

inferred from the above comparative statement that the majority of the long bridges between Halifax and Windsor and Truro are engineering mistakes, but my object is solely to exhibit the superiority of the Truro and Pictou Railway in this important point.

Where your slopes of embankments skirt the Salmon River, East River, and other streams, I found you were protecting the foot of the slopes with stone "rip-rap" and pitched work in a secure manner; and when you had found it necessary to divert the courses of streams you had adopted all requisite precautions to confine the water within its new channel. After what I have stated above, it is hardly necessary for me to say that there is still a good deal of that class of work to do, which consists in the cleaning out of side ditches, and the removal of the slips of slopes, and making a surface finish of the earthworks generally, all of which I understand you are ready to complete whenever the water is more thoroughly drained off, and the soft material rendered easier of removal by a longer exposure to the sun.

3rd. MASONRY AND BRIDGING INCLUDING CULVERTS AND CATTLE GUARDS.

The most noticeable feature of the Pictou Railway works is the almost total absence of all timber work and bridges. There are no piled bridges, no trestle structures, no cribwork piers, and no wooden trusses of any description. The aggregate length of all the openings of every description embracing iron girders, open culverts, and cattle guards; amounts to 1072 lineal feet of track; and of this extreme length every opening of a greater clear span than 12 feet is spanned by iron girders. I do not know of any line of railway on this continent on which there is such a small proportion of wood work in the bridge structures; and I have already given it as my opinion (founded upon an experience of 15 years in the construction of railways in Canada and the States) that I believe there is likewise no railway on this side of the Atlantic (except perhaps on some of the Western prairies where the track runs along the surface of the ground), in which the aggregate length of all the openings bears so small a proportion to the length of solid road bed.

Of the above 1072 feet, there are 520 feet consisting of stringers of cattle-guards and small open culverts, leaving 552 feet of iron