

# THE GLEANER:

AND NORTHUMBERLAND, KENT, GLOUCESTER AND RESTIGOUCHE  
COMMERCIAL AND AGRICULTURAL JOURNAL.

OLD SERIES.]

*Nec araneorum sane textus ideo melior, quia ex se fila gignunt, nec noster vilior quia ex alienis libamus ut apes.*

[COMPRISED 13 VOLUMES.]

NEW SERIES.]

MIRAMICHI, TUESDAY EVENING, JANUARY 16, 1849.

NUMBER 12.

## REPORT

ON THE PROPOSED

TRUNK LINE OF RAILWAY,  
FROM AN EASTERN PORT IN NOVA  
SCOTIA,  
THROUGH  
NEW-BRUNSWICK TO QUEBEC.

[Continued.]

And the city and harbor of Halifax (one of the finest in the world) is recommended to be selected as the Atlantic terminus for the proposed line of railway.

The part of the Direct route (No. 3 and 4), viz., the line from the Head of Petitcodiac by Boistown to the Restigouche and the St. Lawrence, crossing the range of New Brunswick mountains, having to surmount two summit levels of 1215 and 920 feet, causing heavy grades, and increasing materially the cost of transport passing through a totally unsettled and wilderness country; involving greater difficulties in the transport of the materials necessary for its construction, and supplying food to the laborers engaged in its formation; excluding the towns and settlements on the Gulf shore, and so preventing the development of the vast resources of the country to be derived from the fisheries; and also inflicting a serious loss to the interests of the main line, and to the intended branch from the city of St. John in New Brunswick, is notwithstanding its one great advantage of diminished distance, recommended most strongly to be rejected.

And the route No. 2, from Halifax to Truro, at the head of the Bay of Fundy, passing over the Cobequid Hills, and on or near to Amherst and Bay Verte, crossing from thence over to the Rivers Richibucto and Miramichi, above the flow of the tide so as not to interfere with the navigation: then by the valley of the North-west Miramichi, and Nipisiguit Rivers to Bathurst; then along the shore of the Bay Chaleurs to the Restigouche River; then by the valley of the Metapediaic over to or near to the River St. Lawrence; then by the route as shown in the General Plan No. 1, along the banks of the St. Lawrence to the Riviere du Loup, and from thence continued through either the second or third concessions along the river until it approaches Point Levi, is recommended as the best direction for the proposed trunk line of railway from an eastern port in Nova Scotia through New Brunswick to Quebec.

It combines in the greatest degree the following important points:—

1st. The immediate prospect of direct, as well as the greatest amount of remuneration for the expenditure to be incurred; the opening up a large field for provincial improvements for the settlement of emigrants, and by affording the opportunity in addition to internal, of external communication, by means of the Gulf of St. Lawrence and the Bay of Chaleurs, it will tend to develop in the highest degree the commerce and the fisheries of the Province of New Brunswick.

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 favorable 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 favorable 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 Model Map No. 2 (which should be stretched out on the floor to be properly viewed), and the book containing fifteen exploratory sheets of plans and sections which relate exclusively to this line.

The city of Halifax is situated on the western side of the harbor, 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 harbor 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 harbor at Halifax, will thus, after running an uninterrupted course of 635 miles be delivered of their contents into the boats if not 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 Halifax harbor.

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 merchandise this will be a most favorable 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 ten 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 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 means of obtaining the general altitudes and a knowledge of the country. No attempt was made to contour the hill. 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 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 Metapediaic valley.

The hills on both sides are high and steep, and come down either on 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 fourteen 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.

But bridging in this country is not the same formidable affair that it is in England.

The rivers are nearly always shallow, and the materials wood and stone, are close at hand.

The bridges in the United States, on the best lines, are built of wood on the truss-work principle, with stones piers and abutments.

On the Boston and Albany lines, and on many others in the New England States, the bridge generally used and approved of is known as "Howe's Patent Truss Bridge."

The cost of this kind of bridge, as furnished by the parties who have purchased the patent is as follows:

For spans of 60 feet, single track, \$11 per foot; £2 5s. 10d. sterling.  
For spans of 100 feet, single track, \$18 per foot; £3 15s. 0d. sterling.  
For spans of 140 feet, single track, \$21 per foot; £4 7s. 6d. sterling.  
For spans of 180 feet, single track, \$27 per foot, £5 12s. 6d. sterling.  
For spans of 200 feet, single track, \$39 per foot; £6 5s. 0d. sterling.

The cost for double track would be about 55 per cent. additional.

The price includes the whole of the superstructure ready for the rails, but not the piers and abutments.

The bridge over the Connecticut River at Springfield, is built on this principle; it has seven spans of 180 feet each, and the sill of the bridge is 30 feet above low water. On other lines the same kind of bridge is used, but no ironwork is permitted (the unequal expansion and contraction of this metal is objected to), and the addition of an arch is introduced.

A bridge built on this principle on the Reading Railroad, 1800 feet long, cost 10,000 dollars, equivalent to £8,330 sterling.

Soon after passing the valley of the Metapediaic, the great obstacle of the St. Lawrence chain of mountains is got over and the line may range away towards Quebec. Having, however, occasionally a river or a ravine to cross, whose passage requires consideration.

At the Trois Pistoles, the stream in the course of ages has worn out a very awkward and deep ravine. The bank on one side is generally steep and abrupt, whilst that on the opposite is low and sloping away back to a long distance, before it again reaches the height of the table land.

The most favorable site for crossing it occurs at about 11 miles from the St. Lawrence, where the two banks become nearer to each other, and more equal in height.

At this point the breadth of the stream is 100 feet at bottom, the width between the banks at top 500, and the depth is nearly 150 feet. The banks are rocky.—Though formidable it is by no means impracticable.

On the New York and Erie Railway there is a bridge whose roadway is 170 feet above the bottom of the ravine, which it crosses by one span of 275 feet. Its cost was £5,200.

From Riviere du Loup to Quebec, the

railway might but for the snow, be carried almost at a surface level.

Through the whole New Brunswick, for 234 miles, and through Lower Canada as far as Riviere du Loup, 167 miles, there will be found along the line abundance of timber and stone (including limestone) of the best quality for building purposes. There will be found also in New Brunswick more especially, abundance of gravel for the superstructure.

In Nova Scotia, the railway will have to pass with but little exception through land which has been sold or granted away to individuals. The exception will be the other way in New Brunswick. It will be seen on reference to the Model Map, that it approaches the settlements between Bay Verte and Shediac, and skirts along the Bay Chaleurs.

In Canada from the mouth of the Metapediaic to the Trois Pistoles, it runs through still ungranted land. But for the last 110 miles between Riviere du Loup, it runs through a densely settled country.

Until the detailed surveys are made, and the precise location of the line marked on the ground, it will be impossible to state precisely the exact number of miles it will pass through Crown land.

If the following estimate be taken, it will not be much out—

	Miles.
In Nova Scotia	15
New Brunswick	200
Canada	160
<b>Total</b>	<b>375</b>

The following synopsis will show approximately the quantities of ungranted land in the counties through which the line passes:

In Nova Scotia.	
	Acres.
Halifax County	720,000
Colchester	120,000
Cumberland	180,000
	1,080,000
In New Brunswick.	
Westmoreland County	\$11,000
Kent	640,000
Northumberland	1,993,000
Gloucester	704,060
Restigouche	1,109,000
	4,747,000
In Canada.	
Bonaventure	2,000,000
Rimouski	5,000,000
Kamouraska	5,000,000
L'Islet	600,000
Bellechasse	500,000
	8,600,000
<b>General Total</b>	<b>14,427,000</b>

The land for the Railway will have to be purchased in Nova Scotia for nearly its whole course, and in Canada for the 110 miles mentioned.

The latter, however, it is expected, will cost very little more than the expense which it would be necessary to incur in cleaning, getting out the stumps, and preparing the wild lands for the railroad.

No part of the line will ever be at any great distance from Crown Lands; but it will be a question of detail for this part as well as for the Nova Scotia section, whether it will be more advantageous to cut and convey them from the timber and material's required, or purchase them.

The direction of the proposed line being determined upon, the next points which present themselves for consideration are, the character of the road and method of construction.

In the first instance it is considered that one line of rails will be sufficient but in taking ground for the railway and stations, and wherever the line passes regard should be paid always to the prospect of its being made at some future time a double track. And in the anticipation of a heavy traffic, which there is a fair prospect of soon passing along it, and with a view to ultimate economy, as well as the saving of much inconvenience, it is recommended that the road (being intended for the great trunk line) should be con-