in fact the success of the Labrador project is held to depend, to a great extent, upon construction of the Waterway. Until the Waterway is completed it may be possible to ship by rail to the eastern part of this inland area from the ports of Montreal, Que., and Baltimore, U.S.A.

On the Atlantic coast the Labrador ores should find a small market at Sydney, N.S., for admixture with the siliceous ore of Wabana, Newfoundland. Such a mixture holds promise of appreciable reduction in the cost of steel at Sydney.

There are grounds for thinking that the United Kingdom and other European countries will be interested in Labrador ore. A large tonnage of high-grade ore is imported into the United Kingdom each year to mix with British ores which are mainly low in grade. Labrador ores will be suitable for this purpose.

TITANIUM—THE BASIS OF A NEW INDUSTRY IN QUEBEC*

Until recent years titanium has been little known and still less used, though it is one of the more abundant elements of the earth's crust. Now it is coming into its own. Titanium dioxide, known in the trade as 'titanium white', is already firmly established as one of the leading pigments. It is used as a pigment for paints, to make paper opaque, to make rubber white, in ceramic glazes, for printing inks, in linoleum, in cosmetics, to de-lustre artificial silk, and for a variety of other purposes.

Titanium-bearing steel has recently come into use as a base for white glazes. Titanium carbide is used as the hard ingredient of the 'carbide' high-speed cutting steels, usually mixed with tungsten carbide. Titanium dioxide, made artificially or in the natural form of rutile, is commonly used as a coating for welding rods. The secret of its wide field of use in the pigment field is its inertness to chemical change which prevents discolouration, and its great covering power which is a result of its high refractive index.

While titanium white is already an important industrial product there is at present no plant in Canada making this refined dioxide of titanium. The value of annual imports into Canada of titanium white and products containing it, which come mainly from the United States, amounts to several million dollars.

Canada has, fortunately, an ample supply of ilmenite, the common titanium ore, which is composed of titanium dioxide (30 to 40 p.c.) combined with oxide of iron. The two oxides cannot be separated effectively by any mechanical means but can be recovered separately by a new metallurgical process to be established in Quebec. Ilmenite is found in three Canadian localities, all in Quebec. At Ivry, 65 miles northwest of Montreal, there are some comparatively small deposits that were mined many years ago. In St. Urbain parish, on the St. Lawrence 60 miles below Quebec, there are larger deposits from which a small annual tonnage is shipped to the United States. A very large deposit discovered in 1946 at Allard Lake (see map p. 508), 22 miles north of Havre St. Pierre and 420 miles below Quebec, is the basis of the new industry now being set up at Sorel, Que.

The Allard Lake Deposit.—The Allard Lake deposit, discovered by the prospectors of Kennco Explorations (Canada) Limited, a subsidiary of Kennecott Copper Corporation, is probably the largest single deposit of the mineral known in the world to-day. Allard Lake (Quebec) Mines, Limited, another subsidiary of Kennecott Copper Corporation has been incorporated to operate the property.

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