siderable 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.

The first 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 20 miles in its narrowest part up to 50 or 60 miles in other places. Its average height may be about 500 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 surface 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 stinted 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 Stewiacke River, along the upper parts of the streams in the county of Pictou, to the Gut of Canso, all the portion lying to the south of this line belongs to this formation, and all to the north of it to the more favorable 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 90 feet.

The Halifax line (route No. 2) is clear of it in 20 miles. Before the same can be done by the Whitehaven and direct line (route No. 3), it must follow the coast for upwards of 30 miles, as far as Country Harbour, and then a further course across it of another 30 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 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 the 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 at the Tobique water. These great summit levels which must be surmounted, form a serious objection to this route.

The Eastern line, by the coast, avoids this chain altogether. The greatest summit level