

## MINES AND MINING REGULATIONS.

## CANADA.

Few countries present more frequent indications of mineral riches than Canada, but its mines have not yet had sufficient capital applied to them to make them productive. The Mining Regulations of the Province are distinct as it regards the precious and the inferior metals.

Mining for the PRECIOUS METALS is regulated by the Act 27 and 28 Vic., cap. 9, amended by 29 Vic. cap. 9, (1865.)

Under these laws two gold mining divisions have been erected:—the Chaudiere division, (south of Quebec), R. Pope, Inspector; and the St. Francis division, (near Sherbrooke), J. K. Gilman, Inspector.

No person is allowed to mine without a licence, either a "Crown lands gold licence" for unsold Crown lands, fee \$2 per month, or a "private lands gold licence" for private lands, \$1 per month, the miner first obtaining the consent of the proprietor.

Under the Crown lands licence claims may be worked as follows:—*Alluvial mines.* On a river or large creek, 20 feet front by 50 from the water's edge. On a small do., 40 by 50 feet, from centre of stream. In a gully, 60 feet along the same and from hill to hill. On surface or hill side, 60 feet square. In case of tunnelling, the Inspector may grant a larger claim, or determine the size and place of claims in beds of rivers. QUARTZ MINES.—To each miner 100 feet along lead, by 100 on each side. For companies, 25 feet additional along lead for every additional miner, but not to exceed 500 feet altogether. QUARTZ CRUSHING MACHINES must be licensed; must keep books and furnish returns; licence fee \$5.00 per month. These fees also apply to the De Lery Seignior, —the Royalty payable under the De Lery patent having been lately commuted to this effect.

The principal regulations are, that all licensees shall make returns of their proceedings; and that the discoverer of a gold field is entitled to a free licence for one year.

The operations in gold mining have hitherto been principally carried on in the Chaudiere division, in alluvial diggings on the river Gilbert, in the Seignior of Rigaud, Vaudreuil (De Lery). About 50 men were at work there at the date of the last report, —June, 1866. Quartz mining is, however, now beginning to attract attention, and one or two companies are about erecting crushing mills. The gold extracted is estimated to have been

In the Summer of 1863,	\$40,000, or \$50,000
In the month of June, 1864,.....	5,000
Year ending June, 1865,	\$140,000 to ..... 150,000

Since 1865 no statistics have been published, but it is thought that not more than \$100,000 has been taken out, the great excitement respecting quartz mines having caused a lull in alluvial operations.

Very little has been done in the St. Francis district beyond preparatory operations.

The gold mining branch of the Crown Lands Department is under the management of Mr. F. T. Judah, Ottawa.

*Inferior Metals.*—Each mining tract in unsurveyed territory is to be of blocks of 200 or 400 acres. They must be surveyed by a Provincial Land Surveyor, and paid for at the value of \$1 per acre. In surveyed townships mineral lots are to be sold for \$1 per acre when the lands are held at less than that sum, and for the same price as other lands in townships where they are held for more. Payment must, however, be made in cash.

*Progress of Mining in Canada.*—We are indebted to Mr. Charles Robb, Mining Engineer and Surveyor, for the following statement of the progress of mining in Canada:—With the exception of coal, tin, and a few of the less important metals, Canada has been found to produce most of the useful minerals; while with regard to many of them, it may be safely asserted that the Province contains within itself amply sufficient for domestic consumption, as well as for extensive foreign commerce.

That coal does not occur in any of the settled or explored parts of the country, or probably in any part, may be regarded as a fully established fact; but Canada is favourably situated in its proximity at all points to the carboniferous regions of the United States and of Nova Scotia, and in the facility of conveyance afforded by its vast lakes, rivers and canals; and, moreover, it contains within itself such ample supplies of wood, peat, and mineral oil, as will go far to compensate for the want of coal.

In the so-called Laurentian formation, occupying a vast tract of country on the North side of the St. Lawrence, *Iron ores* occur in such quantity as may be considered practically inexhaustible. The ore consists of the magnetic and specular; the former yielding from 60 to 70 per cent. of pure iron. It is the same species, and occurs in the same geological formation as the ores from Sweden and Norway, from which the celebrated Swedish iron is manufactured. The specular oxide, which is also abundant in Canada, is the kind which is so extensively mined at Marquette, on Lake Superior, and produces, as is well known, a most valuable description of iron.

Most of the localities where important discoveries of these iron ores have been made in Canada are fortunately situated on or near the banks of navigable rivers and canals, and the ore generally occurs immediately at the surface. Mining and smelting operations have been carried on pretty extensively at Marmora, in Hastings County; and, at the present time, a powerful joint stock company is engaged in establishing similar works at Hull, near Ottawa City, with the most flattering prospects of success. From other localities, much of the ore has for many years been exported into the United States at remunerative prices; from ten mines, up to the year 1860, 14,000 tons of ore had been thus disposed of. At Moisie River, on the North shore of the Gulf of St. Lawrence, a company is now engaged in working, on a large scale, alluvial deposits of remarkably rich magnetic iron sand, from which the finest steel can be manufactured, by a very simple and inexpensive process.

*Copper*, undoubtedly, constitutes the most important of the mineral treasures of Canada, and is destined to occupy a very important rank among its resources. The ores of copper are distributed over vast tracts of country in the north shores of Lakes Superior and Huron, in Central Canada, and in the Eastern Townships of Lower Canada; but few of the mines have as yet attained the point of profitable productiveness, and no complete statistics can at present be obtained. We subjoin, however, a few notes which may be relied on with regard to the results at some of the most important of these mines.

At the West Canada Company's mines on Lake Huron, the average production for the last five years, has been about 3000 tons of 20 per cent ore, with a force of from 250 to 300 hands; the whole of this ore, which may be valued at \$250,000 annually, is shipped to England, and this company's operations are reputed to be highly remunerative. At many points on the north, or Canadian shores of Lake Superior, rich lodes of copper and lead (some of the latter being highly argentiferous), have been discovered; but are for the most part as yet undeveloped.