

it. Before winning the above mentioned honors in Paris, it had already carried off the highest gold medal of the Arts Association at Ottawa in 1875, and the highest medal and diploma at the Centennial in 1876.

MICA AND ASBESTOS.

Available deposits of these minerals have been found along with the iron and apatite of Templeton. A ton of asbestos has been shipped to Philadelphia by way of experiment. price \$125. There is also a mica mine worked near Perth. The mica, cut into plates of various sizes, is sold at \$1 per pound.

APATITE.

The existence of workable deposits of apatite in the country has been known for many years, and the veins of Bedford have long been laid under contribution by the chemical works at Brockville. But it is only recently that attention has been directed to the seemingly exhaustless beds of the townships of Hull, Templeton, Buckingham and thence to the northward.

The demand all the world over for fertilizers, and the failure of the Peruvian guano beds, cause an ever increasing demand for superphosphate of lime. A single manufacturer in London, Eng., requires 1,000 tons per week of the mineral phosphate. A factory near Hamburg uses 30,000 to 40,000 tons a year; and its agents have already made purchases in Montreal.

The mineral's value depends on the percentage of phosphate of lime contained; 70 per cent. Canadian brings in London \$21.00 per ton; 80 per cent. \$25.60 and 90 per cent., most wanted, \$30.60.

"At this writing (*Monetary Times*, May 17th, 1878) there are free buyers in Montreal at \$18.00 to \$19.00 for 80 per cent. cash; a keen competition existing between English and German manufacturers. The same time last year the price was \$13.50 to \$14.00."

To render the native phosphate of value as a fertilizer, it is necessary to convert it into superphosphate, which is done by depriving it of one equivalent of its lime through the agency of sulphuric acid. The manufacture, therefore, requires a cheap supply of that chemical; and the neighbourhood of beds of iron pyrites is a great desideratum, and these are known to exist abundantly in the Laurentian rocks which contain the phosphate.

It would seem at present hard to draw too hopeful a picture of the prospects of the new industry, of which Canada, from her vast development of Laurentian rocks, would appear to have almost a monopoly. A boundless supply of the mineral at home, and an equally boundless demand for it abroad, secure the trade against the hazard of failure of raw material, and the danger of stagnation from over-stocking, and assure its stability and success.

Hitherto, although a great deal of prospecting has been done, and with great success, actual development has not advanced beyond a comparatively incipient stage. Up to 1875 the exports did not reach 2,000 tons per annum, - in 1877 some 6,000 tons. The shipments of 1878 will

probably reach 10,000 tons and may be doubled next year. Judging by the progress of the South Carolina Coprolite beds (low grade phosphate) the development of the Canadian industry will be rapid; the former trade having grown from small beginnings in 1869 to 199,066 tons in 1877-78.

The Brockville Chemical and Superphosphate Works obtained a silver medal at the Centennial. Their price for the prepared superphosphate is \$35. per ton, and from 300 to 500 pounds per acre is sufficient for an ordinary crop. At this rate it does not cost much more than *hauling and spreading* barnyard manure at a busy time of the year, and experience has already proved its value to the Canadian farmer.

Besides superphosphate, the Brockville Works make sulphuric, nitric and muriatic acids, sulphate of soda, nitrate of soda, sulphate of ammonia, &c.

It is to be hoped that before long Canada will take the wind out of the sails of the English manufacturers of superphosphate in the markets of the United States, the West Indies and South America, if not in Europe itself. The cheapness of the raw material in Canada should counterbalance the distance of the market in the latter case.

"Looking into commercial affairs generally," says the *Monetary Times*, "cities overcrowded, business dull, manufactories languishing, all the old highways over-filled, and indeed everything over-done, it is gratifying to point to this new cheery prospect, which promises to acquire, and that before long, really large proportions, and so be capable of employing a reasonable share of the surplus means, minds and hands."

IRON.

Although the manufacture of iron cannot apparently be carried on profitably in Ontario or Quebec, a market for the fine ores of those provinces may be found in the furnaces of the United States. This trade has, to some extent, existed for some time, and is capable of extension, should good times return to the Union iron masters. The North Hastings Railway will shortly reach the Madoc Iron district, and by its aid the ore can be laid down at Sodus Bay, the terminus of the lines running into the coal fields of Pennsylvania, at \$3.46 per ton. Marmora and Madoc being the sources of these high grade ores nearest to the Pennsylvania markets, would seem to secure this branch of the trade to Ontario.—(*Vide Monetary Times*.)

SALT.

In our last issue we gave some account of the great salt-beds of the counties of Huron and Bruce, having an aggregate thickness of 126 feet of pure rock salt, with the dolomites of the Guelph formation, underlying them, still untried.

Since then Mr. Attil has been engaged in the tremendous task of sinking a shaft 12 feet in diameter to these beds, which are at a depth of from 1,000 to 1,400 feet, for the purpose of mining the salt, and bringing it up in masses, which process is estimated to cost from one-third to one-half that of the present one of evapora-