

south of this line belongs to this formation, and all to the north of it to the more favourable and highly valuable formation of the carboniferous system.

The narrowest and shortest line by which this range or belt can be crossed occurs at Halifax, and at the same time, owing to a favourable break in the chain, at the lowest point in altitude; the summit level through it not exceeding ninety feet.

The Halifax line (route No. 2) is clear of it in twenty miles. Before the same can be done by the Whitehaven and direct line (route No. 3), it must follow the coast for upwards of thirty miles, as far as Country Harbour, and then a further course across it of another thirty miles; involving in this distance *two* if not three tunnels, and must surmount a summit level of 400 feet.

2. The second great obstacle is the Bay of Fundy. This, as stated, is fatal to the to the first route. By the other routes it can be turned and avoided.

3. The third obstacle is the range of Cobequid Hills. These extend all along the north shore of the Bay of Minas and very nearly across, but not quite, to the shore at the Straits of Northumberland. In breadth the range preserves nearly an uniform width of about 10 miles. In altitude the hills average from 800 to 1000 feet. The lowest point, after a careful survey, was found to be at the Folly Lake, 600 feet above the sea. This range can be avoided and passed by the Whitehaven and direct route, but must be surmounted and crossed over by the Halifax and eastern line (route No. 2.)

The prevailing rocks are granite, porphyry, and clay slate, in the upper portions; along the shore of the Bay of Minas and on the northern side, the formation is of the red sandstone and the coal measures.

This range abounds with the most valuable minerals, of which a large mass of specular iron ore, of unequalled richness, occurs close to the line, and only requires facility of carriage for bringing coals to the spot, to be worked with profit.

A large portion of this tract still remains ungranted, and timber of excellent growth, with abundance of the finest stone for building purposes, are to be met with, and still belonging to the Crown, can be had for the expense of labour only.

4. The fourth obstacle is the broad and extensive range of highlands which occupies nearly the whole space in the centre of New Brunswick from the Miramichi River north to the Restigouche. Some of these mountains rise to an altitude exceeding 2000 feet.

The Tobique River runs through them, forming a deep valley or trough, which must be crossed by the Direct line, and increases greatly the difficulty of passing by them.

The lowest point of the ridge, overlooking the Tobique River, at which any line of railway must pass is 1216 feet above the sea. Then follows a descent to the river of 796 feet in 18 miles, and the summit level on the opposite ridge or crest between the Tobique and Restigouche waters, is 920 feet above the sea, or a rise of 500 feet above the point of crossing the Tobique water. These great summit levels which must be surmounted form a serious objection to this route.

The Eastern line by the coast avoid this chain altogether. The greatest summit level along it will not be above 368 feet, while the distance by each from the province line at Bay Verte to the Restigouche River (the northern limit of New Brunswick) will be as nearly as possible the same, there being only a difference of one mile in these two routes through this province.

The rocks composing this chain of mountains are granite, various kinds of slates, grauwacke, lime stone, sandstone, &c.

5. The fifth and last obstacle to be overcome and which cannot be avoided by any of the routes, is the mountain range running along the whole course of the River St. Lawrence in a very irregular line, but at an average distance from it of about twenty miles. It occupies with its spurs and branches a large portion of the space between the St. Lawrence and the Restigouche River. The rocks and strata composing the
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