

made with imperfect instruments, when it is known that that gentleman was in the employ of the present Government, receiving his instructions from Mr. Schreiber, sent by that gentleman to answer to the fair demands of the promoters of the line of the valley of the Etchemin River, to survey that magnificent route and do justice without fear or favor to all interested parties, I am astonished at the arguments brought forward to-day, about imperfect instruments, and I ask, if it were not intended to play a farce, or make light of the reputation of engineers, whether qualified or not. I do not know this to be a fact, but I have strong doubts about it. Now, Sir, in answer to the charges brought against Mr. Light, because it was his misfortune to be compelled, by force of circumstances, to make a report which was favorable to the line of the Etchemin River, I shall read a letter addressed to the editor of the *Montreal Gazette*. I have no doubt that it will please the House, and above all, my hon. friends opposite, to see how he refutes the gratuitous charges which have been made, both in this House and outside. The letter reads as follows:—

“To the Editor of the Gazette:

“Sir,—My attention has been drawn to the following statement in your parliamentary report of the debate on the short line question on Wednesday last:—

“Mr. Hall supported the Government line from Montreal *via* Sherbrooke and Mattawamkeag, as being shorter than the combination line, and with easier grades and curves. The professional standing of Mr. Light, as well as the feasibility of his line, was open to question. Mr. Light assumed the title of ‘Member of the Institute of Civil Engineers for Great Britain,’ but his name could not be found in any of the rules of that institution. Neither was he Government engineer for the Province of Quebec as he styled himself, two years having elapsed since he filled that position in the construction of the North Shore road. It was Mr. Light who recommended the change from the shore to the Terrebonne line, which cost the Government over a million dollars more than his estimates.

“Mr. Colby said he opposed the Light combination line, and declared that it had not been accurately surveyed. In order to make the line appear short, Mr. Light had made no allowance for curvature, nor were his reports upon it reliable. Moreover, Mr. Light’s road would involve the building of a bridge at Quebec which would cost seven millions, and would necessitate a subsidy as large as that proposed now for the whole line. Mr. Light’s mythical line would, therefore, be not only longer, but more expensive than the line now under discussion.

“Your parliamentary editor concludes from these: ‘The speeches of Messrs. Hall and Colby presented a very fair analysis of Mr. Light’s claims to consideration for his reports. Mr. Hall made a strong point in reference to Mr. Light’s connection with the North Shore Railway, while Mr. Colby left him, literally, without a leg to stand on in his dissection of Mr. Light’s report, and his exposure of its palpable dishonesty.’ My official reports to the Government are on record, and should contain the answers to any criticism of their merits. In answer to Mr. Hall: 1st. The combination line I propose is shorter to St. John and Halifax, and practically shorter to St. Andrews than the Mattawamkeag line, and is infinitely superior to it in point of gradients and curvatures. My report upon these points has been endorsed in every respect by Mr. Keating, C.E., of Halifax, a member of the Institute of Civil Engineers, and I have no hesitation in saying it would be similarly confirmed if it were referred to a committee of engineers of standing. 2nd. I was elected a member of the English Institution of Civil Engineers in 1862. My name does not appear on this year’s roll because I omitted to renew my dues, but I have not in any way forfeited my rights of membership. I was reappointed Government engineer of the Province of Quebec in June, 1883, for a further period of five years. The change of line of the North Shore, *via* Terrebonne, made on my recommendation, endorsed by both Mr. Shanly and Mr. Sandford Fleming, was not an additional cost to the Government (although it perhaps may have slightly exceeded my approximate estimate), but a saving as compared with the shore line. The extra cost of the road was principally caused by the great excess of quantities on the Quebec end, located before I took charge of the work. By reference to *Hansard* I find that Mr. Hall, by way of excusing himself from making invidious charges against me, says ‘that I made similar insinuations and charges against the Government engineer, and also made reflections upon the staff which had been selected.’ In reply I would say that I did not mean to make charges, insinuations or reflections against any one, but merely defended myself against misquotations and misrepresentations. Mr. Hall himself also misquotes me unfairly when he says (speaking of my remarks, page 5), ‘that this line termed the International has been traced by way of Sherbrooke and Lake Megantic. He (Light) speaks of a line that ‘has been traced.’ The line has been built and in operation for the last five years, with four trains passing upon it daily. Yet Mr. Light has the unfairness to speak of it in his report as a line that ‘has been traced.’ What I did say (*vide* page 5) in describing the International line: ‘This line termed the International line has been traced *via* Sherbrooke and Lake Megantic, to be carried across the State of Maine through

Moosehead Lake, and from there to Mattawamkeag, on the Maine Central railway.’ Thus Mr. Hall omits all words after Lake Megantic to make a point against me. Mr. Hall further says: ‘The altitude on this theoretical line has only been barometrically surveyed,’ although on page 4 of my preface I distinctly state that ‘the summit had been tested by spirit levels,’ a careful series of which were backed up from the line surveyed, to check this important point.

“Now for Mr. Colby. This gentleman occupies some two and a-half pages of *Hansard* with charges and allegations against me. First, he says in effect that I illustrate my report by a map in which the line between Lachine and Sherbrooke is very incorrectly laid down. At the time the map was arranged it was impossible to ascertain exactly where it was proposed to pass this line, and it will be seen from the remarks of Messrs. Laurier, Colby and Sir Hector Langevin, on page 3076 of *Hansard*, that this matter is still unsettled. Although, for this reason, the position of the proposed line could not be exactly shown, yet the distance from Lachine to Sherbrooke of 104 miles as given in the body of my report in appendix 6, pages 17 and 18, is quite as short as any location will probably make it; thus showing there was no intention to deceive. Second, Mr. Light tells us about this combination line running from Chaudiere Junction to Chesuncook Lake, where it connects with the other surveyed line, and he tells us that the distance would be 105 miles. If any gentleman will take a ruler and draw a straight line on the map he will see that the distance of an air line is 105 miles, and Mr. Light knows that through that country you must allow twenty-one miles of curvature, so that instead of being 105 miles the distance should be 126 miles.’ The actual distance between the points above named, in a straight line, is less than 100 miles. At the foot of page twenty-three of my report on the line ‘instrumentally surveyed’ it will be seen that this latter line was 5 per cent. longer than an air line between the extreme points. This extra length was caused by curvature and is the percentage due to that item. The line by the Etchemin Valley passes over much smoother ground than the line instrumentally surveyed. Therefore the amount of 5 per cent. that has actually been here allowed for curvature is ample. Again, Mr. Colby says that, ‘if you read his report you will find that he gives you the grades and the curvature, and the summits and distances, although there has never been an instrument put over the route, and no man knows anything about the grades or curvatures or summits, except what Mr. Wicksteed obtained on the portion of the same line, by a barometrical survey with an unreliable barometer.’

“Mr. Colby is probably unaware that a careful barometrical survey of some 75 miles of this line from Chaudiere Junction to Baker lake was made by myself in the spring of 1884, and a favorable report then made on it by me to the chief engineer. In this survey I passed over every foot of the line and carefully examined the whole of it. Subsequently the summit height was verified by a series of checks taken with a spirit level from the datum of the line instrumentally surveyed, establishing exactly the true height of this summit above sea level, leaving no doubt that the grades reported by me and even less could be obtained. The grounds for this opinion are so fully stated on page 2 of my supplementary report, that I refer the reader to them.

“As to the cost of the line from Montreal to Mattawamkeag, I would say that a bridge must be built either at Lachine or at Quebec. If a single track bridge is considered sufficient in either case, I estimate that the new work, exclusive of constructed lines, would cost, *via* Lachine and Mattawamkeag, \$11,200,000, and *via* Quebec and combination line, \$10,500,000, so that \$700,000 could be saved by crossing at Quebec. Whether the line I advocate be adopted or not, I contend that I have done my duty to the Government and the country without fear and without prejudice. Time will tell, and the ground will always be there to prove who is right in this question.

“Believing, that in common fairness you will insert this,

“I am, dear Sir,

“Your obedient servant,

“A. L. LIGHT.”

I will not insist any further, nor will I give all the figures which might show in the most unanswerable manner, the position which I hold at the present, because they have already been given to the House on previous occasions. Now, as regards the arrangements made by the Government to do justice to the claims of the city of Quebec, by giving it a summer terminus of the Pacific within the limits of that city, I have no desire to discuss them. I am ready to accept on this subject the opinion of the interested parties represented in this Parliament by the distinguished members, and outside by the board of trade, the city council, its business men, its citizens’ committee, etc. Therefore, we have in that quarter all the guarantees required. It would be more than foolhardy on my part to express my views before having their opinion on the subject. Still, Mr. Speaker, the House will allow me here to express my candid opinion that as regards the satisfaction to be given to Quebec by the purchase of the North Shore Railway, or of another independent line, controlled by the Canadian Pacific, and considered as a summer terminus at the harbor of that city, but as regards what I have always considered myself, as the true and only vital question for