THE CANADIAN IRON AND STEEL INDUSTRY.

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III.

In previous articles I have outlined the difficulties that had to be surmounted in establishing the Canadian iron and steel industry, and described the plants at present in existence.

In considering the future prospects of iron and steel manufacture in Canada, the first factors to be taken into account are the character and extent of the raw materials, iron ore, limestone and fuel, their distance from each other and the means of transportation.

For purposes of comparison it may be well to outline the conditions that exist in the United States and the United Kingdom.

The first furnaces in the Pittsburg district were started on local ores, but now almost the entire supply comes from the mines in the vicinity of Lake Superior. James M. Swank, manager of the American Iron and Steel Association, says: "From the iron ore mines of Michigan and Minnesota to the coal of Pennsylvania the distance is 1,000 miles. Connellsville coke is taken 600 miles to the blast furnaces of Chicago and 750 miles to the blast furnaces of St. Louis. The average distance over which all the domestic iron consumed in the blast furnaces of the United States is transported is not less than 400 miles, and the average distance over which the fuel that is used to smelt it is transported not less than 200 miles."

The iron ore used in the Pittsburg district has to be brought from the mines of Northern Michigan and Minnesota by rail to a Lake Superior port, and there loaded on vessels, after which it must be carried through Lake Superior, the Sault Canal, Lake Huron, Lake St. Clair, the tortuous channel of the Detroit River, and finally through Lake Erie to Cleveland and other lake ports, where it is transferred to railways, again to be transported to the furnaces. This makes four handlings of the ore in transportation from the mines to the furnaces. When the iron and steel is made at Pittsburg it has to go by rail to Philadelphia, 354 miles; to New York, 445 miles; to Boston, 675 miles; to Buffalo, 270 miles. The distance from Pittsburg to Montreal is 710 miles by rail as compared with the cheap water route of about 726 miles from the works at Sydney, C.B., to Montreal.

The only blast furnaces of the United States that have their raw materials close together are in the Southern States. Of these the most favorably located are those of the Birmingham district, in Alabama, where fuel and ore are very close together. However, the Alabama furnaces are far from the leading markets both of the United States and other countries, and the freight rates on the pig iron and steel must be added to the cost of production. The nearest seaport is Mobile, 276 miles by rail from Birmingham, the centre of the iron district. It is 349 miles by rail from Birmingham to New Orleans, 448 miles to Savannah, 476 miles to Charleston, 766 miles to Newport News, 804 miles to Baltimore, 855 miles to Philadelphia, and 794 miles to Pittsburg.

The British blast furnaces at one time used only local ores, but now very large quantities of ore are imported. For many years British iron makers have been drawing ore supplies from Spain. In recent years ore has been imported quite extensively from the Gellivara district of Sweden, which is considerably north of the Arctic circle. The ore is carried by rail across Sweden and Norway to the Norwegian harbour of Ofoten, 130 miles north of the Arctic circle, where it is shipped to the British blast furnaces. The London Economist some years ago, discussing the probability of Great Britain losing supremacy in the manufacture of iron and steel, said: "It must be remarked for how long a period the mines in this country have been worked. The output of blackband ore in Scotland has been decreasing for years past and the greater portion of the pig iron now made in that district is from foreign ores. Cleveland, which has been one of the most prolific districts in the country, has now been worked nearly fifty years, and the best ore having been taken out we may soon have to fall back on the poorer, and consequently costlier kinds. It has been known for some time past that the best hematite ores in the Bilbao district in Northern Spain are fast deteriorating, and if we have to fall back on the poorer qualities, those containing a lower percentage of iron, they will be more costly, owing to the proportionately greater cost of carriage by sea."

From the standpoint of the iron-maker, Canada may be divided into four sections, the Maritime Provinces, Quebec and Ontario, the Northwest Provinces, and British Columbia. Economically Newfoundland should be included with the Canadian Maritime Provinces, Prince Edward Island, Nova Scotia and New Brunswick, but unfortunately Canadian statesmen have never realized the importance of bringing that great province into the Confederation.

Newfoundland's resources of coal and iron ore can only be guessed at, as only a very small part of the island has been explored for minerals. Very thin seams of coal have been discovered, but as yet none have been found of sufficient thickness to be of any value. In Conception Bay, about 35 miles from St. John's, there is an island about eight miles long and about two miles wide, known as Great Bell Island, on which are the extensive ore deposits belonging to the Dominion Iron & Steel Company, of Sydney, Cape Breton, and the Nova Scotia Steel & Coal Company, of Sydney Mines, Cape Breton. As shown in my last article, there is now no doubt that hundreds of millions of tons of good ore can be obtained from this source, and it can be laid down at the works at lower cost than ore can be placed at any blast furnace in Pennsylvania, while the coal and limestone are in Cape Breton within a few miles of the furnaces. It is quite probable that valuable iron ore deposits may yet be found on the Newfoundland mainland, but this is only conjecture.

Prince Edward Island is practically without mineral resource, although coal is believed to exist at a very great depth.

Nova Scotia is particularly well endowed with coal, having extensive beds on both the eastern and western coasts of Cape Breton Island, in the central county of Pictou, and in Cumberland County at the northwest of the province. There are a number of seams of great thickness.

If all the iron ore in the province were concentrated at one point there would be enough of it to supply very extensive works. There are indications of iron in almost every part of Nova Scotia, and at one time it was commonly supposed that the province had almost inexhaustible supplies of this mineral. Investigation showed that most of the deposits were merely pockets, and