

iron and coal deposits of the Dominion sent to the leading iron men of Great Britain and the United States there can be no doubt that capital would be brought into the country to develop our iron resources, and a great industry would be established on a paying basis. The first step should be to advertise for tenders for Canadian made rails for the extension of the Inter-colonial railway through Cape Breton. If it were understood that, in future, not only Government railways, but all railways receiving public aid, would be obliged to secure their construction materials in Canada, there would be no difficulty in securing tenders. The construction of the railway through Cape Breton would perhaps be delayed for a short time by such an arrangement, but no part of the Dominion has more to gain from the adoption of such a policy than the island of Cape Breton. The *Island Reporter* recently claimed that the minerals of Cape Breton Island were worth more to the Dominion than all the farming lands of the great North-West, and certain it is that noted geologists have said that there is more coal and iron to the square inch in that end of Nova Scotia than in any other known quarter of the world. The island would certainly be benefited by the encouragement of the iron industry. By the immediate adoption of such a policy, the Government could prepare the way for a revision of the tariff, giving adequate protection to every branch of the iron and steel industry."

A statement which evidently emanated from the associated press agent at New Glasgow, Nova Scotia, recently gained currency to the effect that a very bitter feeling had been created by the action of the Manager of the Dominion Coal Mines at Westville in refusing to permit the men presently working on full time there to share their work with those of their fellows who had been thrown out of employment at the close of the shipping season. On enquiry it appears that the company made every effort to retain as many of their hands as possible and that at present there are more employees than their limited winter operations demand. This will be the better understood when it is learnt that the decrease of men is only 35 per cent., while the actual work done shows a falling off of 60 per cent. The criticisms which the action of the manager has involved seem to be uncalled for.

### Mineral Deposits.

#### BETWEEN THE GREAT LAKES AND THE HUDSON BAY.

In an article to an esteemed contemporary on the metallic ores to be found between the great lakes and the Hudson Bay, Dr. Robert Bell of our Geological Survey writes: "Iron has been found in several places not far from Algoma Mills, and again at Desert Lake, north of the Bruce mines. A deposit of iron was reported on an island in Lake Nipissing by Mr. Murray, of the Geological Survey, nearly thirty years ago. Still farther north, toward James's Bay, is the largest iron deposit yet known in that whole country, and situated at the foot of the Grand

Rapid of the Mattagami River. It was first pointed out by me in 1875. Proceeding toward Lake Superior, very large quantities of iron ore are found, not far north of Batchawana Bay. I also found indications of large deposits of iron near the Montreal and Perch rivers. A deposit of hematite was discovered by one of my assistants on the Slate islands, in 1870, and some low-grade magnetite has long been known to occur at the mouth of the Little Pic River. To the north of this region, a perfect mountain of iron has been discovered by that fortunate prospector, Mr. Peter McKeller, of Fort William. It is back in the woods, in the unsurveyed region, about 200 miles northeast of Port Arthur. In my reports of 1869 and 1870, I mentioned certain discoveries of iron near Long Lake, on the south side of Lake Nipigon, on the Sturgeon River, some of which have since been found to be important. A comparatively valuable deposit of magnetite, in workable quantities, occurs near Silver Lake, not far from the head of Thunder Bay. Quite lately, a rich deposit of magnetite has been found on the celebrated 3 A silver location, Thunder Bay. Still farther west, during the past summer, two important discoveries have been made, one of them on the Atik-Okan (Reindeer Antler), just north of the south bend of the Seine River, about 100 miles northwest of Thunder Bay, and thirty miles south of the Canadian Pacific Railroad track. The ore is of first-rate quality, and described as occurring in immense quantities, and it is probable that it will be extensively worked before long.

The other large deposit occurs about 100 miles farther west, and is also south of the Canadian Pacific Railroad, at a considerable distance to the eastward of the Lake of the Woods. There is a rich deposit of hematite on Big Island in Lake Winnipeg. Between Lake Winnipeg and York Factory, on Hudson's Bay, at the narrows of Kneec Lake, there is a large quantity of magnetite. I discovered one deposit of rich magnetite, in the region I was exploring this summer, but am unable to give particulars until I have made my official report.

Copper is known to exist in more or less promising quantities at numerous places on the north shore of Lake Huron. One of these is the Wallace mine, near Killarney, which was worked at one time for both copper and nickel. Then passing westward, the celebrated Bruce mines are situated about 40 miles east Sault Ste. Marie. Work was begun here in 1846 and continued until 1876. In the palmiest days of its enterprise, large numbers of Cornish miners were employed, and quite a town was built. In 1876, the mines closed, and it being the year of the Philadelphia exhibition, I collected statistics that showed the output during the thirty years to have amounted to \$3,300,000. Copper ore has been found in notable quantities at several points inland from the Bruce mines and around Echo Lake.

I have not yet examined the Sudbury mines personally, but at the time ore was discovered there, some three or four years ago, I had samples of all the different kinds sent to me. The first ore prepared for market amounted to about 3,000 tons, which, however, was of a lower grade than the producers supposed, and I was informed that, on the advice of one of their New York correspondents, they cobbed it over and reduced the 3,000 tons to 1,000, which was found to contain about 7 per cent. of metal. In my explorations in the extensive region between Lake Huron and Hudson's Bay, I have found many indications of copper, which have been reported from time to time. Among the earliest copper mining enterprises in Canada, were those of the

Quebec and British American mining companies. The works of the former were carried on at Namanise (Little Sturgeon), in the Lake Superior region. In later years the Lake Superior Native Copper Company carried on operations in the same neighborhood. Recently, this company has been reorganized as the Lake Superior Copper Company, but little is done at present. On Michipicoten Island, in the northeast angle of Lake Superior, a company, called the Michipicoten Native Copper Company, was organized a few years ago. After working a short time, this company was also reorganized, and last winter had a small force of men at work. At both the above localities, copper occurs in the native state. About forty years ago, numerous locations were taken up, principally in the names of gentlemen residing in Montreal, but which were held by the Montreal Mining Company. These were afterward sold to what was called the Silver Islet Mining Company, but more correctly the Ontario Mineral Lands Company. One of the locations thus taken up was the celebrated Wood's location, in which Silver Islet is situated. Some locations were worked near Nipigon Bay and southwest of Thunder Bay. I have found indications of copper in many places northwest of Lake Superior.

The principal deposits of lead in the district under consideration are at the Victoria mine, near Garden River, a short distance east of Sault Ste. Marie. This mine was principally owned in Quebec City. A short distance to the north of that, another lead mine, the Cascade, has also been worked to some extent. On the northwest side of Black Bay, Lake Superior, a rich vein of lead was worked by the Enterprise Mining Company. Other large deposits of this ore are known to exist in the same neighborhood, but, owing to the very low price of lead at the present time, there is not much inducement to open them. Around Thunder Bay also, a number of lead-bearing veins have been discovered. Lead occurs in several localities on the Lake of the Woods.

Silver is also well represented. It was first found many years ago on Lake Superior, notably on Michipicoten Island, and Prince's Location, not far from Port Arthur. But the first discovery of silver to attract public attention in late years was that afterwards known as the Thunder Bay mine, situated about three miles northeast of Port Arthur. Here, native silver was found in large quantities, in quartz at the outcrop of the vein. The mine promised to be so rich that immediate steps were taken to prevent its being plundered, owing to the silver being so easily obtainable on the surface. Attempts were made to open the mine, but from various causes, prominent among which was bad management, it never made a success, and has been closed for some years. A short distance southwest of Thunder Bay, another mine was discovered and worked under the name of the Shuniah mine, afterward changed to the Duncan mine. The celebrated Silver Islet mine was discovered in 1868, while Wood's Location was being surveyed by Mr. Thomas Macfarlane, now chief analyst in the Inland Revenue Department here. One of the first blasts at the surface of the vein threw out silver ore to the amount of \$1,500. The mine was worked to the depth of 1,200 feet, and \$2,500,000 worth of silver is said to have been produced. The silver mines at present attracting attention are situated inland or in two groups at twenty-five and thirty-five miles southwest of Port Arthur, in the White Fish River region. The mines in which most work has been done are the Rabbit Mountain, Beaver, Porcupine, and East and West End Silver