

to fail, for no measures could be taken which would at all times effectually guard it from an open enemy and from treacherous attacks.

The passage across the Bay of Fundy so close to the shores of Maine, would invite aggression, and require a large naval force for its protection.

The engineering difficulties as the line approaches the Grand Falls from Woodstock would not be easily overcome.

The space between the St. John River and the Boundary Line becomes gradually contracted to a width of not more than two to three miles, and the country is broken and rough, whilst the banks of the St. John are rocky and precipitous for many miles below the Falls.

From the Grand Falls to the St. Lawrence, a distance of more than a hundred miles, the country is so far known as to make it certain that there is very difficult and unfavourable ground to be encountered, which would require careful explorations and extensive surveying.

This intervention of the Bay of Fundy, therefore, and the proximity of this line for a considerable distance, to the frontier of the United States, was so objectionable and fatal to this route, that the attention of the officers and the exploring parties was, after a slight examination of the country between Halifax and Annapolis, directed in search of other and more favourable lines.

To understand the comparative advantages possessed by the *other* routes, as well as to be able to weigh the objections which may be raised against each, and afterwards determine from their relative merits, which is the *best direction for the proposed line to take*, it will be necessary, previously, to give some description of the country through which the lines pass, the present amount and distribution of the population, and the engineering difficulties which were met with along the lines examined.

As it will be seen in the end, that only one of the lines, viz., the second, has been explored and carried out *successfully* from its terminus on the Atlantic quite through to Quebec, it may be perhaps considered superfluous to enter upon the discussion of rival lines, but the object to be gained by so doing, is to show that so much has been done and is known of the country as to render further explorations for new lines unnecessary, because, if completed, they would not be likely to be recommended in preference to the one which will be proposed for adoption.

The distance from the Atlantic coast of Nova Scotia to the bank of the St. Lawrence is about 360 miles in a straight line. Intersecting the country which must be traversed by any line of railway and crossing its course at right angles, are *five great obstacles* which have to be either surmounted or avoided.

1st is a broad range or belt of high and broken land which runs along the Atlantic shores of Nova Scotia, from Cape Canso to Cape Sable. The breadth varies from about twenty miles in its narrowest part up to fifty or sixty miles in other places. Its average height may be about five hundred feet. The strata of which it is composed consist of granite, slate, and a variety of rocks, hard and difficult to cut through. The characteristic features of the service are rugged and uneven, and therefore very unfavourable for railway operations. No useful minerals of the metallic kind have been found in it, in quantities sufficient to work to advantage.

Valuable quarries of stone for building purposes are abundant, but these will be found everywhere nearly along the proposed line.

This formation is estimated to cover nearly two-thirds of the surface of Nova Scotia. It is generally speaking unfavourable for agriculture; the timber on it is stunted in growth, and it is an object of some importance to pass through it and leave it behind as soon as possible.

If a line be drawn from the head of the estuary of the Avon, near Windsor, to the Great Shubenacadie Lake, and then across the Steniacke River, along the upper parts of the streams in the County of Pictou, to the Gut of Canso, all the portion lying to the