

MINING IN NEWFOUNDLAND

By J. W. McGrath.

Newfoundland wherever known is famed for her fisheries. Few have ever regarded her as a mining country, and yet, strange as it may seem, two of the richest copper and iron mines in the world have been worked for years there.

No one ever made scientific explorations to ascertain what minerals may exist in Newfoundland. That minerals were discovered at all was by mere accident. It was by mere chance that the copper deposits at Tilt Cove, and the iron deposits at Wabana were discovered.

Several years ago, in 1857 to be exact, a prospector for minerals, Mr. Smith Mackay, was engaged searching for mineral ores around the Newfoundland coast. The route of his travel led him to a village named Tilt Cove, where five or six families supported themselves by fishing. During his stay over the night at one of these fishermen's huts Mr. Mackay was surprised to find a large yellow colored rock, which rested as an ornament on the mantleshelf. On enquiry Mr. Mackay was told that the stone was taken from a large yellow cliff near by. The cliff when examined was recognized to be a great deposit of copper ore. On quantitative analysis being made the samples averaged about twelve per cent. copper alone. A mine was opened up, and the annual yield ever since has averaged fifty thousand tons, valued at approximately one quarter of a million dollars. In the contiguous village of Betts Cove, another deposit was later discovered, and with intervals has been worked ever since.

Over the whole district where these two mines are located, copper ores have been found in almost every village.

All around the coast and on the smaller islands around indications of copper may be observed, even extending to the coast. The writer has copper ore taken two years ago on Southern Labrador, which when analyzed yielded 28 per cent copper. The Newfoundland Government recently enacted a measure allowing bounties on copper ore smelted of $3\frac{1}{2}$ per cent. on a sum not to exceed \$50,000 for any one company owning annually for twenty years. All these lodes of copper ore are on tidal waters; what the interior of the country will reveal in mineral values is yet a closed book.

The other great mine of Newfoundland is the iron mine of Wabana. Here rests one of the greatest known deposits of iron ore in the world. The discovery of this ore was also merely accidental and happened in this way: The large and heavy red stones found along the beaches of the little village of Wabana had always provided very suitable ballast for fishing-craft. On one occasion they were displaced for goods and left on one of the piers at St. John's; there they remained till a chance analyst disembarking from a steamer espied the stones, and judged them to be metalliferous.

Wabana is one of three islands occupying the centre of Conception bay and lies a little over five miles from the mainland, and here more than a million tons of hematite iron is yearly mined.

The ore exists in large bands, of which there are twelve, ranging in thickness from one to ten feet. First operations were begun here in 1895 by the Nova Scotia Steel Company, which worked alone for four years. In 1899 this company sold a portion of its

claims, representing 28,000,000 tons of ore, to the Dominion Steel Company, for one million dollars.

Every year since both these companies have vigorously operated, five hundred thousand tons being annually mined by each company. Up-to-date apparatus has recently been installed for loading the ore boats, and one with a carrying capacity of fourteen thousand tons is easily loaded in a day.

The ore mined by the Dominion Iron and Steel Company is sent to its smelters at Sydney, Cape Breton. The output from the Nova Scotia mine always found a ready market in Germany, and undoubtedly much found its way to the great Krupp works. A large portion of this ore is submarine, and ore has been already mined for a distance of three miles out under the Atlantic.

Professor Howley has computed that the grand total of iron ore in all the bands now known to exist at Wabana, reaches the enormous amount of 3,635,543,360 tons. He says: "The amount that may be recoverable will largely depend upon the conditions met with, the engineering skill to cope with any difficulties that may present themselves, and the adequacy of the machinery employed to keep the mine dry and fully ventilated."

Mr. Moxham, a famous American iron and steel expert, declared that "at the Wabana mines the actual price of mining and putting the ore on cars is less than the usual contractor's price for the removal of earth, in fact the ore is capable of being mined as cheap as dirt."

At the present time these two companies employ a staff of about fourteen hundred men.

It is a matter of some significance that the only two mines being worked in Newfoundland, two of the largest of their kind in the world, came into operation merely by chance.

Reports have been current at Spokane, Washington, to the effect that some prominent mine-owners operating at Burke, Coeur d'Alene district, Idaho, have secured control of the smelting works at Northport, Washington, and that they will establish there a lead-smelting industry. The Northport smelter was built in the late nineties by Spokane men then largely interested in the Le Roi gold-copper mine at Rossland, B.C., chiefly to treat Le Roi ore. The British company that afterwards acquired the Le Roi mine also eventually purchased the smelting works, and until the suspension of mining by the Le Roi Company operated the works, smelting both Le Roi and custom ores. The Coeur d'Alene mine owners, now stated to have decided to commence smelting lead ores at Northport, are reported to have failed to agree upon a smelting rate satisfactory to them, with the large smelting company that has heretofore smelted their ore, so are arranging to smelt their mine product at reduction works under their own control.

Shipment of zinc ore and concentrates from mines in the Slocan district of British Columbia during the month of June are stated by the Nelson Daily News to have totalled 451 tons, as compared with 573 tons in the corresponding month of 1914. The chief shippers this June were the Surprise and Hewitt mines, while in June of last year the Standard mine sent out 541 tons, but not any during the corresponding month of this year. However, the Standard concentrator is now being operated, so shipment of zinc as well as lead concentrate will be resumed as soon as a suitable market shall be found for the former.