

Mr. Crerar \*had had no experience in railroad surveying and building, prior to the time he was engaged to run the trial lines of the extension of the South Pictou Railroad; yet when his plans and specifications were laid before the Board of Directors "at home," they were so well satisfied with them, that they wrote out, saying: "What need is there of our sending you an engineer when you have Mr. Crerar in the country? Let him supervise the construction." This was accordingly done, and several of the sections he prepared to show the progress of the work have been preserved. One of these sections the author is, by the kindness of Mr. Clendenin, the President of the Acadia Coal Company, the present owners of the property, enabled herewith to send for preservation in the archives of the Society.

A glance at Mr. Crerar's section is arrested by the unusual uniformity of the grade for a road passing through a country so uneven as there shown, so different from that ordinarily met with on colliery railways built in the present day. The road starts from the pits with a falling grade of one in 437 feet for a distance of 3500 feet, thence it is practically level for 18,770 feet, a slight incline of one in 578 feet then follows for 2,500 feet, succeeded by a level piece of road for 5,810 feet; a grade of one in 360 feet for 1,500 feet then takes the road to the timber structure, in connection with the wharf 16½ feet above ordinary high tide.

It will also be noticed on the plan of the road that in the matter of curves, great caution has been shown; as even when it entailed extra cutting of considerable amount, nowhere is there a curve of over 4 degrees radius.

The cuttings and embankments were both made with a slope of one and a half to one; the former being made 18 feet wide at the bottom, and the latter of the same width at the top.

Among the papers relating to the construction of the road is the following memorandum, connected with the first line in England intended for general traffic.

"The Liverpool and Manchester Rail Road.

Iron Rail Road account £67,912.0.0.

"The above expenditure comprises the following items: Rail for a double way from Liverpool to Manchester, with occasional lines of communication and additional side lines at the different depots, being about 35 miles of double way = 3,847 tons, at prices averaging something less than £12.10.0. per ton."

In addition to the interest which this memorandum has as a statement of cost, the author would specially draw attention to the use in it of the words "depot" and "rail road." Their use here makes it probable that these words were common in England at the time in question, although they have been there abandoned and replaced by "station" and "railway."

It would appear probable that these terms were at the same time adopted in America, but in contradistinction to the English practice, they were retained there just as philologists tell us many words and expressions, which are distinctive of New England to-day, are recollections of Puritan times, and are not indigenous to the soil. Only the other day, a reviewer, writing on the great American language, gave "depot" as an adaptation from the French direct by the people of America; but it would seem that the use of that word in the foregoing memorandum points to its having had at least a temporary resting place in England on its way to America.

It may be noted that in all the papers connected with the South Pictou road, the invariable practice is to speak of it as a "rail road," never as a "railroad" or "railway," and this spelling the author has retained in this paper.

The road has, as already mentioned, a gauge of 4' 8½," as was the practice in England at the time of its building. The rails were of several sections of which pieces have been sent to the museum of the Society, the earliest form was scalloped to sit in metal chairs spiked to sleepers placed 3 feet apart. The turnouts are made with tongues or split points of the form now required by the British Board of Trade, and one which has of late grown more in favor in America than the facing points ordinarily seen.

\*In some papers he signs himself "Geographic Engineer."