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THE USE WE MAKE OF OUR MINERAL RESOURCES.

Although it is well known that the mineral resources of Canada are both varied and extensive yet they do not figure in the annual returns of the productive interests of the province, as growing in the ratio we should expect from the increasing productive power of the country. The value of the produce of the mine for the years 1859, 1860 and 1861 was as follows:—

1859.	1860.	1861.
\$468,512	\$558,306	\$454,963

The year 1861 was for all interests except those of agriculture an unproductive year.

The produce of the Fisheries fell from \$832,646 in 1860 to \$663,700 in 1861; manufactures fell from a value of \$502,037 in 1860 to \$289,130 in 1861, but the products of the farm rose on account of the splendid harvest of last year, from \$14,259,225 in 1860 to no less than \$18,244,631 in 1861. These numbers refer only to the value of exports, and although they afford an approximate indication of the condition of the several industries of the country, there is good reason to suppose that the consumption in Canada of home manufactures is considerably on the increase, and consequently the utilization of the mineral resources of the country may be rapidly augmenting at home although our exports exhibit a decline. No doubt the present condition of the United States afford some explanation of this state of things. The Descriptive Catalogue of the Economic Minerals of Canada by Sir W. E. Logan, F. R. S., furnishes us with the best data at command for obtaining information respecting the present products of the mine, and we avail ourselves of this admirable guide in the following examination:—

First, then with respect to Iron, as one of the oldest mineral manufactures in the country. The St. Maurice forges were established so far back as 1737, at a time when Lower Canada did not contain more than 60,000 inhabitants, and Upper Canada was a complete wilderness from the Ottawa to the St. Clair.⁽¹⁾

The St. Maurice forges were in operation until 1858. They were supplied with bog iron ore from

the seigniory of St. Maurice, and the smelting company employed between 250 to 300 persons in 1831. The smelting operations were performed with charcoal, but in 1858 the establishment of the Radnor forges in the seigniory of Cap de la Madeline, on a tributary of the Champlain River, where ore and wood are still abundant, threw the St. Maurice forges out of blast. The chief manufacture of the company consists of cast iron car wheels, which cost at the forges 2½ cents a lb. A rolling mill has recently been erected at the establishment for the rolling of scythe iron at 3½ cents a lb., and of nail rod iron at 5½ cents a lb. Limestone for a flux for smelting the ore is obtained near the works, and sandstone for furnace hearths at the Gres Rapids, on the St. Maurice. It belongs to the Potsdam formation, largely developed in Lower Canada. The ore occurs close to the surface in a multitude of patches, distributed over the country, and is brought to the furnaces partly by the workmen of the company and partly by farmers on whose land it occurs. It is washed at the smelting works and contains between 40 and 50 per cent. of iron. The quantity used annually is between 4,000 and 5,000 tons, producing about 2,000 tons of pig iron, and the number of workmen employed varies from 200 to 400. Charcoal burners form an important part of the companies' employées.

The furnaces at Marmora, in the rear of Belleville, Upper Canada, were in operation many years ago, and iron of superior quality was manufactured from a succession of single beds of the black magnetic oxide of iron, one of them one hundred feet thick. The ore contains between 60 and 70 per cent. of iron. Different companies have from time to time renewed smelting operations for short periods, but the distance from a shipping port has proved an obstacle to success.

About 4,000 tons of magnetic ore were exported in 1859 from a bed 200 feet thick, situated on Mud Lake, a part of the Rideau Canal. It is supplied at Kingston for 2½ dollars a ton, whence it is taken to the smelting furnaces at Pittsburg, in the State of Pennsylvania. It is found more profitable to take the ore to the coal than the coal to the ore. In 1858 a company of smelters at Pittsburg opened a mine in the township of Hull, on the Ottawa, and up to 1858 they had exported about 8,000 tons to Pittsburg, but since the opening of the rich bed on Mud Lake they now obtain their supply from the latter. A bed of ore was formerly worked in the township of Madoc and smelted close to the deposit; also, one has been recently opened in the township of South Sherbrooke, and conveyed to the Rideau Canal for

(1) The population of Lower Canada was 26,904 in 1714 and 65,000 in 1759, showing an increase in 45 years of 38,096 souls.