west of the little river or Scott's valley. The best information I could obtain, joined with my own judgment, induced me to try Scott's and Temple's valleys. It would have cost a larger sum of money to cut through the woods in the other valleys than I felt justified or authorized to expend. The chances are against a good line being found except a very deep cut or tunnel be usued at the summit height. I do not include in this estimate any part of the main trunk line. The distance to Windsor from Halifax is 63 miles.

From the rapid, singular, and regular slope of the Rawdon ridge, it is extremely easy to grade and curve the line of railway which may be constructed over, under or around it. Temple's valley permits the best grades through it, as shewn by the section to be 25 or 30 feet per mile. It has very high land on each side. The rock on the west mountain is all slate. I believe the rocks on the east side to belong to the coal formation. Both of the routes proposed are good as regards grades. It would require much consideration and an exact survey to decide which should be used. Taking the same height near McPhee's bridge, one hundred feet for both routes, to begin the ascent over the summits, we have, say 6½ miles, with grades of not more than 30 feet per mile for Temple's valley, and grades of not over 40 feet per mile for 7½ miles for Scott's valley, the summit heights being cut to 290 and 330 feet above medium high tides in Halifax harbor.

The profile of the road from Taggert's brook to Wm. Withrow's mills, plainly shows that the lines of railway may be carried with good grades up the four other valleys to the westward of those I have explored, as far as this road. It is plain that the line will be shorter via any of the other valleys than by those chosen for a trial survey. The most direct line would be that explained by Mr. Wightman, but it would have grades of 36 feet per mile for thirteen miles, to ascend to the summit at Withrow's mills. The other routes only have grades of 30 to 35 feet for six or seven miles. It must be remembered that I could not examine every route. Any of these routes are to be preferred to the line from the head of the Basin to Windsor, as surveyed by Mr. Wightman. They would have grades superior, cost less per mile, in a more fertile part of the province. The stream which flows from Wm. Withrow's mill pond is one of the best water powers I have seen in this country—the fall being about 350 feet in five miles, and equal to 500 horse power. Owing to the shape of the Rawdon hills, the streams which flow from them are subject to heavy and rapid freshets, which must be guarded against in all railway operations.

Now to sum up the advantages of the route proposed, we have a better and more fertile soil, more population, a better position as regards the railway wants of the whole country, more traffic, descending grades in a mineral producing part of the country, expected to cost less per mile than any other route, greater speed, and many other minor benefits too numerous to mention. Now the only objection that can be named by those not seeing the matter in its true light is, that the distance to Windsor is about fifteen miles longer than by the proposed line. Many facts are wanted, but enough has been gathered to enable a correct and decided opinion to be given that this railway west to Windsor and Annapolis must join the main trunk east to Amherst, in the valley of the Shubenacadie river, at a point distant 25 miles from Halifax, in preference to a junction near the head of Bedford basin.

I have the honor to be,

Your obedient servant,

CHARLES W. FAIRBANKS,
*Civil engineer.*

The hon. JOSEPH HOWE, provincial secretary.