received, however, showed that it was impossible to obtain more favorable grades than 105 feet to the mile on one line, and eighty-eight feet on the other. We determined therefore to have the Fraser Valley re-surveyed, and before we left office, we determined to adopt that as the permanent line of the Pacific Railway. The hon. gentleman opposite, cancelled that order, as he considered it premature, and after his very hurried survey of the Pine River country, he fell back on our route; and at the present moment, from Fort William to Selkirk, and from the Yellow Head Pass to the Pacific Ocean, the hon. gentleman has followed precisely in our track without making any change whatever, showing that, after all, the expenditure made by us was made with such a result as has proved most satisfactory to the hon. gentleman himself as well as the Ministry of which I was a member. Now, the hon. gentleman has a Bill before the House to authorize the Syndicate to choose another place for crossing the Rocky Mountains. I could have no possible objection to that, but, upon the statement made by the hon. gentleman, I think there are very serious objections. During his early remarks I was led to suppose that a comparatively straight line could be obtained seventy-nine miles shorter, with grades equal to those on the Yellow Head Pass route. Along that route there are no grades exceeding fifty feet to the mile; but I was astonished to hear that the hon. gentleman rather favored the adoption of the southern pass with a grade of eighty feet to the mile. That is a grade at least seventeen feet in excess of any grade I knew of on Canadian railways. It is about nineteen feet, I think, in excess of the highest grade on the Intercolonial Railway.

Sir CHARLES TUPPER. The hon. gentleman is mistaken. There is a grade of over seventy feet, I think, on the Intercolonial Railway.

Mr. MACKENZIE. Where is it?

Sir CHARLES TUPPER. It is at Bedford.

Mr. MACKENZIE. Well, it is a fatal grade to traffic. This is what the result will be—we shall save seventy-nine miles of travelling, but a powerful engine cannot take more than from twelve to fifteen cars, with an ordinary load, up that incline, while upon the grade we adopted of forty feet to the mile, an engine would be able to take from twenty-five to thirty cars. On the Canada Southern Railway, on which the maximum grade is only fifteen or eighteen feet, a freight engine is able to drag forty loaded cars; I myself have seen forty-four behind one engine. Every-one can see how very unprofitable it will be to have a high grade of this character upon so important a line as the Canadian Pacific Railway, and I do not hesitate for a moment in expressing my own decided preference for the Yellow Head Pass route, with its lower grades, to accepting a shorter route by seventy-nine miles, with grades so high as the hon. gentleman represents. I do hope the Government will not accept any grade so steep as that, because it will be a loss for all time to come, and it will require either supplementary locomotive power on the spot, or some other means to assist engines in dragging up a heavy train. I am aware that on the United States Pacific lines there are grades that are high, and perhaps higher, but we know that they have not been able to do a profitable trade up these grades, and at several places they have engine stations to assist the trains up the grades. This might be done on our line, but it would be a thousand pities if we made a mistake by adopting so steep a grade as eighty feet to the mile, which would practically destroy the harmony of our grades eastward. I may refer to what the hon. gentleman said last night about cheapening the construction of the line between Kamloops and Emory's Bar. I was informed, and the hon. gentleman will correct me if am wrong, that, in order to avoid some of the heaviest parts of the works, there are grades on that part of the line not more than 600 feet in radius. Is that correct?

Sir CHARLES TUPPER. I cannot say at the moment. I shall enquire.

Mr. MACKENZIE. I may be wrong, but I consider my authority good. If there are grades so sharp, or many of them, it is a fatal economy to cheapen the line with that result. It is utterly impossible for an express train to travel with safety and with a high rate of speed along such grades. I am told there is only one grade on the Intercolonial that approaches this radius, and that is near Halifax, at a point which, when Minister I visited for the purpose of considering how we could have a longer radius, and of course a less sharp turn upon the road. I have now referred to the general features of the scheme provided by the late Government, in consequence of information they obtained, and will have a few words to say in regard to the contracts themselves. The hon. gentleman read a statement from the report of his three Commissioners, showing the expenditure upon certain contracts and the amounts represented by the original tenders.

Sir CHARLES TUPPER. The hon. gentleman is quite mistaken, I have not read a line from the statement to which he refers. The figures I read from are in the table prepared in the Department by the Chief Engineer.

Mr. MACKENZIE. He must have got a copy from the other parties. I have read the figures; I have not compared the matters, but I saw a table of figures prepared in precisely the same way, which I assumed to be the same thing. I may be wrong, but I accept the hon. gentleman's statement.

Sir CHARLES TUPPER. I have not seen them.

Mr. MACKENZIE. This statement was made by the hon. gentleman apparently without view. See how gently and nicely my estimates were passed compared with those