

Maine Railway,

B.

of the Grand Southern Railway, I have now to report the result of my inspection. On Branch Railway, about a mile and a half from the City of St. John to the St. Stephen Town of St. Stephen, on the St. Croix River. From St. John, westward to the Province of New Brunswick, being no where more than a few miles from the miles, and the country, for almost the entire distance is sparsely settled, and only two Saw Mills, which, during the entire time they can be operated, have water in St. George to St. Stephen the country is somewhat better, but the population being establishments along the line of Railway, other than those at Musquash and on which they are located than the Railway location, and would continue, thereon by Railway. No traffic could therefore be expected from this source. In Red Granite, which are being worked to some extent by some three or four Com-time Provinces, is very limited, and the production for western markets in the which the facilities are good, and freights cheap.

It will be necessary to bear in mind that the present grading and masonry at it is now the intention to make the gauge the standard American one, of four

feet Southern Railway, I shall refer in their order to its alignment, its gradients, the masonry, the superstructure for open culverts and bridges, and finally the preparations

for sharp curves. There are on the trunk line a number of eight degree curves, and these sharp curves occurring on some of the heaviest and steepest grades.

A necessarily large proportion of steep grades. These must, of themselves, make the section with the sharp curves, must largely increase the expense. I have appended to the mile, from which it will be seen that they embrace no less 41 4-5 per cent. of the grade between 53 feet to the mile and 70 feet to the mile, while the large number of miles - six and a half miles no less than seventeen miles or 25 1/4 per cent. are of the grades these heavy grades are from three quarters of a mile to two miles in length, and should be completed. It may be added that these grades are in both directions

With few exceptions the larger embankments were low and narrow, even for a mile never been finished, while others have been materially injured by water pouring embankment have been carried away by freshets in the adjacent streams. Some feet six inches in width, and had become so rounded by constant wearing away upon them, before it will be safe to lay track upon them. The almost entire surface water to flow into the cuttings, materially damaging them, and carrying

away. I measured some that were little over ten feet, and very rarely were they more which they rendered dangerously "blind." Most of them will require to be widened. In some places where the grading was considered completed I found the same, notably for some distance east of New River, no grading had been attempted. It is, therefore, to complete the grading and fit it for a permanent track of four feet eight

inches such as Box Culverts and Beam Culverts, of narrow opening, was flimsy and had already fallen in, and I was told of others, which I could not see, that would have failed. I saw some abutments of bridges of fifteen or sixteen feet span which were from only six feet wide. These were laid dry and by no means substantial. The question is whether there was a full bed or merely a "hipping." I saw several instances, however, leaving joints from half an inch to an inch and a half in thickness.

I looked for either the smaller or larger structures. For many of the open culverts the gauge intended for the narrow gauge, as were also the framed cattle guards. But so the superstructure of ten feet span and upwards, save in two instances, and in one of which I appended a list of open culverts and Bridges marked "B" taken from official plans, and the length of superstructures that will be required. The bridge superstructure is to

be marked "C" taken from the same source. There have been some changes on the list of these on the list have yet to be built in places where they are absolutely

needed by the delivery of a considerable number of sleepers or ties along the line. The same on the line for two years and are now being distributed. Having been intended for it is, therefore, doubtful if the Contractor will be allowed to use them for the same being delivered along the line, but as it is of the softer and cheaper kinds, it is of no

great value. I found cordwood by contract, I found at work along the line some six or seven men, and four men at work building the masonry of a bridge abutment at Clarence

and that while the traffic of the Grand Southern Railway must be of the most limited character of a character or amount as would justify investment upon the strength of it.

I am, Sir, yours very truly,

S. PARKER TUCK, C. E.