

BRITISH
NORTH AMERICA.

2nd. Passing along the sea-coast for a great distance, and capable of being approached at several points by bays or navigable rivers, it possesses the greatest facilities for construction, tending to reduce the expense, and by its more favourable grades also the cost of working and subsequent maintenance.

3rd. By passing over a less elevated country, and at the least distance from the sea, there will be less interruption to be apprehended from climate, whilst the more favourable grades will increase the efficiency and rapidity of intercourse.

4th. Passing at the greatest possible distance from the United States, it possesses in the highest degree the advantage to be derived from that circumstance of security from attack in case of hostilities.

The best general direction for the proposed trunk line of railway being admitted to be that of route No. 2, viz., the Halifax and Eastern, or Bay Chaleurs route, some additional remarks may be made upon its peculiar advantages, as well as upon the few engineering difficulties which occur, and in explanation of the plans and sections forwarded.

The details of the line are given in the Appendix No. 1. The plans referred to are the General Plan No. 1, the Model Map No. 2 (which should be stretched out on the floor to be properly viewed), and the book containing 15 exploratory sheets of plans and sections, which relate exclusively to this line.

The city of Halifax is situated on the western side of the harbour, whilst the best site for the terminus is on the opposite shore at Dartmouth.

The distance to Quebec from the latter will be four miles shorter than from the former; and one great advantage is, that its shore line is as yet comparatively free from wharves and commercial establishments, and an extensive terminus can be formed there at less expense and inconvenience than on the Halifax side, where the Government dockyard and private establishments would interfere materially in the selection of a good site for it.

At Dartmouth it is expected that vessels entering the harbour will be able to unload at the railway premises, or probably into the railway cars, whilst an equally good terminus is to be had at Point Levi, opposite to Quebec. The same railway cars, loaded from the ships in harbour at Halifax, will thus, after running an uninterrupted course for 635 miles, be delivered of their contents into the boats if not into the holds of vessels in the River St. Lawrence. The same can of course be done from the River St. Lawrence to the vessels waiting in Halifaxharbour.

Such an uninterrupted length of railway, with such facilities at its termini, will be, it is believed, unequalled in the world.

In the transmission of goods and merchandize this will be a most favourable point in competing with rival lines. The American railways, especially along the Atlantic States, are constantly interrupted, and passengers have to transfer themselves not only from cars to steam-boats, but sometimes from one set of carriages to another set, in waiting for them on opposite banks of a river.

In Nova Scotia the passage over the Cobequid Hills cannot be effected without heavy grades of 1 in 79 and 1 in 85; but as these occur, the one ascending and the other immediately descending, and only for 10 miles, the inconvenience can be easily got over by affording an assistant engine for the goods' trains at that part. No engineering difficulties are expected to occur from this up to the Restigouche River.

It is necessary, however, to make some remark in reference to the sections shown in the Book Exploratory, sheets 6 and 7, comprising that part of New Brunswick lying between Shediac and the North-west Miramichi.

The whole of this portion of the country is believed to be generally low and flat, with occasional undulations. The section run through it in the previous season of 1846, towards Boistown, confirmed this impression.

Its exploration and examination, therefore, was left to the last, and it was not until the really formidable-looking obstacles had been explored and successfully got over, that the attention of the parties was turned to it.

As at this time the season was rapidly closing, the exploring parties were directed to cut straight lines through it, as the best means of obtaining the general altitudes and a knowledge of the country. No attempt was made to contour the hills. The sections, therefore, in these two sheets are not grades for the railway, but of the ground passed over by the straight lines. With the exception of the immediate banks of the St. Lawrence, this is expected to prove one of the easiest portions of the line.

When the line reaches the mouth of Eel River, it cannot proceed direct on to Dalhousie, but must turn off up the valley of that river.

Two courses are afterwards open to it, one to turn off through a valley, by which it can soon gain the Restigouche, the other to proceed on to the head waters of Eel River, and then turn down to that river. Which is the best of these two routes can be better determined when the detailed surveys of the route are made.

The most formidable point of the line is next to be mentioned, this is the passage up the Metapediac valley.

The hills on both sides are high and steep, and come down either on the one side or the other, pretty close to the river's bank, and involves the necessity (in order to avoid curves of very small radius) of changing frequently from one side to the other. The rock, too, is slaty and hard. From this cause, 20 miles of this valley will prove expensive, but the grades will be very easy.

About 14 bridges, of an average length of 120 to 150 yards, will be required up this valley. There is also a bridge of 2000 feet long, mentioned in the detailed report as necessary to cross the Miramichi River.