

"market. * * * * We have several places that we can set to work at a few hours' notice should the price of copper rise."

"There is a population of about 1,500, supported by the mines."

"We employ 5 steam engines, representing 300 horse-power."

Lead.—Numerous veins of galena traverse the country between the Ottawa and the St. Lawrence, maintaining a parallelism to each other, and also to those in the State of New York which have yielded so largely, and which are in the same geological formations as the Canadian veins.

In Ramsay, County of Lanark, a trial was made in 1858 on a lode from 2½ to 5 feet wide. About 26 tons of galena were obtained, yielding 81 per cent. of lead. Other attempts were made subsequently, and, we believe, about as much more ore obtained; but operations were abandoned, although with proper skill and capital the mine might yield good returns.

Lead also exists at numerous points on the North Shore of Lake Superior.

Concerning the Frontenac Lead Mine, near Kingston, discovered last year, the *American Journal of Mining* remarks;—

"Probably the most important discovery in the way of new mines which has been made in Ontario during the year is the recent one of an extensive vein of galena in the township of Loughborough, County Frontenac. The vein is described as being 12 feet wide, and of great length, in the same course as those of Rossic on the opposite side of the St. Lawrence. An association, called the Frontenac Lead Mining Company, has been formed to work it, and Cornishmen have been procured. One of the shafts is down 40 feet. The vein is 12 feet wide at the bottom, and expanding regularly. An adit has been driven from the side of the hill along the vein a distance of 150 feet. The ore is thickly disseminated through the whole mass."

From the above-mentioned shaft and level, ore to the estimated value of \$10,000 has been obtained. Owing to the width of the lode and the softness of the gangue (calc-spar) the working is easy. It is intended to smelt the ore on the property.

Plumbago.—To the south of the Ottawa plumbago of good quality exists, disseminated very generally through the Laurentian limestones in the rear of Kingston; and though no plumbago mine is yet worked in Ontario, it is probable that these limestones, which are so widely distributed through the more northerly parts of the Province, will be found on exploration to contain this mineral in abundance, as is the case in Quebec.

Iron.—Although surprisingly little has been made of the many valuable iron beds of Ontario, they must shortly become the basis of a most important branch of industry.

The most important iron mines of Ontario are those at Marmora and in the neighbourhood. They are vast beds of magnetite, the ore which produces the best brands of Swedish and Russian iron. Many years ago a blast furnace was erected, and various companies have from time to time smelted the ore, producing excellent iron, but failing in point of profit from want of communication. The ore is, we believe, at present shipped to the States.

There is also a bed of magnetite about 200 feet thick on an island in Mud Lake, in the Rideau Canal, known as Chaffey's Mine, from which large quantities of ore have been shipped to the States.

During the summer of 1865 an American company commenced operations on an extensive deposit of magnetite near Bajewahung, Lake Superior. The bed is five miles from the shore, and a tramway had to be made over very bad ground. The mine has lately been abandoned.

The Peter Bell Mining Company are working a bed of good red hematite at Arnprior.

Petroleum.—Petroleum may be considered at present the most important mineral product of the Dominion, the capital invested in raising it being from \$3,000,000 to \$5,000,000, and the quantity of crude oil produced annually of a value probably not under \$1,000,000.

The first wells were sunk at Oil Springs, County of Lambton, in 1862, and up to March, 1863, 4,138,520 gallons were obtained—(*Geology of Canada*). The great flowing wells were struck here, one of which yielded, at first, 2,000 barrels in 24 hours. In 1865-66 this district was abandoned in favour of Bothwell, County Kent, where about 200 wells were put down, and some 40,000 barrels obtained. These wells have not been worked since the Fall of 1866. In Petrolea the development commenced in the Fall of 1865, and in that year about 5,000 barrels were pumped. In 1866, up to November, about 50,000 barrels were sold at \$4, when the discovery of the King Flowing Well brought the price down to \$1. During 1865-66 about 250 wells were put down at Petrolea, and within a space of six miles round, all of which are now abandoned. In 1867 about 130 wells were sunk in the King Well District, with great success; about 120,000 barrels were shipped from Petrolea, and some 200,000 were tanked. This year (1868) the product has been some 4,000 barrels weekly.

Up to the 31st December, 1867, the capacity of the underground tanks at Petrolea was 125,000 barrels. At present (August, 1868) the stock of crude held in tank and by refiners may be estimated at 250,000 barrels, or over two year's supply for home consumption, Canada at present requiring about 120,000 barrels yearly. Only fifteen wells are working at present, and no new ones going down, owing to want of demand. The temporary check to the trade, however, arising from want of a foreign market, seems to be at an end, the low price of crude at the wells (30 to 50 cents, the normal price being about \$4) having begun to attract American and home capital.

There are eighteen or twenty refineries in Canada, using, when in full work, about 4,000 barrels weekly, and representing some \$200,000 of capital.

For the above particulars we are indebted to the kindness of Stephen Blackburn, Esq., of the *London Daily Free Press*, and Secretary to the Petrolea Producers' Association.

Though we have failed to ascertain the exact amount of petroleum raised in Canada since the commencement of operations, the above sketch will convey some idea of the extent of the supply, when we remember that only a small portion of the oil-bearing formation has been thoroughly tested. This rock (Corniferous Limestone) extends over a large portion of the Western Peninsula; and though one part after another may be exhausted and abandoned, and the exhaustion of the whole region is but a matter of time, it will probably be long before oil-boring has travelled over the whole productive district.

Salt.—In boring for petroleum at Goderich, in 1866, a bed of salt was found at a depth of 1,000 feet. The thickness of the bed is about 30 feet.

The manufacture of salt was at once commenced, and has progressed rapidly. In November, 1866, 4½ barrels were made daily. In August, 1867, the quantity made was 90 barrels per day. In the beginning of August, 1868, the produce of the works was 190 barrels daily, and has since been increased to 290 barrels.

Over £70,000 have been expended in salt works. Thirteen wells have been sunk, large buildings erected, and about 200 kettles are, we believe, now in operation.