

of the pyrites. The iron sulphurets of the district are also for the most part highly auriferous. I myself have assayed therefrom \$40 to \$17.60 per ton. When a cheap and expeditious method of working them shall have been introduced, I have no doubt that they will afford a large accession to the gold returns and the profit generally of our mines; especially if the process can be made available for the utilization of the sulphur they contain, by conversion into copperas or sulphuric acid.

**MIXING IN 1867.**—Silver ore and native silver have been discovered in promising quantities at Thunder Bay in Lake Superior, and two companies have been formed for the purpose of working the mines. One of these, the Thunder Bay Company, has its head quarters in Montreal. The other, the Shuniah (Ojilway for Silver or Money), is an American Company. It is said that similar indications are found on one of the locations of the old Montreal Mining Company.

In 1866, Iron mining was carried on at Gros Cap in Michipicatan Bay, but it has not been continued this year. At Batchawana Bay, the Peter Bay Company, after teaming a considerable quantity of ore along the track which had been graded for a railway, to their wharf in the Bay, abandoned their works entirely, removing everything except the railway iron which is piled up near the shore, and have commenced operations on a bed of hematite occurring near Arnprior on the Ottawa. The mountains of iron ore which lie a few miles behind the Peter Bell location at Batchawana Bay, are as yet unworked. New discoveries of valuable minerals in this neighbourhood are reported.

At Begley's Copper mine, an adit level has been run almost to intersect the main lode, which is large and apparently rich. The work has been suspended for the winter. The continued depression of the Copper market has had a very unfavourable influence on the working and prospects of the mines yielding such metal. The cause of the slackness of demand for it is partly attributable to the general dullness of trade in England, and partly to the fact that wooden vessels are being to a great extent superseded by iron ones, and consequently less copper is being used for sheathing purposes. Simultaneously with this absence of demand, come abundant shipments of the metal in the shape of bars and regulus from South America. From the 1st September to 2nd October last year, the Charters from Chili and Bolivia, were 4,549 tons fine copper, and during the corresponding period of 1866, they were for 1,933 tons only. Many of the largest mines, such as Cape Copper and Panulillo (in Chili) have been working to an enormous loss, and it is argued that they must reduce their production, in which case a better state of things may be expected this year.

On this account the Wellington and Bruce Mines on Lake Huron have been worked to a smaller extent than formerly, and with a view of preparing the way for a more extensive production in future, rather than for immediate returns. A large number of miners have been reluctantly discharged, and only between fifty and a hundred are kept at work—part of them at the old Bruce. The price of copper is now less than half what it was a few years ago. Nothing is going on at present at the Wallace copper and nickel mine nor at the iron mine immediately adjoining. There are rumors (some of them of a credible nature) of the discovery of gold in quartz on the Canadian side of Lake Superior, and in dolomite immediately behind the Bruce mines.

The attempts to find petroleum in paying quantities at Wequenacong on the Grand Manitowish Island, have been given up, the prospect of success not being sufficient to warrant further outlay so long as the crude oil has little more than a nominal value.

The experiment of making salt from brine at Goderich has proved a success. One of the works produces about 600 barrels a week of excellent salt, and new wells are being sunk.

In Enniskillen the production of oil is as

large as ever, notwithstanding the fact that all the small wells are closed. Petroleum is furnishing the largest quantity. Comparative dullness reigns at Oil Springs. So far, there is no prospect of an exhaustion of the oil in this region. It is believed by some that one of Mr. Macaulay's wells at Petrolia flowed as much per day as even the Shaw and Wilson wells, so famous in the early history of Oil Springs.

Bothwell has almost ceased to send any petroleum to market, although many of the wells would still produce a fair amount if the price were such as to make the oil worth the pumping.

The constant increase in the price of fire wood in Ontario, has caused attention to be directed to the peat bogs at the mouth of the Grand River, and of the Cataract at Kingston, as sources for the future supply of fuel.

A vein containing lead ore occurring in Galway near Peterboro, and another in Methuen to the north of Belleville, have been worked for a short time. The Tudor Lead Mining Company of Boston have carried on their works in North Hastings, and the mine is improved in going down. Messrs. Hill & Kershaw of Milwaukee are also prosecuting lead and bismuth mining in Tudor with commendable enterprise.

The rich magnetic iron ore at Marmora Lake is being worked with vigor by the Cobourg, Peterboro and Marmora Railway and Mining Company. The gentlemen composing it belong principally to Pittsburgh, Pennsylvania. They have between four and five hundred men at work. About half of them are French Canadians from Quebec. The ore is sent off during the summer at the rate of about 400 tons a day, by way of Rice Lake and the railway thence to Cobourg. The mine, or rather quarry, is very conveniently situated. A village called Blairtown has sprung up at the spot. The discovery of gold, which was made in Madoc a year and a half ago, has stimulated an extended search for the precious metal throughout the County of Hastings. It is said that in Madoc and the surrounding townships the farmers are digging six hundred holes. A stamp mill, at the original Richardson mine, is being erected, and two others have been built in the same neighborhood. Joint stock companies have been set on foot at Belleville and Madoc, Toronto and Hamilton, with a view of mining for gold in this part of the country. Gold has also been found in quartz in Levant. The attempts to find oil by sinking wells at different points north of the Bay of Quinte and at Waterloo, near Kingston, have all been given up as fruitless.

Probably the most important discovery in the way of new mines which has been made in Ontario during the year, is the very recent one of an extensive vein of galena in the township of Loughborough, in Frontenac. The vein is described as being twelve feet wide and of great length, in the same course as those at Rossie, on the opposite side of the St. Lawrence. An association, called the Frontenac Mining Company has been formed to work it, and Cornishmen have been procured from the Bruce, Wellington, Chapel and Huntingdon Mines.

The Messrs. Chaffey Bros. continue to mine iron ore at Newboro, on the Rideau, and export it to Pittsburgh, Penn. An American company was also working an iron mine near the same place. The operations of the Peter Bell Company, near Arnprior, have been already alluded to. Their prospects are said to be very good.

The Arnprior marble, which was used in the construction of the interior of the Parliament Buildings at Ottawa, was very much admired during the late session, and it is probable that it will come into demand in future.

The preparation of hydraulic cement has been commenced by Mr. Rudd, at his quarries in Pittsburgh, on the banks of the St. Lawrence.

Phosphate of lime, which is so valuable for agricultural purposes, is beginning to attract attention, not of our own farmers, however, but of Englishmen and Americans. Fifty thousand dollars are said to have been paid for a lot near Perth, and the mineral phosphate or apatite, has been mined in quantities by Mr. Asplen, and sent to Manchester, where it is converted into the superphosphate. About

thirty men have been employed. It is proposed to mine the phosphate on a neighboring lot, and send it in large quantities to the United States. It is converted into superphosphate, which again is made from iron pyrites—a mineral occurring in large quantities, not far from the apatite, and might be very advantageously used in making this valuable manure in our country. One of the deposits of pyrites in Elizabethtown has been worked, but the mineral has so far been sent out of the country. A large deposit of the bronze or magnetic variety has been discovered near Lynn, and about a hundred tons have been quarried.

**MINING IN NEW BRUNSWICK.**—The following extract from a letter written by a gentleman in Woodstock, N.B., will be found to contain interesting information on the mineral resources of that section:—

The Charcoal Iron Works, at Upper Woodstock, two miles from this town, are not at present in operation, owing to difficulties among the several parties interested in them; but as the fact of the manufacture of the iron being a profitable business has been satisfactorily established, we expect soon to see the two furnaces in "full blast." Negotiations, with the object of resuming work at an early day, are now, I hear, going on. The supply of ore is practically inexhaustible. The iron belt covers an extent of country from a half mile to six miles in width, and thirty or forty miles in length, at the least—probably much more.

The indications of gold in this county, and in the adjoining county of Victoria, are beginning to excite no little attention. Some very fine specimens of gold-bearing quartz have been found, from time to time, in the drift of several streams, and the attention of a number of practical men—among them practical miners—having been excited, examinations and experiments have been carried on for the past two years. The results have been very encouraging—so much so, that several shrewd men have secured mining leases for twenty-five years, from the Government, of extensive tracts of ungranted lands in Carleton, Victoria and Northumberland Counties. Small experiments made in "panning" and "sluicing" in the beds of several streams which run into the River St. John, have shown the existence of gold in large quantities. Specimens have, I think, been sent on to Boston. I saw the other day four or five dollars worth of dust, the result of about one day's shovelling and sluicing of one man, performed last Autumn. When the Spring opens, investigations and experiments will be commenced on a larger scale, and the question as to whether gold washing on the Upper St. John can be made a profitable business will probably be settled. We need very much a thorough geological survey and examination of the Province, with special reference to the discovery of workable and profitable mines of useful minerals; and we hope that our local Legislature, which met on the 13th instant, will make necessary provision for such an investigation.

**THE NATIONAL SCHOOL OF MINES.**—Mr. Stewart, from the Senate Committee on Mines, has reported the bill to establish a National Mining School, with amendments, one of which provides that the bullion tax, to be set apart for its endowment, shall be that collected west of the eastern base of the Rocky Mountains; and another designates the following persons to constitute a Board of Directors, from July, 1868, to July, 1870, viz.: Messrs. Sherman Day and W. Ashburner, of California; E. A. Tuttle and D. W. Welty, of Nevada; A. C. Gibbs, of Oregon; ———, of Idaho; A. J. Simmons, of Montana; and John Pierce, of Colorado. At the expiration of their term, or in case of vacancy, Directors shall be appointed by the President, with the consent of the Senate, and said Directors shall receive no compensation except for actual expenses while attending to the business of the institution. The bill, it is said, will pass the Senate without serious opposition, and the most intelligent statesmen in the House are becoming convinced of the wisdom of the measure. *American Journal of Mining.*